M2000-00-301 Revision Package
Product Code: R2000-00-301
February 1998

Introduction

Revision package R2000-00-301 is the first update of the T2000 Series II service manual. It includes the following information:

- PCB information for the following new PCBs:
  IPN 220-01389-03: T2000-700/-900 RF PCB
  IPN 220-01389-02: T2000 TCXO/Tx audio PCB
  IPN 220-01377-02: T201X HC05 logic PCB
  IPN 220-01377-03: T201X HC11 logic PCB
  IPN 220-01344-04: T2020/T203X/T2040/T2050/T2060 HC11 logic PCB
- Parts list updates & corrections.
- Servicing information on the following new accessory kits:
  T2000-A03/-A04 /-A16 remote loom kits
  T2000-A4500 CTCSS & T2000-A4502 scrambler kits
  T2000-A70 data modem kit

This revision also contains corrections and additions to other sections of the M2000-00-300 manual. These changes are indicated by a vertical line in the margin, or an arrow with a number, to show where text has been removed. The Index, containing the List of Effective Pages, has been updated to include these changes.

Revision Package Contents

Section	Description	Revision Package Page Numbers	Pages to Replace
Index	Index	1 to 20	1 to 18
1	General Information	1.5 to 1.10	1.5 to 1.10
3	Introduction To Servicing	3.1 to 3.12	3.1 to 3.12
4	Functional Tests	4.1 & 4.2	4.1 & 4.2
6	Tuning & Adjustment	6.1 to 6.8	6.1 to 6.8
7	PCB Information	7.1 & 7.2	7.1 & 7.2
7.6	T2000-700/-900 RF PCB	7.6.11 to 7.6.20	Add after 7.6.10
7.7	T2000-800 RF PCB	7.7.1 & 7.7.2	7.7.1 & 7.7.2
7.9	T2000 TCXO/Tx Audio PCB	7.9.1 & 7.9.2 7.9.7 to 7.9.12	7.9.1 & 7.9.2 Add after 7.9.6
7.10	T2010 & T2015 Logic PCB	7.10.11 to 7.10.30	Add after 7.10.10
7.11	T2020/T203X/T2040/T2050/T2060 Logic PCB	7.11.13 to 7.11.24	Add after 7.11.10
7.12	T2010/T2030 Control Head PCB	7.12.1 & 7.12.2	7.12.1 & 7.12.2
7.13	T2015/T2060 Control Head PCB	7.13.1 & 7.13.2	7.13.1 & 7.13.2
7.14	T2020/T2040/T2050 Control Head PCB	7.14.1 to 7.14.4	7.14.1 to 7.14.4
7.15	T2035 Control Head PCB	7.15.1 & 7.15.2	7.15.1 & 7.15.2
7.16	T2000 EMC Filter PCB	7.16.1 & 7.16.2	7.16.1 & 7.16.2
7.17	T2000 Data Interface Decoupling PCB	7.17.1 & 7.17.2	7.17.1 & 7.17.2

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Section	Description	Revision Package Page Numbers	Pages to Replace
8	Accessories	8.1 & 8.2	8.1 & 8.2
8.1	T2008 Power Supply	8.1.17 & 8.1.18	8.1.17 & 8.1.1
8.10	T2000-A450X CTCSS & Scrambler Kits	8.10.1 to 8.10.10	8.10.1 to 8.10.10
8.12	T2000-A60 Dual Port UART Kit	8.12.5 & 8.12.6	8.12.5 & 8.12.6
8.13	T2000-A66 Single Port UART Kit	8.13.1 to 8.13.8	8.13.1 to 8.13.8
8.15	T2000-A70 Data Modem Kit	8.15.1 to 8.15.18	Add after 8.13.8
8.16	T2000-A03/-A04/-A16 Remote Kits	8.16.1 to 8.16.8	

The coloured pages between the sections may be discarded.

Additional Revision Packages

Additional revision packages can be ordered from your nearest Tait branch or approved dealer. Quote the Tait Product Code (R2000-00-301) when ordering.

T2000 Series II

Service Manual

Issue 301

March 1998

M2000-00-301

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About This Manual

Scope

This manual contains general, technical and servicing information on T2000 Series II mobile two-way radios.

Format

We have published this manual in a ring binder so that "revision packages" containing additional information can be added as required.

Revision Packages

Revision packages will normally be published to coincide with the release of information on a new PCB, and may also contain additions or corrections pertaining to other parts of the manual.

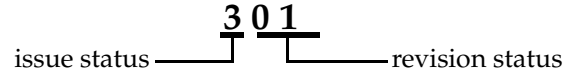
If you return the customer registration card at the front of this manual, you will be notified when revision packages containing new PCB information and/or text are available. You may then order as many packages as you require from your local Tait Company. Revision packages are supplied ready-punched for inclusion in your manual.

Revision Control

Each page in this manual has a date of issue. This is to comply with various Quality Standards, but will also serve to identify which pages have been updated and when. Each page and its publication date is listed in the "List of Effective Pages", and a new list containing any new/revised pages and their publication dates will be sent with each revision package.

Any portion of text that has been changed is marked by a vertical line (as shown at left) in the outer margin of the page. Where the removal of an entire paragraph means there is no text left to mark, an arrow (as shown at left) will appear in the outer margin. The number beside the arrow will indicate how many paragraphs have been deleted.

The manual issue and revision status are indicated by the last three digits of the manual product code. These digits start at 100 and will increment through 101, 102, 103, etc., as revision packages are published, e.g:



Thus, Issue 301 indicates the first revision to issue 3, and means that one package should have been added to the manual. The issue digit will only change if there is a major product revision, or if the number of revision packages to be included means that the manual becomes difficult to use, at which point a new issue manual will be published in a new ring binder.

PCB Information

PCB information is provided for all current issue PCBs, as well as all previous issue PCBs manufactured in production quantities, and is grouped according to PCB. Thus, you will find the parts list, grid reference index (if necessary), PCB layouts and circuit diagram(s) for each individual PCB grouped together.

Errors If you find an error in this manual, or have a suggestion on how it might be improved, please do not hesitate to contact the Technical Writer, Product Support Group, Tait Mobile Radio Division, Tait Electronics Ltd, P.O. Box 1645, Christchurch, New Zealand.

Technical Information

Any enquiries regarding this manual or the equipment it describes should be addressed in the first instance to your nearest approved Tait Dealer or Service Centre. Further technical assistance may be obtained from the Product Support Group, Tait Mobile Radio Division, Tait Electronics Ltd, Christchurch, New Zealand.

Updating Equipment And Manuals

In the interests of improving performance, reliability or servicing, Tait Electronics Ltd reserve the right to update their equipment and/or manuals without prior notice.

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Service Manuals should be ordered from your nearest Tait Branch or approved Dealer. When ordering, quote the Tait product code and, where applicable, the version.

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M2000-00-300 T2000 Series II Service Manual
Issue 300 published January 1997
Issue 301 published March 1998

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8.5.2	31/10/96	8.12.6	31/10/96	
8.5.3	31/10/96	8.12.7	31/10/96	
8.5.4	blank	8.12.8	31/10/96	
8.6.1	31/10/96	8.12.9	31/10/96	
8.6.2	31/10/96	8.12.10	31/10/96	
8.6.3	31/10/96	8.12.11	31/10/96	
8.6.4	31/10/96	8.12.12	31/10/96	
8.7.1	31/10/96	8.12.13	31/10/96	
8.7.2	31/10/96	8.12.14	blank	
8.7.3	31/10/96	8.13.1	31/12/97	
8.7.4	31/10/96	8.13.2	31/12/97	
8.8.1	31/10/96	8.13.3	31/12/97	
8.8.2	31/10/96	8.13.4	31/12/97	
8.8.3	31/10/96	8.13.5	31/12/97	
8.8.4	31/10/96	8.13.6	31/12/97	

8.13.7	31/12/97	
8.13.8	blank	
8.14.1	31/10/96	
8.14.2	31/10/96	
8.14.3	31/10/96	
8.14.4	31/10/96	
8.14.5	31/10/96	
8.14.6	31/10/96	
8.14.7	31/10/96	
8.14.8	31/10/96	
8.14.9	31/10/96	
8.14.10	31/10/96	
8.14.11	31/10/96	
8.14.12	31/10/96	
8.14.13	31/10/96	
8.14.14	31/10/96	
8.14.15	31/10/96	
8.14.16	31/10/96	
8.14.17	31/10/96	
8.14.18	31/10/96	
8.14.19	31/10/96	
8.14.20	31/10/96	
8.14.21	31/10/96	
8.14.22	31/10/96	
8.14.23	31/10/96	
8.14.24	31/10/96	
8.14.25	31/10/96	
8.14.26	31/10/96	
8.14.27	31/10/96	fold-out
8.14.28	blank	
8.15.1	31/12/97	
8.15.2	31/12/97	
8.15.3	31/12/97	
8.15.4	31/12/97	
8.15.5	31/12/97	
8.15.6	31/12/97	
8.15.7	31/12/97	
8.15.8	31/12/97	
8.15.9	31/12/97	
8.15.10	31/12/97	
8.15.11	31/12/97	
8.15.12	31/12/97	
8.15.13	31/12/97	
8.15.14	31/12/97	
8.15.15	31/12/97	
8.15.16	31/12/97	
8.15.17	31/12/97	
8.15.18	blank	
8.16.1	31/12/97	
8.16.2	31/12/97	
8.16.3	31/12/97	
8.16.4	31/12/97	
8.16.5	31/12/97	
8.16.6	31/12/97	
8.16.7	31/12/97	
8.16.8	blank	
9.1	31/10/96	
9.2	31/10/96	
9.3	31/10/96	
9.4	31/10/96	
9.5	31/10/96	
9.6	31/10/96	
9.7	31/10/96	
9.8	31/10/96	

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6 Tuning & Adjustment

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9 Software

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Remote Control Head Dimensions:

Length	..	26mm
Width	..	159mm
Height	..	51mm

Weight (radio & control head) .. 1.2kg

1.2.3 Receiver Performance

Type:

All Except T2000-200	..	triple conversion superheterodyne
T2000-200	..	dual conversion superheterodyne

Sensitivity:

12dB Sinad	..	better than -117dBm
20dB Sinad (psophometric)	..	better than -113dBm
20dB Quieting	..	better than -113dBm

IF Amplifiers:

Frequencies:

T2000-200	..	10.7MHz and 455kHz
T2000-100, -300, -400	..	27.7MHz, 10.7MHz and 455kHz
T2000-500, -600, -700, -900, -000	..	49.1MHz, 10.7MHz and 455kHz
T2000-800	..	61.9MHz, 10.7MHz and 455kHz

First Local Oscillator Injection (with respect to signal):

T2000-200, -300	..	high side
T2000-100, -400, -500, -600, -700, -800, -900, -000	..	low side

Second Local Oscillator Injection (with respect to signal):

T2000-100, -300, -400	..	high side
T2000-200, -500, -600, -700, -800, -900, -000	..	low side

Third Local Oscillator Injection (with respect to signal):

T2000-100, -300, -400	..	low side
T2000-500, -600, -700 -800, -900, -000	..	low side

Bandwidth:

Narrow Band	..	7.5kHz
Medium Band	..	12kHz
Wide Band	..	15kHz

Signal-to-Noise Ratio (with respect to 100% deviation, at RF level of -47dBm):

Narrow Band	..	45dB
Medium Band	..	48dB
Wide Band		
All Except T2000-800	..	50dB
T2000-800	..	45dB

Audio:		
Minimum Load Impedance	..	2Ω
Rated Power (into 4Ω)	..	4W (at 1kHz)
Distortion:		
@ Rated Power (1kHz)	..	<5%
@ 0.5W (0.3 to 3.0kHz)	..	<3% (narrow band) <2.5% (medium band) <2% (wide band)
Response	..	within +1, -3dB of 6dB/octave de-emphasis
Bandwidth	..	300Hz to 3kHz
Selectivity	..	better than 70dB
Spurious Response Attenuation		
All Except T2000-000, -800	..	75dB (80dB EIA)
T2000-000	..	60dB
T2000-800	..	70dB (70dB EIA)
Intermodulation Response Attenuation	..	66dB (75dB EIA)
Spurious Emissions (conducted & radiated to 1GHz)	..	better than -57dBm
Spurious Emissions (conducted & radiated 1 to 4GHz)	..	better than -47dBm
Blocking	..	better than -23dBm
Co-channel Rejection:		
Narrow Band	..	better than 9dB
Medium Band	..	better than 7dB
Wide Band	..	better than 6dB
Group Delay	..	±50µs (300Hz to 3kHz)
Squelch:		
Preset Level	..	11dB sinad
Ratio	..	>70dB
Voting Levels	..	>20dB sinad (applies to T2020 only)

1.2.4 Transmitter Performance

Power Output:

Maximum:	
All Except T2000-800	.. 30W
T2000-8000	.. 25W
High (high setting):	
All Except T2000-800	.. 25W
T2000-8000	.. 15W
. Low (low setting):	
T2000-200, -300, -400	.. 1 to 25W
T2000-100, -500, -600, -700, -900	.. 5 to 25W
T2000-800	.. 5 to 15W
Low Power Version	.. 1 to 7W (T2000-500, -600)

Duty Cycle (33%)	.. 2 minutes Tx, 4 minutes Rx
Lock Up Time (synthesiser)	.. 25ms (from PTT to 90% output power within 2kHz, not including micro. delay)
Spurious Emissions (conducted & radiated to 1GHz)	.. better than -36dBm
Spurious Emissions (conducted & radiated to 1 to 4GHz)	.. better than -30dBm

Adjacent Channel Power:

Narrow Band	.. better than -65dBc
Medium Band	.. -70dBc
Wide Band	.. -80dBc

Group Delay	.. +200/-50µs (300Hz to 3kHz)

Modulation System:

Type	.. direct FM
Deviation Limiting:	
Narrow Band	.. ±2.5kHz (peak) max.
Medium Band	.. ±4kHz (peak) max.
Wide Band	.. ±5kHz (peak) max.
Bandwidth:	
Narrow Band	.. 300Hz to 2.55kHz below limiting or 450Hz to 2.55kHz in limiting
Medium & Wide Band	.. 300Hz to 3kHz below limiting or 450Hz to 3kHz in limiting

Responses:

In Limiting	.. within +0dB, -4dB of maximum system deviation
Below Limiting	.. within +1, -3dB of 6dB/octave pre-emphasis
Above 3kHz	.. greater than 25dB/octave roll-off

Audio:

Microphone Type	..	dynamic or electret
Input For 60% Deviation	..	1.5mVrms maximum (at 1kHz)
Distortion	..	5%

Hum & Noise:

All Except T2000-800:		
Narrow Band	..	39dB
Medium Band	..	43dB
Wide Band	..	45dB
T2000-800:		
Wide Band	..	40dB

Mismatch Capability:

Ruggedness	..	2 minutes transmission into infinite VSWR
Stability	..	VSWR 5:1 (all phase angles)
Transmit Timer (non-trunking models)	..	programmable up to 4 minutes, or continuous.

1.2.5 Frequency Reference

Oscillator Frequency .. 12.8MHz

Crystal Stability And Source Details .. see table below:

Product Code	Frequency Tolerance (ppm)	Temperature Range (°C)	Frequency Source
T2XX-XX**1**	±5	-10 to +60	TE/45 xtal
T2XX-XX**3***	±3	-30 to +60	VXO-2605A Module
T2XX-XX**5**	±2.5	-30 to +60	VXO-2605A-1 Module†
T2XX-XX**6**	±2.0	-30 to +60	TDC 60281 Module†

*. Not fitted to T2000-200 due to low modulatibility.
†. Fitted only to 400MHz versions and above, due to low modulatibility.

1.2.6 Trunking

1.2.6.1 T2030, T2035, T2040 & T2050 Models

Data Modulation .. as per MPT1317

Data Deviation (Tx: 60% full system deviation):

Narrow Band	.. 1.5kHz
Medium Band	.. 2.4kHz
Wide Band	.. 3kHz

1.2.6.2 T2060 Model

System .. LTR® trunked[1], systems x groups = 24

Data Deviation (Tx) .. 1kHz

1.3 Operating Instructions

Refer to the User's Guide supplied with the radio. These are also available separately under the following IPNs:

T2010/T2015	459-20100-0X
T2020	459-20200-0X
T2030/T2035	459-20300-0X
T2040	459-20400-0X
T2060	459-20600-0X

Comprehensive Operator's Manuals are also available for T2020 and T2040 radios. These Manuals cover such topics as advanced user operations and the use of trunked radios for data applications. These are available under the following IPNs:

T2020	409-20200-0X
T2040	409-20400-0X

1. LTR® is a trademark of E F Johnson & Co.

1.4 Product Codes

The 3 groups of digits in a T2000 product code provide information about the radio's model, RF type and options fitted, according to the conventions described below.

The following explanation of the T2000 product codes is not intended to suggest that any combination of features is necessarily available in any one radio. For details regarding availability of specific T2000 radios, consult your nearest Tait dealer or subsidiary.

Model

The Model group indicates the basic features of the radio, as follows:

T20XX-XXX-XXX	T2010	4 channels	
	T2015	24 channels	
	T2020	100 channels	
	T2030	4 calls, all preset	trunked
	T2035	1000 calls, including 20 preset	trunked
	T2040	dialled calls	trunked
	T2050	dual mode T2040 or T2020 operation	trunked, non-trunked
	T2060	LTR®, systems x groups = 24	trunked

RF Type

RF Type group uses 3 digits to indicate the basic RF configuration of the radio.

The first digit in the RF Type group designates frequency band.

T20XX-**X**XX-XXX
- '1' for 220 to 270MHz
- '2' for 66 to 88MHz
- '3' for 136 to 174MHz
- '4' for 175 to 225MHz
- '5' for 400 to 470MHz
- '6' for 450 to 520MHz
- '7' for 330 to 360MHz
- '8' for 800 to 870MHz transmit
851 to 870MHz receive
- '9' for 360 to 400MHz
- '0' for 500 to 530MHz

The second digit in the RF Type group designates radio IF bandwidth.

T20XX-X**X**X-XXX
- '1' for wide band (15kHz)
- '2' for narrow band (7.5kHz)
- '3' for medium band (12.5kHz)

The third digit in the RF Type group designates frequency stability.

T20XX-XX**X**-XXX refer to "Frequency Reference" on page 1.8.

Options

T20XX-XXX-**XXX** The third group of digits covers a wide range of software and market specific options. The large number of options and their frequent changes preclude listing them here.

3 Introduction To Servicing

This Section provides information necessary for servicing T2000 Series II radios, and covers the following topics:

3.1 Servicing Precautions

3.1.1 Caution: Accidental Transmit

Under certain circumstances the microprocessor can key the transmitter. Ensure that all instruments are protected from accidental transmit at all times.

3.1.2 Caution: Antenna Loading

The equipment has been designed to operate with a 50Ω termination impedance, but will tolerate a wide range of antenna loading conditions. However, it is strongly recommended that the transmitter is not operated in the absence of a suitable load. Failure to observe this precaution may result in damage to the transmitter power output stage.

3.1.3 Caution: Beryllium Oxide & Power Transistors

The RF power transistors in the T2000 all contain some beryllium oxide. This substance, while perfectly harmless in its normal solid form, can become a severe health hazard when it has been reduced to dust.

For this reason the RF power transistors should not be scratched, mutilated, filed, machined, or physically damaged in any way that can produce dust particles.

3.1.4 Caution: CMOS Devices

This equipment contains CMOS Devices which are susceptible to damage from static charges. Care when handling these devices is essential. For correct handling procedures refer to manufacturers' data books covering CMOS devices, e.g. Philips Data Handbook Covering CMOS Devices; Motorola CMOS Data Book Section 5 (Handling Procedures), etc.

The following diagram shows a typical anti-static bench set-up.

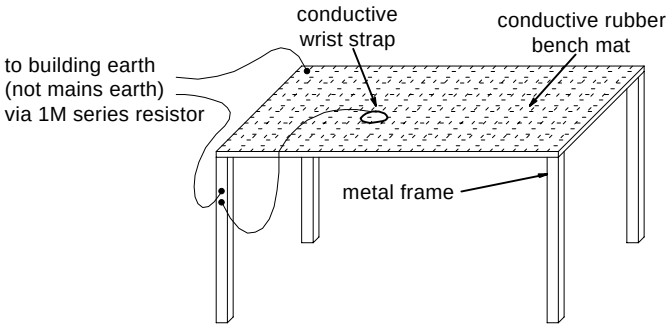


Figure 3.1 Anti-Static Bench Set-Up

3.1.5 Caution: Screw Head Types

Pozidriv screws are the preferred standard on all T2000 series equipment. Pozidriv No. 1 and 2 screwdrivers will fit all pozidriv screws used in the T2000: Philips cross-head screwdrivers are ***not*** satisfactory for use on these screws.

The following diagram identifies the differences between Philips and Pozidriv screwdrivers.

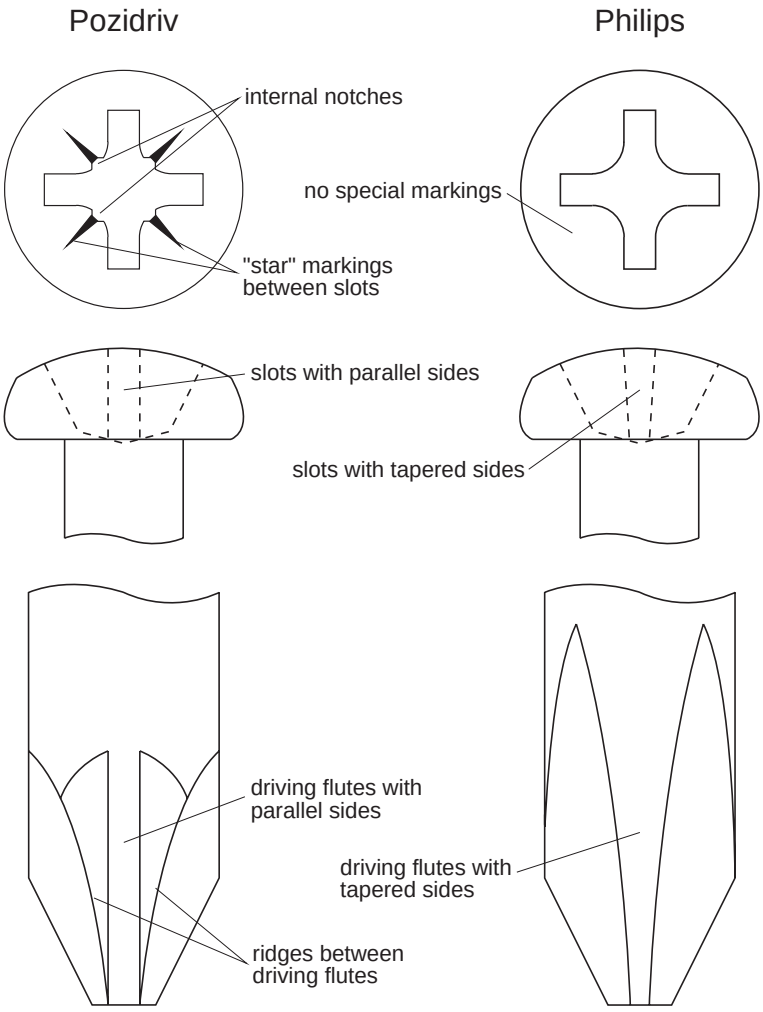
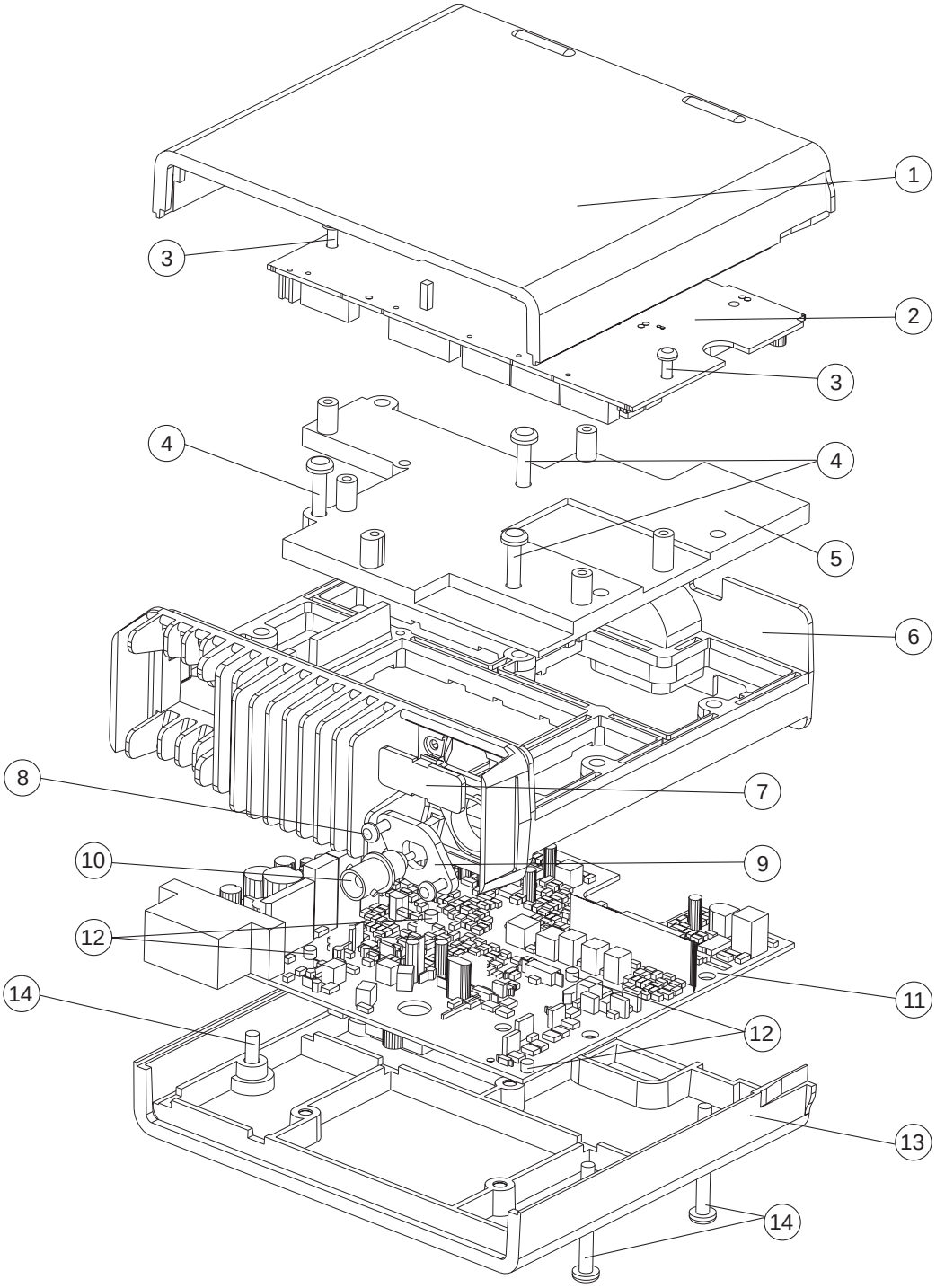


Figure 3.2 Screwdriver Identification

The diagrams on the following pages show the types of screws used in the T2000 Series II radios, their locations and torque specifications.



Item	Description	IPN	Quantity	Torque (in.lb)
1	TOP COVER	303-23134-01	1	
2	LOGIC PCB	SEE PARTS LIST	1	
3	SCREW M3X8 PANPOZI TAPTITE (LOGIC PCB SCREWS)	349-00020-32	3	8
4	MACHINE SCREW M4X25 (MICRO. SHIELD SCREWS)	345-00050-18	3	12
5	MICROPROCESSOR SHIELD	319-01164-XX	1	
6	CHASSIS	308-13093-XX	1	
7	D-RANGE BLANKING PLATE	360-01053-XX	1	
8	SCREW M3X8 PANPOZI TAPTITE (RF CONNECTOR SCREWS)	349-00020-32	2	8
9	RF CONNECTOR PLATE	SEE PARTS LIST (SECTION 7)	1	
10	RF CONNECTOR		1	
11	RF PCB		1	
12	SCREW M3X8 PANPOZI TAPTITE (RF PCB SCREWS)	349-00020-32	4	8
13	BOTTOM COVER	303-23135-XX	1	
14	M4X35 PANPOZI TAPTITE (BOTTOM COVER SCREWS)	349-00020-49	4	12

Figure 3.3 T2000 Series II Radio Assembly

3.2 Disassembly Instructions

Caution: **To carry out alignment it is necessary to remove only the top cover (1) and logic PCB retaining screws (3). It is essential that the bottom cover (13) and microprocessor shield (5) with its three retaining screws (4) are torqued down as specified in Figure 3.3.**

Caution: **Various electronic components within the radio can be damaged by electrostatic discharge. A properly grounded earth mat and wrist strap should be used at all times (refer to Section 3.1.4).**

3.2.1 To Gain Access To The Logic PCB

Refer to Figure 3.3.

Remove the top cover (1) by unscrewing the four bottom cover screws (14).

Remove the three logic PCB retaining screws (3).

It should now be possible to open out the logic PCB (2), giving access to both sides of the logic PCB, and access to the RF PCB (11) tuning points, audio, plug-in TCXO PCB and loop filter components.

3.2.2 To Remove The Bottom Cover And Microprocessor Shield

Refer to Figure 3.3.

Remove the top cover and logic PCB screws as instructed in Section 3.2.1, then remove the three microprocessor shield retaining screws (4).

Remove the screw securing the earthing wire from the control head to the microprocessor shield.

It should now be possible to lift off the microprocessor shield (5) and the bottom cover (13).

This will give access to both sides of the RF PCB and IF PCBs, and enable the control head to be removed.

3.2.3 To Detach The Control Head

3.2.3.1 Locally Mounted Models

Remove all covers, as instructed in Section 3.2.2.

Unplug the loom running between the control head and the logic PCB.

Note: In EMC model radios, the loom connects to a Micromatch connector on the EMC filter PCB (refer to Section 3.2.5).

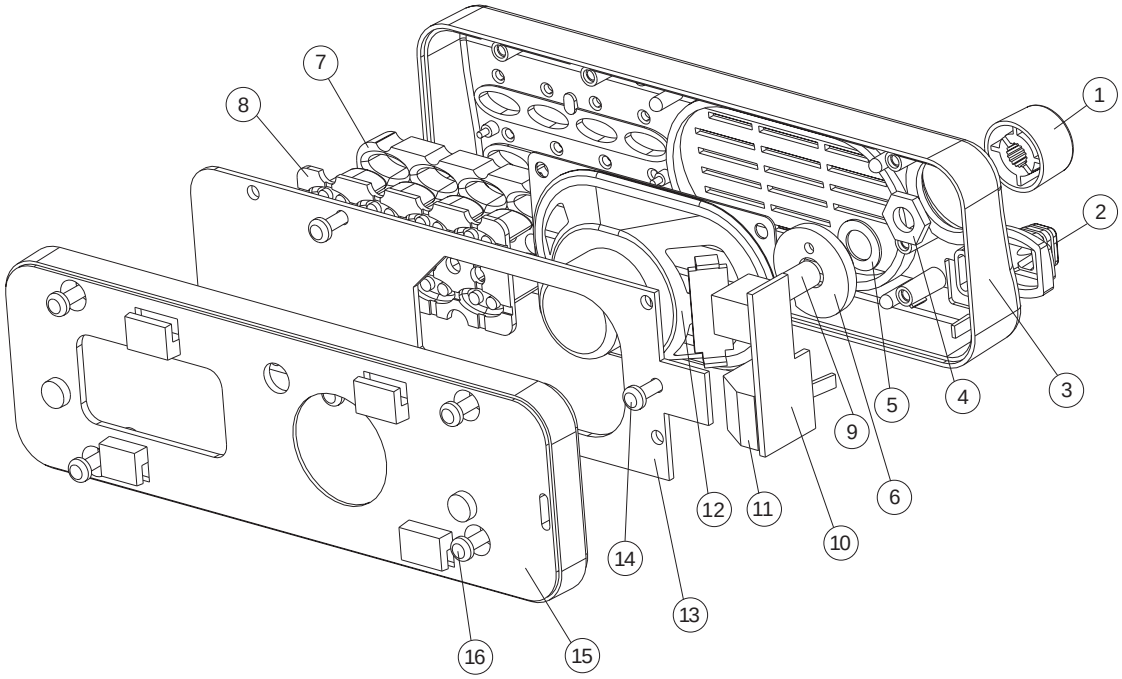
3.2.3.2 Remotely Mounted Models

Remove the four screws on the front of the radio dummy front panel. This will give access to the control head loom, which can now be unplugged.

Note: In EMC model radios, the loom connects to a Micromatch connector on the EMC filter PCB (refer to Section 3.2.5).

3.2.4 To Disassemble The Control Head

3.2.4.1 T2010, T2015, T203X & T2060 Radios



Item	Description	IPN	Quantity	Torque (in.lb)
1	KNOB	311-01042-XX	1	
2	MICROPHONE GROMMET	360-02003-XX	1	
3	FRONT PANEL	316-03095-XX	1	
4	VOLUME POT NUT	SEE PARTS LIST (SECTION 7)	1	
5	VOLUME POT WASHER		1	
6	VOLUME POT LIGHTSPREADER	304-07037-XX	1	
7	LIGHTSPREADER BUTTON	304-07035-XX	1	
8	BASIC KEYPAD	311-03095-XX	1	
9	VOLUME POT	SEE PARTS LIST (SECTION 7)	1	
10	POT PCB		1	
11	MICROPHONE CONNECTOR		1	
12	SPEAKER	250-00010-19	1	
13	CONTROL HEAD PCB (T2010, T2015, T203X, OR T2060)	SEE PARTS LIST	1	
14	NO 4X3/8 SCREW (CONTROL HEAD SCREWS)	349-00010-22	3	8
15	ADAPTOR PLATE	301-00001-XX	1	
16	NO 4X5/8 SCREW (ADAPTOR PLATE SCREWS)	349-00010-24	4	8

Figure 3.4 T2010, T2015 & T203X Control Head Assembly

Refer to Figure 3.4.

Remove the control head from the main chassis, as instructed in Section 3.2.3.

Remove the four adaptor plate retaining screws (16).

Remove the control head PCB retaining screws (14).

The screws used in the control head are No. 4 Plastites, and should not be confused with the M3 screws used elsewhere. When being replaced, the No. 4 Plastite screws must be tightened to a torque of 8in.lb (0.9Nm).

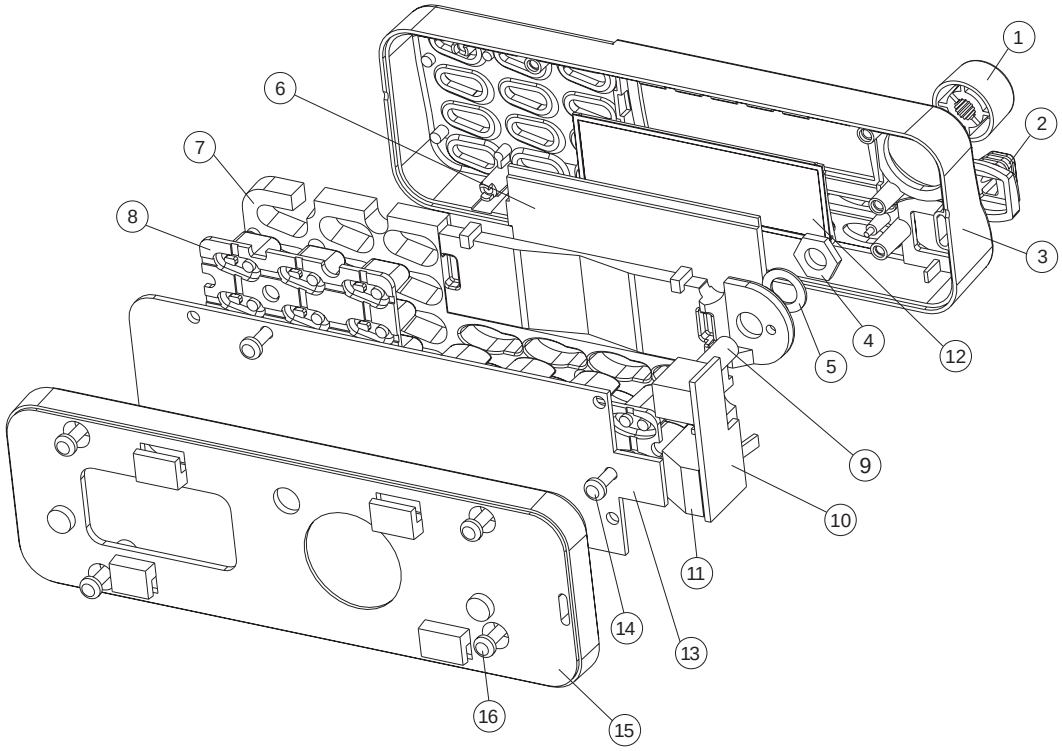
With the control head face down, gently remove the PCB (13), along with the keypad (8) and lightspreader (7).

Do not disturb the positioning or height of the LEDs, as this is critical for reassembly.

Remove the speaker by carefully removing the four speaker retaining spire nuts.

Remove of the volume knob (1) and volume pot nut (5) to access the volume knob light spreader (6).

3.2.4.2 T2020, T2040 & T2050 Radios



Item	Description	IPN	Quantity	Torque (in.lb)
1	KNOB	311-01042-XX	1	
2	MICROPHONE GROMMET	360-02003-XX	1	
3	FRONT PANEL	316-06427-XX	1	
4	VOLUME POT NUT	SEE PARTS LIST (SECTION 7)	1	
5	VOLUME POT WASHER		1	
6	LIQUID CRYSTAL DISPLAY (LCD)	008-02029-XX	1	
7	LIGHTSPREADER	304-07036-XX	1	
8	ENHANCED KEYPAD	311-03096-XX	1	
9	VOLUME POT	SEE PARTS LIST (SECTION 7)	1	
10	POT PCB		1	
11	MICROPHONE CONNECTOR		1	
12	LENS	312-01046-XX	1	
13	CONTROL HEAD PCB (T2020, T2040 OR T2050)	SEE PARTS LIST	1	
14	NO 4X3/8 SCREW (CONTROL HEAD SCREWS)	349-00010-22	3	8
15	ADAPTOR PLATE	301-00001-XX	1	
16	NO 4X5/8 SCREW (ADAPTOR PLATE SCREWS)	349-00010-24	4	8

Figure 3.5 T2020, T2040 & T2050 Control Head Assembly - Locally Mounted

Refer to Figure 3.5 and Figure 3.6.

Remove the control head from the main chassis, as instructed in Section 3.2.3.

Remove the four adaptor plate/remote back panel retaining screws (16). Remote mounted models also have two captive nuts (17) fitted in the back cover.

Note: EMC model radios have 4 ESD plugs fitted over the remote back panel screws. These will need to be removed to access the remote back panel screws.

Remove the control head PCB retaining screws (14).

The screws used in the control head are No. 4 Plastites, and should not be confused with the M3 screws used elsewhere. When being replaced, the No. 4 Plastite screws must be tightened to a torque of 8in.lb (0.9Nm).

With the control head face down, gently remove the PCB (13), along with the keypad (8) and lightspreader (7).

Do not disturb the positioning or height of the LEDs, as this is critical for reassembly.

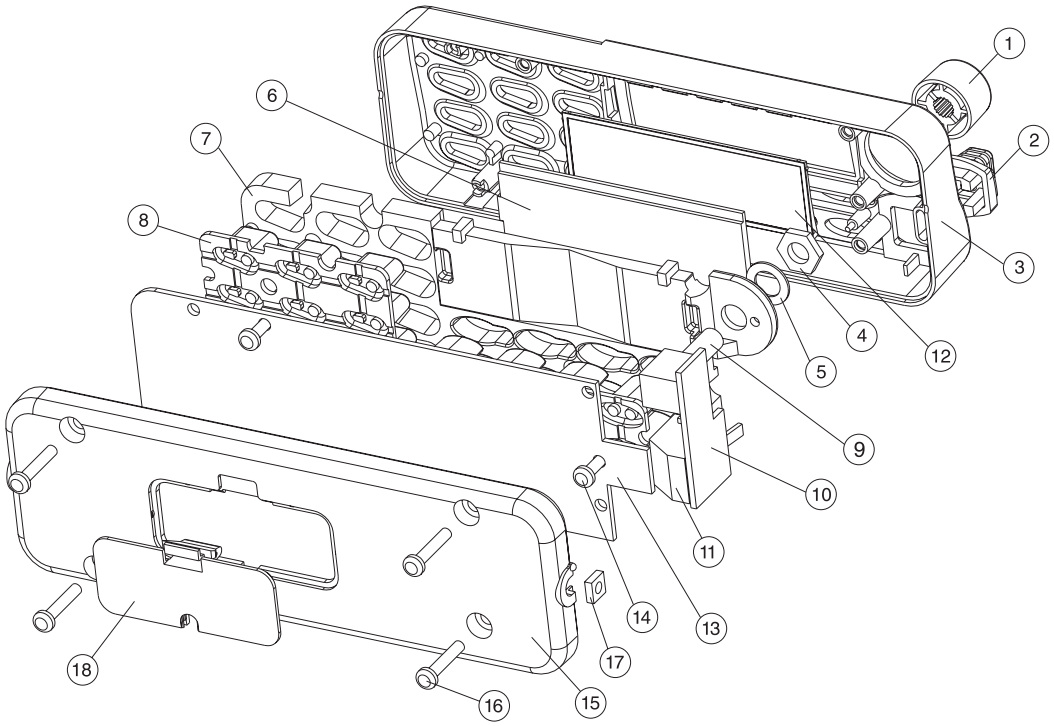
Carefully remove the LCD (6) and lens (12).

Lay the front panel (3) on a horizontal surface, with the light spreader (7) in place.

Remove the volume knob (1) and volume knob nut (5) to access the lightspreader and keypad (8).

Before reassembly, the LCD and PCB edge connectors should be wiped with alcohol.

Take care to ensure the alcohol does not come in contact with the coating on the light spreader, as this will dissolve on contact with alcohol.



Item	Description	IPN	Quantity	Torque (in.lb)
1	KNOB		1	
2	MICROPHONE GROMMET	360-02003-XX	1	
3	FRONT PANEL	316-06427-XX	1	
4	VOLUME POT NUT	SEE PARTS LIST (SECTION 7)	1	
5	VOLUME POT WASHER		1	
6	LIQUID CRYSTAL DISPLAY (LCD)	008-02029-XX	1	
7	LIGHTSPREADER	304-07036-XX	1	
8	ENHANCED KEYPAD	311-03096-XX	1	
9	VOLUME POT	SEE PARTS LIST (SECTION 7)	1	
10	POT PCB		1	
11	MICROPHONE CONNECTOR		1	
12	LENS	312-01046-XX	1	
13	CONTROL HEAD PCB (T2020, T2040 OR T2050)	SEE SECTION 7 PARTS	1	
14	NO 4X3/8 SCREW (CONTROL HEAD SCREWS)	349-00010-22	3	8
15	REMOTE BACK PANEL	318-08432-XX	1	
16	NO 4X5/8 SCREW (REMOTE BACK SCREWS)	349-00010-24	4	8
17	CAPTIVE NUT M4 PRESSED	352-00010-17	2	
18	REMOTING CONNECTOR COVER	316-85125-XX	1	

Figure 3.6 T2020, T2040 & T2050 Control Head Assembly - Remotely Mounted

3.2.5 To Detach The EMC Filter PCB

Refer to Figure 3.7.

Remove the top cover and open the logic PCB, as described in Section 3.2.1.

Remove the microprocessor shield and bottom cover, as described in Section 3.2.2.

The control head (locally mounted models) or dummy front panel (remotely mounted models) can now be removed.

Unplug the loom running between the logic PCB and EMC filter PCB (18).

Unplug the loom running between the EMC filter PCB and the control head.

Remove the 4 EMC filter PCB retaining screws. The EMC filter PCB can now be lifted from the chassis.

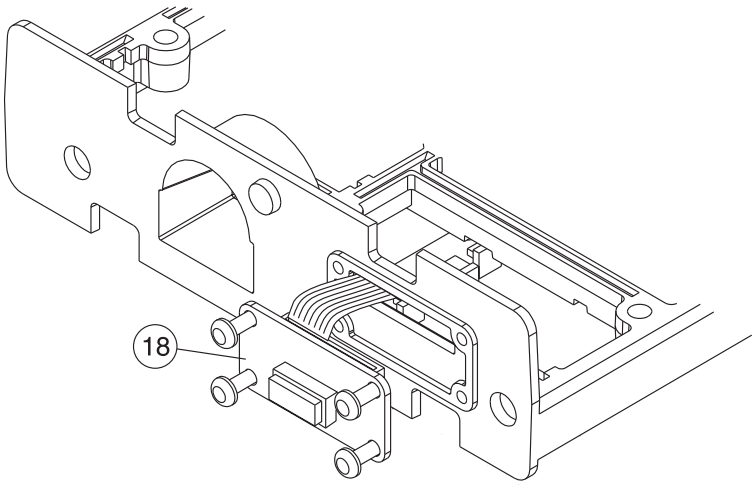


Figure 3.7 EMC Filter PCB Mounting

3.2.6 To Remote A Locally Mounted T2020, T2040 & T2050

Refer to Section 8.16, "T2000-A03/-A04/-A16 Remote Loom Kits".

3.3 Power Amplifier - Special Instructions

Caution: **As the location of certain components in the PA is critical to performance, it is important that any components removed or disturbed are refitted in exactly the same location.**

3.3.1 To Replace PA Transistors

Desolder the tabs by heating them with a soldering iron, then lifting them up towards the transistor with a thin stainless steel spike or screwdriver.

Unscrew the transistor mounting stud nut or screws and remove the transistor.

Trim the tabs of the replacement to make them similar to the faulty item, then lightly tin the underside of the tabs.

Apply a thin layer of heatsink compound to the underside of the transistor.

Screw the transistor tightly to the heatsink then solder the tabs.

Do not solder the tabs before tightening the screws or nut, as this will fracture the device.

3.3.2 To Remove Case Mica Capacitors

Apply a heavy duty soldering iron to the top of the capacitor case.

When the solder is molten, ease the capacitor away from the PCB with a thin stainless steel spike or screwdriver.

4 Functional Tests

This Section details test procedures will confirm that the T2000 has been adjusted correctly and is fully operational.

The following topics are covered:

4.1 Test Equipment Required

The following equipment is required for functional testing.

- Power supply cord, wired as shown in Section 8.3.
- Power supply adjustable between 9 & 16V DC, with a capacity of at least 8A.
- VHF or UHF signal generator: good quality FM 50Ω, usable from 0.1V (-127dBm) to 200mV (0dBm) pd (e.g. HP8640B, Marconi 2019).
- Frequency counter: 10Hz to 650MHz, 2ppm stability, with at least a 2s time base resolution (e.g. Opto).
- Audio signal generator: 600Ω output, -50 to 0dB level, fully adjustable, sine wave output 10Hz to 100kHz (e.g. Trio 203, HP204C/D).
- FM deviation meter (e.g. Sayrosa 257 or 252), with the following specifications:
  - low residual FM
  - resolution down to a full scale of 1kHz and a minimum of 10kHz
  - maximum positive and negative peak display
  - 15kHz low pass filter
  - detected audio output facility.

  Note: When using with LTR or DCS, the deviation meter must have a good low frequency response, to avoid incorrect deviation readings.
- Sinad meter or audio distortion analyser, 1kHz notch type (e.g. HP334A, HP339A or Helper Instruments Sinadder).
- AC millivoltmeter (e.g. Trio VT-106).
- Digital multimeter (e.g. Fluke 75).
- 20MHz dual channel oscilloscope and X10 . X1 scope probes (e.g. Trio CS1022).
- RF power meter, 50Ω; RF detecting element 50W and 5W for appropriate frequency ranges (e.g. Bird Meter 6154 or 611).
- RF power attenuator, 50Ω, total attenuation 30dB (e.g. Weinschel 40-40-33 30dB, 150W).
- Microphone test box (refer to Figure 4.1).

A multifunction test set may be used as long as it has the appropriate function to perform the calibration correctly e.g. Rhode & Schwarz CMS52 Radio Communications Test Set, with a high stability oscillator.

6 Tuning & Adjustment

This Section details procedures for tuning and adjustment of T2000 series II radios. This is normally only required during product manufacture or after major servicing.

The following topics are covered in this Section:

6.1 Tuning Precautions

Refer to Section 4.1 for a list of test equipment required and a suggested test set-up. The following precautions must be observed when carrying out the alignment procedures in this Section.

- The microprocessor shield must remain in place throughout the alignment procedure, with its 3 retaining screws torqued down to 8in.lbf (0.9Nm).

  To gain access to the alignment test points and adjustment controls, it is only necessary to remove the top cover and logic PCB mounting screws (refer to Section 3.2.1).

- For accurate tuning, the test cable connecting the signal generator or power meter to the T2000 must be as short as practical and fitted with a 'mating' BNC connector.

  Do not use adaptors, 'sniffer' couplings, etc., which introduce changes to cable impedance and errors in test results.

- Non-metallic tuning tools must be used for the alignment of all coil slugs. The use of metallic tools will result in tuning errors.

  Tuning tools need to be of correct size to avoid the damage to coil slugs.

- The RF PA and audio output IC have a direct unswitched supply, and are therefore not controlled by the control head on/off switch. This switch removes power only from the regulated supplies.

Caution: Under certain circumstances the microprocessor can key the transmitter. Ensure that all instruments are protected from accidental PTT at all times.

6.2 Tuning & Adjustment Points

The following table lists tuning and adjustment points, and Figure 6.1 shows their position on the RF and TCXO/Tx audio PCBs.

The PCB layouts in Section 7 have all relevant logic PCB test and adjustment points marked.

Tuning/Adjustment Point:		
Designator	**Function**	**Location**
RV153	internal squelch control	RF PCB
RV222	dual point modulation control	
RV324	high power control	
CV212	x4 multiplier (only used in T2000-800)	
L104 to L106	front end tuning (not used in T2000-800)	
L114 & L116	IF tuning	
L119	quad coil	
L203	x3 /x4 multiplier (not used in T2000-200)	
RV906	CTCSS deviation control	TCXO/Tx audio PCB
RV907	deviation control	
RV923	frequency control	
RV507	low power control	logic PCB
#RV508	T2010, T2015 & T2020: signalling adjust (not fitted as standard)	
#RV599	T203X, T2040, T2050 & T2060: FFSK adjust	
Test Points:		
Designator	**Function**	**Location**
TSP901	dual point modulation test point	TCXO/Tx audio PCB
TP601	Rx audio (detected)	logic PCB
TP602	Tx CTCSS	
TP603	Rx CTCSS	
TP604	Rx audio	
TP605	Tx audio	
TP606	ALC audio	
TP607	pre-amp output	

Table 6.1 Tuning & Adjustment Point

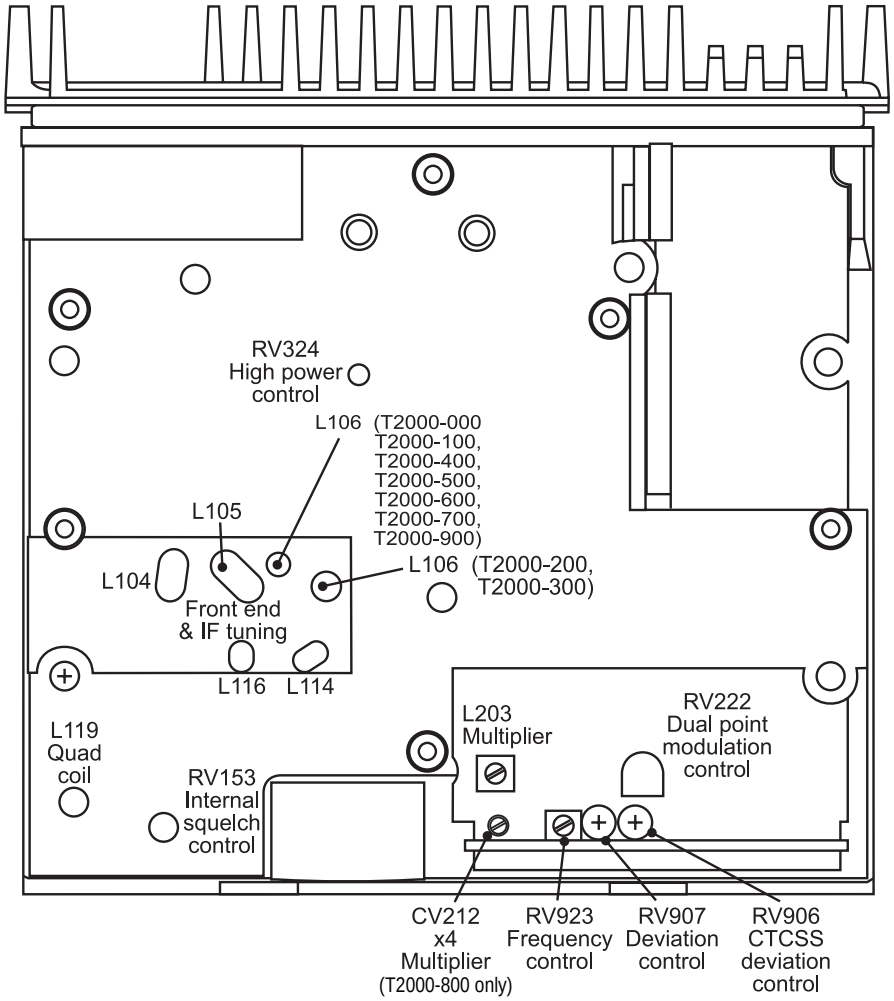


Figure 6.1 RF & TXCO/Tx Audio PCBs - Tuning & Adjustment Points-

6.3 Trunked Radios

The 'test' facility enables T2000 trunked radios to emulate a multichannel radio, using the frequencies reserved for trunking.

For a description of how to put the radio in test mode, refer to Section 5.8 "Trunked Radios: Test Mode". Once the radio is in test mode, tuning and adjustment can be carried out as described in Section 6.4 and Section 6.5.

Caution: **When in test mode, connect the antenna socket to a dummy load to prevent interference with trunking systems. Avoid testing on channels in use locally.**

6.4 Transmitter Adjustments

In this Section, deviation settings are given first for wide band, followed by settings for medium band in brackets ( ) and settings for narrow band in square brackets [ ].

6.4.1 Power Output

Set up the test equipment as shown in Section 4, and close the PTT switch.

Turn RV324 fully clockwise and check that the output power is greater than 30W for all channels.

Select a channel programmed for high power and adjust RV324 for 25W.

Check that the transmit current is approximately the values stated below:

Model	Current
T2000-100	6A
T2000-200	6A
T2000-300	6A
T2000-400	6A
T2000-500	6.5A
T2000-600	7A
T2000-700/900	6.5A
T2000-800	6A

Select a channel programmed for low power and adjust RV507 for the required output power.

6.4.2 TCXO Alignment

Close the PTT switch and monitor the transmit frequency with a frequency counter.

Adjust RV923 on the TCXO/Tx audio PCB for a channel frequency within ±100Hz at ambient temperature.

6.4.3 Dual Point Modulation Adjustment

DC isolate the audio generator from TSP901 using a capacitor (10µF is sufficient).

Set the audio generator to 7kHz and inject the audio into the dual point modulation input TSP901 on the TCXO/Tx audio PCB.

Close the PTT switch and select the **lowest frequency channel**.

Adjust the audio generator level to give a reading of ±5.2kHz deviation on the modulation meter.

Remove any filters selected on the deviation or modulation meter which could give erroneous readings.

Select the **highest frequency channel** and check that the deviation is ±4.8kHz.

If not, adjust the audio generator output level so that the average deviation of the two channels is ±5kHz.

The difference in deviation between the two channels must be less than ±800Hz.

Select the **lowest frequency channel**, set the audio generator to 70Hz and inject the audio at TSP901.

Adjust RV222 to give ±4.8kHz deviation on the modulation meter.

Select the **highest frequency channel** and check that the deviation is ±5.2kHz.

If not, adjust RV222 so that the average deviation of the two channels is ±5kHz.

The difference in deviation between the two channels must be less than ±400Hz.

6.4.4 CTCSS Modulation Adjustment

The following instructions apply only to those radios with CTCSS activated and must be carried out before any further modulation adjustment can proceed.

Refer to the T2000 Programming Manual for the CTCSS channel programming instructions. The frequency range of the CTCSS tone is 67 to 250.3Hz.

Switch to any channel with CTCSS activated.

Close the PTT switch.

Adjust RV906, on the TCXO PCB, to set the CTCSS tone peak deviation for ±660Hz ±100Hz (±530Hz ±80Hz) [±330Hz ±50Hz] on the modulation meter.

6.4.5 LTR Code Deviation Adjustment

Close the PTT switch and set up a continuous call. This can be an LTR Repeater Talkaround call, a Repeater Interconnect Call (RIC) or an on-channel call.

Adjust RV906 on the TCXO PCB to set the LTR code deviation to ±1kHz (±900Hz) [±600Hz].

Note: The deviation meter must have a good low frequency response to avoid incorrect readings.

6.4.6 Modulation Adjustment

Complete the dual point modulation and CTCSS modulation adjustments (Section 6.4.3 and Section 6.4.4) before commencing the modulation adjustment.

Apply a 3kHz sine wave at a level of -40dBm to the microphone input.

Select a channel with CTCSS activated and close the PTT switch. If CTCSS is disabled, select any channel.

Adjust RV907 for a +5kHz (+4kHz) [+2.5kHz] deviation reading on the modulation meter.

Maintain the same sine wave output level and sweep the audio frequency from 300Hz to 3.3kHz.

Find the frequency of maximum '+' deviation and readjust RV907 for +5kHz (+4kHz) [+2.5kHz] deviation.

Reset the modulation meter to read '-' deviation.

Slowly sweep the audio frequency from 300Hz to 3kHz. If the '-' deviation peak is found to exceed -5kHz (-4kHz) [-2.5kHz], readjust RV907 for a peak deviation of -5kHz (-4kHz) [-2.5kHz] at that frequency.

The peak deviation should not exceed ±5kHz (±4kHz) [±2.5kHz] on any channel.

6.4.7 Selcall Tone Deviation

This is normally preset at 60% of voice deviation. If adjustment is needed, fit #RV508 (refer to Section 7 for a component description) to the logic PCB, and proceed as follows.

2

Adjust #RV508 for ±3kHz (±2.4kHz) [±1.5kHz] deviation reading on the modulation meter.

Check to ensure that no limiting occurs in IC901.

6.4.8 FFSK Adjustment (Trunked Models Only)

6.4.8.1 T203X Radios

Enter test mode (refer to Section 5.8, "Trunked Radios: Test Mode").

Press the front panel **clear** key ⊗ .

Adjust #RV599 for ±3kHz ±200Hz (±2.4kHz ±160Hz) [±1.5kHz ±100Hz] deviation reading on the modulation meter.

6.4.8.2 T2040 Radios

Enter test mode (refer to Section 5.8, "Trunked Radios: Test Mode").

Select test function 10 using the control head.

Adjust #RV599 for ±3kHz ±200Hz (±2.4kHz ±160Hz) [±1.5kHz ±100Hz] deviation reading on the modulation meter.

7 PCB Information

This Section provides parts lists, circuit diagrams and component location information on the individual PCBs within the T2000 Series II radio.

The following PCBs are covered within this Section:

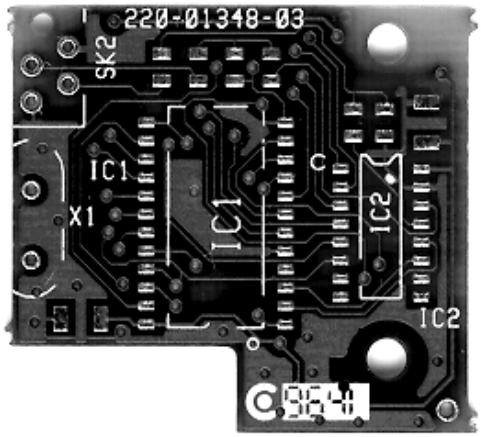
Section	Title		Page	Frequency (MHz)
7.1	T2000-100 RF PCB	IPN 220-01331-02	7.1.1	220 to 270
7.2	T2000-200 RF PCB	IPN 220-01202-10	7.2.1	66 to 88
7.3	T2000-300 RF PCB	IPN 220-01314-01	7.3.1	136 to 174
7.4	T2000-400 RF PCB	IPN 220-01204-11	7.4.1	175 to 225
7.5	T2000-500/-600 RF PCB	IPN 220-01205-14	7.5.1	400 to 530
7.6	T2000-700/-900 RF PCB	IPN 220-01289-01 IPN 220-01389-03	7.6.1 7.6.11	330 to 400
7.7	T2000-800 RF PCB	IPN 220-01305-03	7.7.1	800 to 870
7.8	T2000 IF PCB	IPN 220-01384-00	7.8.1	
7.9	T2000 TCXO/Tx Audio PCB	IPN 220-01389-00 IPN 220-01389-02	7.9.1 7.9.7	
7.10	T2010 & T2015 HC05 Logic PCB	IPN 220-01377-01 IPN 220-01377-02 IPN 220-01377-03	7.10.1 7.10.11 7.10.23	
7.11	T2020, T203X, T2040, T2050 & T2060 HC11 Logic PCB	IPN 220-01344-02 IPN 220-01344-04	7.11.1 7.11.13	
7.12	T2010/T2030 Control Head PCB	IPN 220-01319-01	7.12.1	
7.13	T2015/T2060 Control Head PCB	IPN 220-01320-01	7.13.1	
7.14	T2020/40 /50 Control Head PCB	IPN 220-01321-04	7.14.1	
7.15	T2035 Control Head PCB	IPN 220-01322-03	7.15.1	
7.16	T2000 EMC Filter PCB	IPN 220-01383-01	7.16.1	
7.17	T2000 Data Interface Decoupling PCB	IPN 220-01388-01	7.17.1	

PCB Identification

All PCBs are identified by a unique 10 digit 'internal part number' (IPN), e.g. 220-01330-02, which is screen printed onto the PCB (usually the top side).

The last 2 digits of this number define the issue status, which starts at 00 and increments through 01, 02, 03, etc. as the PCB is updated. Some issue PCBs never reach full production status, and are therefore not included in this manual. A letter following the 10 digit IPN has no relevance in identifying the PCB for service purposes.

In the following diagram of the T2000-66 UART PCB, the IPN is 220-01348-03, (i.e. issue 03 of the PCB).



It is important that you identify which issue PCB you are working on so that you can refer to the appropriate PCB information.

7.6 T2000-700/-900 RF PCB

T2000-700/-900 Parts List (IPN 220-01289-03)

Parts List Amendments

Ref	Var	IPN	Description
C1		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C2		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C3		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C100		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C101		015-22120-01	CAP CER 0805 CHIP 12P 5% NPO 50V
C102		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C104		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C105		015-21100-01	CAP CER 0805 CHIP 1PO +/-0.25P NPO 50V
C106		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
#C107	7XX	015-21560-01	CAP CER 0805 CHIP 5P6 +/-0.25P NPO
#C107	9XX	015-21470-01	CAP CER 0805 CHIP 4P7 +/-0.25P NPO
C108		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
#C109	9XX	015-21820-01	CAP CER 0805 CHIP 8P2 +/-0.25P NPO
C110		015-22470-01	CAP CER 0805 CHIP 47P 5% NPO 50V
C111		015-21560-01	CAP CER 0805 CHIP 5P6 +/-0.25P NPO 50V
#C112	7XX	015-21120-01	CAP CER 0805 CHIP 1P2 +/-0.25 NPO 5
#C112	9XX	015-21150-01	CAP CER 0805 CHIP 1P5 +/-0.25P NPO
#C113	9XX	015-21820-01	CAP CER 0805 CHIP 8P2 +/-0.25P NPO
C114		015-22470-01	CAP CER 0805 CHIP 47P 5% NPO 50V
#C115	7XX	015-21820-01	CAP CER 0805 CHIP 8P2 +/-0.25P NPO
#C115	9XX	015-22120-01	CAP CER 0805 CHIP 12P 5% NPO 50V
#C117	7XX	015-21120-01	CAP CER 0805 CHIP 1P2 +/-0.25 NPO 5
#C117	9XX	015-21150-01	CAP CER 0805 CHIP 1P5 +/-0.25P NPO
#C118	9XX	015-21820-01	CAP CER 0805 CHIP 8P2 +/-0.25P NPO
C119		015-22470-01	CAP CER 0805 CHIP 47P 5% NPO 50V
#C121	7XX	015-21560-01	CAP CER 0805 CHIP 5P6 +/-0.25P NPO
#C121	9XX	015-22100-01	CAP CER 0805 CHIP 10P +/-0.5P NPO 5
#C122	7XX	015-21560-01	CAP CER 0805 CHIP 5P6 +/-0.25P NPO
#C122	9XX	015-22100-01	CAP CER 0805 CHIP 10P +/-0.5P NPO 5
C123		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C124		015-21680-01	CAP CER 0805 CHIP 6P8 +/-0.25P NPO 50V
C125		015-21330-01	CAP CER 0805 CHIP 3P3 +/-0.25P NPO 50V
C126		015-21560-01	CAP CER 0805 CHIP 5P6 +/-0.25P NPO 50V
C127		015-22120-01	CAP CER 0805 CHIP 12P 5% NPO 50V
C128		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C129		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C130		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C132		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C133		015-22470-01	CAP CER 0805 CHIP 47P 5% NPO 50V
C134		015-21680-01	CAP CER 0805 CHIP 6P8 +/-0.25P NPO 50V
C135		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C136		015-21680-01	CAP CER 0805 CHIP 6P8 +/-0.25P NPO 50V
C137		015-23100-01	CAP CER 0805 CHIP 100P 5% NPO 50V
C138		015-21680-01	CAP CER 0805 CHIP 6P8 +/-0.25P NPO 50V
C139		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C140		015-21680-01	CAP CER 0805 CHIP 6P8 +/-0.25P NPO 50V
C141		015-22470-01	CAP CER 0805 CHIP 47P 5% NPO 50V
C142		015-22120-01	CAP CER 0805 CHIP 12P 5% NPO 50V
C145		015-23100-01	CAP CER 0805 CHIP 100P 5% NPO 50V
C146		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C147		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C148		015-22100-01	CAP CER 0805 CHIP 10P +/-0.5P NPO 50V
C149		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C150		015-23100-01	CAP CER 0805 CHIP 100P 5% NPO 50V
C151		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C152		015-23100-01	CAP CER 0805 CHIP 100P 5% NPO 50V
C152A		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C153		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C153A		015-23100-01	CAP CER 0805 CHIP 100P 5% NPO 50V
C154		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C155		015-23100-01	CAP CER 0805 CHIP 100P 5% NPO 50V
C156		015-22220-01	CAP CER 0805 CHIP 22P 5% NPO 50V
C157		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C158		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C174		020-58470-05	CAP ELECT AI RDL 47M 16V 6.3X7MM
C175		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C176		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C179		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C180		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C181		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C182		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C184		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C185		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C186		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C187		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C188		015-23100-01	CAP CER 0805 CHIP 100P 5% NPO 50V
C189		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C190		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C191		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C192		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C193		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C194		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C195		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C197		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C198		015-23220-01	CAP CER 0805 CHIP 220P 5% NPO 50V
C199		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C200		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C201		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C202		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C203		015-22560-01	CAP CER 0805 CHIP 56P 5% NPO 50V
C204		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C205		015-25220-08	CAP CER 0805 CHIP 22N 10% X7R 50V
C206		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C207		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C208		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C209		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C210		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C211		015-23180-01	CAP CER 0805 CHIP 180P 5% NPO 50V
C212		015-21560-01	CAP CER 0805 CHIP 5P6 +/-0.25P NPO 50V
C213		020-58470-05	CAP ELECT AI RDL 47M 16V 6.3X7MM
C214		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C215		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C216		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C217		020-58470-05	CAP ELECT AI RDL 47M 16V 6.3X7MM
C218		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C219		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C220		022-55100-10	CAP MYLAR AI 10N 5% 63V POTTED
C221		022-57100-02	CAP MYLAR AI 1M 20% 50V POTTED
C222		022-06100-15	CAP MET POLYSTR 100N 5% 50V 5.6MM HI
C223		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C224		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C225		015-23270-01	CAP CER 0805 CHIP 270P 5% NPO 50V
C227		015-22270-01	CAP CER 0805 CHIP 27P 5% NPO 50V
C228		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C229		020-58470-05	CAP ELECT AI RDL 47M 16V 6.3X7MM
C230		015-24470-08	CAP CER 0805 CHIP 4N7 10% X7R 50V
C231		015-23270-01	CAP CER 0805 CHIP 270P 5% NPO 50V
C232		015-21470-01	CAP CER 0805 CHIP 4P7 +/-0.25P NPO 50V
C233		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C234		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C235		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C236		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C237		015-22270-01	CAP CER 0805 CHIP 27P 5% NPO 50V
C238		015-22470-01	CAP CER 0805 CHIP 47P 5% NPO 50V
C239		015-21100-01	CAP CER 0805 CHIP 1PO +/-0.25P NPO 50V
C240		015-23270-01	CAP CER 0805 CHIP 270P 5% NPO 50V
C241		015-23270-01	CAP CER 0805 CHIP 270P 5% NPO 50V
C242		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C243		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C244		015-21560-01	CAP CER 0805 CHIP 5P6 +/-0.25P NPO 50V
C245		015-21270-01	CAP CER 0805 CHIP 2P7 +/-0.25P NPO 50V
C246		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C247		015-21820-01	CAP CER 0805 CHIP 8P2 +/-0.25P NPO 50V
C249		015-23270-01	CAP CER 0805 CHIP 270P 5% NPO 50V
C250		015-22820-01	CAP CER 0805 CHIP 82P 5% NPO 50V
C251		015-23100-01	CAP CER 0805 CHIP 100P 5% NPO 50V
C252		015-23180-01	CAP CER 0805 CHIP 180P 5% NPO 50V
C253		015-22820-01	CAP CER 0805 CHIP 82P 5% NPO 50V
C300		015-03150-06	CAP CER 1210 CHIP 150P NPO 500V GRM42-2
#C301	7XX	015-23270-01	CAP CER 0805 CHIP 270P 5% NPO 50V
#C301	9XX	015-23220-01	CAP CER 0805 CHIP 220P 5% NPO 50V
#C302	7XX	015-21820-01	CAP CER 0805 CHIP 8P2 +/-0.25P NPO
#C302	9XX	015-21680-01	CAP CER 0805 CHIP 6P8 +/-0.25P NPO
#C303	7XX	015-02150-06	CAP CER 1210 CHIP 15P NPO 500V GRM4
#C303	9XX	015-02180-06	CAP CER 1210 CHIP 18P NPO 500V GRM4
C304		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
#C305	7XX	015-22150-01	CAP CER 0805 CHIP 15P 5% NPO 50V
#C305	9XX	015-22120-01	CAP CER 0805 CHIP 12P 5% NPO 50V
#C306	7XX	015-22270-01	CAP CER 0805 CHIP 27P 5% NPO 50V
#C306	9XX	015-22220-01	CAP CER 0805 CHIP 22P 5% NPO 50V
C307		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
#C308	7XX	015-22470-01	CAP CER 0805 CHIP 47P 5% NPO 50V
#C308	9XX	015-22120-01	CAP CER 0805 CHIP 12P 5% NPO 50V
#C309	7XX	015-22560-01	CAP CER 0805 CHIP 56P 5% NPO 50V
#C309	9XX	015-22220-01	CAP CER 0805 CHIP 22P 5% NPO 50V
C310		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V

Ref	Var	IPN	Description
C311		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C312		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
#C313	7XX	015-21560-01	CAP CER 0805 CHIP 5P6 +/-0.25P NPO
#C313	9XX	015-22100-01	CAP CER 0805 CHIP 10P +/-0.5P NPO 5
#C314	7XX	015-21470-01	CAP CER 0805 CHIP 4P7 +/-0.25P NPO
#C314	9XX	015-21680-01	CAP CER 0805 CHIP 6P8 +/-0.25P NPO
C315		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C316		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C317		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C318		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C319		015-03150-06	CAP CER 1210 CHIP 150P NPO 500V GRM42-2
C320		015-02330-03	CAP CER CHIP 33P 5% NPO 500V HIQ GRH111
C321		015-02330-03	CAP CER CHIP 33P 5% NPO 500V HIQ GRH111
#C323	7XX	015-02270-03	CAP CER CHIP 27P 5% NPO 500V HIQ GR
#C323	9XX	015-02180-03	CAP CER CHIP 18P 5% 500V HIQ GRH111
C324		015-02330-03	CAP CER CHIP 33P 5% NPO 500V HIQ GRH111
C325		015-02330-03	CAP CER CHIP 33P 5% NPO 500V HIQ GRH111
C326		015-03150-06	CAP CER 1210 CHIP 150P NPO 500V GRM42-2
C327		029-02470-02	CAP MICA 5MM CASE 47P 5%
C328		020-07470-04	CAP ELECT RADL 4M7 25V 20% 8X13MM SOLID
C329		029-02470-02	CAP MICA 5MM CASE 47P 5%
#C330	7XX	015-01820-06	CAP CER 1210 CHIP 8P2 NPO 500V GRM4
#C330	9XX	015-02100-06	CAP CER 1210 CHIP 10P 5% NPO 500V G
#C331	7XX	015-01820-06	CAP CER 1210 CHIP 8P2 NPO 500V GRM4
#C331	9XX	015-02100-06	CAP CER 1210 CHIP 10P 5% NPO 500V G
C332		015-03150-06	CAP CER 1210 CHIP 150P NPO 500V GRM42-2
C333		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C334		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C335		015-01270-06	CAP CER 1210 CHIP 2P7 NPO 200V GRM42-2
C336		015-03150-06	CAP CER 1210 CHIP 150P NPO 500V GRM42-2
C337		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C339		015-01560-06	CAP CER 1210 CHIP 5P6 NPO 500V GRM42-2
C340		015-01560-06	CAP CER 1210 CHIP 5P6 NPO 500V GRM42-2
C341		015-01560-06	CAP CER 1210 CHIP 5P6 NPO 500V GRM42-2
C342		015-01470-06	CAP CER 1210 CHIP 4P7 NPO 500V GRM42-2
C343		015-01560-06	CAP CER 1210 CHIP 5P6 NPO 500V GRM42-2
C344		015-01390-06	CAP CER 1210 CHIP 3P9 NPO 500V GRM42-2
C345		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C346		015-21220-01	CAP CER 0805 CHIP 2P2 +/-0.25P NPO 50V
C347		015-21220-01	CAP CER 0805 CHIP 2P2 +/-0.25P NPO 50V
C348		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C349		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C350		015-21470-01	CAP CER 0805 CHIP 4P7 +/-0.25P NPO 50V
C351		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C352		015-21150-01	CAP CER 0805 CHIP 1P5 +/-0.25P NPO 50V
C353		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C360		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C361		015-21330-01	CAP CER 0805 CHIP 3P3 +/-0.25P NPO 50V
C403		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C410		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C411		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C412		020-58470-05	CAP ELECT AI RDL 47M 16V 6.3X7MM
C413		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C414		020-09470-05	CAP ELECT RADL 470M 16V 10X12.5MM
C415		020-19100-02	CAP ELECT RADL 1000M 16V 12X20MM
C416		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C419		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C420		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C423		020-08560-09	CAP ELECT RADL 56M 50V 6.3X15.5MM L/S
C424		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C425		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C426		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C427		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C428		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C429		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C430		020-08560-09	CAP ELECT RADL 56M 50V 6.3X15.5MM L/S
C431		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C453		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C454		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C455		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
D1		001-00012-90	(S) DIODE MR2520L OVERVOLT SUPPRESSOR
D100		001-10000-99	(S) DIODE SMD BAV99 DUAL SWTCH SNGLE IN
D101		001-10043-90	(S) DIODE SMD BB439 SI VARICAP SOD323
D102		001-10043-90	(S) DIODE SMD BB439 SI VARICAP SOD323
D103		001-10043-90	(S) DIODE SMD BB439 SI VARICAP SOD323
D105		001-10000-18	(S) DIODE SMD BAT18 BANDSWITCH SOT-23 S
D106		001-10000-18	(S) DIODE SMD BAT18 BANDSWITCH SOT-23 S
D107		001-10000-17	(S) DIODE SMD DUAL BAT-17 SCHOTTKY SML
D108		001-10000-17	(S) DIODE SMD DUAL BAT-17 SCHOTTKY SML
D110		001-10000-17	(S) DIODE SMD DUAL BAT-17 SCHOTTKY SML
D111		001-10000-17	(S) DIODE SMD DUAL BAT-17 SCHOTTKY SML
D140A		001-10000-18	(S) DIODE SMD BAT18 BANDSWITCH SOT-23
D202		001-10000-70	(S) DIODE SMD BAV70 DUAL SWITCH SOT-23
D203		001-10043-90	(S) DIODE SMD BB439 SI VARICAP SOD323
D204		001-10043-90	(S) DIODE SMD BB439 SI VARICAP SOD323
D205		001-10006-39	(S) DIODE SMD VARICAP BB639 SOD323
D206		001-10006-39	(S) DIODE SMD VARICAP BB639 SOD323
D208		001-10000-18	(S) DIODE SMD BAT18 BANDSWITCH SOT-23 S
D209		001-10000-18	(S) DIODE SMD BAT18 BANDSWITCH SOT-23 S
D301		001-00013-45	(S) DIODE SCHOTTKY 1SS97/2
D303		001-00012-50	(S) DIODE PIN UM9401 UHF PWR SWITCH
D304		001-00012-50	(S) DIODE PIN UM9401 UHF PWR SWITCH
D401		001-10000-70	(S) DIODE SMD BAV70 DUAL SWITCH SOT-23
IC101		002-10033-71	(S) IC SMD MC3371D-R2 FM IF DETECT RSS
IC201		002-10451-58	(S) IC SMD MC145158DW2 FREQ SYNTH SOIC
IC202		002-10330-78	(S) IC MC33078D-R2 DUAL AMP LO NOISE S
IC203		002-10120-22	(S) IC SMD MC12022AD-R2 PRESC 8-P
IC402		002-00013-70	(S) IC TDA1020 AF PWR AMP 9PIN SIL
IC403		002-00078-08	(S) IC MC7808ACT 8V REG(LINEAR)1AMP TO
IC404		002-00078-05	(S) IC MC7805ACT 5V REG(LINEAR)1AMP TO
L1		030-50000-00	LINK WIRE AI ZERO OHM 0.6MM WIRE
L104		050-00016-74	COIL RF 23NH NOM 2.5T BRASS CORE SHIELD
L105		050-00016-74	COIL RF 23NH NOM 2.5T BRASS CORE SHIELD
L106		050-00016-74	COIL RF 23NH NOM 2.5T BRASS CORE SHIELD
L107		050-00016-65	COIL BALUN 7.2MM2 5X0.5PINS 5T/4 456DB-
L108		050-00016-65	COIL BALUN 7.2MM2 5X0.5PINS 5T/4 456DB-
L109		052-08140-15	COIL A/W 1.5T/4.0MM HOR 0.8MM WIRE
L110		056-00021-60	IND FXD 330NH 6.6X2.7MM AXIAL NON MAGNE
L114		050-00016-62	COIL IF 1UH AT 30MHZ 6MMSQX6.2MMH CAN 2
L116		050-00016-62	COIL IF 1UH AT 30MHZ 6MMSQX6.2MMH CAN 2
L117		050-00016-65	COIL BALUN 7.2MM2 5X0.5PINS 5T/4 456DB-
L118		050-00016-65	COIL BALUN 7.2MM2 5X0.5PINS 5T/4 456DB-
L119		050-00016-55	COIL TAIT NO 655 455KHZ QUAD COIL 7MM C
L120		057-10005-03	IND 0805 BLM21B05 EMI SUPRSN 5 OHM AT 1
L121		057-10120-03	IND 0805 BLM21A121 EMI SUPRSN 120 OHM @
L200		057-10005-03	IND 0805 BLM21B05 EMI SUPRSN 5 OHM AT 1
L201		056-10100-00	IND FXD SMD 100NH 3.2*2.5*1.6 SIEMENS S
L202		056-10100-00	IND FXD SMD 100NH 3.2*2.5*1.6 SIEMENS S
L203		050-00016-62	COIL IF 1UH AT 30MHZ 6MMSQX6.2MMH CAN 2
L204		057-00100-02	IND FXD SMD 100NH 10% MLF3216DR 1206 CH
L205		056-10330-02	(L) IND SMD 330NH SIEMENS SMID02
L206		056-10330-02	(L) IND SMD 330NH SIEMENS SMID02
L207		051-00574-00	(L) IND TRANSMISSION LINE 84MM RG405 T2
L208		056-10330-00	IND FXD SMD 330NH 3.2*2.5*1.6 SIEMENS S
L209		056-10330-00	IND FXD SMD 330NH 3.2*2.5*1.6 SIEMENS S
L210		056-10047-00	IND FXD SMD 47NH 3.2*2.5*1.6 SIEMENS SM
L211		056-10330-00	IND FXD SMD 330NH 3.2*2.5*1.6 SIEMENS S
L212		056-10033-00	IND FXD SMD 33NH 3.2*2.5*1.6 SIEMENS SM
#L300	7XX	052-08335-10	COIL A/W 1T/3.5MM SMD 0.8MM WIRE
#L300	9XX	052-08340-10	COIL A/W 1T/4.0MM SMD 0.8MM WIRE
L301		052-08140-15	COIL A/W 1.5T/4.0MM HOR 0.8MM WIRE
L302		052-08130-15	COIL A/W 1.5T/3.0MM HOR 0.8MM WIRE
L303		056-00021-60	IND FXD 330NH 6.6X2.7MM AXIAL NON MAGNE
L304		030-50000-00	LINK WIRE AI ZERO OHM 0.6MM WIRE
L304A		030-50000-00	LINK WIRE AI ZERO OHM 0.6MM WIRE
L305		052-08130-25	COIL A/W 2.5T/3.0MM HOR 0.8MM WIRE
L306		057-10005-03	IND 0805 BLM21B05 EMI SUPRSN 5 OHM AT 1
L307		052-08125-15	COIL A/W 1.5T/2.5MM HOR 0.8MM WIRE
L308		052-08130-65	COIL A/W 6.5T/3.0MM HOR 0.8MM WIRE
L308A		030-50000-00	LINK WIRE AI ZERO OHM 0.6MM WIRE
L309		030-50000-00	LINK WIRE AI ZERO OHM 0.6MM WIRE
L310		052-08130-65	COIL A/W 6.5T/3.0MM HOR 0.8MM WIRE
L311		052-08130-65	COIL A/W 6.5T/3.0MM HOR 0.8MM WIRE
L312		056-00021-60	IND FXD 330NH 6.6X2.7MM AXIAL NON MAGNE
L313		052-08150-55	COIL A/W 5.5T/5.0MM HOR 0.8MM WIRE
L314		030-50000-00	LINK WIRE AI ZERO OHM 0.6MM WIRE
L316		052-08130-65	COIL A/W 6.5T/3.0MM HOR 0.8MM WIRE
L316A		030-50000-00	LINK WIRE AI ZERO OHM 0.6MM WIRE
L317		051-00005-28	COIL TAIT NO 528 HAIRPIN 17MM T550A
L318		052-08130-15	COIL A/W 1.5T/3.0MM HOR 0.8MM WIRE
L319		056-00021-04	IND FXD 330NH AXIAL
L320		052-08135-35	COIL A/W 3.5T/3.5MM HOR 0.8MM WIRE
#L321	7XX	052-08320-10	COIL A/W 1T/2.0MM SMD 0.8MM WIRE
#L321	9XX	052-08320-10	COIL A/W 1T/2.0MM SMD 0.8MM WIRE
L322		052-08135-25	COIL A/W 2.5T/3.5MM HOR 0.8MM WIRE
L323		052-08135-25	COIL A/W 2.5T/3.5MM HOR 0.8MM WIRE
L324		052-08130-35	COIL A/W 3.5T/3.0MM HOR 0.8MM WIRE
L325		052-08135-25	COIL A/W 2.5T/3.5MM HOR 0.8MM WIRE
L326		052-08135-25	COIL A/W 2.5T/3.5MM HOR 0.8MM WIRE
L331		057-10005-03	IND 0805 BLM21B05 EMI SUPRSN 5 OHM AT 1
L401		050-00016-50	COIL TAIT NO 650 455KHZ 5.6MM CAN
P1		240-00026-24	CONN PADLE BRD 16 WAY MICRO MATCH 1-2155
P2		240-00026-26	CONN PADLE BRD 12 WAY MICRO MATCH 1-2155
P3		240-00026-21	PLUG CAP HOUSING 7-POS CONN 172039-1
P5		240-00010-76	PLUG HEADER 10WAY MICROMATCH PCB MTD 1-
P6		240-00010-76	PLUG HEADER 10WAY MICROMATCH PCB MTD 1-
P7		240-00020-72	HEADER 2 WAY PCB MTG ULTREX
Q100		000-10003-12	(S) XSTR SMD BFR31 N JFET SOT-23
Q101		000-10095-10	(S) XSTR SMD MMBR951 NPN UHF SOT-23
Q102		000-10008-57	(S) XSTR SMD BCW70 PNP SOT23 AF SML SIG
Q103		000-10095-10	(S) XSTR SMD MMBR951 NPN UHF SOT-23
Q105		000-10095-10	(S) XSTR SMD MMBR951 NPN UHF SOT-23
Q106		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23
Q107		000-10008-92	(S) XSTR SMD BFS17 NPN SOT-23 UHF SMALL
Q108		000-10008-92	(S) XSTR SMD BFS17 NPN SOT-23 UHF SMALL
Q109		000-10008-24	(S) XSTR SMD BF824 PNP SOT-23 RF SMALL
Q110		000-10008-92	(S) XSTR SMD BFS17 NPN SOT-23 UHF SMALL
Q115		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23
Q201		000-10008-57	(S) XSTR SMD BCW70 PNP SOT23 AF SML SIG
Q202		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23
Q203		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23
Q204		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23
Q205		000-10008-57	(S) XSTR SMD BCW70 PNP SOT23 AF SML SIG
Q206		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23
Q207		000-10008-57	(S) XSTR SMD BCW70 PNP SOT23 AF SML SIG
Q208		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23
Q209		000-10008-57	(S) XSTR SMD BCW70 PNP SOT23 AF SML SIG
Q210		000-10003-12	(S) XSTR SMD BFR31 N JFET SOT-23
Q211		000-10008-07	(S) XSTR SMD BC807 PNP SOT-23 AF LO PWR
Q212		000-10095-10	(S) XSTR SMD MMBR951 NPN UHF SOT-23
Q213		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23

Ref	Var	IPN	Description
Q214		000-10057-10	(S) XSTR SMD MMBR571 NPN SOT-23 UHF LO
Q215		000-10057-10	(S) XSTR SMD MMBR571 NPN SOT-23 UHF LO
Q300		000-10095-10	(S) XSTR SMD MMBR951 NPN UHF SOT-23
Q301		000-00032-47	(S) XSTR MRF559 NPN XPACK UHF PWR 0.5W
Q302		000-00032-56	(S) XSTR MRF630 NPN TO-39 UHF PWR 3W
Q303		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23
Q304		000-00012-15	(S) XSTR BD234 PNP AF PWR TO126
Q305		000-00022-75	(S) XSTR SD1433-04 NPN STUD MTG UHF PWR
Q306		000-00032-65	(S) XSTR MRF646 NPN 6LFL UHF PWR 45W
Q401		000-10008-57	(S) XSTR SMD BCW70 PNP SOT23 AF SML SIG
Q402		000-10008-17	(S) XSTR SMD BC817-25 NPN SOT-23 AF LO
Q403		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23
Q404		000-10008-07	(S) XSTR SMD BC807 PNP SOT-23 AF LO PWR
Q405		000-10008-07	(S) XSTR SMD BC807 PNP SOT-23 AF LO PWR
R100		036-13330-00	RES M/F 0805 CHIP 330E 5%
R101		036-14390-00	RES M/F 0805 CHIP 3K9 5%
R102		036-13560-00	RES M/F 0805 CHIP 560E 5%
R103		036-14220-00	RES M/F 0805 CHIP 2K2 5%
R104		036-13120-00	RES M/F 0805 CHIP 120E 5%
R105		036-12180-00	RES M/F 0805 CHIP 18E 5%
R106		036-16100-00	RES M/F 0805 CHIP 100K 5%
R107		036-16100-00	RES M/F 0805 CHIP 100K 5%
R108		036-16100-00	RES M/F 0805 CHIP 100K 5%
R112		036-12470-00	RES M/F 0805 CHIP 47E 5%
R113		036-11470-00	RES M/F 0805 CHIP 4E7 5%
R114		036-13820-00	RES M/F 0805 CHIP 820E 5%
R115		036-15120-00	RES M/F 0805 CHIP 12K 5%
R116		036-11470-00	RES M/F 0805 CHIP 4E7 5%
R117		036-12100-00	RES M/F 0805 CHIP 10E 5%
R118		036-13100-00	RES M/F 0805 CHIP 100E 5%
R119		036-12100-00	RES M/F 0805 CHIP 10E 5%
R120		036-13820-00	RES M/F 0805 CHIP 820E 5%
R121		036-13180-00	RES M/F 0805 CHIP 180E 5%
R122		036-15100-00	RES M/F 0805 CHIP 10K 5%
R123		036-15100-00	RES M/F 0805 CHIP 10K 5%
R131		036-13100-00	RES M/F 0805 CHIP 100E 5%
R132		036-14220-00	RES M/F 0805 CHIP 2K2 5%
R133		036-13270-00	RES M/F 0805 CHIP 270E 5%
R135		036-15100-00	RES M/F 0805 CHIP 10K 5%
R138		036-16100-00	RES M/F 0805 CHIP 100K 5%
R140		036-15680-00	RES M/F 0805 CHIP 68K 5%
R140A		036-15330-00	RES M/F 0805 CHIP 33K 5%
R141		036-14150-00	RES M/F 0805 CHIP 1K5 5%
R142		036-15270-00	RES M/F 0805 CHIP 27K 5%
R142A		036-16100-00	RES M/F 0805 CHIP 100K 5%
R143		036-15330-00	RES M/F 0805 CHIP 33K 5%
R143A		036-15330-00	RES M/F 0805 CHIP 33K 5%
R144		036-15680-00	RES M/F 0805 CHIP 68K 5%
R144A		036-16120-00	RES M/F 0805 CHIP 120K 5%
R145		036-14150-00	RES M/F 0805 CHIP 1K5 5%
R145A		036-15330-00	RES M/F 0805 CHIP 33K 5%
R146		036-12220-00	RES M/F 0805 CHIP 22E 5%
R147		036-13220-00	RES M/F 0805 CHIP 220E 5%
R148		036-13560-00	RES M/F 0805 CHIP 560E 5%
R149		036-16100-00	RES M/F 0805 CHIP 100K 5%
R150		036-16100-00	RES M/F 0805 CHIP 100K 5%
R151		036-14330-00	RES M/F 0805 CHIP 3K3 5%
R152		036-16390-00	RES M/F 0805 CHIP 390K 5%
R153		036-14100-00	RES M/F 0805 CHIP 1K 5%
RV153		042-05470-07	RES PRESET 47K CARBON 6MM FLAT DUAL AD
R155		036-16100-00	RES M/F 0805 CHIP 100K 5%
R156		036-13100-00	RES M/F 0805 CHIP 100E 5%
R157		036-15100-00	RES M/F 0805 CHIP 10K 5%
R158		036-14100-00	RES M/F 0805 CHIP 1K 5%
R159		036-12470-00	RES M/F 0805 CHIP 47E 5%
R160		036-12100-00	RES M/F 0805 CHIP 10E 5%
R161		036-14100-00	RES M/F 0805 CHIP 1K 5%
R194		036-10000-00	RES M/F 0805 CHIP ZERO OHM
R195		036-15680-00	RES M/F 0805 CHIP 68K 5%
R196		036-13100-00	RES M/F 0805 CHIP 100E 5%
R197		036-13100-00	RES M/F 0805 CHIP 100E 5%
R198		036-14220-00	RES M/F 0805 CHIP 2K2 5%
R199		036-13100-00	RES M/F 0805 CHIP 100E 5%
R213		036-13330-00	RES M/F 0805 CHIP 330E 5%
R214		036-14120-00	RES M/F 0805 CHIP 1K2 5%
R217		036-12470-00	RES M/F 0805 CHIP 47E 5%
R218		036-15120-00	RES M/F 0805 CHIP 12K 5%
R219		036-13270-00	RES M/F 0805 CHIP 270E 5%
R220		036-14680-00	RES M/F 0805 CHIP 6K8 5%
R221		036-13330-00	RES M/F 0805 CHIP 330E 5%
R222		036-12470-00	RES M/F 0805 CHIP 47E 5%
RV222		042-05470-07	RES PRESET 47K CARBON 6MM FLAT DUAL AD
R223		036-15220-00	RES M/F 0805 CHIP 22K 5%
R224		036-15330-00	RES M/F 0805 CHIP 33K 5%
R225		036-15220-00	RES M/F 0805 CHIP 22K 5%
R226		036-15150-00	RES M/F 0805 CHIP 15K 5%
R227		036-13560-00	RES M/F 0805 CHIP 560E 5%
R228		036-14330-00	RES M/F 0805 CHIP 3K3 5%
R229		036-12220-00	RES M/F 0805 CHIP 22E 5%
R230		036-13390-00	RES M/F 0805 CHIP 390E 5%
R231		036-13180-00	RES M/F 0805 CHIP 180E 5%
R232		036-14220-00	RES M/F 0805 CHIP 2K2 5%
R233		036-17100-00	RES M/F 0805 CHIP 1M 5%
R234		036-13180-00	RES M/F 0805 CHIP 180E 5%
R235		036-13330-00	RES M/F 0805 CHIP 330E 5%
R236		036-12470-00	RES M/F 0805 CHIP 47E 5%
R237		036-13100-00	RES M/F 0805 CHIP 100E 5%
R238		036-14820-00	RES M/F 0805 CHIP 8K2 5%
R239		036-15220-00	RES M/F 0805 CHIP 22K 5%
R240		036-16100-00	RES M/F 0805 CHIP 100K 5%
R241		036-14150-00	RES M/F 0805 CHIP 1K5 5%
R242		036-12220-00	RES M/F 0805 CHIP 22E 5%
R243		036-14220-00	RES M/F 0805 CHIP 2K2 5%
R244		036-12220-00	RES M/F 0805 CHIP 22E 5%
R245		036-12220-00	RES M/F 0805 CHIP 22E 5%
R247		036-12100-00	RES M/F 0805 CHIP 10E 5%
R248		036-10000-00	RES M/F 0805 CHIP ZERO OHM
R250		036-14220-00	RES M/F 0805 CHIP 2K2 5%
R251		036-13150-00	RES M/F 0805 CHIP 150E 5%
R252		036-13820-00	RES M/F 0805 CHIP 820E 5%
R253		036-12470-00	RES M/F 0805 CHIP 47E 5%
R254		036-12330-00	RES M/F 0805 CHIP 33E 5%
R255		036-12220-00	RES M/F 0805 CHIP 22E 5%
R256		036-14150-00	RES M/F 0805 CHIP 1K5 5%
R257		036-14120-00	RES M/F 0805 CHIP 1K2 5%
R258		036-12100-00	RES M/F 0805 CHIP 10E 5%
R259		036-13390-00	RES M/F 0805 CHIP 390E 5%
R260		036-12180-00	RES M/F 0805 CHIP 18E 5%
R261		036-12330-00	RES M/F 0805 CHIP 33E 5%
R262		036-12100-00	RES M/F 0805 CHIP 10E 5%
R266		036-14330-00	RES M/F 0805 CHIP 3K3 5%
R267		036-14330-00	RES M/F 0805 CHIP 3K3 5%
R268		036-12560-00	RES M/F 0805 CHIP 56E 5%
R269		036-11470-00	RES M/F 0805 CHIP 4E7 5%
R270		036-11470-00	RES M/F 0805 CHIP 4E7 5%
R271		036-13220-00	RES M/F 0805 CHIP 220E 5%
R272		036-13220-00	RES M/F 0805 CHIP 220E 5%
R273		036-11470-00	RES M/F 0805 CHIP 4E7 5%
R274		036-14390-00	RES M/F 0805 CHIP 3K9 5%
R275		036-11470-00	RES M/F 0805 CHIP 4E7 5%
R276		036-14220-00	RES M/F 0805 CHIP 2K2 5%
R277		036-12330-00	RES M/F 0805 CHIP 33E 5%
R278		036-16100-00	RES M/F 0805 CHIP 100K 5%
R282		036-13120-00	RES M/F 0805 CHIP 120E 5%
R284		036-15100-00	RES M/F 0805 CHIP 10K 5%
R285		036-15100-00	RES M/F 0805 CHIP 10K 5%
R286		036-14100-00	RES M/F 0805 CHIP 1K 5%
R287		036-16100-00	RES M/F 0805 CHIP 100K 5%
R288		036-15390-00	RES M/F 0805 CHIP 39K 5%
R301		036-13220-00	RES M/F 0805 CHIP 220E 5%
R302		036-14100-00	RES M/F 0805 CHIP 1K 5%
R303		030-53270-20	RES FILM AI 270E 5% 0.4W 4X1.6MM
R304		036-13100-00	RES M/F 0805 CHIP 100E 5%
R305		036-12100-00	RES M/F 0805 CHIP 10E 5%
R307		030-03220-00	RES FILM 220E 5% 0.25W 7X2.5MM
R308		030-54120-20	RES FILM AI 1K2 5% 0.4W 4X1.6MM
R309		036-12680-00	RES M/F 0805 CHIP 68E 5%
R310		030-53180-20	RES FILM AI 180E 5% 0.4W 4X1.6MM
R311		036-13180-00	RES M/F 0805 CHIP 180E 5%
R312		036-13680-00	RES M/F 0805 CHIP 680E 5%
R314		030-03470-00	RES FILM 470E 5% 0.25W 7X2.5MM
R315		030-52220-20	RES FILM AI 22E 5% 0.4W 4X1.6MM
R315A		030-52220-20	RES FILM AI 22E 5% 0.4W 4X1.6MM
R316		036-13150-00	RES M/F 0805 CHIP 150E 5%
R317		030-53470-20	RES FILM AI 470E 5% 0.4W 4X1.6MM
R319		030-52470-20	RES FILM AI 47E 5% 0.4W 4X1.6MM
R319A		030-52470-20	RES FILM AI 47E 5% 0.4W 4X1.6MM
R320		030-55270-20	RES FILM AI 27K 5% 0.4W 4X1.6MM
R321		036-16470-00	RES M/F 0805 CHIP 470K 5%
R322		030-02100-00	RES FILM 10E 5% 0.25W 7X2.5MM
RV324		042-06470-06	RES PRESET 470/500K 25% 6MM ROUND TOP
R325		030-55270-20	RES FILM AI 27K 5% 0.4W 4X1.6MM
R326		036-16220-00	RES M/F 0805 CHIP 220K 5%
R327		036-14100-00	RES M/F 0805 CHIP 1K 5%
R328		030-53150-20	RES FILM AI 150E 5% 0.4W 4X1.6MM
R329		036-15470-00	RES M/F 0805 CHIP 47K 5%
R330		036-16220-00	RES M/F 0805 CHIP 220K 5%
R332		036-13100-00	RES M/F 0805 CHIP 100E 5%
R333		036-14220-00	RES M/F 0805 CHIP 2K2 5%
R337		036-10000-00	RES M/F 0805 CHIP ZERO OHM
R418		036-13680-00	RES M/F 0805 CHIP 680E 5%
R420		036-15270-00	RES M/F 0805 CHIP 27K 5%
R421		036-15270-00	RES M/F 0805 CHIP 27K 5%
R422		036-12220-00	RES M/F 0805 CHIP 22E 5%
R425		036-14100-00	RES M/F 0805 CHIP 1K 5%
R426		036-11470-00	RES M/F 0805 CHIP 4E7 5%
R427		036-11470-00	RES M/F 0805 CHIP 4E7 5%
R428		036-12220-00	RES M/F 0805 CHIP 22E 5%
R429		036-15270-00	RES M/F 0805 CHIP 27K 5%
R430		036-14680-00	RES M/F 0805 CHIP 6K8 5%
R431		036-16100-00	RES M/F 0805 CHIP 100K 5%
R432		036-12100-00	RES M/F 0805 CHIP 10E 5%
R433		036-13100-00	RES M/F 0805 CHIP 100E 5%
R434		036-12470-00	RES M/F 0805 CHIP 47E 5%
R437		036-14100-00	RES M/F 0805 CHIP 1K 5%
R440		036-16270-00	RES M/F 0805 CHIP 270K 5%
R441		036-15560-00	RES M/F 0805 CHIP 56K 5%
R442		036-13220-00	RES M/F 0805 CHIP 220E 5%
R443		036-13680-00	RES M/F 0805 CHIP 680E 5%
R444		036-15100-00	RES M/F 0805 CHIP 10K 5%
R445		036-14180-00	RES M/F 0805 CHIP 1K8 5%

Variants: 7XX 330-380MHz
9XX 360-400MHz

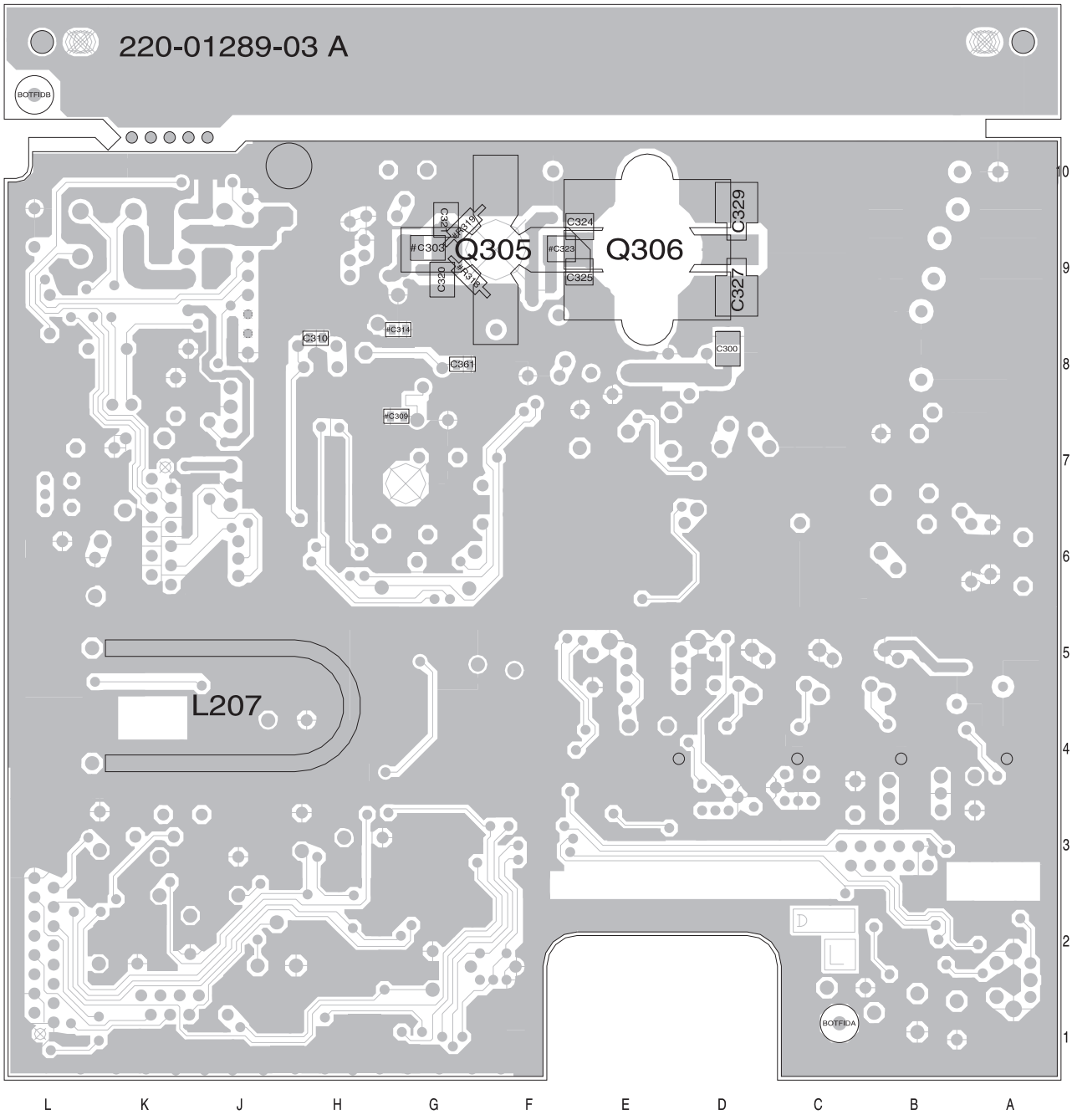
T2000-700/-900 Mechanical & Miscellaneous Parts

IPN	Description
005-10000-10	TEST POINT SMD 0805 2.0 X 1.25 X 1.45
062-00010-14	CAN 7.5MM SQ X 10.2MM TOKO MC-136 CANS TO BE PLACED OVER L107 L108
065-00010-11	BEAD FERRITE 4S3 3*1*4MM RED L1, L307, L309, L314, L316, L304, L304A
200-00010-05	WIRE T/C 0.5MM
205-00010-12	CABLE FLAT RBBN 16 CORE 16/7/0.1 GREY
220-01289-03	PCB T2000 330-380MHZ RF BRD
240-00020-51	PLUG 12 WAY 2*6 FLAT CABLE TERMN
240-00020-54	PLUG 16 WAY 2X8 FLAT CABLE TERMN MICROMATCH
240-02100-11	SKT COAX BNC 3.5MM PNL NO EARTH TAG
303-23135-02	COVER BTTM T2000 SII PNTD CMPLT
303-50077-00	CLIP A3M2525 T2000 AUDIO IC AND REG
308-13093-02	CHASSIS A1M2503 DIE CAST T2000 SERIES II
316-85094-00	PLATE A4M2160 BNC MTG UK 5X5 SERIES
319-01164-01	SHIELD A1M2507 DIE CAST T2000 MICROP
319-01167-00	SHIELD RX A3M2594 T2000
349-00020-30	SCREW TAPTITE M3X6MM PAN POZI BZ
349-00020-31	SCREW TAPTITE M3X10MM PAN POZI BZ
349-00020-32	SCREW TAPTITE M3X8MM PAN POZI BZ Q306 =2 BNC PLATE =2 CHASSIS =2
349-00020-34	SCREW M3*12 PAN POZI TAPTITE BZ
349-00020-48	SCREW M4X25MM PAN POZI TAPTITE II BRIGHT ZINC
349-00020-49	SCREW TAPTITE M4X35MM PAN POZI BZ TOP COVER
352-00010-35	NUT 8-32 UNC HEX RF PWR XSTR MTG NUT FOR Q305
356-00010-05	TAG SOLDER 4MM LONG M6144/4.2
360-01053-02	PLUG A3M2563 PLASTIC D-RANGE BLANKING
362-01027-01	GASKET A4M2564 RUBBER SEAL T2000 MAIN CONN
362-01028-00	GASKET A4M2652 130X3MM CONDUCT STRIPS T2000
362-01058-00	GASKET TO-126 11.1X7.9 D2.4 SIL INSULATION
365-01391-01	(L)LABEL BLNK 30*10.8MM TAMPERMARK VOID MATT S

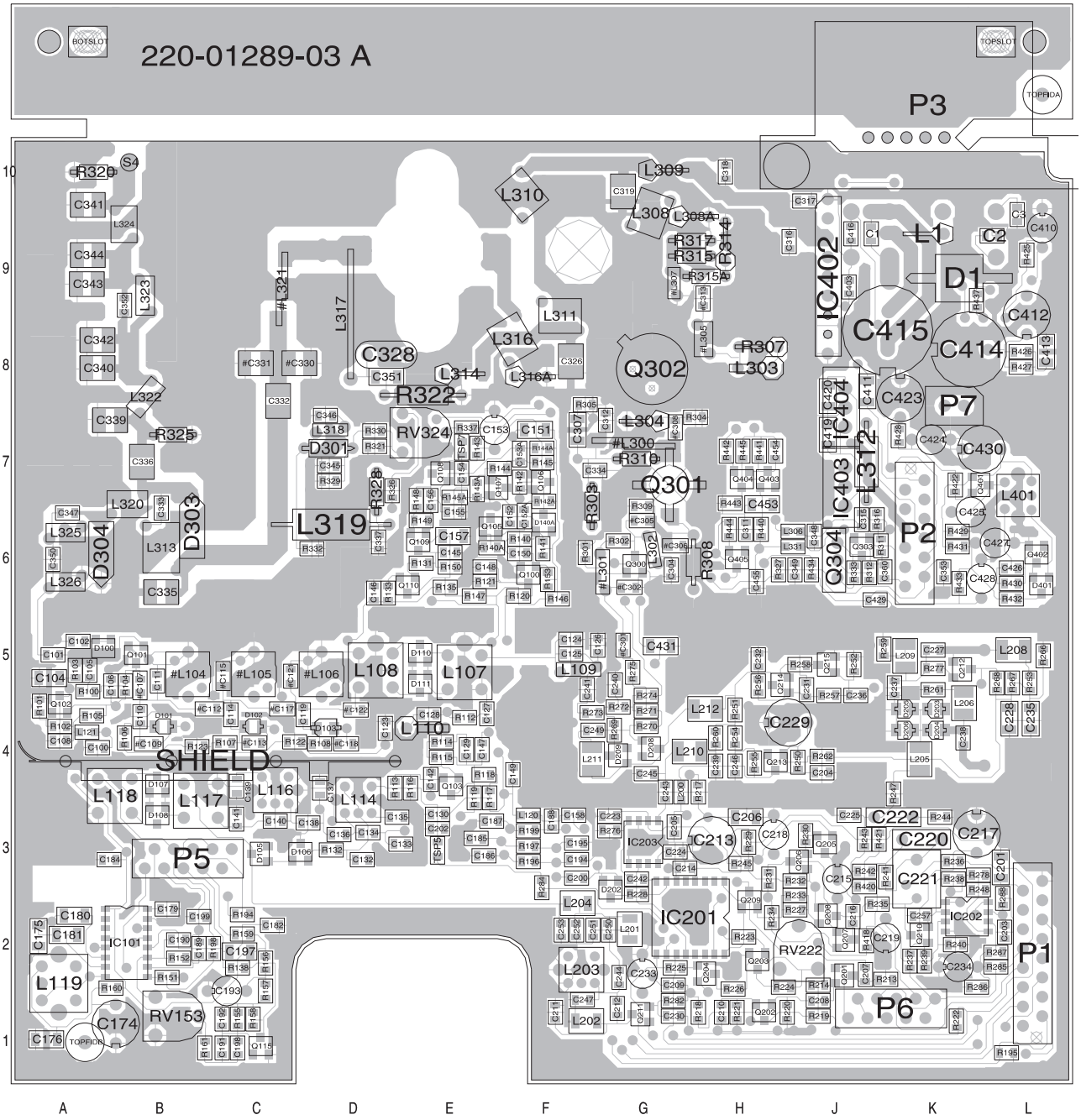
T2000-700/-900 Grid Reference Index (IPN 220-01289-03)

Device	PCB	Circuit
C1	1:J10	1-V9
C2	1:L10	1-U8
C3	1:L10	1-V8
C100	1:A5	1-U3
C101	1:A6	1-T3
C102	1:A6	1-S2
C104	1:A6	1-S3
C105	1:A6	1-S3
C106	1:B6	1-R3
#C107	1:B6	1-R3
C108	1:A5	1-T3
#C109	1:B5	1-Q3
C110	1:B5	1-Q3
C111	1:B6	1-P3
#C112	1:C5	1-P3
#C113	1:C5	1-P3
C114	1:C5	1-P3
#C115	1:C6	1-O3
#C117	1:C5	1-O3
#C118	1:D5	1-O3
C119	1:D5	1-N3
#C121	1:C6	1-N2
#C122	1:D5	1-M3
C123	1:D5	1-M3
C124	1:F6	1-H2
C125	1:F6	1-H2
C126	1:G6	1-H2
C127	1:E5	1-K5
C128	1:E5	1-L5
C129	1:E5	1-M5
C130	1:E4	1-M5
C132	1:D4	1-U6
C133	1:E4	1-O5
C134	1:D4	1-O6
C135	1:E4	1-P5
C136	1:D4	1-P6
C137	1:D5	1-P5
C138	1:D4	1-P6
C139	1:C5	1-Q5
C140	1:C4	1-Q6
C141	1:C4	1-Q5
C142	1:E5	1-L5
C145	1:E7	1-T4
C146	1:D7	1-U4
C147	1:E5	1-N5
C148	1:E7	1-O4
C149	1:F5	1-L4
C150	1:F7	1-O4
C151	1:F8	1-Q5
C152	1:F7	1-Q4
C152A	1:F7	1-P4
C153	1:F8	1-Q4
C153A	1:F8	1-R4
C154	1:E8	1-S4
C155	1:E7	1-S4
C156	1:E8	1-S4
C157	1:E7	1-T5
C158	1:F4	1-K4
C174	1:B2	1-J8
C175	1:A3	1-K8
C176	1:A2	1-K8
C179	1:B3	2-G5
C180	1:A3	1-L8
C181	1:A3	1-L7
C182	1:C3	1-N6
C184	1:B4	1-M8
C185	1:E4	1-I6
C186	1:E4	1-J7
C187	1:E4	1-N8
C188	1:F4	1-A6
C189	1:B3	1-K6
C190	1:B3	1-K7
C191	1:C2	1-M6
C192	1:C2	1-M7
C193	1:C2	1-N7
C194	1:F4	1-A7
C195	1:F4	1-A8
C197	1:C3	1-O7
C198	1:C2	1-M6
C199	1:B3	1-M7
C200	1:F4	1-B5
C201	1:L4	1-B4
C202	1:E4	1-J3
C203	1:L3	1-J4
C204	1:J5	1-C2
C205	1:G4	1-C2
C206	1:H4	2-L5
C207	1:J3	1-B6
C208	1:J2	1-B7
C209	1:G3	1-C7
C210	1:H2	1-D6
C211	1:F2	1-E6
C212	1:G2	1-F7
C213	1:H4	1-D4
C214	1:G4	1-C4
C215	1:J4	1-E4
C216	1:J3	1-E5
C217	1:L4	1-F4
C218	1:H4	1-F5
C219	1:K3	1-G4
C220	1:K4	1-G5
C221	1:K4	1-G5
C222	1:K4	1-H3
C223	1:G4	1-E3
C224	1:G4	1-E2
C225	1:J4	1-A0
C227	1:K6	1-C0
C228	1:L5	1-D1
C229	1:J5	1-D1
C230	1:G2	1-E7
C231	1:J6	1-E1
C232	1:H6	1-F1
C233	1:G3	1-C7
C234	1:K3	1-I3
C235	1:L5	1-C1
C236	1:J6	1-D0
C237	1:K6	1-C0
C238	1:K5	1-B0
C239	1:H5	1-F2
C240	1:G6	1-G1
C241	1:F6	1-G2
C242	1:G4	1-B3
C243	1:G5	1-E3
C244	1:G3	1-F7
C245	1:G5	1-F2
C246	1:H5	1-E2
C247	1:F2	1-F6
C249	1:G5	1-G0
C250	1:G3	1-G7
C251	1:G3	1-G6
C252	1:F3	1-G6
C253	1:F3	1-H6
C257	1:K3	1-F4
C300	2:D9	1-P1
#C301	1:G6	1-H0
#C302	1:G7	1-H0
#C303	2:G10	1-N0
C304	1:G7	1-H0
#C305	1:G7	1-I0
#C306	1:G7	1-I0
C307	1:F8	1-I1
#C308	1:G8	1-K0
#C309	2:G8	1-K0
C310	2:H9	1-M1
C311	1:H7	1-T2
C312	1:G8	1-K1
#C313	1:H10	1-M0
#C314	2:G9	1-L0
C315	1:J7	1-L1
C316	1:J10	1-P1
C317	1:J10	1-P1
C318	1:H10	1-M1
C319	1:G10	1-P1
C320	2:G10	1-O0
C321	2:G10	1-O0
#C323	2:F10	1-P0
C324	2:F10	1-P0
C325	2:F10	1-P0
C326	1:F9	1-P1
C327	2:D10	1-Q0
C328	1:D9	1-Q1
C329	2:D10	1-R0
#C330	1:C9	1-S0
#C331	1:C9	1-R0
C332	1:C9	1-R0
C333	1:B7	1-T1
C334	1:G8	1-J1
C335	1:B7	1-S0
C336	1:B8	1-T0
C337	1:D7	1-T1
C339	1:B8	1-U0
C340	1:A9	1-U0
C341	1:A10	1-V0
C342	1:A9	1-U0
C343	1:A10	1-V0
C344	1:A10	1-V0
C345	1:D8	1-R1
C346	1:D8	1-R1
C347	1:A7	1-T1
C348	1:J7	1-U2
C349	1:J7	1-V2
C350	1:A7	1-T1
C351	1:D9	1-P1
C352	1:B10	1-U0
C353	1:K7	1-V2
C360	1:K7	1-K1
C361	2:G9	1-L0
C403	1:J10	1-S8
C410	1:L10	1-S9
C411	1:J9	1-T8
C412	1:L9	1-T9
C413	1:L9	1-T8
C414	1:K9	1-U9
C415	1:K9	1-U9
C416	1:J10	1-U8
C419	1:J8	1-J8
C420	1:J9	1-K8
C423	1:K9	1-K9
C424	1:K8	1-L9
C425	1:K7	1-N8
C426	1:L7	1-O9
C427	1:L7	1-P8
C428	1:L7	1-Q8
C429	1:J7	1-P8
C430	1:L8	1-M9
C431	1:G6	1-R8
C453	1:H7	1-M1
C454	1:H8	1-N1
C455	1:H7	1-J2
D1	1:K10	1-V9
D100	1:A6	1-S2
D100	1:A6	1-S2
D101	1:B5	1-Q3
D102	1:C5	1-P3
D103	1:D5	1-N3
D105	1:C4	1-T6
D106	1:D4	1-T6
D107	1:B5	1-S5
D107	1:B5	1-S6
D108	1:B4	1-S5
D108	1:B4	1-S5
D110	1:E6	1-K3
D110	1:E6	1-K3
D111	1:E6	1-K3
D111	1:E6	1-K2
D140A	1:F7	1-P4
D202	1:G4	1-C5
D202	1:G4	1-C5
D203	1:K5	1-A0
D204	1:K5	1-B0
D205	1:K5	1-A0
D206	1:K5	1-B0
D208	1:G5	1-F0
D209	1:G5	1-F1
D301	1:D8	1-S1
D303	1:B7	1-S0
D304	1:A7	1-T0
D401	1:L7	1-P9
D401	1:L7	1-P9
IC101	1:B3	1-K6
IC101	1:B3	2-H5
IC101	1:B3	1-L7
IC101	1:B3	1-O7
IC201	1:H3	1-B4
IC202	1:K3	1-G4
IC202	1:K3	2-K5
IC202	1:K3	1-J4
IC203	1:G4	1-E2
IC402	1:J10	2-N5
IC402	1:J10	1-S8
IC403	1:J8	1-K9
IC404	1:J8	1-K8
L1	1:K10	1-U9
#L104	1:B6	1-Q2
#L105	1:C6	1-P2
#L106	1:D6	1-N2
L107	1:E6	1-J3
L108	1:D6	1-L3
L109	1:F6	1-H3
L110	1:E5	1-L5
L114	1:D4	1-P5
L116	1:C5	1-Q5
L117	1:B4	1-R5
L118	1:B4	1-T5
L119	1:A3	1-K8
L120	1:F4	1-L4
L121	1:A5	1-T3
L200	1:G5	1-C2
L201	1:G3	1-G7
L202	1:F2	1-E6
L203	1:F3	1-F6
L204	1:F3	1-H7
L205	1:K5	1-A0
L206	1:K5	1-B0
L207	2:K5	1-C0
L208	1:L6	1-C1
L209	1:K6	1-D0
L210	1:H5	1-F2
L211	1:G5	1-G0
L212	1:H5	1-F1
#L300	1:G8	1-J0
#L301	1:G7	1-H0
L302	1:G7	1-I0
L303	1:H9	1-L1
L304	1:G8	1-L0
#L305	1:H9	1-L0
L306	1:J7	1-L1
#L307	1:G10	1-M0
L308	1:G10	1-N0

Device	PCB	Circuit
L308A	1:H10	1-N0
L309	1:G10	1-O1
L310	1:F10	1-O1
L311	1:F9	1-O1
L312	1:J8	1-L2
L313	1:B7	1-S1
L314	1:E9	1-P1
L316	1:F9	1-Q0
L316A	1:F9	1-Q0
L317	1:D9	1-Q1
L318	1:D8	1-R1
L319	1:D7	1-S1
L320	1:B7	1-S0
#L321	1:C10	1-R0
L322	1:B9	1-U0
L323	1:B10	1-U0
L324	1:B10	1-V0
L325	1:A7	1-T1
L326	1:A7	1-T1
L331	1:J7	1-U2
L401	1:L8	1-N9
P1	1:L3	2-D5
P2	1:K7	2-D4
P3	1:K10	2-D4
P5	1:B4	2-H4
P6	1:K2	2-G2
P7	1:K9	2-D2
Q100	1:F7	1-O4
Q101	1:B6	1-R3
Q102	1:A5	1-S3
Q103	1:E5	1-M5
Q105	1:E7	1-P4
Q106	1:F8	1-P4
Q107	1:F8	1-R4
Q108	1:E8	1-S4
Q109	1:E7	1-T4
Q110	1:E7	1-U4
Q115	1:C2	1-N6
Q201	1:J3	1-B7
Q202	1:H2	1-D7
Q203	1:H3	1-C5
Q204	1:H3	1-C5
Q205	1:J4	1-D4
Q206	1:J4	1-D5
Q207	1:J3	1-E5
Q208	1:J3	1-E5
Q209	1:H3	1-E4
Q210	1:K3	1-F4
Q211	1:G2	1-E7
Q212	1:K6	1-D0
Q213	1:H5	1-D1
Q214	1:H6	1-F1
Q215	1:J6	1-F0
Q300	1:G7	1-I0
Q301	1:G8	1-J0
Q302	1:G9	1-L0
Q303	1:J7	1-K1
Q304	1:J7	1-L1
Q305	2:F10	1-O0
Q306	2:E10	1-Q0
Q401	1:L8	1-N9
Q402	1:L7	1-O9
Q403	1:H8	1-N1
Q404	1:H8	1-N1
Q405	1:H7	1-O1
R100	1:A6	1-R3
R101	1:A5	1-S3
R102	1:A5	1-S3
R103	1:A6	1-S3
R104	1:B6	1-R3
R105	1:A5	1-S3
R106	1:B5	1-Q3
R107	1:C5	1-P3
R108	1:D5	1-O3
R112	1:E5	1-K5
R113	1:D5	1-M5
R114	1:E5	1-L5
R115	1:E5	1-M5
R116	1:E5	1-M5
R117	1:E4	1-L6
R118	1:E5	1-M6
R119	1:E4	1-O6
R120	1:F7	1-N4
R121	1:E7	1-N4
R122	1:C5	1-P3
R123	1:B5	1-Q3
R131	1:E7	1-T4
R132	1:D4	1-U6
R133	1:D7	1-U4
R135	1:E7	1-U4
R138	1:C3	1-N6
R140	1:F7	1-O4
R140A	1:E7	1-O4
R141	1:F7	1-O4
R142	1:F8	1-R4
R142A	1:F8	1-P4
R143	1:E8	1-S4
R143A	1:E8	1-Q4
R144	1:F8	1-Q4
R144A	1:F8	1-R4
R145	1:F8	1-Q4
R145A	1:E8	1-R4
R146	1:F7	1-R5
R147	1:E7	1-S5
R148	1:E8	1-S5
R149	1:E7	1-T5
R150	1:E7	1-T4
R151	1:B3	1-K7
R152	1:B3	1-K6
R153	1:F7	1-O4
R155	1:C2	1-N7
R156	1:C3	1-N8
R157	1:C2	1-N7
R158	1:C2	1-N7
R159	1:C3	1-P8
R160	1:B2	1-L8
R161	1:C2	1-M6
R194	1:C3	1-O6
R195	1:L2	1-A7
R196	1:F4	1-J7
R197	1:F4	1-I7
R198	1:C3	1-M7
R199	1:F4	1-J9
R213	1:K3	1-B6
R214	1:J3	1-B7
R217	1:H5	2-K6
R218	1:H2	1-C7
R219	1:J2	1-D7
R220	1:J2	1-D6
R221	1:H2	1-D6
R222	1:K2	1-E7
R223	1:H3	1-B5
R224	1:J2	1-C6
R225	1:G3	1-B5
R226	1:H2	1-C5
R227	1:J3	1-E4
R228	1:G3	1-C5
R229	1:H4	1-D4
R230	1:J4	1-D4
R231	1:H4	1-D5
R232	1:J4	1-D5
R233	1:J3	1-E4
R234	1:H3	1-E5
R235	1:J3	1-F5
R236	1:K4	1-F5
R237	1:K3	1-F5
R238	1:K4	1-F4
R239	1:K3	1-F4
R240	1:K3	1-G4
R241	1:K4	1-G5
R242	1:J4	1-H4
R243	1:J4	1-H3
R244	1:K4	1-I3
R245	1:H4	1-D3
R247	1:K4	1-A0
R248	1:L4	1-H4
R250	1:J5	1-D2
R251	1:H5	1-F1
R252	1:J6	1-D0
R253	1:L6	1-C1
R254	1:H5	1-E2
R255	1:H5	1-E2
R256	1:H6	1-E1
R257	1:J6	1-E0
R258	1:J6	1-F0
R259	1:K6	1-D0
R260	1:H5	1-F2
R261	1:K6	1-B0
R262	1:J5	1-D1
R266	1:L6	1-C1
R267	1:L6	1-D1
R268	1:L6	1-D1
R269	1:G5	1-G1
R270	1:G5	1-G0
R271	1:G5	1-G0
R272	1:G5	1-G1
R273	1:G5	1-G2
R274	1:G6	1-H1
R275	1:G6	1-G0
R276	1:G4	1-B2
R277	1:K6	1-D0
R278	1:L4	1-I4
R282	1:G2	1-E7
R284	1:F4	1-J3
R285	1:L3	1-I4
R286	1:L2	1-I3
R287	1:L3	1-J4
R288	1:L3	1-J4
R301	1:F7	1-I0
R302	1:G7	1-I0
R303	1:G7	1-I1
R304	1:H8	1-K0
R305	1:F9	1-I1
R307	1:H9	1-L1
R308	1:H7	1-J0
R309	1:G7	1-J0
R310	1:G8	1-K0
R311	1:K7	1-K1
R312	1:J7	1-L1
R314	1:H10	1-M0
R315	1:H10	1-M0
R315A	1:H10	1-M0
R316	1:J7	1-K1
R317	1:H10	1-M0
#R318	2:G10	1-N0
#R319	2:G10	1-N0
R320	1:A10	1-W0
R321	1:D8	1-R1
R322	1:E9	1-P1
R325	1:B8	1-T0
R326	1:D8	1-R2
R327	1:H7	1-S2
R328	1:D8	1-S2
R329	1:D8	1-R1
R330	1:D8	1-S1
R332	1:D7	1-S1
R333	1:J7	1-L2
R337	1:E8	1-S2
R418	1:J3	1-G6
R420	1:J4	1-H4
R421	1:J4	1-I3
R422	1:K8	1-L9
R425	1:L10	1-S9
R426	1:L9	1-T8
R427	1:L9	1-T8
R428	1:K8	1-L9
R429	1:K7	1-M8
R430	1:L7	1-O9
R431	1:K7	1-O8
R432	1:L7	1-P9
R433	1:K7	1-P9
R434	1:J7	1-Q9
R437	1:L10	1-V6
R440	1:H7	1-M1
R441	1:H8	1-N1
R442	1:H8	1-N1
R443	1:H8	1-N1
R444	1:H7	1-O1
R445	1:H8	1-O1
RV153	1:B2	1-L6
RV222	1:J3	1-C6
RV324	1:E8	1-R2
S4	1:B10	1-W0
SHIELD	1:C5	2-K4
TOPSLOT	1:L10	2-K3
TSP5	1:E4	1-M4
TSP7	1:E8	1-S4



T2000-700/-900 RF PCB (IPN 220-01289-03) - Bottom Side



T2000-700/-900 RF PCB (IPN 220-01289-03) - Top Side

7.7 T2000-800 RF PCB

T2000-800 Parts List (IPN 220-01305-03)

Parts List Amendments

R258: Changed from 10Ω to 0Ω (IPN 036-10000-00) to improve power output (6/05/97)
Mechanical parts corrections: Delete IPN 362-00010-08 (insulating gasket)
Add IPN 240-02100-11 (BNC socket)
Add IPN 353-00020-12 (0.9mm flat washer)

Ref	Var	IPN	Description
C1		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C2		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C3		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C100		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C104		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C106		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C107		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C108		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C109		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C110		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C124		015-21330-01	CAP CER 0805 CHIP 3P3 +/-0.25P NPO 50V
C125		015-21180-01	CAP CER 0805 CHIP 1P8 +/-0.25 NPO 50V
C126		015-21330-01	CAP CER 0805 CHIP 3P3 +/-0.25P NPO 50V
C127		015-21680-01	CAP CER 0805 CHIP 6P8 +/-0.25P NPO 50V
C128		015-22220-01	CAP CER 0805 CHIP 22P 5% NPO 50V
C129		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C130		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C133		015-22390-01	CAP CER 0805 CHIP 39P 5% NPO 50V
C134		015-21560-01	CAP CER 0805 CHIP 5P6 +/-0.25P NPO 50V
C135		015-22150-01	CAP CER 0805 CHIP 15P 5% NPO 50V
C136		015-21680-01	CAP CER 0805 CHIP 6P8 +/-0.25P NPO 50V
C137		015-23120-01	CAP CER 0805 CHIP 120P 5% NPO 50V
C138		015-21680-01	CAP CER 0805 CHIP 6P8 +/-0.25P NPO 50V
C139		015-22150-01	CAP CER 0805 CHIP 15P 5% NPO 50V
C140		015-21560-01	CAP CER 0805 CHIP 5P6 +/-0.25P NPO 50V
C141		015-22390-01	CAP CER 0805 CHIP 39P 5% NPO 50V
C142		015-21560-01	CAP CER 0805 CHIP 5P6 +/-0.25P NPO 50V
C149		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C158		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C174		020-58470-05	CAP ELECT AI RDL 47M 16V 6.3X7MM
C175		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C176		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C179		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C180		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C181		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C182		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C184		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C185		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C186		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C187		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C188		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C189		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C190		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C191		015-23560-08	CAP CER 0805 CHIP 560P 10% X7R 50V
C192		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C193		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C194		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C195		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C197		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C198		015-21100-01	CAP CER 0805 CHIP 1PO +/-0.25P NPO 50V
C199		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C200		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C201		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C202		015-22220-01	CAP CER 0805 CHIP 22P 5% NPO 50V
C203		015-25220-08	CAP CER 0805 CHIP 22N 10% X7R 50V
C204		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C205		015-25220-08	CAP CER 0805 CHIP 22N 10% X7R 50V
C206		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C207		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C208		015-23100-01	CAP CER 0805 CHIP 100P 5% NPO 50V
C209		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C210		015-23100-01	CAP CER 0805 CHIP 100P 5% NPO 50V
C211		015-22560-01	CAP CER 0805 CHIP 56P 5% NPO 50V
CV212		028-02200-01	CAP TRIM 4/20P N750 TOP ADJ RED MUR TZ
C213		020-58470-05	CAP ELECT AI RDL 47M 16V 6.3X7MM
C214		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C215		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C216		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C217		020-58470-05	CAP ELECT AI RDL 47M 16V 6.3X7MM
C218		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C219		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C220		022-55100-10	CAP MYLAR AI 10N 5% 63V POTTED
C221		022-57100-02	CAP MYLAR AI 1M 20% 50V POTTED
C222		022-06100-15	CAP MET POLYSTR 100N 5% 50V 5.6MM HI
C223		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C224		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C225		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C226		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C227		015-21560-01	CAP CER 0805 CHIP 5P6 +/-0.25P NPO 50V
C229		020-58470-05	CAP ELECT AI RDL 47M 16V 6.3X7MM
C230		015-22220-01	CAP CER 0805 CHIP 22P 5% NPO 50V
C231		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C232		015-21120-01	CAP CER 0805 CHIP 1P2 +/-0.25 NPO 50V
C233		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C235		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C236		015-21330-01	CAP CER 0805 CHIP 3P3 +/-0.25P NPO 50V
C237		015-21330-01	CAP CER 0805 CHIP 3P3 +/-0.25P NPO 50V
C238		015-21390-01	CAP CER 0805 CHIP 3P9 +/-0.25P NPO 50V
C240		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C241		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C242		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C243		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C244		015-22560-01	CAP CER 0805 CHIP 56P 5% NPO 50V
C245		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C246		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C247		015-21270-01	CAP CER 0805 CHIP 2P7 +/-0.25P NPO 50V
C248		020-09100-07	CAP ELECT 100M 10V 6.3X7MM 5MM
C249		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C250		015-22220-01	CAP CER 0805 CHIP 22P 5% NPO 50V
C251		015-23120-01	CAP CER 0805 CHIP 120P 5% NPO 50V
C252		015-22180-01	CAP CER 0805 CHIP 18P 5% NPO 50V
C253		015-22120-01	CAP CER 0805 CHIP 12P 5% NPO 50V
C254		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C255		015-21270-01	CAP CER 0805 CHIP 2P7 +/-0.25P NPO 50V
C256		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C301		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C303		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C304		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C305		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C306		015-21390-01	CAP CER 0805 CHIP 3P9 +/-0.25P NPO 50V
C307		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C308		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C309		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C310		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C311		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C312		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C313		015-21470-01	CAP CER 0805 CHIP 4P7 +/-0.25P NPO 50V
C314		015-21470-01	CAP CER 0805 CHIP 4P7 +/-0.25P NPO 50V
C315		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C316		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C317		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C318		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C319		015-21330-01	CAP CER 0805 CHIP 3P3 +/-0.25P NPO 50V
C320		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C321		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C322		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C324		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C325		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V

Ref	Var	IPN	Description
C326		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C328		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C329		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C330		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C331		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C332		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C333		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C334		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C335		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C336		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C337		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C338		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C339		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C340		015-02330-06	CAP CER 1210 CHIP 33P NPO 500V GRM42-2
C341		015-01270-06	CAP CER 1210 CHIP 2P7 NPO 200V GRM42-2
C342		015-21100-01	CAP CER 0805 CHIP 1PO +/-0.25P NPO 50V
C343		015-01330-06	CAP CER 1210 CHIP 3P3 NPO 500V GRM42-2
C344		015-01330-06	CAP CER 1210 CHIP 3P3 NPO 500V GRM42-2
C345		015-21100-01	CAP CER 0805 CHIP 1PO +/-0.25P NPO 50V
C346		015-01270-06	CAP CER 1210 CHIP 2P7 NPO 200V GRM42-2
C347		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C348		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C349		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C350		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C351		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C352		015-02330-06	CAP CER 1210 CHIP 33P NPO 500V GRM42-2
C353		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C354		022-06330-03	CAP METAL POLYES 330N 10% 50V 5MM L/S
C355		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C356		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C357		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C358		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C359		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C360		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C361		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C362		020-57100-55	CAP ELECT AI RDL 1UF 50V 4X7MM
C363		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C364		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C365		020-57100-55	CAP ELECT AI RDL 1UF 50V 4X7MM
C366		015-22330-01	CAP CER 0805 CHIP 33P 5% NPO 50V
C367		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C403		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C410		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C411		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C412		020-58470-05	CAP ELECT AI RDL 47M 16V 6.3X7MM
C413		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C414		020-09470-05	CAP ELECT RADL 470M 16V 10X12.5MM
C415		020-19100-02	CAP ELECT RADL 1000M 16V 12X20MM
C416		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C419		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C420		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C423		020-08560-09	CAP ELECT RADL 56M 50V 6.3X15.5MM L/S
C424		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C425		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C426		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C427		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C428		020-57470-10	CAP ELECT AI RDL 4U7 50V LO ESR
C429		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C430		020-08560-09	CAP ELECT RADL 56M 50V 6.3X15.5MM L/S
C431		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
D1		001-00012-90	(S) DIODE MR2520L OVERVOLT SUPPRESSOR
D100		001-10000-99	(S) DIODE SMD BAV99 DUAL SWTCH SNGLE INL
D107		001-10000-17	(S) DIODE SMD DUAL BAT-17 SCHOTTKY SML S
D108		001-10000-17	(S) DIODE SMD DUAL BAT-17 SCHOTTKY SML S
D110		001-10014-00	(LS) DIODE SMD BAT14-099R QUAD CRSSD SCH
D202		001-10000-70	(S) DIODE SMD BAV70 DUAL SWITCH SOT-23 C
D203		001-10005-35	(S) DIODE SMD VARICAP BB535 SOD323
D204		001-10005-35	(S) DIODE SMD VARICAP BB535 SOD323
D205		001-10005-35	(S) DIODE SMD VARICAP BB535 SOD323
D206		001-10005-35	(S) DIODE SMD VARICAP BB535 SOD323
D208		001-10014-01	(LS) DIODE SMD BAR14-1 DUAL SI PIN SOT-2
D301		001-00013-45	(S) DIODE SCHOTTKY 1SS97/2
D302		001-00012-50	(S) DIODE PIN UM9401 UHF PWR SWITCH
D303		001-00012-50	(S) DIODE PIN UM9401 UHF PWR SWITCH
D304		001-00010-26	(S) DIODE BA482 RF SWITCH
D401		001-10000-70	(S) DIODE SMD BAV70 DUAL SWITCH SOT-23 C
IC101		002-10033-71	(S) IC SMD MC3371D-R2 FM IF DETECT RSSI
IC201		002-10451-58	(S) IC SMD MC145158DW2 FREQ SYNTH SOIC
IC202		002-10330-78	(S) IC MC33078D-R2 DUAL AMP LO NOISE SO
IC203		002-10120-22	(S) IC SMD MC12022AD-R2 PRESC 8-P
IC402		002-00013-70	(S) IC TDA1020 AF PWR AMP 9PIN SIL
IC403		002-00078-08	(S) IC MC7808ACT 8V REG(LINEAR)1AMP TO-
IC404		002-00078-05	(S) IC MC7805ACT 5V REG(LINEAR)1AMP TO-
IC405		004-00070-73	(L) MODULE RF PWR MHW820-1 806-870MHZ 2

Ref	Var	IPN	Description
L1		030-50000-00	LINK WIRE AI ZERO OHM 0.6MM WIRE
L107		050-10061-70	BALUN MIXER SMD 617DB-1018
L108		050-10061-70	BALUN MIXER SMD 617DB-1018
L110		056-00021-60	IND FXD 330NH 6.6X2.7MM AXIAL NON MAGNET
L114		050-00016-62	COIL IF 1UH AT 30MHZ 6MMSQX6.2MMH CAN 29
L116		050-00016-62	COIL IF 1UH AT 30MHZ 6MMSQX6.2MMH CAN 29
L117		050-00016-65	COIL BALUN 7.2MM2 5X0.5PINS 5T/4 456DB-1
L118		050-00016-65	COIL BALUN 7.2MM2 5X0.5PINS 5T/4 456DB-1
L119		050-00016-55	COIL TAIT NO 655 455KHZ QUAD COIL 7MM CA
L120		057-10005-03	IND 0805 BLM21B05 EMI SUPRSN 5 OHM AT 10
L121		057-10120-03	IND 0805 BLM21A121 EMI SUPRSN 120 OHM @
L200		057-10005-03	IND 0805 BLM21B05 EMI SUPRSN 5 OHM AT 10
L201		057-00100-00	IND FXD SMD 100NH 10% 2.5X3.5MM MUR LQN2
L202		056-10820-00	IND FXD SMD 820NH 3.2*2.5*1.6 SIEMENS SM
L204		050-00016-62	COIL IF 1UH AT 30MHZ 6MMSQX6.2MMH CAN 29
L205		056-10330-00	IND FXD SMD 330NH 3.2*2.5*1.6 SIEMENS SM
L206		056-10330-00	IND FXD SMD 330NH 3.2*2.5*1.6 SIEMENS SM
L207		051-00616-00	COAX RES 28MM (STRIPPED) X 2.18MM T2000
L208		056-10330-00	IND FXD SMD 330NH 3.2*2.5*1.6 SIEMENS SM
L209		056-10330-00	IND FXD SMD 330NH 3.2*2.5*1.6 SIEMENS SM
L211		056-10100-00	IND FXD SMD 100NH 3.2*2.5*1.6 SIEMENS SM
L213		056-10100-00	IND FXD SMD 100NH 3.2*2.5*1.6 SIEMENS SM
L214		056-10330-00	IND FXD SMD 330NH 3.2*2.5*1.6 SIEMENS SM
L300		056-10330-00	IND FXD SMD 330NH 3.2*2.5*1.6 SIEMENS SM
L302		056-10330-00	IND FXD SMD 330NH 3.2*2.5*1.6 SIEMENS SM
L304		057-10005-03	IND 0805 BLM21B05 EMI SUPRSN 5 OHM AT 10
L306		057-10005-03	IND 0805 BLM21B05 EMI SUPRSN 5 OHM AT 10
L308		052-56130-85	COIL A/W 8.5T/3.0MM HOR 0.56MM WIRE
L309		057-00015-00	IND FXD 15NH +-5% 1206 CHIP MUR LQN1A15N
L311		052-56130-85	COIL A/W 8.5T/3.0MM HOR 0.56MM WIRE
L312		056-00021-60	IND FXD 330NH 6.6X2.7MM AXIAL NON MAGNET
L313		052-08330-10	COIL A/W 1T/3.0MM SMD 0.8MM WIRE
L315		052-08130-25	COIL A/W 2.5T/3.0MM HOR 0.8MM WIRE
L316		052-56130-85	COIL A/W 8.5T/3.0MM HOR 0.56MM WIRE
L317		052-56130-85	COIL A/W 8.5T/3.0MM HOR 0.56MM WIRE
L318		052-56130-85	COIL A/W 8.5T/3.0MM HOR 0.56MM WIRE
L319		052-56130-85	COIL A/W 8.5T/3.0MM HOR 0.56MM WIRE
L320		052-08130-35	COIL A/W 3.5T/3.0MM HOR 0.8MM WIRE
L321		052-56130-85	COIL A/W 8.5T/3.0MM HOR 0.56MM WIRE
L322		052-08340-10	COIL A/W 1T/4.0MM SMD 0.8MM WIRE
L323		052-08345-10	COIL A/W 1T/4.5MM SMD 0.8MM WIRE
L324		052-08335-10	COIL A/W 1T/3.5MM SMD 0.8MM WIRE
L325		030-50000-00	LINK WIRE AI ZERO OHM 0.6MM WIRE
L326		030-50000-00	LINK WIRE AI ZERO OHM 0.6MM WIRE
L327		057-10005-03	IND 0805 BLM21B05 EMI SUPRSN 5 OHM AT 10
L331		057-10005-03	IND 0805 BLM21B05 EMI SUPRSN 5 OHM AT 10
L401		050-00016-50	COIL TAIT NO 650 455KHZ 5.6MM CAN
P1		240-00026-24	CONN PADLE BRD 16 WAY MICRO MATCH 1-2155
P2		240-00026-26	CONN PADLE BRD 12 WAY MICRO MATCH 1-2155
P3		240-00026-21	PLUG CAP HOUSING 7-POS CONN 172039-1
P5		240-00010-76	PLUG HEADER 10WAY MICROMATCH PCB MTD 1-
P6		240-00010-76	PLUG HEADER 10WAY MICROMATCH PCB MTD 1-
P7		240-00020-72	HEADER 2 WAY PCB MTG ULTREX
Q101		000-10052-00	(LS) XSTR SMD BFG520/X 9GHZ RF SML SIG N
Q102		000-10008-57	(S) XSTR SMD BCW70 PNP SOT23 AF SML SIG
Q103		000-10095-10	(S) XSTR SMD MMBR951 NPN UHF SOT-23
Q115		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q200		000-10003-10	(S) XSTR SMD MMBFJ310 JFET SOT-23 UHF
Q201		000-10008-57	(S) XSTR SMD BCW70 PNP SOT23 AF SML SIG
Q202		000-10003-10	(S) XSTR SMD MMBFJ310 JFET SOT-23 UHF
Q203		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q204		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q205		000-10008-57	(S) XSTR SMD BCW70 PNP SOT23 AF SML SIG
Q206		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q207		000-10008-57	(S) XSTR SMD BCW70 PNP SOT23 AF SML SIG
Q208		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q209		000-10008-57	(S) XSTR SMD BCW70 PNP SOT23 AF SML SIG
Q210		000-10003-12	(S) XSTR SMD BFR31 N JFET SOT-23
Q211		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q212		000-10009-41	(S) XSTR SMD MMBR941L RF LOW NOISE SOT23
Q213		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q214		000-10009-41	(S) XSTR SMD MMBR941L RF LOW NOISE SOT23
Q215		000-10057-10	(S) XSTR SMD MMBR571 NPN SOT-23 UHF LO P
Q300		000-10095-10	(S) XSTR SMD MMBR951 NPN UHF SOT-23
Q301		000-10095-10	(S) XSTR SMD MMBR951 NPN UHF SOT-23
Q302		000-00032-47	(S) XSTR MRF559 NPN XPACK UHF PWR 0.5W
Q303		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q304		000-00012-15	(S) XSTR BD234 PNP AF PWR TO126
Q305		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q306		000-10008-07	(S) XSTR SMD BC807 PNP SOT-23 AF LO PWR
Q307		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q308		000-10008-07	(S) XSTR SMD BC807 PNP SOT-23 AF LO PWR
Q309		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q401		000-10008-57	(S) XSTR SMD BCW70 PNP SOT23 AF SML SIG

7.9 T2000 TCXO/Tx Audio PCB

T2000 TCXO/Tx Audio Parts List (IPN 220-01389-00)

Ref	Var	IPN	Description
C901		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C902		018-11470-00	CAP 0603 CHIP 4P7 50V NPO +-0.25P
C903		020-09100-07	CAP ELECT 100M 10V 6.3X7MM 5MM
C904		015-25470-08	CAP CER 0805 CHIP 47N 10% X7R 50V
C905		015-24470-08	CAP CER 0805 CHIP 4N7 10% X7R 50V
#C906	X1X	018-11150-00	CAP 0603 CHIP 1P5 50V NPO +-0.25P
#C906	X2X	018-11470-00	CAP 0603 CHIP 4P7 50V NPO +-0.25P
#C906	X3X	018-11150-00	CAP 0603 CHIP 1P5 50V NPO +-0.25P
C907		018-12470-00	CAP 0603 CHIP 47P 50V NPO +-5%
C908		014-07470-00	CAP TANT CHIP 4U7 'B' CASE 16V +-10% 26
C913		014-07470-00	CAP TANT CHIP 4U7 'B' CASE 16V +-10% 26
C914		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C915		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C916		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C917		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C918		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
&C919	XX1	015-23120-01	CAP CER 0805 CHIP 120P 5% NPO 50V
&C920	XX1	015-23120-01	CAP CER 0805 CHIP 120P 5% NPO 50V
&C921	XX1	018-12180-00	CAP 0603 CHIP 18P 50V NPO +-5%
&C922	XX1	018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C924		015-24470-08	CAP CER 0805 CHIP 4N7 10% X7R 50V
&D901	XX1	001-10004-00	(S) DIODE SMD VARICAP BBY40 SOT23
IC901		002-10340-02	(S) IC SMD MC34002D LIN.OP-AM
&IC902	XX3	539-00010-46	VCTCXO 12.8MHZ +-3.0PPM -30 TO +75
&IC902	XX5	539-00010-48	VCTCXO 12.8MHZ +-2.5PPM -30 TO +75
IC903		002-10078-05	(S) IC SMD 78L05 5V REG
&Q901	XX1	000-10008-92	(S) XSTR SMD BFS17 NPN SO
#R835A	X1X	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R835A	X3X	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R835C	X2X	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
R900		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R901		036-15220-00	RES M/F 0805 CHIP 22K 5%
R902		038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
#R903	X1X	038-12100-00	RES 0603 CHIP 10E 1/16W +-5%
#R903	X2X	038-12100-00	RES 0603 CHIP 10E 1/16W +-5%
#R903	X3X	038-12100-00	RES 0603 CHIP 10E 1/16W +-5%
#R904	X1X	038-12100-00	RES 0603 CHIP 10E 1/16W +-5%
#R904	X2X	038-12100-00	RES 0603 CHIP 10E 1/16W +-5%
#R904	X3X	038-12100-00	RES 0603 CHIP 10E 1/16W +-5%
RV906		042-04200-02	RES PRESET 2K CARBON VERT SIDE ADJ
RV907		042-04200-02	RES PRESET 2K CARBON VERT SIDE ADJ
R908		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
#R909	X1X	038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
#R909	X2X	038-15560-00	RES 0603 CHIP 56K 1/16W +-5%
#R909	X3X	038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
#R910	X1X	038-15150-00	RES 0603 CHIP 15K 1/16W +-5%
#R910	X2X	038-15180-00	RES 0603 CHIP 18K 1/16W +-5%
#R910	X3X	038-15150-00	RES 0603 CHIP 15K 1/16W +-5%
#R911	X1X	038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
#R911	X2X	038-15560-00	RES 0603 CHIP 56K 1/16W +-5%
#R911	X3X	038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R912		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R913		036-12330-00	RES M/F 0805 CHIP 33E 5%
R914		038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
&R915	XX1	038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
&R916	XX1	038-14150-00	RES 0603 CHIP 1K5 1/16W +-5%
&R917	XX1	036-12820-00	RES M/F 0805 CHIP 82E 5%
&R918	XX1	036-15330-00	RES M/F 0805 CHIP 33K 5%
&R919	XX1	036-15220-00	RES M/F 0805 CHIP 22K 5%
&R920	XX1	038-14820-00	RES 0603 CHIP 8K2 1/16W +-5%
&R921	XX1	045-15100-00	RES NTC SMD 10K 5%
&R922	XX1	038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
&R923	XX3	038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
&R923	XX5	038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
&R924	XX3	038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
&R924	XX5	038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
&R925	XX1	038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
&R926	XX1	036-16330-00	RES M/F 0805 CHIP 330K 5%
&RV927	XX1	044-06100-04	RES PRESET 100K CERMET 20T SIDE AD
&R928	XX1	038-15820-00	RES 0603 CHIP 82K 1/16W +-5%
&R928	XX3	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
&R928	XX5	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
&R929	XX1	038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
&R930	XX1	038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
R931		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R932		038-12470-00	RES 0603 CHIP 47E 1/16W +-5%
R957		036-14390-00	RES M/F 0805 CHIP 3K9 5%
S6		240-02010-76	SKT 10WAY MICROMATCH SIDE ENTRY PCB 1-21
TSP901		005-10000-10	TEST POINT SMD 0805 2.0 X 1.25 X 1.45
&X901	XX1	274-01058-00	XTAL 12.8MHZ TE/45 +-5PPM UM-1 3 LE
		220-01389-00	PCB T2000 SII TCXO

Variants:

	X1X	wide band (15kHz IF bandwidth)
	X2X	narrow/dual band (7.5kHz IF bandwidth)
	X3X	medium band (12kHz IF bandwidth)
	XX1	±5ppm, -10 to +60°C frequency stability
	XX3	±3ppm, -30 to +60°C frequency stability
	XX5	±2.5ppm, -30 to +60°C frequency stability

7.9 T2000 TCXO/Tx Audio PCB

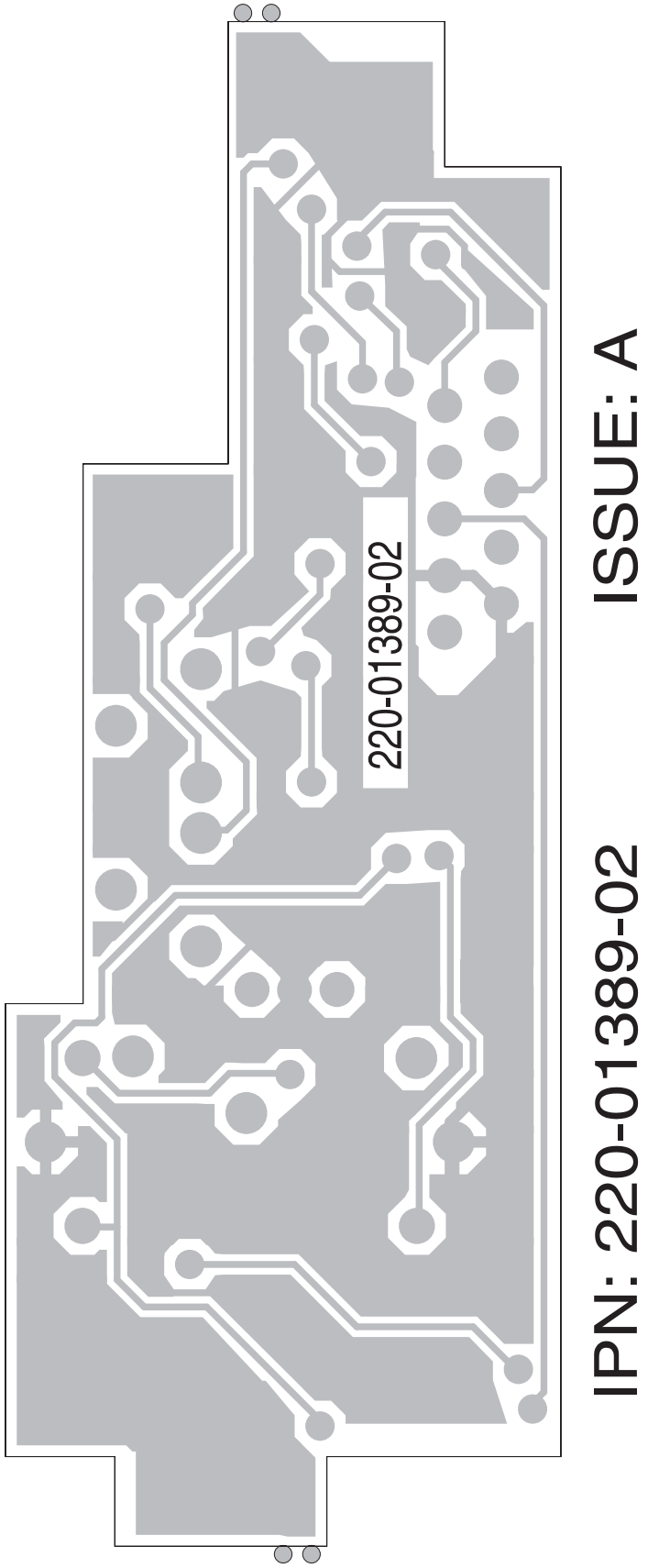
T2000 TCXO/Tx Audio Parts List IPN 220-01389-02)

Ref	Var	IPN	Description
C901		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C902		018-11470-10	CAP 0603 CHIP 4P7 50V NPO +-0.1P
C903		016-09100-01	(L) CAP ELECT SMD 100U 6.3V 6.6*6.6MM
C904		015-25470-08	CAP CER 0805 CHIP 47N 10% X7R 50V
C905		015-24470-08	CAP CER 0805 CHIP 4N7 10% X7R 50V
#C906	X1X	018-11150-10	CAP 0603 CHIP 1P5 50V NPO +-0.1P
#C906	X2X	018-11470-10	CAP 0603 CHIP 4P7 50V NPO +-0.1P
#C906	X3X	018-11150-10	CAP 0603 CHIP 1P5 50V NPO +-0.1P
C907		018-12470-10	CAP 0603 CHIP 47P 50V NPO +-1%
C908		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 26
C913		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 26
C914		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C915		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C916		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C917		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C918		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
&C919	XX1	015-23120-01	CAP CER 0805 CHIP 120P 5% NPO 50V
&C920	XX1	015-23120-01	CAP CER 0805 CHIP 120P 5% NPO 50V
&C921	XX1	018-12180-10	CAP 0603 CHIP 18P 50V NPO +-1%
&C922	XX1	018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C924		015-24470-08	CAP CER 0805 CHIP 4N7 10% X7R 50V
&D901	XX1	001-10004-00	(S) DIODE SMD VARICAP BBY40 SOT23
IC901		002-10340-02	(S) IC SMD MC34002D LIN.OP-AMP DUAL SO
&IC902	XX3	539-00010-46	VCTCXO 12.8MHZ +-3.0PPM -30 TO +75
&IC902	XX5	539-00010-48	VCTCXO 12.8MHZ +-2.5PPM -30 TO +75
IC903		002-10078-05	(S) IC SMD 78L05 5V REG
&Q901	XX1	000-10008-92	(S) XSTR SMD BFS17 NPN SOT-23 UHF S
#R835A	X1X	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R835A	X3X	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R835B	X1X	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R835B	X3X	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R835C	X2X	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
R900		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R901		036-15220-00	RES M/F 0805 CHIP 22K 5%
R902		038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
#R903	X1X	038-12100-00	RES 0603 CHIP 10E 1/16W +-5%
#R903	X2X	038-12100-00	RES 0603 CHIP 10E 1/16W +-5%
#R903	X3X	038-12100-00	RES 0603 CHIP 10E 1/16W +-5%
#R904	X1X	038-12100-00	RES 0603 CHIP 10E 1/16W +-5%
#R904	X2X	038-12100-00	RES 0603 CHIP 10E 1/16W +-5%
#R904	X3X	038-12100-00	RES 0603 CHIP 10E 1/16W +-5%
RV906		042-04200-02	RES PRESET 2K CARBON VERT SIDE ADJ
RV907		042-04200-02	RES PRESET 2K CARBON VERT SIDE ADJ
R908		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
#R909	X1X	038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
#R909	X2X	038-15560-00	RES 0603 CHIP 56K 1/16W +-5%
#R909	X3X	038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
#R910	X1X	038-15150-00	RES 0603 CHIP 15K 1/16W +-5%
#R910	X2X	038-15180-00	RES 0603 CHIP 18K 1/16W +-5%
#R910	X3X	038-15150-00	RES 0603 CHIP 15K 1/16W +-5%
#R911	X1X	038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
#R911	X2X	038-15560-00	RES 0603 CHIP 56K 1/16W +-5%
#R911	X3X	038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R912		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R913		036-12330-00	RES M/F 0805 CHIP 33E 5%
R914		038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
&R915	XX1	038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
&R916	XX1	038-14150-00	RES 0603 CHIP 1K5 1/16W +-5%
&R917	XX1	036-12820-00	RES M/F 0805 CHIP 82E 5%
&R918	XX1	036-15330-00	RES M/F 0805 CHIP 33K 5%
&R919	XX1	036-15220-00	RES M/F 0805 CHIP 22K 5%
&R920	XX1	038-14820-00	RES 0603 CHIP 8K2 1/16W +-5%
&R921	XX1	045-15100-00	RES NTC SMD 10K 5%
&R922	XX1	038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
&R923	XX3	038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
&R923	XX5	038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
&R924	XX3	038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
&R924	XX5	038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
&R925	XX1	038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
&R926	XX1	036-16330-00	RES M/F 0805 CHIP 330K 5%
&RV927	XX1	044-06100-04	RES PRESET 100K CERMET 20T SIDE AD

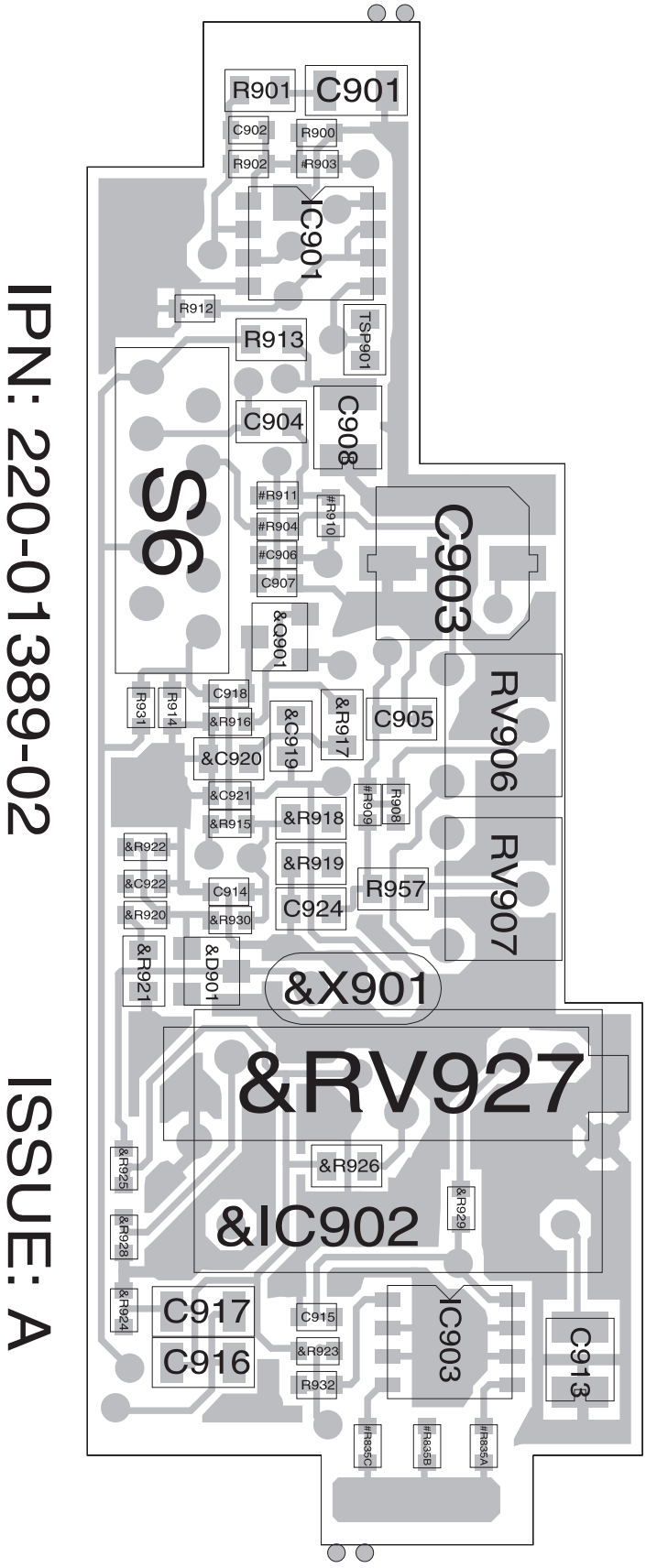
Ref	Var	IPN	Description
&R928	XX1	038-15820-00	RES 0603 CHIP 82K 1/16W +-5%
&R928	XX3	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
&R928	XX5	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
&R929	XX1	038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
&R930	XX1	038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
R931		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R932		038-12470-00	RES 0603 CHIP 47E 1/16W +-5%
R957		036-14390-00	RES M/F 0805 CHIP 3K9 5%
S6		240-02010-76	SKT 10WAY MICROMATCH SIDE ENTRY PCB 1-25
TSP901		005-10000-10	TEST POINT SMD 0805 2.0 X 1.25 X 1.45
&X901	XX1	274-01058-00	XTAL 12.8MHZ TE/45 +-5PPM UM-1 3 LE
		220-01389-02	PCB T2000 SII TCXO

Variants:

X1X	wide band (15kHz IF bandwidth)
X2X	narrow/dual band (7.5kHz IF bandwidth)
X3X	medium band (12kHz IF bandwidth)
XX1	±5ppm, -10 to +60°C frequency stability
XX3	±3ppm, -30 to +60°C frequency stability
XX5	±2.5ppm, -30 to +60°C frequency stability



T2000 TCXO/Tx Audio PCB (IPN 220-01389-02) - Bottom Side



T2000 TCXO/Tx Audio PCB (IPN 220-01389-02) - Top Side

7.10 T2010 & T2015 HC05 Logic PCB

T2010 & T2015 HC05 Logic Parts List (IPN 220-01377-02)

Parts List Amendments

Ref	Var	IPN	Description
C500		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
C501		015-23680-08	CAP CER 0805 CHIP 680P 10% X7R 50V
C501A		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C502		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C503		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C504		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C505		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C506		018-12220-00	CAP 0603 CHIP 22P 50V NPO +-5%
C507		018-12220-00	CAP 0603 CHIP 22P 50V NPO +-5%
C509		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C514		018-12220-00	CAP 0603 CHIP 22P 50V NPO +-5%
C515		018-12220-00	CAP 0603 CHIP 22P 50V NPO +-5%
C517		015-23680-08	CAP CER 0805 CHIP 680P 10% X7R 50V
C518		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C519		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C520		015-25220-08	CAP CER 0805 CHIP 22N 10% X7R 50V
C521		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C522		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C524		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
C525		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C526		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C527		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C528		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C530		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C540		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C541		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C542		018-13100-00	CAP 0603 CHIP 100P 50V NPO +-5%
C543		018-13100-00	CAP 0603 CHIP 100P 50V NPO +-5%
C544		018-13100-00	CAP 0603 CHIP 100P 50V NPO +-5%
C545		018-13100-00	CAP 0603 CHIP 100P 50V NPO +-5%
C546		015-24330-08	CAP CER 0805 CHIP 3N3 10% X7R 50V
C600		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C601		014-07470-00	CAP TANT CHIP 4U7 'B' CASE 16V +-10% 267
C602		018-12820-00	CAP 0603 CHIP 82P 50V NPO +-5%
C603		015-23220-01	CAP CER 0805 CHIP 220P 5% NPO 50V
C604		014-07470-00	CAP TANT CHIP 4U7 'B' CASE 16V +-10% 267
C605		014-07470-00	CAP TANT CHIP 4U7 'B' CASE 16V +-10% 267
C606		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C607		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C608		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C609		018-12470-00	CAP 0603 CHIP 47P 50V NPO +-5%
C610		014-07470-00	CAP TANT CHIP 4U7 'B' CASE 16V +-10% 267
C611		018-13100-00	CAP 0603 CHIP 100P 50V NPO +-5%
C612		014-07470-00	CAP TANT CHIP 4U7 'B' CASE 16V +-10% 267
C613		015-24470-08	CAP CER 0805 CHIP 4N7 10% X7R 50V
C614		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C615		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C616		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C617		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C618		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C619		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C620		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C621		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C622		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C623		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C624		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C625		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C626		014-07470-00	CAP TANT CHIP 4U7 'B' CASE 16V +-10% 267
C627		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C628		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C629		015-23220-01	CAP CER 0805 CHIP 220P 5% NPO 50V
C630		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C632		014-07470-00	CAP TANT CHIP 4U7 'B' CASE 16V +-10% 267
C633		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
C634		015-24470-08	CAP CER 0805 CHIP 4N7 10% X7R 50V
C635		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C636		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C637		018-11470-00	CAP 0603 CHIP 4P7 50V NPO +-0.25P
C638		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C639		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
C640		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
C641		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C642		015-23220-01	CAP CER 0805 CHIP 220P 5% NPO 50V
C643		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C644		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C645		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C646		014-07470-00	CAP TANT CHIP 4U7 'B' CASE 16V +-10% 267
C647		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C648		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
C650		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C651		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
#C700		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C702		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
#C703		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C705		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
#C730		014-07470-00	CAP TANT CHIP 4U7 'B' CASE 16V +-10% 26
D500		001-10000-70	(S) DIODE SMD BAV70 DUAL SWITCH SOT-23 C
IC501		002-10936-60	(LS) IC SMD ST93C66CM6 4K EEPROM SER MI
IC504		002-10340-64	(S) IC SMD MC34064 LO VOLT SENSE
IC505		002-26870-55	(LSH) IC 68HC705C9 MPU (T201X 2.05) MAS
IC506		002-10140-21	(S) IC MC14021BDR2 8BIT SHIFT REGSTR.SO
IC507		002-10140-21	(S) IC MC14021BDR2 8BIT SHIFT REGSTR.SO
IC509		002-74905-95	(S) IC SMD 74HC595 SHIFT REGISTER
#IC510		002-74901-32	(S) IC SMD 74HC132 HCMOS QUAD SCHMT SO
IC511		002-74901-32	(S) IC SMD 74HC132 HCMOS QUAD SCHMT SO-
IC513		002-10078-08	(S) IC SMD 78L08 8V REG SO8
IC601		002-10003-24	(S) IC SMD 324 QUAD OP AMP SO14
IC602		002-10003-24	(S) IC SMD 324 QUAD OP AMP SO14
IC603		002-10003-24	(S) IC SMD 324 QUAD OP AMP SO14
IC604		002-10003-58	(S) IC SMD LM358 DUAL OP AMP
IC614		002-10040-53	(S) IC 4053 SMD TRIPLE 2CH MULTI-PLEXR
L501		056-10330-02	(L) IND SMD 330NH SIEMENS SMID02
P1		240-10000-01	CONN SMD 24WAY (PLUG)
P2		240-10000-01	CONN SMD 24WAY (PLUG)
Q501		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q502		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q503		000-10008-69	(S) XSTR SMD BC869 PNP 1W 2A SOT-89
Q504		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q505		000-10085-71	(S) XSTR SMD BC857BW PNP SOT-323 SMALL S
Q506		000-10085-71	(S) XSTR SMD BC857BW PNP SOT-323 SMALL S
Q507		000-10003-12	(S) XSTR SMD BFR31 N JFET SOT-23
Q508		000-10085-71	(S) XSTR SMD BC857BW PNP SOT-323 SMALL S
Q509		000-10085-71	(S) XSTR SMD BC857BW PNP SOT-323 SMALL S
Q510		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q520		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q601		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q602		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q603		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q604		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q605		000-10085-71	(S) XSTR SMD BC857BW PNP SOT-323 SMALL S
Q606		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q607		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q608		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S

Ref	Var	IPN	Description
R501		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R502		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R503		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R504		038-13220-00	RES 0603 CHIP 220E 1/16W +-5%
R505		036-16150-00	RES M/F 0805 CHIP 150K 5%
R506		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R507		038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
RV507		042-15500-01	RES PRESET SMD 50K +-25% 4X4.5X2.5MM 0.
R508		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R509		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R510		036-18100-00	RES M/F 0805 CHIP 10M 10%
R511		038-16470-00	RES 0603 CHIP 470K 1/16W +-5%
R512		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R513		038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
R514		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R515		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R516		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R518		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R519		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R520		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R521		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R522		038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
R523		036-16470-00	RES M/F 0805 CHIP 470K 5%
R524		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R525		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R526		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R527		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R528		038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
R529		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R530		038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
R531		036-18100-00	RES M/F 0805 CHIP 10M 10%
R532		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R533		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R534		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R535		036-14270-00	RES M/F 0805 CHIP 2K7 5%
R536		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R537		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R538		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R539		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R540		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R541		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R542		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R543		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R544		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R546		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R547		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R568		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R569		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R570		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R571		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R572		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R574		038-12100-00	RES 0603 CHIP 10E 1/16W +-5%
R575		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R578		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R579		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R580		036-18100-00	RES M/F 0805 CHIP 10M 10%
R581		036-15220-00	RES M/F 0805 CHIP 22K 5%
R582		038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
R583		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R584		038-15150-00	RES 0603 CHIP 15K 1/16W +-5%
R585		036-13680-00	RES M/F 0805 CHIP 680E 5%
R586		036-13680-00	RES M/F 0805 CHIP 680E 5%
R592		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R593		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R595		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
#R596		036-15390-00	RES M/F 0805 CHIP 39K 5%
R599		038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
R600		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R601		036-15820-00	RES M/F 0805 CHIP 82K 5%
R602		036-14820-00	RES M/F 0805 CHIP 8K2 5%
R603		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R604		038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
R605		038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
R606		038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
R607		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R608		036-15220-00	RES M/F 0805 CHIP 22K 5%
R609		038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
R610		038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
R611		038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
R612		038-13220-00	RES 0603 CHIP 220E 1/16W +-5%
R613		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R614		038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
R615		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R616		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R617		038-14680-00	RES 0603 CHIP 6K8 1/16W +-5%
R618		038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
R619		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R620		036-15270-00	RES M/F 0805 CHIP 27K 5%
R621		036-16390-00	RES M/F 0805 CHIP 390K 5%
R622		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R623		038-14680-00	RES 0603 CHIP 6K8 1/16W +-5%
R624		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R625		038-14680-00	RES 0603 CHIP 6K8 1/16W +-5%
R626		036-15270-00	RES M/F 0805 CHIP 27K 5%
R627		036-16390-00	RES M/F 0805 CHIP 390K 5%
R628		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R629		038-15270-00	RES 0603 CHIP 27K 1/16W +-5%
R630		038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
R631		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R632		036-16390-00	RES M/F 0805 CHIP 390K 5%
R633		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R634		038-14680-00	RES 0603 CHIP 6K8 1/16W +-5%
R635		038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
R636		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R637		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R638		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R639		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R640		038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
R641		036-16150-00	RES M/F 0805 CHIP 150K 5%
R642		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R643		036-16330-00	RES M/F 0805 CHIP 330K 5%
R644		038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
R645		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R646		036-16330-00	RES M/F 0805 CHIP 330K 5%
R647		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R648		038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
R649		038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
R650		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R651		038-15150-00	RES 0603 CHIP 15K 1/16W +-5%
R652		038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
R653		036-14270-00	RES M/F 0805 CHIP 2K7 5%
R654		038-13220-00	RES 0603 CHIP 220E 1/16W +-5%
R655		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R656		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R657		036-14120-00	RES M/F 0805 CHIP 1K2 5%
R658		036-16150-00	RES M/F 0805 CHIP 150K 5%
R659		036-14270-00	RES M/F 0805 CHIP 2K7 5%
R660		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R661		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R662		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R663		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R664		036-15220-00	RES M/F 0805 CHIP 22K 5%
R665		036-16470-00	RES M/F 0805 CHIP 470K 5%
R666		036-16150-00	RES M/F 0805 CHIP 150K 5%
R667		038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
R668		038-16470-00	RES 0603 CHIP 470K 1/16W +-5%
R669		036-14180-00	RES M/F 0805 CHIP 1K8 5%
R670		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R671		038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
R672		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R673		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R674		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R675		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R676		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R677		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R678		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R679		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R680		036-14270-00	RES M/F 0805 CHIP 2K7 5%
R681		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R682		036-14180-00	RES M/F 0805 CHIP 1K8 5%
R683		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R684		036-13680-00	RES M/F 0805 CHIP 680E 5%
R685		038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
R686		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R687		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R688		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R689		036-15220-00	RES M/F 0805 CHIP 22K 5%
R690		036-15220-00	RES M/F 0805 CHIP 22K 5%
R691		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R692		036-15220-00	RES M/F 0805 CHIP 22K 5%
R693		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R694		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R695		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R696		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R697		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R698		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R699		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R700		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R701		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R702		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R703		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R704		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%

Ref	Var	IPN	Description
R705		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R706		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R707		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R708		038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R710		038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R712		038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R713		038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R714		038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
R720		038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
R721		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
#R722		036-16330-00	RES M/F 0805 CHIP 330K 5%
#R723		038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
R724		038-15270-00	RES 0603 CHIP 27K 1/16W +-5%
R725		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R726		038-15270-00	RES 0603 CHIP 27K 1/16W +-5%
R727		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
#R735		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
#SPEC1		038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
S1		240-10000-07	CONN SMD SKT 16WAY 2ROW MICROMATCH
S2		240-10000-06	CONN SMD SKT 12WAY 2ROW MICROMATCH
S8		240-10000-07	CONN SMD SKT 16WAY 2ROW MICROMATCH
S13		240-10000-06	CONN SMD SKT 12WAY 2ROW MICROMATCH
S14		240-10000-07	CONN SMD SKT 16WAY 2ROW MICROMATCH
S15		240-10000-07	CONN SMD SKT 16WAY 2ROW MICROMATCH
SK505		240-04020-42	SKT 44 PIN SMD PLCC CHIP CARRIER
X501		274-01070-00	XTAL 4.000MHZ HC49U/S C/W TEFLON INSULAT

T2010 & T2015 HC05 Logic Mechanical & Miscellaneous Parts

IPN	Description
219-02584-00	CABLE ASSEMBLY T2000 PWR CABLE
220-01377-02	(L) PCB T2010/15 LOGIC HC05 COMMON PLATFOR
240-00020-12	PLUG MICROPHONE BT SR937 (PIN 2 MISSING)
240-00100-13	PLUG COAX BNC CORD MTG CRIMP URM76
240-02010-75	SKT RECEPTL SML 172775-1
240-04021-63	CONN 2WAY 24AWG (BLACK) INLINE HERMAPHRODITIC
252-00010-37	MIC AWC DYNAMIC 600E 6WAY M095D TINSEL SHLD'D
252-00010-49	MIC CLIP (SPRING STEEL CONTACT)
265-00010-60	FUSE 10A 12V AUTOMOTIVE STAPLE TYPE
303-23134-02	COVER TOP A1M2504 T2000 PNTD CMPLT
303-30062-02	CRADLE BODY A3M2551 T2000 BOTTOM
303-30063-02	CRADLE BODY A3M2552 T2000 TOP
303-30064-00	CRADLE CLIP A1M2550 T2000
303-30065-03	KEY T2000 SII
340-00010-23	FUSEHLDR INLINE 3M 972
349-00010-49	SCREW SELFTAP NO 10X1/2 IN TYPE AB PAN POZI BZ
349-00020-32	SCREW TAPTITE M3X8MM PAN POZI BZ
353-00010-32	WASHER M5 SHAKEPROOF EXT BZ
362-01028-00	GASKET A4M2652 130X3MM CONDUCT STRIPS
360-02003-01	GROMMET MIC CORD T2000 SII
365-00100-09	LABEL WHITE VINYL 15X11MM S/A
365-01376-00	LABEL A4A724 SOFTWARE
365-01391-01	(L)LABEL BLNK 30*10.8MM TAMPERMARK VOID MA
369-00020-46	TAPE 6 X 6MM FOAM 1 SIDE S/A
399-00010-52	BAG PLASTIC 100*150MM
410-01099-01	(L) PKG CARTON T2000 SERIES II
410-01101-00	CARTON T700/T2000 OUTER (5 UNIT EA)

T2010 & T1015 HC05 Logic Grid Reference Index (IPN 220-01377-02)

Device	PCB	Circuit
ALC	2:G1	1-V0
BOARD	2:N14	1-T4
C500	1:J3	1-B6
C501	1:J14	1-C8
C502	1:J10	1-B3
C503	1:K21	1-E5
C504	1:P21	1-H9
C505	1:J21	1-H8
C506	1:N21	1-G6
C507	1:N20	1-H6
C509	1:L15	1-C7
C514	1:J12	1-I6
C515	1:J12	1-J6
C517	1:M21	1-D8
C518	1:H9	1-A6
C519	1:F9	1-B7
C520	1:J16	1-H5
C521	1:H21	1-H5
C522	1:H3	1-B6
C524	1:B7	1-B8
C525	1:K3	1-E5
C526	1:K3	1-E5
C527	1:K3	1-F5
C528	1:L12	1-S9
C529	1:E22	1-S9
C530	1:E2	1-T9
C540	1:N19	1-I4
C541	1:N18	1-I4
C542	1:H9	1-A6
C543	1:G9	1-B6
C544	1:L4	1-B0
C545	1:L14	1-N0
C546	1:D6	1-V1
C547	1:G6	1-S1
C600	1:F8	1-C1
C601	1:K4	1-B1
C602	1:L4	1-B0
C603	1:K5	1-C1
C604	1:F10	1-B2
C605	1:K6	1-B0
C606	1:J8	1-C2
C607	1:L3	1-E2
C608	1:L5	1-D1
C609	1:L4	1-E1
C610	1:K5	1-D0
C611	1:L3	1-E1
C612	1:L8	1-G1
C613	1:M5	1-E0
C614	1:M5	1-E0
C615	1:P5	1-F0
C616	1:N4	1-F0
C617	1:N3	1-G0
C618	1:M5	1-H0
C619	1:G15	1-I0
C620	1:J16	1-J0
C621	1:K16	1-J0
C622	1:H15	1-H0
C623	1:C9	1-L0
C624	1:B6	1-N1
C625	1:C6	1-N1
C626	1:L14	1-O0
C627	1:E10	1-M0
C628	1:E8	1-M0
C629	1:L14	1-N0
C630	1:C5	1-T1
#C631	1:G6	1-S2
C632	1:G7	1-T2
C633	1:E7	1-U2
C634	1:F5	1-U1
C635	1:F5	1-U2
C636	1:E5	1-V1
C637	1:D4	1-U1
C638	1:C4	1-V0
C639	1:G4	1-V0
C640	1:G3	1-U0
C641	1:C4	1-S0
C642	1:C3	1-R1
C643	1:D3	1-Q0
C644	1:E3	1-Q0
C645	1:C3	1-B9
C646	1:F5	1-Q0
C647	1:C4	1-S0
C648	1:L7	1-C0
C650	1:D10	1-L1
C651	1:C6	1-N1
#C700	1:C9	1-L1
#C701	1:D15	1-P3
C702	1:F12	1-R1
#C703	1:C9	1-V5
#C704	1:E2	1-P1
C705	1:D15	1-C6
#C730	1:G5	1-S1
C501A	1:J13	1-C8
D500	1:C10	1-K3
D500	1:C10	1-K3
DISABLE	2:F1	1-U0
IC501	1:H14	1-E8
#IC503	1:J12	1-I6
IC504	1:N22	1-H9
IC506	1:D11	1-M4
IC507	1:C14	1-O4
IC509	1:D19	1-L7
#IC510	1:E17	1-V6
#IC510	1:E17	1-O2
#IC510	1:E17	1-W5
#IC510	1:E17	1-V6
#IC510	1:E17	1-O3
IC511	1:H16	1-V3
IC511	1:H16	1-G5
IC511	1:H16	1-N5
IC511	1:H16	1-I5
IC511	1:H16	1-J4
#IC512	1:C17	1-K3
#IC512	1:C17	1-L3
#IC512	1:C17	1-M2
#IC512	1:C17	1-V5
#IC512	1:C17	1-L2
IC513	1:G9	1-A7
IC601	1:M4	1-E0
IC601	1:M4	1-T3
IC601	1:M4	1-C0
IC601	1:M4	1-F1
IC601	1:M4	1-G0
IC602	1:K15	1-H0
IC602	1:K15	1-C7
IC602	1:K15	1-K0
IC602	1:K15	1-O0
IC602	1:K15	1-T3
IC603	1:E4	1-U3
IC603	1:E4	1-P0
IC603	1:E4	1-V1
IC603	1:E4	1-R0
IC603	1:E4	1-A2
IC604	1:K8	1-H2
IC604	1:K8	1-V3
IC604	1:K8	1-C5
IC614	1:E8	1-J1
IC614	1:E8	1-C1
IC614	1:E8	1-M0
IC614	1:E8	1-N1
ID	2:N14	1-T4
L501	1:N19	1-I4
P1	1:G10	1-U9
P2	1:E14	1-U8
Q501	1:C12	1-C9
Q502	1:K11	1-D9
Q503	1:K10	1-D9
Q504	1:F16	1-D6
Q505	1:C12	1-K4
Q506	1:E16	1-C6
Q507	1:L22	1-D7
Q508	1:E16	1-C6
Q509	1:E16	1-D6
Q510	1:F16	1-E6
#Q518	1:C7	1-J4
Q520	1:G18	1-E6
Q601	1:E9	1-J1
Q602	1:D9	1-M1
Q603	1:F6	1-U1
Q604	1:H8	1-W2
Q605	1:F2	1-T0
Q606	1:D7	1-W1
Q607	1:D7	1-W0
Q608	1:G8	1-W2
R501	1:C12	1-B9
R502	1:C12	1-C9
R503	1:K11	1-D9
R504	1:J10	1-D8
R505	1:L21	1-D7
R506	1:L21	1-D7
R507	1:D12	1-C9
R508	1:L21	1-D7
R509	1:K14	1-B7
R510	1:J13	1-C8
R511	1:J9	1-B6
R512	1:J8	1-C6
R513	1:D10	1-K3
R514	1:J9	1-C4
R515	1:J9	1-C5
R516	1:F16	1-D6
R518	1:D3	1-B7
R519	1:D3	1-B7
R520	1:H15	1-E7
R521	1:M22	1-D8
R522	1:M22	1-D8
R523	1:B6	1-D4
R524	1:K21	1-E5
R525	1:K21	1-G8
R526	1:G15	1-F8
R527	1:L21	1-G9
R528	1:L21	1-H8
R529	1:E11	1-F8
R530	1:M19	1-I8
R531	1:M21	1-G6
R532	1:F12	1-J7
R533	1:G17	1-I5
R534	1:G16	1-I5
R535	1:E12	1-K4
R536	1:C10	1-K4
R537	1:D12	1-K4
R538	1:C11	1-L5
R539	1:E11	1-L5
R540	1:E11	1-L5
R541	1:E12	1-M5
R542	1:J10	1-E9
R543	1:J10	1-D9
R544	1:E11	1-Q7
R546	1:C6	1-Q4
R547	1:C11	1-L5
R568	1:D18	1-L7
R569	1:H17	1-G5
R570	1:J16	1-G5
R571	1:L17	1-I6
R572	1:K17	1-I6
R574	1:H3	1-B6
R575	1:G17	1-E6
R578	1:G18	1-F6
R579	1:G17	1-E6
R580	1:J11	1-J6
R581	1:G17	1-E7
R582	1:G16	1-E7
R583	1:K21	1-G9
R584	1:F16	1-E6
R585	1:K10	1-C8
R586	1:K10	1-D8
R592	1:F14	1-H5
R593	1:F14	1-H4
R595	1:F17	1-E6
#R596	1:K21	1-G4
R599	1:L17	1-I6
R600	1:K8	1-B2
R601	1:F8	1-B1
R602	1:P3	1-D0
R603	1:K5	1-B0
R604	1:K5	1-B0
R605	1:K5	1-B0
R606	1:F9	1-B1
R607	1:E8	1-D1
R608	1:L5	1-D0
R609	1:N4	1-D0
R610	1:C9	1-F4
R611	1:M5	1-D1
R612	1:K8	1-D2
R613	1:K4	1-D1
R614	1:L4	1-E1
R615	1:K8	1-G2
R616	1:L9	1-G1
R617	1:L8	1-G2
R618	1:L9	1-H1
R619	1:N4	1-E0
R620	1:M5	1-F0
R621	1:P2	1-F0

Device	PCB	Circuit
R622	1:L5	1-C0
R623	1:N3	1-G0
R624	1:N3	1-G0
R625	1:H15	1-I1
R626	1:P3	1-H0
R627	1:J16	1-H0
R628	1:G15	1-I0
R629	1:G15	1-I0
R630	1:D8	1-M0
R631	1:E8	1-M0
R632	1:K16	1-J0
R633	1:L15	1-K0
R634	1:L16	1-K0
R635	1:E10	1-J1
R636	1:D8	1-K1
R637	1:C8	1-L0
R638	1:C8	1-L0
R639	1:B5	1-B4
R640	1:C8	1-L0
R641	1:K14	1-N0
R642	1:D8	1-M1
R643	1:M15	1-N0
R644	1:J14	1-N0
R645	1:C5	1-O1
R646	1:K14	1-O0
R647	1:K13	1-O0
R648	1:D10	1-M2
R649	1:D6	1-V1
R650	1:D8	1-V1
R651	1:C3	1-B9
R652	1:G7	1-S2
R653	1:F7	1-T2
R654	1:F7	1-T2
R655	1:F6	1-U2
R656	1:F6	1-T2
R657	1:G6	1-T1
R658	1:D5	1-V1
R659	1:F5	1-T1
R660	1:F6	1-U2
R661	1:E6	1-V2
R662	1:G8	1-W2
R663	1:G8	1-V2
R664	1:D5	1-V1
R665	1:D4	1-U1
R666	1:D8	1-W0
R667	1:G2	1-U0
R668	1:D4	1-U0
R669	1:F2	1-U0
R670	1:F2	1-T0
R671	1:F2	1-T0
R672	1:C5	1-S0
R673	1:C4	1-S0
R674	1:C4	1-S0
R675	1:C3	1-S0
R676	1:D3	1-R1
R677	1:E3	1-R0
R678	1:F4	1-Q0
R679	1:E3	1-Q0
R680	1:D2	1-T1
R681	1:F3	1-P0
R682	1:F4	1-Q0
R683	1:F4	1-Q0
R684	1:L9	1-G1
R685	1:G2	1-V0
R686	1:H8	1-V2
R687	1:L6	1-A0
R688	1:K6	1-A0
R689	1:F11	1-I2
R690	1:F10	1-J2
R691	1:C3	1-T1
R692	1:F8	1-C1
R693	1:C10	1-F4
R694	1:N18	1-H5
R695	1:E18	1-I5
R696	1:G16	1-I4
R697	1:C11	1-L4
R698	1:J15	1-M3
R699	1:C11	1-G3
R700	1:C13	1-O8
R701	1:C13	1-P8
R702	1:C13	1-P8
R703	1:D13	1-P8
R704	1:C14	1-P8
R705	1:C15	1-Q8
R706	1:C15	1-Q8
R707	1:C15	1-Q8
R708	1:E3	1-P1
#R710	1:D5	1-S1
#R711	1:D5	1-U1
#R712	1:D13	1-L2
#R713	1:C5	1-S1
#R714	1:B16	1-N4
#R715	1:B16	1-N4
R720	1:E15	1-C6
R721	1:D16	1-C6
#R722	1:D16	1-C6
#R723	1:D16	1-C6
R724	1:E16	1-D6
R725	1:E15	1-D7
R726	1:E15	1-D7
R727	1:F16	1-E6
#R735	1:J21	1-G5
#R751	1:G7	1-S2
RV507	1:L22	1-D7
#RV508	1:K22	1-G4
S1	1:L2	1-V9
S2	1:B2	1-V9
S3	1:E20	1-U8
S8	1:H5	1-V8
S13	1:B4	1-V7
S14	1:B10	1-V7
S15	1:B14	1-V6
SK505	1:K19	1-G6
#SPEC1	1:M14	1-T4
#SPEC2	1:M14	1-T4
#SPEC3	1:M14	1-U4
#SPEC4	1:M13	1-U4
#SPEC5	1:M13	1-U4
#SPEC6	1:M13	1-V4
#SPEC7	1:M13	1-V4
#SPEC8	1:M12	1-V4
#SPEC9	1:M12	1-W4
#SPEC10	1:M12	1-W4
TP601	2:J5	1-A3
TP602	2:K7	1-G1
TP603	2:M9	1-I2
TP604	2:L14	1-O0
TP605	2:F3	1-P0
TP606	2:F1	1-T1
TP607	2:E5	1-U2
TP608	2:B8	1-B3
TP609	2:K21	1-G9
TP610	2:E19	1-M8
TP611	2:F16	1-E6
TP614	1:C11	1-I2
X501	1:N21	1-G6
#X502	1:J13	1-J6

7.10 T2010 & T2015 HC05 Logic PCB

T2010 & T2015 HC05 Logic Parts List (IPN 220-01377-03)

Parts List Amendments

Ref	Var	IPN	Description
C500		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
C501		015-23680-08	CAP CER 0805 CHIP 680P 10% X7R 50V
C501A		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C502		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C503		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C504		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C505		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C506		018-12220-10	CAP 0603 CHIP 22P 50V NPO +-1%
C507		018-12220-10	CAP 0603 CHIP 22P 50V NPO +-1%
C509		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C514		018-12220-10	CAP 0603 CHIP 22P 50V NPO +-1%
C515		018-12220-10	CAP 0603 CHIP 22P 50V NPO +-1%
C517		015-23680-08	CAP CER 0805 CHIP 680P 10% X7R 50V
C518		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C519		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C520		015-25220-08	CAP CER 0805 CHIP 22N 10% X7R 50V
C521		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C522		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C524		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
C525		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C526		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C527		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C528		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C530		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C540		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C541		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C542		018-13100-10	CAP 0603 CHIP 100P 50V NPO +-1%
C543		018-13100-10	CAP 0603 CHIP 100P 50V NPO +-1%
C544		018-13100-10	CAP 0603 CHIP 100P 50V NPO +-1%
C545		018-13100-10	CAP 0603 CHIP 100P 50V NPO +-1%
C546		015-24330-08	CAP CER 0805 CHIP 3N3 10% X7R 50V
C600		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C601		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 267
C602		018-12820-10	CAP 0603 CHIP 82P 50V NPO +-1%
C603		015-23220-01	CAP CER 0805 CHIP 220P 5% NPO 50V
C604		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 267
C605		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 267
C606		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C607		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C608		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C609		018-12470-10	CAP 0603 CHIP 47P 50V NPO +-1%
C610		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 267
C611		018-13100-10	CAP 0603 CHIP 100P 50V NPO +-1%
C612		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 267
C613		015-24470-08	CAP CER 0805 CHIP 4N7 10% X7R 50V
C614		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C615		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C616		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C617		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C618		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C619		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C620		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C621		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C622		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C623		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C624		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C625		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C626		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 267
C627		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C628		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C629		015-23220-01	CAP CER 0805 CHIP 220P 5% NPO 50V
C630		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C632		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 267
C633		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
C634		015-24470-08	CAP CER 0805 CHIP 4N7 10% X7R 50V
C635		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C636		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C637		018-11470-10	CAP 0603 CHIP 4P7 50V NPO +-0.1P
C638		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C639		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
C640		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
C641		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C642		015-23220-01	CAP CER 0805 CHIP 220P 5% NPO 50V
C643		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C644		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C645		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C646		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 267
C647		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C648		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
C650		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C651		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
#C700		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C702		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
#C703		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C705		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
#C730		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 26
D500		001-10000-70	(S) DIODE SMD BAV70 DUAL SWITCH SOT-23 C
IC501		002-10936-60	(LS) IC SMD ST93C66CM6 4K EEPROM SER MI
IC504		002-10340-64	(S) IC SMD MC34064 LO VOLT SENSE
IC505		002-26870-59	(S) IC MC68HC705C9ACFN 8BIT OTP MCU 44
IC506		002-10140-21	(S) IC MC14021BDR2 8BIT SHIFT REGSTR.SO
IC507		002-10140-21	(S) IC MC14021BDR2 8BIT SHIFT REGSTR.SO
IC509		002-74905-95	(S) IC SMD 74HC595 SHIFT REGISTER
#IC510		002-74901-32	(S) IC SMD 74HC132 HCMOS QUAD SCHMT SO
IC511		002-74901-32	(S) IC SMD 74HC132 HCMOS QUAD SCHMT SO-
IC513		002-10078-08	(S) IC SMD 78L08 8V REG SO8
IC601		002-10003-24	(S) IC SMD 324 QUAD OP AMP SO14
IC602		002-10003-24	(S) IC SMD 324 QUAD OP AMP SO14
IC603		002-10003-24	(S) IC SMD 324 QUAD OP AMP SO14
IC604		002-10003-58	(S) IC SMD LM358 DUAL OP AMP
IC614		002-10040-53	(S) IC 4053 SMD TRIPLE 2CH MULTI-PLEXR
L501		056-10330-02	(L) IND SMD 330NH SIEMENS SMID02
P1		240-10000-01	CONN SMD 24WAY (PLUG)
P2		240-10000-01	CONN SMD 24WAY (PLUG)
Q501		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q502		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q503		000-10008-69	(S) XSTR SMD BC869 PNP 1W 2A SOT-89
Q504		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q505		000-10085-71	(S) XSTR SMD BC857BW PNP SOT-323 SMALL S
Q506		000-10085-71	(S) XSTR SMD BC857BW PNP SOT-323 SMALL S
Q507		000-10003-12	(S) XSTR SMD BFR31 N JFET SOT-23
Q508		000-10085-71	(S) XSTR SMD BC857BW PNP SOT-323 SMALL S
Q509		000-10085-71	(S) XSTR SMD BC857BW PNP SOT-323 SMALL S
Q510		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q520		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q601		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q602		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q603		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q604		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q605		000-10085-71	(S) XSTR SMD BC857BW PNP SOT-323 SMALL S
Q606		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q607		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S
Q608		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL S

Ref	Var	IPN	Description
R501	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R502	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R503	038-14220-00		RES 0603 CHIP 2K2 1/16W +-5%
R504	038-13220-00		RES 0603 CHIP 220E 1/16W +-5%
R505	036-16150-00		RES M/F 0805 CHIP 150K 5%
R506	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R507	038-14470-00		RES 0603 CHIP 4K7 1/16W +-5%
RV507	042-15500-01		RES PRESET SMD 50K +-25% 4X4.5X2.5MM 0.
R508	038-16100-00		RES 0603 CHIP 100K 1/16W +-5%
R509	038-14220-00		RES 0603 CHIP 2K2 1/16W +-5%
R510	036-18100-00		RES M/F 0805 CHIP 10M 10%
R511	038-16470-00		RES 0603 CHIP 470K 1/16W +-5%
R512	038-16100-00		RES 0603 CHIP 100K 1/16W +-5%
R513	038-10000-00		RES 0603 CHIP ZERO OHM 1/16W +-5%
R514	038-16100-00		RES 0603 CHIP 100K 1/16W +-5%
R515	038-16100-00		RES 0603 CHIP 100K 1/16W +-5%
R516	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R518	038-14100-00		RES 0603 CHIP 1K0 1/16W +-5%
R519	038-14100-00		RES 0603 CHIP 1K0 1/16W +-5%
R520	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R521	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R522	038-14470-00		RES 0603 CHIP 4K7 1/16W +-5%
R523	036-16470-00		RES M/F 0805 CHIP 470K 5%
R524	038-16100-00		RES 0603 CHIP 100K 1/16W +-5%
R525	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R526	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R527	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R528	038-10000-00		RES 0603 CHIP ZERO OHM 1/16W +-5%
R529	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R530	038-14470-00		RES 0603 CHIP 4K7 1/16W +-5%
R531	036-18100-00		RES M/F 0805 CHIP 10M 10%
R532	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R533	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R534	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R535	036-14270-00		RES M/F 0805 CHIP 2K7 5%
R536	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R537	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R538	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R539	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R540	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R541	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R542	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R543	038-14220-00		RES 0603 CHIP 2K2 1/16W +-5%
R544	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R546	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R547	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R568	038-14100-00		RES 0603 CHIP 1K0 1/16W +-5%
R569	038-16100-00		RES 0603 CHIP 100K 1/16W +-5%
R570	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R571	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R572	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R574	038-12100-00		RES 0603 CHIP 10E 1/16W +-5%
R575	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R578	038-16100-00		RES 0603 CHIP 100K 1/16W +-5%
R579	038-14100-00		RES 0603 CHIP 1K0 1/16W +-5%
R580	036-18100-00		RES M/F 0805 CHIP 10M 10%
R581	036-15220-00		RES M/F 0805 CHIP 22K 5%
R582	038-16220-00		RES 0603 CHIP 220K 1/16W +-5%
R583	038-14100-00		RES 0603 CHIP 1K0 1/16W +-5%
R584	038-15150-00		RES 0603 CHIP 15K 1/16W +-5%
R585	036-13680-00		RES M/F 0805 CHIP 680E 5%
R586	036-13680-00		RES M/F 0805 CHIP 680E 5%
R592	038-16100-00		RES 0603 CHIP 100K 1/16W +-5%
R593	038-16100-00		RES 0603 CHIP 100K 1/16W +-5%
R595	038-16100-00		RES 0603 CHIP 100K 1/16W +-5%
#R596	036-15390-00		RES M/F 0805 CHIP 39K 5%
R599	038-10000-00		RES 0603 CHIP ZERO OHM 1/16W +-5%
R600	038-14220-00		RES 0603 CHIP 2K2 1/16W +-5%
R601	036-15820-00		RES M/F 0805 CHIP 82K 5%
R602	036-14820-00		RES M/F 0805 CHIP 8K2 5%
R603	038-16100-00		RES 0603 CHIP 100K 1/16W +-5%
R604	038-16220-00		RES 0603 CHIP 220K 1/16W +-5%
R605	038-16220-00		RES 0603 CHIP 220K 1/16W +-5%
R606	038-17100-00		RES 0603 CHIP 1M 1/16W +-5%
R607	038-16100-00		RES 0603 CHIP 100K 1/16W +-5%
R608	036-15220-00		RES M/F 0805 CHIP 22K 5%
R609	038-16220-00		RES 0603 CHIP 220K 1/16W +-5%
R610	038-14470-00		RES 0603 CHIP 4K7 1/16W +-5%
R611	038-16220-00		RES 0603 CHIP 220K 1/16W +-5%
R612	038-13220-00		RES 0603 CHIP 220E 1/16W +-5%
R613	038-16100-00		RES 0603 CHIP 100K 1/16W +-5%
R614	038-16220-00		RES 0603 CHIP 220K 1/16W +-5%
R615	038-14220-00		RES 0603 CHIP 2K2 1/16W +-5%
R616	038-14220-00		RES 0603 CHIP 2K2 1/16W +-5%
R617	038-14680-00		RES 0603 CHIP 6K8 1/16W +-5%
R618	038-17100-00		RES 0603 CHIP 1M 1/16W +-5%
R619	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R620	036-15270-00		RES M/F 0805 CHIP 27K 5%
R621	036-16390-00		RES M/F 0805 CHIP 390K 5%
R622	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R623	038-14680-00		RES 0603 CHIP 6K8 1/16W +-5%
R624	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R625	038-14680-00		RES 0603 CHIP 6K8 1/16W +-5%
R626	036-15270-00		RES M/F 0805 CHIP 27K 5%
R627	036-16390-00		RES M/F 0805 CHIP 390K 5%
R628	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R629	038-15270-00		RES 0603 CHIP 27K 1/16W +-5%
R630	038-17100-00		RES 0603 CHIP 1M 1/16W +-5%
R631	038-14100-00		RES 0603 CHIP 1K0 1/16W +-5%
R632	036-16390-00		RES M/F 0805 CHIP 390K 5%
R633	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R634	038-14680-00		RES 0603 CHIP 6K8 1/16W +-5%
R635	038-16220-00		RES 0603 CHIP 220K 1/16W +-5%
R636	038-16100-00		RES 0603 CHIP 100K 1/16W +-5%
R637	038-16100-00		RES 0603 CHIP 100K 1/16W +-5%
R638	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R639	038-14220-00		RES 0603 CHIP 2K2 1/16W +-5%
R640	038-17100-00		RES 0603 CHIP 1M 1/16W +-5%
R641	036-16150-00		RES M/F 0805 CHIP 150K 5%
R642	038-16100-00		RES 0603 CHIP 100K 1/16W +-5%
R643	036-16330-00		RES M/F 0805 CHIP 330K 5%
R644	038-17100-00		RES 0603 CHIP 1M 1/16W +-5%
R645	038-16100-00		RES 0603 CHIP 100K 1/16W +-5%
R646	036-16330-00		RES M/F 0805 CHIP 330K 5%
R647	038-14220-00		RES 0603 CHIP 2K2 1/16W +-5%
R648	038-16220-00		RES 0603 CHIP 220K 1/16W +-5%
R649	038-17100-00		RES 0603 CHIP 1M 1/16W +-5%
R650	038-14100-00		RES 0603 CHIP 1K0 1/16W +-5%
R651	038-15150-00		RES 0603 CHIP 15K 1/16W +-5%
R652	038-14470-00		RES 0603 CHIP 4K7 1/16W +-5%
R653	036-14270-00		RES M/F 0805 CHIP 2K7 5%
R654	038-13220-00		RES 0603 CHIP 220E 1/16W +-5%
R655	038-14220-00		RES 0603 CHIP 2K2 1/16W +-5%
R656	038-14220-00		RES 0603 CHIP 2K2 1/16W +-5%
R657	036-14120-00		RES M/F 0805 CHIP 1K2 5%
R658	036-16150-00		RES M/F 0805 CHIP 150K 5%
R659	036-14270-00		RES M/F 0805 CHIP 2K7 5%
R660	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R661	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R662	038-14100-00		RES 0603 CHIP 1K0 1/16W +-5%
R663	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R664	036-15220-00		RES M/F 0805 CHIP 22K 5%
R665	036-16470-00		RES M/F 0805 CHIP 470K 5%
R666	036-16150-00		RES M/F 0805 CHIP 150K 5%
R667	038-17100-00		RES 0603 CHIP 1M 1/16W +-5%
R668	038-16470-00		RES 0603 CHIP 470K 1/16W +-5%
R669	036-14180-00		RES M/F 0805 CHIP 1K8 5%
R670	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R671	038-14470-00		RES 0603 CHIP 4K7 1/16W +-5%
R672	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R673	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R674	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R675	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R676	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R677	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R678	038-16100-00		RES 0603 CHIP 100K 1/16W +-5%
R679	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R680	036-14270-00		RES M/F 0805 CHIP 2K7 5%
R681	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R682	036-14180-00		RES M/F 0805 CHIP 1K8 5%
R683	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R684	036-13680-00		RES M/F 0805 CHIP 680E 5%
R685	038-10000-00		RES 0603 CHIP ZERO OHM 1/16W +-5%
R686	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
R687	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R688	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R689	036-15220-00		RES M/F 0805 CHIP 22K 5%
R690	036-15220-00		RES M/F 0805 CHIP 22K 5%
R691	038-14220-00		RES 0603 CHIP 2K2 1/16W +-5%
R692	036-15220-00		RES M/F 0805 CHIP 22K 5%
R693	038-14100-00		RES 0603 CHIP 1K0 1/16W +-5%
R694	038-14100-00		RES 0603 CHIP 1K0 1/16W +-5%
R695	038-14100-00		RES 0603 CHIP 1K0 1/16W +-5%
R696	038-14100-00		RES 0603 CHIP 1K0 1/16W +-5%
R697	038-14100-00		RES 0603 CHIP 1K0 1/16W +-5%
R698	038-14100-00		RES 0603 CHIP 1K0 1/16W +-5%
R699	038-14100-00		RES 0603 CHIP 1K0 1/16W +-5%
R700	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R701	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R702	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R703	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R704	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%

Ref	Var	IPN	Description
R705	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R706	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R707	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R708	038-10000-00		RES 0603 CHIP ZERO OHM 1/16W +-5%
#R710	038-10000-00		RES 0603 CHIP ZERO OHM 1/16W +-5%
#R712	038-10000-00		RES 0603 CHIP ZERO OHM 1/16W +-5%
#R713	038-10000-00		RES 0603 CHIP ZERO OHM 1/16W +-5%
#R714	038-10000-00		RES 0603 CHIP ZERO OHM 1/16W +-5%
R720	038-10000-00		RES 0603 CHIP ZERO OHM 1/16W +-5%
R721	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
#R722	036-16330-00		RES M/F 0805 CHIP 330K 5%
#R723	038-16220-00		RES 0603 CHIP 220K 1/16W +-5%
R724	038-15270-00		RES 0603 CHIP 27K 1/16W +-5%
R725	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
R726	038-15270-00		RES 0603 CHIP 27K 1/16W +-5%
R727	038-15470-00		RES 0603 CHIP 47K 1/16W +-5%
#R735	038-15100-00		RES 0603 CHIP 10K 1/16W +-5%
#SPEC1	038-10000-00		RES 0603 CHIP ZERO OHM 1/16W +-5%
S1	240-10000-07		CONN SMD SKT 16WAY 2ROW MICROMATCH
S2	240-10000-06		CONN SMD SKT 12WAY 2ROW MICROMATCH
S8	240-10000-07		CONN SMD SKT 16WAY 2ROW MICROMATCH
S13	240-10000-06		CONN SMD SKT 12WAY 2ROW MICROMATCH
S14	240-10000-07		CONN SMD SKT 16WAY 2ROW MICROMATCH
S15	240-10000-07		CONN SMD SKT 16WAY 2ROW MICROMATCH
SK505	240-04020-42		SKT 44 PIN SMD PLCC CHIP CARRIER
X501	274-01070-00		XTAL 4.000MHZ HC49U/S C/W TEFLON INSULAT

T2010 & T2015 HC05 Logic Mechanical & Miscellaneous Parts

IPN	Description
219-02584-00	CABLE ASSEMBLY T2000 PWR CABLE
220-01377-03	(L) PCB T2010/15 LOGIC HC05 COMMON PLATFOR
240-00020-12	PLUG MICROPHONE BT SR937 (PIN 2 MISSING)
240-00100-13	PLUG COAX BNC CORD MTG CRIMP URM76
240-02010-75	SKT RECEPTL SML 172775-1
240-04021-63	CONN 2WAY 24AWG (BLACK) INLINE HERMAPHRODITIC
252-00010-37	MIC AWC DYNAMIC 600E 6WAY M095D TINSEL SHLD'D
252-00010-49	MIC CLIP (SPRING STEEL CONTACT)
265-00010-60	FUSE 10A 12V AUTOMOTIVE STAPLE TYPE
303-23134-02	COVER TOP A1M2504 T2000 PNTD CMPLT
303-30062-02	CRADLE BODY A3M2551 T2000 BOTTOM
303-30063-02	CRADLE BODY A3M2552 T2000 TOP
303-30064-00	CRADLE CLIP A1M2550 T2000
303-30065-03	KEY T2000 SII
340-00010-23	FUSEHLDR INLINE 3M 972
349-00010-49	SCREW SELFTAP NO 10X1/2 IN TYPE AB PAN POZI BZ
349-00020-32	SCREW TAPTITE M3X8MM PAN POZI BZ
353-00010-32	WASHER M5 SHAKEPROOF EXT BZ
360-02003-01	GROMMET MIC CORD T2000 SII
362-01028-00	GASKET A4M2652 130X3MM CONDUCT STRIPS
365-00100-09	LABEL WHITE VINYL 15X11MM S/A
365-00100-20	LABEL WHITE S/A 28X11MM QUIKSTIK RW718/4
365-01376-00	LABEL A4A724 SOFTWARE
365-01391-01	(L)LABEL BLNK 30*10.8MM TAMPERMARK VOID MA
369-00020-46	TAPE 6 X 6MM FOAM 1 SIDE S/A
399-00010-52	BAG PLASTIC 100*150MM
410-01099-01	(L) PKG CARTON T2000 SERIES II
410-01101-01	CARTON T700/T2000 SII OUTER (5 UNIT EA)

T2010 & T1015 HC05 Logic Grid Reference Index (IPN 220-01377-03)

Device	PCB	Circuit
ALC	2:G1	1-V0
BOARD	2:N14	1-T4
C500	1:J3	1-B6
C501	1:J14	1-C8
C502	1:J10	1-B3
C503	1:K21	1-E5
C504	1:P21	1-H9
C505	1:J21	1-H8
C506	1:N21	1-G6
C507	1:N20	1-H6
C509	1:L15	1-C7
C514	1:J12	1-I6
C515	1:J12	1-J6
C517	1:M21	1-D8
C518	1:H9	1-A6
C519	1:F9	1-B7
C520	1:J16	1-H5
C521	1:H21	1-H5
C522	1:H3	1-B6
C524	1:B7	1-B8
C525	1:K3	1-E5
C526	1:K3	1-E5
C527	1:K3	1-F5
C528	1:L12	1-S9
C529	1:E22	1-S9
C530	1:E2	1-T9
C540	1:N19	1-I4
C541	1:N18	1-I4
C542	1:H9	1-A6
C543	1:G9	1-B6
C544	1:L4	1-B0
C545	1:L14	1-N0
C546	1:D6	1-V1
C547	1:G6	1-S1
C600	1:F8	1-C1
C601	1:K4	1-B1
C602	1:L4	1-B0
C603	1:K5	1-C1
C604	1:F10	1-B2
C605	1:K6	1-B0
C606	1:J8	1-C2
C607	1:L3	1-E2
C608	1:L5	1-D1
C609	1:L4	1-E1
C610	1:K5	1-D0
C611	1:L3	1-E1
C612	1:L8	1-G1
C613	1:M5	1-E0
C614	1:M5	1-E0
C615	1:P5	1-F0
C616	1:N4	1-F0
C617	1:N3	1-G0
C618	1:M5	1-H0
C619	1:G15	1-I0
C620	1:J16	1-J0
C621	1:K16	1-J0
C622	1:H15	1-H0
C623	1:C9	1-L0
C624	1:B6	1-N1
C625	1:C6	1-N1
C626	1:L14	1-O0
C627	1:E10	1-M0
C628	1:E8	1-M0
C629	1:L14	1-N0
C630	1:C5	1-T1
#C631	1:G6	1-S2
C632	1:G7	1-T2
C633	1:E7	1-U2
C634	1:F5	1-U1
C635	1:F5	1-U2
C636	1:E5	1-V1
C637	1:D4	1-U1
C638	1:C4	1-V0
C639	1:G4	1-V0
C640	1:G3	1-U0
C641	1:C4	1-S0
C642	1:C3	1-R1
C643	1:D3	1-Q0
C644	1:E3	1-Q0
C645	1:C3	1-B9
C646	1:F5	1-Q0
C647	1:C4	1-S0
C648	1:L7	1-C0
C650	1:D10	1-L1
C651	1:C6	1-N1
#C700	1:C9	1-L1
#C701	1:D15	1-P3
C702	1:F12	1-R1
#C703	1:C9	1-V5
#C704	1:E2	1-P1
C705	1:D15	1-C6
#C730	1:G5	1-S1
C501A	1:J13	1-C8
D500	1:C10	1-K3
D500	1:C10	1-K3
DISABLE	2:F1	1-U0
IC501	1:H14	1-E8
#IC503	1:J12	1-I6
IC504	1:N22	1-H9
IC506	1:D11	1-M4
IC507	1:C14	1-O4
IC509	1:D19	1-L7
#IC510	1:E17	1-V6
#IC510	1:E17	1-O2
#IC510	1:E17	1-W5
#IC510	1:E17	1-V6
#IC510	1:E17	1-O3
IC511	1:H16	1-V3
IC511	1:H16	1-G5
IC511	1:H16	1-N5
IC511	1:H16	1-I5
IC511	1:H16	1-J4
#IC512	1:C17	1-K3
#IC512	1:C17	1-L3
#IC512	1:C17	1-M2
#IC512	1:C17	1-V5
#IC512	1:C17	1-L2
IC513	1:G9	1-A7
IC601	1:M4	1-E0
IC601	1:M4	1-T3
IC601	1:M4	1-C0
IC601	1:M4	1-F1
IC601	1:M4	1-G0
IC602	1:K15	1-H0
IC602	1:K15	1-C7
IC602	1:K15	1-K0
IC602	1:K15	1-O0
IC602	1:K15	1-T3
IC603	1:E4	1-U3
IC603	1:E4	1-P0
IC603	1:E4	1-V1
IC603	1:E4	1-R0
IC603	1:E4	1-A2
IC604	1:K8	1-H2
IC604	1:K8	1-V3
IC604	1:K8	1-C5
IC614	1:E8	1-J1
IC614	1:E8	1-C1
IC614	1:E8	1-M0
IC614	1:E8	1-N1
ID	2:N14	1-T4
L501	1:N19	1-I4
P1	1:G10	1-U9
P2	1:E14	1-U8
Q501	1:C12	1-C9
Q502	1:K11	1-D9
Q503	1:K10	1-D9
Q504	1:F16	1-D6
Q505	1:C12	1-K4
Q506	1:E16	1-C6
Q507	1:L22	1-D7
Q508	1:E16	1-C6
Q509	1:E16	1-D6
Q510	1:F16	1-E6
#Q518	1:C7	1-J4
Q520	1:G18	1-E6
Q601	1:E9	1-J1
Q602	1:D9	1-M1
Q603	1:F6	1-U1
Q604	1:H8	1-W2
Q605	1:F2	1-T0
Q606	1:D7	1-W1
Q607	1:D7	1-W0
Q608	1:G8	1-W2
R501	1:C12	1-B9
R502	1:C12	1-C9
R503	1:K11	1-D9
R504	1:J10	1-D8
R505	1:L21	1-D7
R506	1:L21	1-D7
R507	1:D12	1-C9
R508	1:L21	1-D7
R509	1:K14	1-B7
R510	1:J13	1-C8
R511	1:J9	1-B6
R512	1:J8	1-C6
R513	1:D10	1-K3
R514	1:J9	1-C4
R515	1:J9	1-C5
R516	1:F16	1-D6
R518	1:D3	1-B7
R519	1:D3	1-B7
R520	1:H15	1-E7
R521	1:M22	1-D8
R522	1:M22	1-D8
R523	1:B6	1-D4
R524	1:K21	1-E5
R525	1:K21	1-G8
R526	1:G15	1-F8
R527	1:L21	1-G9
R528	1:L21	1-H8
R529	1:E11	1-F8
R530	1:M19	1-I8
R531	1:M21	1-G6
R532	1:F12	1-J7
R533	1:G17	1-I5
R534	1:G16	1-I5
R535	1:E12	1-K4
R536	1:C10	1-K4
R537	1:D12	1-K4
R538	1:C11	1-L5
R539	1:E11	1-L5
R540	1:E11	1-L5
R541	1:E12	1-M5
R542	1:J10	1-E9
R543	1:J10	1-D9
R544	1:E11	1-Q7
R546	1:C6	1-Q4
R547	1:C11	1-L5
R568	1:D18	1-L7
R569	1:H17	1-G5
R570	1:J16	1-G5
R571	1:L17	1-I6
R572	1:K17	1-I6
R574	1:H3	1-B6
R575	1:G17	1-E6
R578	1:G18	1-F6
R579	1:G17	1-E6
R580	1:J11	1-J6
R581	1:G17	1-E7
R582	1:G16	1-E7
R583	1:K21	1-G9
R584	1:F16	1-E6
R585	1:K10	1-C8
R586	1:K10	1-D8
R592	1:F14	1-H5
R593	1:F14	1-H4
R595	1:F17	1-E6
#R596	1:K21	1-G4
R599	1:L17	1-I6
R600	1:K8	1-B2
R601	1:F8	1-B1
R602	1:P3	1-D0
R603	1:K5	1-B0
R604	1:K5	1-B0
R605	1:K5	1-B0
R606	1:F9	1-B1
R607	1:E8	1-D1
R608	1:L5	1-D0
R609	1:N4	1-D0
R610	1:C9	1-F4
R611	1:M5	1-D1
R612	1:K8	1-D2
R613	1:K4	1-D1
R614	1:L4	1-E1
R615	1:K8	1-G2
R616	1:L9	1-G1
R617	1:L8	1-G2
R618	1:L9	1-H1
R619	1:N4	1-E0
R620	1:M5	1-F0
R621	1:P2	1-F0

Device	PCB	Circuit
R622	1:L5	1-C0
R623	1:N3	1-G0
R624	1:N3	1-G0
R625	1:H15	1-I1
R626	1:P3	1-H0
R627	1:J16	1-H0
R628	1:G15	1-I0
R629	1:G15	1-I0
R630	1:D8	1-M0
R631	1:E8	1-M0
R632	1:K16	1-J0
R633	1:L15	1-K0
R634	1:L16	1-K0
R635	1:E10	1-J1
R636	1:D8	1-K1
R637	1:C8	1-L0
R638	1:C8	1-L0
R639	1:B5	1-B4
R640	1:C8	1-L0
R641	1:K14	1-N0
R642	1:D8	1-M1
R643	1:M15	1-N0
R644	1:J14	1-N0
R645	1:C5	1-O1
R646	1:K14	1-O0
R647	1:K13	1-O0
R648	1:D10	1-M2
R649	1:D6	1-V1
R650	1:D8	1-V1
R651	1:C3	1-B9
R652	1:G7	1-S2
R653	1:F7	1-T2
R654	1:F7	1-T2
R655	1:F6	1-U2
R656	1:F6	1-T2
R657	1:G6	1-T1
R658	1:D5	1-V1
R659	1:F5	1-T1
R660	1:F6	1-U2
R661	1:E6	1-V2
R662	1:G8	1-W2
R663	1:G8	1-V2
R664	1:D5	1-V1
R665	1:D4	1-U1
R666	1:D8	1-W0
R667	1:G2	1-U0
R668	1:D4	1-U0
R669	1:F2	1-U0
R670	1:F2	1-T0
R671	1:F2	1-T0
R672	1:C5	1-S0
R673	1:C4	1-S0
R674	1:C4	1-S0
R675	1:C3	1-S0
R676	1:D3	1-R1
R677	1:D3	1-R0
R678	1:F4	1-Q0
R679	1:E3	1-Q0
R680	1:D3	1-T1
R681	1:F3	1-P0
R682	1:F4	1-Q0
R683	1:F4	1-Q0
R684	1:L9	1-G1
R685	1:G2	1-V0
R686	1:H8	1-V2
R687	1:L6	1-A0
R688	1:K6	1-A0
R689	1:F11	1-I2
R690	1:F10	1-J2
R691	1:C3	1-T1
R692	1:F8	1-C1
R693	1:C10	1-F4
R694	1:N18	1-H5
R695	1:E18	1-I5
R696	1:G16	1-I4
R697	1:C11	1-L4
R698	1:J15	1-M3
R699	1:C11	1-G3
R700	1:C13	1-O8
R701	1:C13	1-P8
R702	1:C13	1-P8
R703	1:D13	1-P8
R704	1:C14	1-P8
R705	1:C15	1-Q8
R706	1:C15	1-Q8
R707	1:C15	1-Q8
R708	1:E3	1-P1
#R710	1:D5	1-S1
#R711	1:D5	1-U1
#R712	1:D13	1-L2
#R713	1:C5	1-S1
#R714	1:B16	1-N4
#R715	1:B16	1-N4
R720	1:E15	1-C6
R721	1:D16	1-C6
#R722	1:D16	1-C6
#R723	1:D16	1-C6
R724	1:E16	1-D6
R725	1:E15	1-D7
R726	1:E15	1-D7
R727	1:F16	1-E6
#R735	1:J21	1-G5
#R751	1:G7	1-S2
RV507	1:L22	1-D7
#RV508	1:K22	1-G4
S1	1:L2	1-V9
S2	1:B2	1-V9
S3	1:E20	1-U8
S8	1:H5	1-V8
S13	1:B4	1-V7
S14	1:B10	1-V7
S15	1:B14	1-V6
SK505	1:K19	1-G6
#SPEC1	1:M14	1-T4
#SPEC2	1:M14	1-T4
#SPEC3	1:M14	1-U4
#SPEC4	1:M13	1-U4
#SPEC5	1:M13	1-U4
#SPEC6	1:M13	1-V4
#SPEC7	1:M13	1-V4
#SPEC8	1:M12	1-V4
#SPEC9	1:M12	1-W4
#SPEC10	1:M12	1-W4
TP601	2:J5	1-A3
TP602	2:K7	1-G1
TP603	2:M9	1-I2
TP604	2:L14	1-O0
TP605	2:F3	1-P0
TP606	2:F1	1-T1
TP607	2:E5	1-U2
TP608	2:B8	1-B3
TP609	2:K21	1-G9
TP610	2:E19	1-M8
TP611	2:F16	1-E6
TP614	1:C11	1-I2
TP615	2:G7	1-R4
TP616	2:B19	1-B4
TP617	2:B19	1-B3
TP618	2:D10	1-L1
TP619	2:B20	1-R1
TP620	2:E3	1-Q1
X501	1:N21	1-G6
#X502	1:J13	1-J6

7.11 T2020, T203X, T2040, T2050 & T2060 HC11 Logic PCB

T2000 HC11 Logic Parts List (IPN 220-01344-04)

Parts List Amendments

Ref	Var	IPN	Description
#012	2050	038-13680-00	RES 0603 CHIP 680E 1/16W +-5%
#015	2020	038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
#017	2060	038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
#018	203X	038-15270-00	RES 0603 CHIP 27K 1/16W +-5%
#019	2040	038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
C501		015-23680-08	CAP CER 0805 CHIP 680P 10% X7R 50V
C502		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C503		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C504		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C505		018-12390-10	CAP 0603 CHIP 39P 50V NPO +-1%
C506		018-12220-10	CAP 0603 CHIP 22P 50V NPO +-1%
C507		018-12270-10	CAP 0603 CHIP 27P 50V NPO +-1%
C508		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C509		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C510		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C511		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C512		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C514		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C514A		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C514B		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C516		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C517		015-23680-08	CAP CER 0805 CHIP 680P 10% X7R 50V
C519		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C520		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C522		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C523		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C524		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
C525		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C526		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C527		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C529		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C530		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C532		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C533		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C534		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C535		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C536		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 26
C537		016-07470-01	CAP ELECT 6X4MM CHIP 4M7 20% 16V
C538		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C540		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C541		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C550		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C560		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C570		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C571		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C600		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C601		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 26
C602		018-12820-10	CAP 0603 CHIP 82P 50V NPO +-1%
C603		015-23220-01	CAP CER 0805 CHIP 220P 5% NPO 50V
C605		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 26
C607		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C608		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C609		018-12470-10	CAP 0603 CHIP 47P 50V NPO +-1%
C610		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 26
C611		018-13100-10	CAP 0603 CHIP 100P 50V NPO +-1%
C613		015-24470-08	CAP CER 0805 CHIP 4N7 10% X7R 50V
C614		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C615		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C616		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C617		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C618		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C619		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C620		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C621		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C622		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C623		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C624		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C625		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C626		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 26
C627		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C628		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C629		015-23220-01	CAP CER 0805 CHIP 220P 5% NPO 50V
C630		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
#C631	2020	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
#C631	2040	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
#C631	2050	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C635		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
C635A		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
C636		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C637		018-11470-10	CAP 0603 CHIP 4P7 50V NPO +-0.1P
C638		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C639		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
C640		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
C641		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C642		015-23220-01	CAP CER 0805 CHIP 220P 5% NPO 50V
C643		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C644		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C645		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C646		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 26
C647		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C648		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
C650		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C651		018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C652		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C653		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
#C661	2020	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C661	203X	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C661	2040	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C661	2050	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C661	2060	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C662	2020	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C662	203X	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C662	2040	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C662	2050	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C662	2060	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C663	2020	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C663	203X	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C663	2040	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C663	2050	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C663	2060	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C664	2020	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C664	2040	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C664	2050	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C664	2060	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C665	2020	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C665	2040	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C665	2050	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C665	2060	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C666	2020	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C666	2040	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C666	2050	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C666	2060	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C667	2020	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C667	2040	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C667	2050	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C667	2060	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C700		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 26
C701		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
#C704	2020	014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-1
#C704	203X	014-07470-00	CAP TANT CHIP 4U7 'B' CASE 16V +-1
#C704	2040	014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-1
#C704	2050	014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-1
#C704	2060	014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-1
C705		015-24470-08	CAP CER 0805 CHIP 4N7 10% X7R 50V
#C706	203X	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
#C706	2060	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C720		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V

Ref	Var	IPN	Description
C721		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C722		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C801		015-25220-08	CAP CER 0805 CHIP 22N 10% X7R 50V
C802		018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C803		018-11470-10	CAP 0603 CHIP 4P7 50V NPO +-0.1P
C804		015-23180-01	CAP CER 0805 CHIP 180P 5% NPO 50V
C805		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C806		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 26
C808		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
#C810	PE	018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C811		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C812	203X	018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
#C812	2040	018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
#C812	2050	018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
#C812	PE	018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C813		018-11560-10	CAP 0603 CHIP 5P6 50V NPO +-0.1P
C814		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C815		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C832		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
D502		001-10099-01	(S) DIODE BAV99W DUAL SML SIG SOT323
D503		001-10099-01	(S) DIODE BAV99W DUAL SML SIG SOT323
D800		001-10099-01	(S) DIODE BAV99W DUAL SML SIG SOT323
#F02	PE	038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
#IC500	2020	002-10481-80	LS) IC SMD M48Z18 8K*8 SNAPHAT RA
#IC500	203X	002-10481-80	LS) IC SMD M48Z18 8K*8 SNAPHAT RA
#IC500	2040	002-10481-80	LS) IC SMD M48Z18 8K*8 SNAPHAT RA
#IC500	2050	002-10483-50	LS) IC SMD M48Z35 32K*8 SNAPHAT R
#IC500	2060	002-10481-80	LS) IC SMD M48Z18 8K*8 SNAPHAT RA
IC501		002-20290-10	(S) IC AM29F010-120JC FLASH MEM 128*8K
IC502		002-74900-00	(S) IC SMD 74HC00 QUAD 2 I/P NAND
#IC503	203X	002-10140-21	(S) IC MC14021BDR2 8BIT SHIFT REG
#IC503	2060	002-10140-21	(S) IC MC14021BDR2 8BIT SHIFT REG
IC504		002-10340-64	(S) IC SMD MC34064 LO VOLT SENSE
IC505		002-16800-11	(S) IC SMD MC68HC11A1 MCU PLCC52
IC510		002-74900-40	(LSH) IC SMD TC7S04F SINGLE INV GATE S
IC511		002-74900-40	(LSH) IC SMD TC7S04F SINGLE INV GATE S
IC513		002-10078-05	(S) IC SMD 78L05 5V REG
IC514		002-10078-08	(S) IC SMD 78L08 8V REG SO8
#IC517	203X	002-20004-39	(S) IC FX439LS FFSK MODEM 24 PLCC
#IC517	2040	002-20046-90	(S) IC FX469LS FFSK MODEM 1200/24
#IC517	2050	002-20046-90	(S) IC FX469LS FFSK MODEM 1200/24
IC555		002-16562-60	(LSH) IC CMOS6X GATE ARRAY (T3000/T205
IC601		002-10003-24	(S) IC SMD 324 QUAD OP AMP SO14
IC603		002-10003-24	(S) IC SMD 324 QUAD OP AMP SO14
IC604		002-10003-24	(S) IC SMD 324 QUAD OP AMP SO14
#IC606	2020	002-74901-32	(S) IC SMD 74HC132 HCMOS QUAD SCH
#IC606	203X	002-74901-32	(S) IC SMD 74HC132 HCMOS QUAD SCH
#IC606	2040	002-74901-32	(S) IC SMD 74HC132 HCMOS QUAD SCH
#IC606	2050	002-74901-32	(S) IC SMD 74HC132 HCMOS QUAD SCH
#IC606	2060	002-74901-32	(S) IC SMD 74HC132 HCMOS QUAD SCH
IC614		002-10040-53	(S) IC 4053 SMD TRIPLE 2CH MULTI-PLEXR
IC801		002-10003-24	(S) IC SMD 324 QUAD OP AMP SO14
IC802		002-10003-58	(S) IC SMD LM358 DUAL OP AMP
L501		056-10330-02	(L) IND SMD 330NH SIEMENS SMID02
MPT3-1		290-00010-41	CELL M4Z28 SNAPHAT BATTERY PACK
Q501		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL
Q504		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL
Q505		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL
Q506		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL
Q507		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL
Q508		000-10008-69	(S) XSTR SMD BC869 PNP 1W 2A SOT-89
Q509		000-10003-12	(S) XSTR SMD BFR31 N JFET SOT-23
Q510		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL
#Q511	2020	000-10029-55	(S) XSTR SMD MJD2955 PWR PNP 10A 6
#Q511	2040	000-10029-55	(S) XSTR SMD MJD2955 PWR PNP 10A 6
#Q511	2050	000-10029-55	(S) XSTR SMD MJD2955 PWR PNP 10A 6
Q513		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL
Q514		000-10085-71	(S) XSTR SMD BC857BW PNP SOT-323 SMALL
Q515		000-10085-71	(S) XSTR SMD BC857BW PNP SOT-323 SMALL
Q516		000-10085-71	(S) XSTR SMD BC857BW PNP SOT-323 SMALL
Q517		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL
Q601		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL
Q602		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL
Q604		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL
Q605		000-10085-71	(S) XSTR SMD BC857BW PNP SOT-323 SMALL
Q606		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL
Q607		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL
Q608		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL
Q700		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL
Q800		000-10003-12	(S) XSTR SMD BFR31 N JFET SOT-23
Q802		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL
Q804		000-10084-81	(S) XSTR SMD BC848BW NPN SOT-323 SMALL
R400		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R402		038-15270-00	RES 0603 CHIP 27K 1/16W +-5%
R403		038-15270-00	RES 0603 CHIP 27K 1/16W +-5%
R500		038-13470-00	RES 0603 CHIP 470E 1/16W +-5%

Ref	Var	IPN	Description
R501		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R502		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R503		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R504		038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
R505		036-16150-00	RES M/F 0805 CHIP 150K 5%
R506		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R507		038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
RV507		042-15500-01	RES PRESET SMD 50K +-25% 4X4.5X2.5MM 0
R508		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R509		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R510		036-18100-00	RES M/F 0805 CHIP 10M 10%
R511		038-16470-00	RES 0603 CHIP 470K 1/16W +-5%
R512		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R514		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R515		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R516		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
#R517	2020	038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
#R517	203X	038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
#R517	2040	038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
#R517	2050	038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
#R517	2060	038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
R518		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R519		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R520		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R521		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R522		038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
R523		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
#R524	2020	036-16330-00	RES M/F 0805 CHIP 330K 5%
#R524	203X	036-16330-00	RES M/F 0805 CHIP 330K 5%
#R524	2040	036-16330-00	RES M/F 0805 CHIP 330K 5%
#R524	2050	036-16330-00	RES M/F 0805 CHIP 330K 5%
#R524	2060	036-16330-00	RES M/F 0805 CHIP 330K 5%
R525		038-13330-00	RES 0603 CHIP 330E 1/16W +-5%
R525A		038-13330-00	RES 0603 CHIP 330E 1/16W +-5%
R526		038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
R529		038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
R530		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R531		038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
R532		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R533		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R534		038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
R535		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R537		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R538		036-15220-00	RES M/F 0805 CHIP 22K 5%
R539		038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
R540		038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
R541		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R543		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R544		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R545		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R547		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R548		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R549		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R550		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R551		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
#R552	2020	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R552	2040	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R552	2050	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
R553		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R554		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R556		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R559		038-13220-00	RES 0603 CHIP 220E 1/16W +-5%
R560		038-13220-00	RES 0603 CHIP 220E 1/16W +-5%
R562		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R563		036-14390-00	RES M/F 0805 CHIP 3K9 5%
R564		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R565		036-14270-00	RES M/F 0805 CHIP 2K7 5%
R566		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R566A		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R567		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R568		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R569		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R570		038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
#R571	2020	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R571	203X	038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
#R571	2040	038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
#R571	2050	038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
#R571	2060	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R571	PE	038-16470-00	RES 0603 CHIP 470K 1/16W +-5%
R572		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R573		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R578		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R580		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R581		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R582		038-13470-00	RES 0603 CHIP 470E 1/16W +-5%
R583		038-13470-00	RES 0603 CHIP 470E 1/16W +-5%
R584		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R589		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R590		038-16470-00	RES 0603 CHIP 470K 1/16W +-5%
R591		036-13680-00	RES M/F 0805 CHIP 680E 5%
R592		036-13680-00	RES M/F 0805 CHIP 680E 5%
R594		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
#R596	2020	036-15390-00	RES M/F 0805 CHIP 39K 5%

Ref	Var	IPN	Description
#R596	203X	036-15390-00	RES M/F 0805 CHIP 39K 5%
#R596	2040	036-15390-00	RES M/F 0805 CHIP 39K 5%
#R596	2050	036-15390-00	RES M/F 0805 CHIP 39K 5%
#R596	2060	036-15390-00	RES M/F 0805 CHIP 39K 5%
#R597	2020	038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
#R597	203X	038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
#R597	2040	038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
#R597	2050	038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
#R597	2060	038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R598		038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
#RV599	203X	042-15500-01	RES PRESET SMD 50K +-25% 4X4.5X2.
#RV599	2040	042-15500-01	RES PRESET SMD 50K +-25% 4X4.5X2.
#RV599	2050	042-15500-01	RES PRESET SMD 50K +-25% 4X4.5X2.
R600		038-13220-00	RES 0603 CHIP 220E 1/16W +-5%
R602		036-14820-00	RES M/F 0805 CHIP 8K2 5%
R603		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R604		038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
R605		038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
R606		038-16470-00	RES 0603 CHIP 470K 1/16W +-5%
R607		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R608		036-15220-00	RES M/F 0805 CHIP 22K 5%
R609		038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
R610		038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
R611		038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
R613		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R614		038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
R615		036-15270-00	RES M/F 0805 CHIP 27K 5%
R616		036-16150-00	RES M/F 0805 CHIP 150K 5%
R617		036-16150-00	RES M/F 0805 CHIP 150K 5%
R619		038-15270-00	RES 0603 CHIP 27K 1/16W +-5%
R620		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R621		036-16390-00	RES M/F 0805 CHIP 390K 5%
R622		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R623		038-14680-00	RES 0603 CHIP 6K8 1/16W +-5%
R624		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R625		038-14680-00	RES 0603 CHIP 6K8 1/16W +-5%
R626		038-15270-00	RES 0603 CHIP 27K 1/16W +-5%
R627		036-16390-00	RES M/F 0805 CHIP 390K 5%
R628		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R629		038-15270-00	RES 0603 CHIP 27K 1/16W +-5%
R630		038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
R631		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R632		036-16390-00	RES M/F 0805 CHIP 390K 5%
R633		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R634		038-14680-00	RES 0603 CHIP 6K8 1/16W +-5%
R635		038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
R636		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R637		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R638		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R639		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R640		038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
R641		036-16150-00	RES M/F 0805 CHIP 150K 5%
R642		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R643		036-16330-00	RES M/F 0805 CHIP 330K 5%
R644		038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
R645		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R646		036-16330-00	RES M/F 0805 CHIP 330K 5%
R647		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R648		038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
R649		038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
R650		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R651		038-15150-00	RES 0603 CHIP 15K 1/16W +-5%
R652		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R653		038-13680-00	RES 0603 CHIP 680E 1/16W +-5%
#R656	2020	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R656	2040	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R656	2050	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
R658		038-16150-00	RES 0603 CHIP 150K 1/16W +-5%
R659		038-13680-00	RES 0603 CHIP 680E 1/16W +-5%
R660		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R662		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R663		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R664		038-15220-00	RES 0603 CHIP 22K 1/16W +-5%
R665		038-16470-00	RES 0603 CHIP 470K 1/16W +-5%
R666		036-16150-00	RES M/F 0805 CHIP 150K 5%
R667		038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
R668		038-16470-00	RES 0603 CHIP 470K 1/16W +-5%
R669		036-14180-00	RES M/F 0805 CHIP 1K8 5%
R670		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R671		038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
R672		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R673		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R674		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R675		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R676		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R677		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R678		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R679		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R680		036-14270-00	RES M/F 0805 CHIP 2K7 5%
R681		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R682		038-14180-00	RES 0603 CHIP 1K8 1/16W +-5%
R683		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R684		036-16120-00	RES M/F 0805 CHIP 120K 5%
R685		038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
R686		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R687		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R688		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R689		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R690		038-15150-00	RES 0603 CHIP 15K 1/16W +-5%
R691		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R692		036-15220-00	RES M/F 0805 CHIP 22K 5%
R699		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R700		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R701		038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
R702		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R704		038-13330-00	RES 0603 CHIP 330E 1/16W +-5%
R705		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R706		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R709		038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
R710		038-13220-00	RES 0603 CHIP 220E 1/16W +-5%
R711		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R712		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R715		038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R717	203X	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R717	2040	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R717	2050	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R717A	2020	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R717A	2060	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
R720		038-15560-00	RES 0603 CHIP 56K 1/16W +-5%
#R720	2020	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R720	203X	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R720	2040	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R720	2050	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R720	2060	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
R721		038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
#R730	2020	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R730	203X	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R730	2040	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R730	2050	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R730	2060	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R731	2020	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R731	203X	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R731	2040	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R731	2050	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R731	2060	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R732	2020	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R732	203X	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R732	2040	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R732	2050	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
#R732	2060	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
R801		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R802		038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
R803		036-16470-00	RES M/F 0805 CHIP 470K 5%
R804		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R805		038-13680-00	RES 0603 CHIP 680E 1/16W +-5%
R806		038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R807		038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
R808		038-14220-00	RES 0603 CHIP 2K2 1/16W +-5%
R809		038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
R810		038-13220-00	RES 0603 CHIP 220E 1/16W +-5%
R811		038-12220-00	RES 0603 CHIP 22E 1/16W +-5%
R812		038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
R845		038-15560-00	RES 0603 CHIP 56K 1/16W +-5%
R846		038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
R847		038-12100-00	RES 0603 CHIP 10E 1/16W +-5%
S1		240-10000-07	CONN SMD SKT 16WAY 2ROW MICROMATCH
S2		240-10000-06	CONN SMD SKT 12WAY 2ROW MICROMATCH
#S8	203X	240-10000-07	CONN SMD SKT 16WAY 2ROW MICROMATCH
#S8	2060	240-10000-07	CONN SMD SKT 16WAY 2ROW MICROMATCH
#S9	2020	240-10000-05	CONN SMD SKT 8WAY 2ROW MICROMATCH
#S9	2040	240-10000-05	CONN SMD SKT 8WAY 2ROW MICROMATCH
#S9	2050	240-10000-05	CONN SMD SKT 8WAY 2ROW MICROMATCH
#S13	OPT	240-10000-06	CONN SMD SKT 12WAY 2ROW MICROMATCH
#S14	OPT	240-10000-07	CONN SMD SKT 16WAY 2ROW MICROMATCH
#S16	OPT	240-10000-06	CONN SMD SKT 12WAY 2ROW MICROMATCH
#S17	OPT	240-10000-06	CONN SMD SKT 12WAY 2ROW MICROMATCH
#S18	OPT	240-10000-06	CONN SMD SKT 12WAY 2ROW MICROMATCH
SK501		240-04043-20	SKT 32 PIN SMD PLCC CHIP CARRIER
TP610		005-10000-10	TEST POINT SMD 0805 2.0 X 1.25 X 1.45
#T3K44	2020	240-10000-01	CONN SMD 24WAY (PLUG)
#T3K44	203X	240-10000-01	CONN SMD 24WAY (PLUG)
#T3K44	2040	240-10000-01	CONN SMD 24WAY (PLUG)
#T3K44	2050	240-10000-01	CONN SMD 24WAY (PLUG)
#T3K45		240-10000-01	CONN SMD 24WAY (PLUG)
X501		274-01072-00	XTAL 8.064MHZ HC-49U/S HOLDER C/W TEFLO

Variants: PE = Pre-emphasised FFSK
OPT = Options connectors fitted

T2000 HC11 Logic Mechanical & Miscellaneous Parts

IPN	Description
219-02585-00	CABLE ASSEMBLY T2000 ENHD PWR/SPKR CABLE
220-01344-04	(L) PCB T2000 LOGIC HCII COMMON PLATFORM
240-00020-12	PLUG MICROPHONE BT SR937 (PIN 2 MISSING)
240-00100-13	PLUG COAX BNC CORD MTG CRIMP URM76
240-02010-75	SKT RECEPTL SML 172775-1
252-00010-37	MIC AWC DYNAMIC 600E 6WAY M095D TINSEL SHLD'
252-00010-49	MIC CLIP (SPRING STEEL CONTACT)
265-00010-60	FUSE 10A 12V AUTOMOTIVE STAPLE TYPE
303-23134-02	COVER TOP A1M2504 T2000 PNTD CMPLT
303-30062-02	CRADLE BODY A3M2551 T2000 BOTTOM
303-30063-02	CRADLE BODY A3M2552 T2000 TOP
303-30064-00	CRADLE CLIP A1M2550 T2000
303-30065-03	KEY CRADLE T2000 SII (BLANK)
340-00010-23	FUSEHLDR INLINE 3M 972
349-00010-49	SCREW SELFTAP NO 10X1/2 IN TYPE AB PAN POZI
349-00020-32	SCREW TAPTITE M3X8MM PAN POZI BZ
365-00100-20	LABEL WHITE S/A 28X11MM QUIKSTIK RW718/4
353-00010-32	WASHER M5 SHAKEPROOF EXT BZ
360-02003-01	GROMMET MIC CORD T2000 SII
362-01028-00	GASKET A4M2652 130X3MM CONDUCT STRIPS T2000 ADD GASKET TO REAR OF TOP COVER
365-01376-00	LABEL A4A724 SOFTWARE WARNING GUIDE
365-01516-00	LABEL T2000 MODEL ID/TYPE APPROVAL
399-00010-52	BAG PLASTIC 100*150MM
410-01099-02	(L) PKG CARTON T2000 SERIES II
410-01101-01	CARTON T700/T2000 SII OUTER (5 UNIT EA)

T2020 VARIANT PARTS

005-00000-40	MODULE RMT 5W 4OHM SPKR IN ENCLSR T2000 PACF

T2040 VARIANT PARTS

005-00000-40	MODULE RMT 5W 4OHM SPKR IN ENCLSR T2000 PACF

T2050 VARIANT PARTS

005-00000-40	MODULE RMT 5W 4OHM SPKR IN ENCLSR T2000 PACF

T2000 HC11 Logic Grid Reference Index (IPN 220-01344-04)

Device	PCB	Circuit
#012	1:G8	1-T1
#014	1:G8	1-T1
#015	1:G8	1-T1
#016	1:H8	1-T1
#017	1:H8	1-U1
#018	1:H8	1-U1
#019	1:H8	1-U1
A15ROM	2:E12	2-F5
A16ROM	2:E12	2-F5
ALC	2:G5	1-V1
BOARD	2:H8	1-S1
C501	1:F9	2-C5
C502	1:G10	2-L8
C503	1:J14	2-T9
C504	1:H13	2-Q8
C505	1:H15	2-R5
C506	1:H15	2-Q5
C507	1:H15	2-Q5
C508	1:J15	2-P5
C509	1:F9	2-D5
C510	1:B4	2-L0
C511	1:E11	2-U4
C512	1:E9	2-D3
C514	1:H4	2-B9
C516	1:B15	2-U2
C517	1:F8	2-E6
C519	1:H13	2-P8
C520	1:E11	2-P3
C522	1:F3	2-B4
C523	1:E8	2-C4
C524	1:B3	2-B6
C525	1:G4	2-B3
C526	1:H4	2-B3
C527	1:G3	2-E3
C529	1:G9	1-V6
C530	1:C3	1-V6
C532	1:G4	2-V8
C533	1:E11	2-U2
C534	1:D10	2-S3
C535	1:E10	2-S1
C536	1:E8	2-R1
C537	1:B6	2-S0
C538	1:B15	2-T1
C540	1:D6	1-D7
C541	1:D6	1-E7
C550	1:E15	2-O6
C560	1:E15	2-C0
C570	1:D11	2-J6
C571	1:D11	2-I6
C600	1:G4	2-T7
C601	1:J2	1-C8
C602	1:C3	1-B2
C603	1:C4	1-C3
C605	1:C4	1-A2
C607	1:D5	1-D6
C608	1:D6	1-D6
C609	1:D5	1-D6
C610	1:C3	1-D3
C611	1:D5	1-E6
C613	1:C3	1-E3
C614	1:C3	1-E3
C615	1:D3	1-F3
C616	1:E3	1-F3
C617	1:D3	1-H3
C618	1:D3	1-H3
C619	1:E4	1-I3
C620	1:E4	1-J3
C621	1:E3	1-J3
C622	1:E3	1-H3
C623	1:B4	1-L3
C624	1:B7	1-N5
C625	1:B6	1-O5
C626	1:C7	1-O4
C627	1:B7	1-N3
C628	1:B4	1-M2
C629	1:C6	1-N2
C630	1:H7	1-U4
#C631	1:F5	1-V5
#C632	1:F7	1-P4
C635	1:G3	2-A8
C636	1:J6	1-V4
C637	1:H6	1-V3
C638	1:H5	1-V3
C639	1:G6	1-V2
C640	1:J4	1-U2
C641	1:G5	1-S3
C642	1:G6	1-R3
C643	1:G7	1-Q3
C644	1:G7	1-Q3
C645	1:B3	2-B7
C646	1:H7	1-Q2
C647	1:H6	1-S3
C648	1:D2	1-E2
C650	1:B7	1-L4
C651	1:B6	1-N4
C652	1:F5	2-U6
C653	1:F5	2-V6
#C660	1:B5	1-I5
#C661	1:B5	1-J5
#C662	1:C8	1-T6
#C663	1:F12	1-T9
#C664	1:C3	1-Q9
#C665	1:H6	1-R9
#C666	1:F10	1-S9
#C667	1:D7	1-S9
C700	1:F6	1-Q7
C701	1:E6	1-R7
#C703	1:F6	1-Q7
#C704	1:F6	1-Q6
C705	1:G5	1-R6
#C706	1:G5	1-S7
C720	1:D12	2-G8
C721	1:B13	2-F2
C722	1:D15	2-B0
C801	1:C5	1-G6
C802	1:C5	1-G6
C803	1:C5	1-G6
C804	1:C5	1-H6
C805	1:C5	1-G6
C806	1:C6	1-K6
C808	1:C6	1-L7
#C810	1:D10	2-S2
C811	1:F9	2-S2
#C812	1:D10	2-S2
C813	1:D10	2-S1
C814	1:C6	1-S8
C815	1:E6	1-C6
C831	1:D5	1-E6
C832	1:F10	2-C5
C514A	1:H4	2-A9
C514B	1:H4	2-B9
C635A	1:F3	2-A8
D502	1:E3	2-U7
D502	1:E3	2-U7
D503	1:B7	2-N1
D503	1:B7	2-M0
D800	1:C6	1-K7
D800	1:C6	1-K6
DISABLE	2:G5	1-V2
#F01	1:H8	1-V1
#F02	1:J8	1-V1
#F03	1:J8	1-V1
FACTORY	2:J14	2-S7
FIDA	1:D11	1-H1
FIDB	1:B12	1-H1
#IC500	1:C14	2-F1
IC502	1:D15	2-B0
IC502	1:D15	2-M6
IC502	1:D15	2-R5
IC502	1:D15	2-T5
IC502	1:D15	2-S5
#IC503	1:G15	2-N5
IC504	1:H14	2-S9
IC505	1:G14	2-Q5
IC510	1:G5	2-V5
IC510	1:G5	2-U3
IC511	1:E15	2-A0
IC511	1:E15	2-S5
IC513	1:H3	2-A8
IC514	1:H3	2-A9
#IC517	1:E9	2-Q1
IC555	1:C12	2-I2
IC601	1:D3	1-E3
IC601	1:D3	1-Q9
IC601	1:D3	1-C2
IC601	1:D3	1-H2
IC601	1:D3	1-G2
IC603	1:H6	1-V3
IC603	1:H6	1-V8
IC603	1:H6	1-R3
IC603	1:H6	1-Q2
IC603	1:H6	1-Q9
IC604	1:F9	2-C5
IC604	1:F9	1-V7
IC604	1:F9	2-S2
IC604	1:F9	1-R9
IC604	1:F9	2-E3
#IC605	1:F11	1-I8
#IC605	1:F11	1-T9
#IC605	1:F11	1-H8
#IC605	1:F11	1-H8
#IC605	1:F11	1-G8
#IC606	1:F11	1-J7
#IC606	1:F11	1-I8
#IC606	1:F11	1-U9
#IC606	1:F11	1-V9
#IC606	1:F11	1-V9
IC614	1:D4	1-H7
IC614	1:D4	1-T7
IC614	1:D4	1-M3
IC614	1:D4	1-J3
IC801	1:D5	1-L6
IC801	1:D5	1-F6
IC801	1:D5	1-J6
IC801	1:D5	1-H7
IC801	1:D5	1-S8
IC802	1:C7	1-S9
IC802	1:C7	1-O3
IC802	1:C7	1-K2
ID	2:H8	1-S1
L501	1:E6	1-D8
MANUAL	2:H11	2-S8
MODE	2:E13	2-O8
ONLY	2:J13	2-S7
P1	1:F11	2-U0
PAD1	2:D9	2-F4
PAD2	2:E4	2-V9
PAD3	2:H5	2-C2
PAD6	2:B7	2-O4
Q501	1:H13	2-C7
Q504	1:J15	2-Q5
Q505	1:C9	2-K3
Q506	1:E3	2-T8
Q507	1:B10	2-Q4
Q508	1:B10	2-R4
Q509	1:F8	2-D6
Q510	1:A6	2-L3
#Q511	1:G4	2-V9
Q513	1:D10	2-T2
Q514	1:F8	2-C4
Q515	1:E8	2-C4
Q516	1:D8	2-D4
Q517	1:D8	2-D4
Q601	1:F7	1-J4
Q602	1:B7	1-M4
Q604	1:C8	1-W5
Q605	1:H5	1-T3
Q606	1:J7	1-W4
Q607	1:G7	1-W3
Q608	1:C8	1-W5
Q700	1:G5	1-S6
Q800	1:E5	1-C6
Q802	1:D4	1-I6
Q804	1:E5	1-F5
R400	1:D8	2-D4
R402	1:E8	2-D4
R403	1:D8	2-D4
R500	1:G4	2-T7
R501	1:H12	2-B7
R502	1:H13	2-C7
R503	1:F8	2-C4
R504	1:E9	2-E0
R505	1:F9	2-E5
R506	1:F9	2-E5
R507	1:E12	2-F8
R508	1:F9	2-D5
R509	1:F8	2-B6
R510	1:F9	2-C5
R511	1:F8	2-D3
R512	1:E9	2-D3
R514	1:E9	2-D2
R515	1:E9	2-E2
R516	1:D9	2-E3
#R517	1:E8	2-C4
R518	1:F8	2-B6
R519	1:D9	2-E5
R520	1:E9	2-E2
R521	1:G9	2-D6
R522	1:G9	2-D6
R523	1:F8	2-B5
#R524	1:E8	2-C4
R525	1:J14	2-T9
R526	1:J14	2-S9
R529	1:F8	2-C3
R530	1:H14	2-Q8
R531	1:H14	2-R8
R532	1:F15	2-R8
R533	1:F15	2-R8
R534	1:G15	2-R8
R535	1:H13	2-P8
R537	1:B6	2-L3
R538	1:A6	2-L3
R539	1:H15	2-Q5
R540	1:H14	2-Q5
R541	1:J15	2-P5
R543	1:E3	2-T9
R544	1:E3	2-U7
R545	1:E3	2-U8
R547	1:C8	2-K3
R548	1:C8	2-K0

Device	PCB	Circuit
R549	1:C8	2-K3
R550	1:C9	2-K3
R551	1:E11	2-O5
#R552	1:F15	2-N6
R553	1:F15	2-P8
R554	1:D8	2-F4
R556	1:H13	2-P8
R559	1:G4	2-W8
R560	1:G4	2-W8
R562	1:E10	2-T3
R563	1:E11	2-T2
R564	1:E10	2-T2
R565	1:D10	2-T3
R566	1:E10	2-R3
R567	1:D10	2-S2
R568	1:G10	2-S2
R569	1:G10	2-S2
R570	1:E13	2-M8
#R571	1:E10	2-S1
R572	1:H13	2-C7
R573	1:E10	2-T1
R578	1:B10	2-Q3
#R579	1:E10	2-P1
R580	1:B10	2-Q4
R581	1:B10	2-R4
R582	1:B10	2-R4
R583	1:B10	2-R4
R584	1:B8	2-S0
R589	1:B15	2-U1
R590	1:B4	2-J0
R591	1:C9	2-R3
R592	1:B9	2-S3
#R593	1:E10	2-Q1
R594	1:B15	2-U2
#R596	1:A15	2-U1
#R597	1:B15	2-U1
R598	1:B15	2-T1
R600	1:C6	1-L7
R602	1:E2	1-D2
R603	1:C4	1-A3
R604	1:C4	1-B3
R605	1:C3	1-B3
R606	1:E6	1-C6
R607	1:E6	1-D6
R608	1:C3	1-D3
R609	1:D3	1-D2
R610	1:F3	2-A5
R611	1:C3	1-E3
R613	1:D5	1-D6
R614	1:D5	1-E6
R615	1:C5	1-F6
R616	1:C5	1-G6
R617	1:C5	1-G6
R619	1:D2	1-F2
R620	1:C3	1-E2
R621	1:E3	1-F2
R622	1:C4	1-C2
R623	1:D3	1-G3
R624	1:D3	1-G2
R625	1:D4	1-I3
R626	1:D3	1-H2
R627	1:E3	1-H2
R628	1:D4	1-I2
R629	1:E4	1-J2
R630	1:B4	1-M2
R631	1:B4	1-M2
R632	1:C6	1-J2
R633	1:D6	1-K2
R634	1:D6	1-K3
R635	1:E7	1-J5
R636	1:F7	1-K4
R637	1:B3	1-L2
R638	1:B3	1-L3
R639	1:B4	2-B2
R640	1:B4	1-L2
R641	1:C7	1-N3
R642	1:B7	1-M4
R643	1:C6	1-N2
R644	1:B6	1-N3
R645	1:B6	1-O5
R646	1:C7	1-O3
R647	1:C7	1-O2
R648	1:B7	1-M5
R649	1:J7	1-V4
R650	1:G7	1-W3
R651	1:B3	2-C7
R652	1:B3	2-W6
R653	1:F5	2-V6
#R656	1:F5	2-U6
R658	1:J7	1-U4
R659	1:F5	2-U6
R660	1:J7	1-V5
R662	1:J8	1-W4
R663	1:C8	1-V5
R664	1:J7	1-V4
R665	1:H6	1-U3
R666	1:H5	1-W2
R667	1:H5	1-U2
R668	1:H5	1-U3
R669	1:H5	1-U2
R670	1:H5	1-T3
R671	1:H5	1-T2
R672	1:H6	1-T3
R673	1:H5	1-S3
R674	1:G5	1-S3
R675	1:H6	1-S2
R676	1:G6	1-R3
R677	1:G7	1-R3
R678	1:H7	1-Q2
R679	1:G7	1-Q3
R680	1:H5	1-U3
R681	1:G7	1-P2
R682	1:H7	1-Q2
R683	1:H7	1-Q2
R684	1:C5	1-G6
R685	1:H5	1-U2
R686	1:C8	1-V5
R687	1:C4	1-A3
R688	1:C4	1-A2
R689	1:D6	1-C8
R690	1:D6	1-D8
R691	1:H8	1-T4
R692	1:C4	1-C6
R699	1:F15	2-N5
#R700	1:F6	1-Q7
R700	1:G15	2-O5
R701	1:F6	1-Q7
R702	1:F6	1-R7
R704	1:F6	1-R7
R705	1:F5	1-S7
R706	1:G6	1-Q7
R709	1:F6	1-Q6
R710	1:F6	1-Q6
R711	1:G6	1-R6
R712	1:F5	1-R7
#R713	1:D12	2-E7
R714	1:D12	2-G6
R715	1:D12	2-G6
R716	1:D12	2-E7
#R717	1:E12	2-G6
#R720	1:G7	1-P4
R720	1:E5	1-F6
R721	1:C6	1-J7
#R730	1:B5	1-L5
#R731	1:B5	1-S5
#R732	1:H7	1-T5
#R733	1:H7	1-T6
R801	1:D4	1-I7
R802	1:D4	1-I6
R803	1:C6	1-J6
R804	1:C6	1-J6
R805	1:D6	1-K6
R806	1:D6	1-K7
R807	1:D6	1-K6
R808	1:D6	1-L7
R809	1:D6	1-M6
R810	1:C6	1-M7
R811	1:D6	1-S8
R812	1:B4	2-L0
R845	1:E5	1-F5
R846	1:C10	2-Q4
R847	1:B10	2-Q3
R525A	1:J14	2-T9
R566A	1:D10	2-R3
#R717A	1:E12	2-F6
RESET	2:H12	2-S8
RV507	1:B15	2-D5
#RV508	1:A15	2-U1
#RV599	1:B15	2-T1
S1	1:G2	2-A1
S1	1:G2	2-A3
S1	1:G2	2-A2
S1	1:G2	2-A2
S1	1:G2	2-A2
S1	1:G2	2-A2
S1	1:G2	2-A2
S1	1:G2	2-A2
S1	1:G2	2-A1
S1	1:G2	2-A4
S1	1:G2	2-A4
S1	1:G2	2-A3
S1	1:G2	2-A3
S1	1:G2	2-A3
S1	1:G2	2-A3
S1	1:G2	2-A3
S2	1:B2	2-A5
S2	1:B2	2-A7
S2	1:B2	2-A7
S2	1:B2	2-A7
S2	1:B2	2-A7
S2	1:B2	2-A7
S2	1:B2	2-A7
S2	1:B2	2-A6
S2	1:B2	2-A6
S2	1:B2	2-A6
S2	1:B2	2-A6
S2	1:B2	2-A6
#S8	1:E5	2-V5
#S8	1:E5	2-V5
#S8	1:E5	2-V5
#S8	1:E5	2-V5
#S8	1:E5	2-V5
#S8	1:E5	2-V5
#S8	1:E5	2-V6
#S8	1:E5	2-V4
#S8	1:E5	2-V4
#S8	1:E5	2-V4
#S8	1:E5	2-V4
#S8	1:E5	2-V4
#S8	1:E5	2-V4
#S8	1:E5	2-V5
#S8	1:E5	2-V6
#S8	1:E5	2-V5
#S9	1:F4	2-V7
#S9	1:F4	2-V7
#S9	1:F4	2-V7
#S9	1:F4	2-V7
#S9	1:F4	2-V7
#S9	1:F4	2-V7
#S9	1:F4	2-V6
#S13	1:A4	2-K0
#S13	1:A4	2-I0
#S13	1:A4	2-K0
#S13	1:A4	2-I0
#S13	1:A4	2-I0
#S13	1:A4	2-I0
#S13	1:A4	2-J0
#S13	1:A4	2-J0
#S13	1:A4	2-J0
#S13	1:A4	2-J0
#S13	1:A4	2-K0
#S13	1:A4	2-K0
S14	1:A7	2-N0
#S14	1:A7	2-N0
#S14	1:A7	2-O0
#S14	1:A7	2-O0
#S14	1:A7	2-O0
#S14	1:A7	2-O0
#S14	1:A7	2-P0
#S14	1:A7	2-P0
#S14	1:A7	2-L0
#S14	1:A7	2-M0
#S14	1:A7	2-M0
#S14	1:A7	2-M0
#S14	1:A7	2-M0
#S14	1:A7	2-N0
#S14	1:A7	2-N0
#S14	1:A7	2-L0
#S16	1:A10	2-J9
#S16	1:A10	2-H9
#S16	1:A10	2-I9
#S16	1:A10	2-I9
#S16	1:A10	2-I9
#S16	1:A10	2-I9
#S16	1:A10	2-I9
#S16	1:A10	2-H9
#S16	1:A10	2-C9
#S16	1:A10	2-J9
#S16	1:A10	2-C9
#S16	1:A10	2-C9
#S17	1:A12	2-F9
#S17	1:A12	2-H9
#S17	1:A12	2-F9
#S17	1:A12	2-G9
#S17	1:A12	2-G9
#S17	1:A12	2-G9
#S17	1:A12	2-G9
#S17	1:A12	2-G9
#S17	1:A12	2-H9
#S17	1:A12	2-F9
#S17	1:A12	2-F9
#S17	1:A12	2-H9
#S18	1:A14	2-D9
#S18	1:A14	2-D9
#S18	1:A14	2-D9
#S18	1:A14	2-C9
#S18	1:A14	2-E9
#S18	1:A14	2-E9
#S18	1:A14	2-E9
#S18	1:A14	2-E9
#S18	1:A14	2-D9
#S18	1:A14	2-D9
#S18	1:A14	2-F9
SK501	1:D14	2-F6
#T3K44	1:D7	2-V0
#T3K45	1:B9	1-A1
TEST	2:E13	2-O8
TP602	2:E4	1-F6
TP606	2:E12	2-K3
TP607	2:E12	2-K3
TP608	2:E12	2-K3
TP609	1:D12	2-K3
TP610	1:A9	2-Q0
X501	1:H15	2-Q6

7.12 T2010 & T2030 Control Head PCB

T2010 & T2030 Control Head Parts List (IPN 220-01319-01)

Ref	Var	IPN	Description
BUSY		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
C510		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C511		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C512		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C513		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C514		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C515		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C516		015-24470-08	CAP CER 0805 CHIP 4N7 10% X7R 50V
C517		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C518		015-25220-08	CAP CER 0805 CHIP 22N 10% X7R 50V
C531		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C570		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
DCALL		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
DAUX		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
DSCAN		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
DMON		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
D-C1		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
D-C2		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
D-C3		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
D-C4		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
D502		001-10000-99	(S) DIODE SMD BAV99 DUAL SWTCH SNGLE INL
D520		008-00010-15	(S) LED 3MM GREEN HLMP1585 DIFSD 2V3 6.0
D521		008-00010-15	(S) LED 3MM GREEN HLMP1585 DIFSD 2V3 6.0
D522		008-00010-15	(S) LED 3MM GREEN HLMP1585 DIFSD 2V3 6.0
IC507		002-10140-21	(S) IC MC14021BDR2 8BIT SHIFT REGSTR.SO
IC508		002-74905-95	(S) IC SMD 74HC595 SHIFT REGISTER
IC514		002-74905-95	(S) IC SMD 74HC595 SHIFT REGISTER
IC515		002-74900-04	(S) IC SMD 74HC04D HEX INVERTER BUFFD
P8		240-00026-24	CONN PADLE BRD 16 WAY MICRO MATCH 1-2155
P11		240-00020-87	HEADER 2X5 WAY RGT ANGLE PCB MTG MOLEX
PT501		040-05100-20	SWITCH ROT 10K LOG POT 3A 16VDC SPST PC
Q506		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q550		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
R517		036-10000-00	RES M/F 0805 CHIP ZERO OHM
R544		036-15470-00	RES M/F 0805 CHIP 47K 5%
R545		036-15470-00	RES M/F 0805 CHIP 47K 5%
R548		036-13560-00	RES M/F 0805 CHIP 560E 5%
R549		036-13560-00	RES M/F 0805 CHIP 560E 5%
R550		036-13560-00	RES M/F 0805 CHIP 560E 5%
R551		036-13560-00	RES M/F 0805 CHIP 560E 5%
R552		036-13560-00	RES M/F 0805 CHIP 560E 5%
R553		036-13560-00	RES M/F 0805 CHIP 560E 5%
R554		036-13560-00	RES M/F 0805 CHIP 560E 5%
R555		036-13560-00	RES M/F 0805 CHIP 560E 5%
R556		036-15470-00	RES M/F 0805 CHIP 47K 5%
R557		036-15470-00	RES M/F 0805 CHIP 47K 5%
R558		036-15470-00	RES M/F 0805 CHIP 47K 5%
R559		036-15470-00	RES M/F 0805 CHIP 47K 5%
R560		036-15470-00	RES M/F 0805 CHIP 47K 5%
R561		036-15470-00	RES M/F 0805 CHIP 47K 5%
R562		036-15470-00	RES M/F 0805 CHIP 47K 5%
R563		036-15470-00	RES M/F 0805 CHIP 47K 5%
R564		036-13470-00	RES M/F 0805 CHIP 470E 5%
R565		036-13470-00	RES M/F 0805 CHIP 470E 5%
R566		036-13470-00	RES M/F 0805 CHIP 470E 5%
R567		036-14100-00	RES M/F 0805 CHIP 1K 5%
R573		036-14100-00	RES M/F 0805 CHIP 1K 5%
R574		036-13560-00	RES M/F 0805 CHIP 560E 5%
R575		036-13560-00	RES M/F 0805 CHIP 560E 5%
R576		036-13560-00	RES M/F 0805 CHIP 560E 5%
R577		036-13560-00	RES M/F 0805 CHIP 560E 5%
R587		036-12100-00	RES M/F 0805 CHIP 10E 5%
R588		036-14220-00	RES M/F 0805 CHIP 2K2 5%
R589		036-14470-00	RES M/F 0805 CHIP 4K7 5%
R590		036-14220-00	RES M/F 0805 CHIP 2K2 5%
R591		036-13150-00	RES M/F 0805 CHIP 150E 5%
R594		036-12100-00	RES M/F 0805 CHIP 10E 5%
S10		240-04021-61	SKT TELEPHONE JACK 6-WAY SIDE ENTY 555163
TX		008-00010-21	(S) LED 2MM RED TOWER 3.8MM BASE ROHM S-

T2010 & T2030 Control Head Mechanical & Miscellaneous Parts

IPN	Description
220-01319-01	PCB T2010/30 DISPLAY BRD
240-00020-54	PLUG 16 WAY 2X8 FLAT CABLE TERMN MICROMATCH
240-04020-72	SKT HOUSING 2 WAY CORD MTG ULTREX
240-04020-99	SKT RECEPTACLE SML WIRE CRIMP FOR ULTREX HOUS
250-00010-19	SPKR A3M2520 C/W RUBBER SEALING RING
301-00001-05	ADAPTOR FRT PNL T2000 SII
304-07035-00	LIGHT SPREADER A2M2531 BUTTONS T2000 FM1/TR1
304-07037-00	LIGHT SPREADER A4M2533 KNOB T2000 FM1/TR1
311-01042-01	KNOB A3M2530 T2000 S11
349-00010-22	SCREW NO 4X3/8 PAN POZI PLASTITE
349-00010-24	SCREW #4X5/8 PLASTITE PAN POZI
357-00010-03	FIX PUSH ON SFO 2938
365-00100-20	LABEL WHITE S/A 28X11MM QUIKSTIK RW718/4
429-20000-05	T2000 SERIES II INSTALLATION GUIDE
T2010 VARIANT PARTS	
201-00030-10	WIRE #1 T/C WIRE 7/0.2MM PVC BLACK
205-00010-12	CABLE FLAT RBBN 16 CORE 16/7/0.1 GREY
311-03074-01	KEYPAD T2010 SII INTERNATIONAL
316-06428-01	PNL FRT SCRN T2010 SII
349-00020-30	SCREW TAPTITE M3X6MM PAN POZI BZ
400-00020-07	SLEEVING 2MM SIL RUBBER
459-20100-02	T2010/T2015 SERIES II USERS GUIDE
T2010 EMC VARIANT PARTS	
205-00010-16	CABLE FLAT RBBN 25 CORE 28 AWG GREY
240-00010-91	CONN MALE ON WIRE 18WAY MICROMATCH
311-03074-01	KEYPAD T2010 SII INTERNATIONAL
316-06428-01	PNL FRT SCRN T2010 SII
369-00020-30	TAPE VINYLFOAM 2 SIDE S/A 24*1.5MM INSEAL 516
459-20100-02	T2010/T2015 SERIES II USERS GUIDE
X2EF03	EMC FILTER PCB ASSEMBLY T201X T2030
T2030 VARIANT PARTS	
201-00030-10	WIRE #1 T/C WIRE 7/0.2MM PVC BLACK
205-00010-12	CABLE FLAT RBBN 16 CORE 16/7/0.1 GREY
240-00026-24	CONN PADLE BRD 16 WAY MICRO MATCH 1-215570-6
311-03077-01	KEYPAD T2030 SII INTERNATIONAL
316-06429-01	PNL FRT SCRN T2030 SII
349-00020-30	SCREW TAPTITE M3X6MM PAN POZI BZ
400-00020-07	SLEEVING 2MM SIL RUBBER
459-20300-02	T2030/T2035 SERIES II USERS GUIDE
T2030 EMC VARIANT PARTS	
205-00010-16	CABLE FLAT RBBN 25 CORE 28 AWG GREY
240-00010-91	CONN MALE ON WIRE 18WAY MICROMATCH
240-00026-24	CONN PADLE BRD 16 WAY MICRO MATCH 1-215570-6
311-03077-01	KEYPAD T2030 SII INTERNATIONAL
316-06429-01	PNL FRT SCRN T2030 SII
356-00010-01	TAG SOLDER 3MM SHORT M6132/3.2
369-00020-30	TAPE VINYLFOAM 2 SIDE S/A 24*1.5MM INSEAL 516
400-00020-07	SLEEVING 2MM SIL RUBBER
459-20300-02	T2030/T2035 SERIES II USERS GUIDE
X2EF03	EMC FILTER PCB ASSEMBLY T201X T2030

7.13 T2015 & T2060 Control Head PCB

T2015 & T2060 Control Head Parts List (IPN 220-01320-01)

Ref	Var	IPN	Description
BUSY		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
C510		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C511		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C512		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C513		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C516		015-24470-08	CAP CER 0805 CHIP 4N7 10% X7R 50V
C517		015-25220-08	CAP CER 0805 CHIP 22N 10% X7R 50V
C518		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C519		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C520		015-24330-08	CAP CER 0805 CHIP 3N3 10% X7R 50V
C531		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C542		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C543		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C570		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C580		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
DSCAN		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
DAUX		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
DCALL		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
DMON		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
D502		001-10000-99	(S) DIODE SMD BAV99 DUAL SWTCH SNGLE INL
D520		008-00010-15	(S) LED 3MM GREEN HLMP1585 DIFSD 2V3 6.0
D521		008-00010-15	(S) LED 3MM GREEN HLMP1585 DIFSD 2V3 6.0
D522		008-00010-15	(S) LED 3MM GREEN HLMP1585 DIFSD 2V3 6.0
IC507		002-10140-21	(S) IC MC14021BDR2 8BIT SHIFT REGSTR.SO
IC508		002-74905-95	(S) IC SMD 74HC595 SHIFT REGISTER
IC510		002-10045-43	(S) IC SMD 4543 BCD 7SEG DECODE/DRIVER
IC512		002-10045-43	(S) IC SMD 4543 BCD 7SEG DECODE/DRIVER
IC514		002-74905-95	(S) IC SMD 74HC595 SHIFT REGISTER
IC515		002-74900-04	(S) IC SMD 74HC04D HEX INVERTER BUFFD
P8A		240-00026-23	CONN PADLE BD 8 WAY MICRO MATCH 0-215570-
P11		240-00020-87	HEADER 2X5 WAY RGT ANGLE PCB MTG MOLEX
PT501		040-05100-20	SWITCH ROT 10K LOG POT 3A 16VDC SPST PC
Q506		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q508		000-10008-57	(S) XSTR SMD BCW70 PNP SOT23 AF SML SIG
Q509		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q550		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
R500		036-14100-00	RES M/F 0805 CHIP 1K 5%
R517		036-10000-00	RES M/F 0805 CHIP ZERO OHM
R544		036-15470-00	RES M/F 0805 CHIP 47K 5%
R545		036-15470-00	RES M/F 0805 CHIP 47K 5%
R552		036-13560-00	RES M/F 0805 CHIP 560E 5%
R553		036-13560-00	RES M/F 0805 CHIP 560E 5%
R554		036-13560-00	RES M/F 0805 CHIP 560E 5%
R555		036-13560-00	RES M/F 0805 CHIP 560E 5%
R556		036-15470-00	RES M/F 0805 CHIP 47K 5%
R557		036-15470-00	RES M/F 0805 CHIP 47K 5%
R558		036-15470-00	RES M/F 0805 CHIP 47K 5%
R559		036-15470-00	RES M/F 0805 CHIP 47K 5%
R560		036-15470-00	RES M/F 0805 CHIP 47K 5%
R561		036-15470-00	RES M/F 0805 CHIP 47K 5%
R562		036-15470-00	RES M/F 0805 CHIP 47K 5%
R563		036-15470-00	RES M/F 0805 CHIP 47K 5%
R564		036-13470-00	RES M/F 0805 CHIP 470E 5%
R565		036-13470-00	RES M/F 0805 CHIP 470E 5%
R566		036-13470-00	RES M/F 0805 CHIP 470E 5%
R567		036-14100-00	RES M/F 0805 CHIP 1K 5%
R573		036-14100-00	RES M/F 0805 CHIP 1K 5%
R576		036-13560-00	RES M/F 0805 CHIP 560E 5%
R577		036-13560-00	RES M/F 0805 CHIP 560E 5%
R587		036-12100-00	RES M/F 0805 CHIP 10E 5%
R588		036-14220-00	RES M/F 0805 CHIP 2K2 5%
R589		036-14470-00	RES M/F 0805 CHIP 4K7 5%
R590		036-14220-00	RES M/F 0805 CHIP 2K2 5%
R591		036-13150-00	RES M/F 0805 CHIP 150E 5%
R594		036-12100-00	RES M/F 0805 CHIP 10E 5%
R596A		036-13680-00	RES M/F 0805 CHIP 680E 5%
R596B		036-13680-00	RES M/F 0805 CHIP 680E 5%
R596C		036-13680-00	RES M/F 0805 CHIP 680E 5%
R596D		036-13680-00	RES M/F 0805 CHIP 680E 5%
R596E		036-13680-00	RES M/F 0805 CHIP 680E 5%
R596F		036-13680-00	RES M/F 0805 CHIP 680E 5%
R596G		036-13680-00	RES M/F 0805 CHIP 680E 5%
R597A		036-13680-00	RES M/F 0805 CHIP 680E 5%
R597B		036-13680-00	RES M/F 0805 CHIP 680E 5%
R597C		036-13680-00	RES M/F 0805 CHIP 680E 5%
R597D		036-13680-00	RES M/F 0805 CHIP 680E 5%
R597E		036-13680-00	RES M/F 0805 CHIP 680E 5%
R597F		036-13680-00	RES M/F 0805 CHIP 680E 5%
R597G		036-13680-00	RES M/F 0805 CHIP 680E 5%
R598		036-14220-00	RES M/F 0805 CHIP 2K2 5%
R599		036-14470-00	RES M/F 0805 CHIP 4K7 5%
S8B		240-04020-50	SKT 8WAY 2ROW(2X4) PCB MTG MICROMATCH
S10		240-04021-61	SKT TELEPHONE JACK 6-WAY SIDE ENTY 555163
TX		008-00010-21	(S) LED 2MM RED TOWER 3.8MM BASE ROHM SL
TENS		008-00020-29	(S) LED DISPLAY GREEN 7 SEG SINGLE HDSP-
UNITS		008-00020-29	(S) LED DISPLAY GREEN 7 SEG SINGLE HDSP

T2015 & T2060 Control Head Mechanical & Miscellaneous Parts

IPN	Description
220-01320-01	PCB T2015 DISPLAY BRD
240-00020-54	PLUG 16 WAY 2X8 FLAT CABLE TERMN MICROMATCH
240-00020-56	PLUG 8WAY 2ROW(2X4) CORD MTG IDC MICROMATCH
240-04020-72	SKT HOUSING 2 WAY CORD MTG ULTREX
240-04020-99	SKT RECEPTACLE SML WIRE CRIMP FOR ULTREX HOUS
250-00010-19	SPKR A3M2520 C/W RUBBER SEALING RING
304-07035-00	LIGHT SPREADER A2M2531 BUTTONS T2000 FM1/TR1
304-07037-00	LIGHT SPREADER A4M2533 KNOB T2000 FM1/TR1
311-01042-01	KNOB A3M2530 T2000 S11
312-01049-01	LENS T2015/60 SII GREEN MC DISPLAY
316-06489-01	PNL FRT SCRN T2015 SII
349-00010-22	SCREW NO 4X3/8 PAN POZI PLASTITE
349-00010-24	SCREW #4X5/8 PLASTITE PAN POZI
356-00010-01	TAG SOLDER 3MM SHORT M6132/3.2
357-00010-03	FIX PUSH ON SFO 2938
365-00100-20	LABEL WHITE S/A 28X11MM QUIKSTIK RW718/4
400-00020-07	SLEEVING 2MM SIL RUBBER
429-20000-05	T2000 SERIES II INSTALLATION GUIDE
T2015 VARIANT PARTS	
201-00030-10	WIRE #1 T/C WIRE 7/0.2MM PVC BLACK
205-00010-12	CABLE FLAT RBBN 16 CORE 16/7/0.1 GREY
301-00001-05	ADAPTOR FRT PNL T2000 SII
311-03075-01	KEYPAD T2015 SII INTERNATIONAL
349-00020-30	SCREW TAPTITE M3X6MM PAN POZI BZ
459-20100-02	T2010/T2015 SERIES II USERS GUIDE
T2015 EMC VARIANT PARTS	
205-00010-16	CABLE FLAT RBBN 25 CORE 28 AWG GREY
240-00010-91	CONN MALE ON WIRE 18WAY MICROMATCH
301-00001-03	ADAPTOR FRT PNL T2000 SII
311-03075-01	KEYPAD T2015 SII INTERNATIONAL
459-20100-02	T2010/T2015 SERIES II USERS GUIDE
X2EFO3	EMC FILTER PCB ASSEMBLY T201X T2030
T2060 VARIANT PARTS	
201-00030-10	WIRE #1 T/C WIRE 7/0.2MM PVC BLACK
205-00010-12	CABLE FLAT RBBN 16 CORE 16/7/0.1 GREY
301-00001-03	ADAPTOR FRT PNL T2000 SII
311-03089-01	KEYPAD T2060 SII LTR INTERNATIONAL
459-20600-02	T2060 SERIES II USERS GUIDE

7.14 T2020, T2040 & T2050 Control Head PCB

T2020, T2040 & T2050 Control Head Parts List (IPN 220-01321-04)

Ref	Var	IPN	Description
B701		260-00010-11	LAMP 5V 60MA T-1 3MM OD 0.63LM US REF 68
B702		260-00010-11	LAMP 5V 60MA T-1 3MM OD 0.63LM US REF 68
B703		260-00010-11	LAMP 5V 60MA T-1 3MM OD 0.63LM US REF 68
B704		260-00010-11	LAMP 5V 60MA T-1 3MM OD 0.63LM US REF 68
B705		260-00010-11	LAMP 5V 60MA T-1 3MM OD 0.63LM US REF 68
C102		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 267
C103		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C531		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C700		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C701		015-22220-01	CAP CER 0805 CHIP 22P 5% NPO 50V
C702		015-22220-01	CAP CER 0805 CHIP 22P 5% NPO 50V
C703		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C704		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C705		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C706		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
C707		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C708		015-24470-08	CAP CER 0805 CHIP 4N7 10% X7R 50V
C710		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C711		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C712		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C713		015-24470-08	CAP CER 0805 CHIP 4N7 10% X7R 50V
C714		016-08100-01	CAP ELECT 6X4MM CHIP 10M 20% 16V
C715		016-08100-01	CAP ELECT 6X4MM CHIP 10M 20% 16V
C716		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C717		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
*C720		014-07470-01	CAP TANT CHIP 4U7 'B' CASE 25V +-10% 26
C720		016-08470-01	CAP ELECT SMD 6X4MM 47M 16V
C721		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C722		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C723		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C725		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C726		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C727		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C728		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C729		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C730		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C731		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C732		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C733		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C734		015-25220-08	CAP CER 0805 CHIP 22N 10% X7R 50V
D1		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
D2		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
D3		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
D4		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
D5		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
D6		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
D7		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
D8		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
D701		001-10000-99	(S) DIODE SMD BAV99 DUAL SWTCH SNGLE INL
D703		001-10000-99	(S) DIODE SMD BAV99 DUAL SWTCH SNGLE INL
D710		001-10084-33	(S) DIODE ZENER SMD BZX84C3V3 SOT23
D711		001-10084-33	(S) DIODE ZENER SMD BZX84C3V3 SOT23
D712		001-10084-33	(S) DIODE ZENER SMD BZX84C3V3 SOT23
D713		001-10084-47	(S) DIODE ZENER SMD BZX84C4V7 SOT23
D714		001-10084-47	(S) DIODE ZENER SMD BZX84C4V7 SOT23
IC701		002-20068-05	(S) IC MC68HC05C4 MASK PROG.MICRO-P 44P
IC702		002-10085-76	(S) IC SMD PCF8576T LCD DRIVER SOT-190
IC703		002-74900-04	(S) IC SMD 74HC04D HEX INVERTER BUFFD
IC704		002-74900-04	(S) IC SMD 74HC04D HEX INVERTER BUFFD
IC705		002-10078-05	(S) IC SMD 78L05 5V REG
IC706		002-10340-64	(S) IC SMD MC34064 LO VOLT SENSE
LCD		008-02029-00	(S) LCD DISPLAY A2M2523 8 CHR 14 SEG ALPH
P11		240-00020-87	HEADER 2X5 WAY RGT ANGLE PCB MTG MOLEX
PT501		040-05100-20	SWITCH ROT 10K LOG POT 3A 16VDC SPST PC
Q103		000-10008-47	(S) XSTR SMD BCW72 NPN GEN PURPOSE
Q701		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q702		000-10008-57	(S) XSTR SMD BCW70 PNP SOT23 AF SML SIG
Q703		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q704		000-10008-57	(S) XSTR SMD BCW70 PNP SOT23 AF SML SIG
Q705		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q706		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q710		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q711		000-10008-69	(S) XSTR SMD BC869 PNP 1W 2A SOT-89
Q712		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q713		000-10008-57	(S) XSTR SMD BCW70 PNP SOT23 AF SML SIG
Q714		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23 A
Q715		000-10008-57	(S) XSTR SMD BCW70 PNP SOT23 AF SML SIG
R106		036-14220-00	RES M/F 0805 CHIP 2K2 5%
R517		036-10000-00	RES M/F 0805 CHIP ZERO OHM
R595		036-12100-00	RES M/F 0805 CHIP 10E 5%
R701		036-14270-00	RES M/F 0805 CHIP 2K7 5%
R702		036-14270-00	RES M/F 0805 CHIP 2K7 5%
R703		036-14270-00	RES M/F 0805 CHIP 2K7 5%
R704		036-14270-00	RES M/F 0805 CHIP 2K7 5%
R705		036-15470-00	RES M/F 0805 CHIP 47K 5%
R706		036-15470-00	RES M/F 0805 CHIP 47K 5%
R707		036-15470-00	RES M/F 0805 CHIP 47K 5%
R708		036-15470-00	RES M/F 0805 CHIP 47K 5%
R709		036-15470-00	RES M/F 0805 CHIP 47K 5%
R710		036-13470-00	RES M/F 0805 CHIP 470E 5%
R711		036-13470-00	RES M/F 0805 CHIP 470E 5%
R712		036-13470-00	RES M/F 0805 CHIP 470E 5%
R713		036-15470-00	RES M/F 0805 CHIP 47K 5%
R714		036-15470-00	RES M/F 0805 CHIP 47K 5%
R715		036-14470-00	RES M/F 0805 CHIP 4K7 5%
R716		036-14470-00	RES M/F 0805 CHIP 4K7 5%
R717		036-14270-00	RES M/F 0805 CHIP 2K7 5%
R718		036-15470-00	RES M/F 0805 CHIP 47K 5%
R719		036-15100-00	RES M/F 0805 CHIP 10K 5%
R720		036-12100-00	RES M/F 0805 CHIP 10E 5%
R721		036-15330-00	RES M/F 0805 CHIP 33K 5%
R722		036-15180-00	RES M/F 0805 CHIP 18K 5%
R723		036-13330-00	RES M/F 0805 CHIP 330E 5%
R724		036-13330-00	RES M/F 0805 CHIP 330E 5%
R725		036-12100-00	RES M/F 0805 CHIP 10E 5%
R726		036-15680-00	RES M/F 0805 CHIP 68K 5%
R727		036-16120-00	RES M/F 0805 CHIP 120K 5%
R728		036-12100-00	RES M/F 0805 CHIP 10E 5%
R729		036-13330-00	RES M/F 0805 CHIP 330E 5%
R730		036-15470-00	RES M/F 0805 CHIP 47K 5%
R731		036-15470-00	RES M/F 0805 CHIP 47K 5%
R733		036-14220-00	RES M/F 0805 CHIP 2K2 5%
R734		036-14220-00	RES M/F 0805 CHIP 2K2 5%
R735		036-14180-00	RES M/F 0805 CHIP 1K8 5%
R736		036-14680-00	RES M/F 0805 CHIP 6K8 5%
R737		036-15100-00	RES M/F 0805 CHIP 10K 5%
R738		036-14270-00	RES M/F 0805 CHIP 2K7 5%
R739		036-14220-00	RES M/F 0805 CHIP 2K2 5%
R740		036-15120-00	RES M/F 0805 CHIP 12K 5%
R741		036-15330-00	RES M/F 0805 CHIP 33K 5%
R742		036-16560-00	RES M/F 0805 CHIP 560K 5%
R743		036-12100-00	RES M/F 0805 CHIP 10E 5%
R746		036-15100-00	RES M/F 0805 CHIP 10K 5%
R747		036-16330-00	RES M/F 0805 CHIP 330K 5%
R750		036-14470-00	RES M/F 0805 CHIP 4K7 5%
R751		036-13470-00	RES M/F 0805 CHIP 470E 5%
R752		036-13470-00	RES M/F 0805 CHIP 470E 5%

Ref	Var	IPN	Description
R753		036-13330-00	RES M/F 0805 CHIP 330E 5%
R760		036-14470-00	RES M/F 0805 CHIP 4K7 5%
R761		036-14470-00	RES M/F 0805 CHIP 4K7 5%
R762		036-15100-00	RES M/F 0805 CHIP 10K 5%
R763		036-15100-00	RES M/F 0805 CHIP 10K 5%
R764		036-14330-00	RES M/F 0805 CHIP 3K3 5%
R765		036-15100-00	RES M/F 0805 CHIP 10K 5%
R766		036-15100-00	RES M/F 0805 CHIP 10K 5%
R767		036-18100-00	RES M/F 0805 CHIP 10M 10%
R768		036-15470-00	RES M/F 0805 CHIP 47K 5%
R769		036-16180-00	RES M/F 0805 CHIP 180K 5%
R770		036-15100-00	RES M/F 0805 CHIP 10K 5%
R771		036-15100-00	RES M/F 0805 CHIP 10K 5%
R772		036-15100-00	RES M/F 0805 CHIP 10K 5%
R773		036-15100-00	RES M/F 0805 CHIP 10K 5%
R774		036-15100-00	RES M/F 0805 CHIP 10K 5%
R775		036-15100-00	RES M/F 0805 CHIP 10K 5%
R776		036-15100-00	RES M/F 0805 CHIP 10K 5%
R777		036-15100-00	RES M/F 0805 CHIP 10K 5%
R778		036-13560-00	RES M/F 0805 CHIP 560E 5%
R779		036-13560-00	RES M/F 0805 CHIP 560E 5%
R780		036-13560-00	RES M/F 0805 CHIP 560E 5%
R781		036-13560-00	RES M/F 0805 CHIP 560E 5%
R782		036-13560-00	RES M/F 0805 CHIP 560E 5%
R783		036-13560-00	RES M/F 0805 CHIP 560E 5%
R784		036-13560-00	RES M/F 0805 CHIP 560E 5%
R785		036-13560-00	RES M/F 0805 CHIP 560E 5%
R790		036-13470-00	RES M/F 0805 CHIP 470E 5%
R791		036-13390-00	RES M/F 0805 CHIP 390E 5%
R792		036-12330-00	RES M/F 0805 CHIP 33E 5%
R793		036-12330-00	RES M/F 0805 CHIP 33E 5%
R795		036-13470-00	RES M/F 0805 CHIP 470E 5%
R796		036-14120-00	RES M/F 0805 CHIP 1K2 5%
R797		045-15100-00	RES NTC SMD 10K 5%
S9A		240-04020-50	SKT 8WAY 2ROW(2X4) PCB MTG MICROMATCH
S10		240-04021-61	SKT TELEPHONE JACK 6-WAY SIDE ENTY 555163
X701		274-00010-33	XTAL 4MHZ TE-35 HC49U C/W TEFLON INS

T2020, T2040 & T2050 Control Head Mechanical & Miscellaneous Parts

IPN	Descriptio
205-00010-12	CABLE FLAT RBBN 16 CORE 16/7/0.1 GREY
209-01027-00	STRIP A3M2544 SI IMPREGNATED ELASTOMER 55X8MM
220-01321-04	PCB T2000 LCD DISPLAY
240-00020-56	PLUG 8WAY 2ROW(2X4) CORD MTG IDC MICROMATCH
301-00001-03	ADAPTOR FRT PNL T2000 SII
304-07036-02	LIGHT SPREADER 20 BUTTON T2000 SII
311-01042-01	KNOB A3M2530 T2000 S11
312-01046-03	LENS A2M2543 LCD DISPLAY T2000 FM2/TR2
316-06430-02	PNL FRT SCRN T2020/40/50 SII
349-00010-22	SCREW NO 4X3/8 PAN POZI PLASTITE
349-00010-24	SCREW #4X5/8 PLASTITE PAN POZI
356-00010-01	TAG SOLDER 3MM SHORT M6132/3.2
365-00100-20	LABEL WHITE S/A 28X11MM QUIKSTIK RW718/4
369-00020-29	TAPE VINYL FOAM 2 SIDE S/A 12X0.8MM INSEAL 51
429-20000-05	T2000 SERIES II INSTALLATION GUIDE
T2020 VARIANT PARTS	
311-03076-01	KEYPAD T2020 SII INTERNATIONAL
459-20200-02	T2020 SERIES II USERS GUIDE
T2020 EMC VARIANT PARTS	
240-00010-91	CONN MALE ON WIRE 18WAY MICROMATCH
311-03076-01	KEYPAD T2020 SII INTERNATIONAL
459-20200-02	T2020 SERIES II USERS GUIDE
X2EF01	EMC FILTER PCB ASSEMBLY T2020 T2035 T2040 T2050
T2040 VARIANT PARTS	
311-03078-01	KEYPAD T2040 SII INTERNATIONAL
459-20400-02	T2040 SERIES II USERS GUIDE
T2040 EMC VARIANT PARTS	
240-00010-91	CONN MALE ON WIRE 18WAY MICROMATCH
311-03078-01	KEYPAD T2040 SII INTERNATIONAL
459-20400-02	T2040 SERIES II USERS GUIDE
X2EF01	EMC FILTER PCB ASSEMBLY T2020 T2035 T2040 T2050
T2050 VARIANT PARTS	
308-13093-02	CHASSIS A1M2503 DIE CAST T2000 SERIES II
311-03009-01	KEYPAD T2050 SII INTERNATIONAL DUAL MODE
459-20200-02	T2020 SERIES II USERS GUIDE
459-20400-02	T2040 SERIES II USERS GUIDE

IPN	Description

7.15 T2035 Control Head PCB

T2035 Control Head Parts List (IPN 220-01322-03)

Ref	Var	IPN	Description
CLEAR		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROH
CALLBK		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE RO
C510		015-24150-08	CAP CER 0805 CHIP 1N5 10% X7R 50V
C511		015-25150-08	CAP CER 0805 CHIP 15N 10% X7R 50V
C512		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C513		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C516		015-24470-08	CAP CER 0805 CHIP 4N7 10% X7R 50V
C517		015-24330-08	CAP CER 0805 CHIP 3N3 10% X7R 50V
C518		015-25100-08	CAP CER 0805 CHIP 10N 10% X7R 50V
C519		015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C520		015-25220-08	CAP CER 0805 CHIP 22N 10% X7R 50V
C531		015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C542		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C570		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C571		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C580		015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
DVC		008-00010-21	(S) LED 2MM RED TOWER 3.8MM BASE ROHM SL
DSP		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
D502		001-10000-99	(S) DIODE SMD BAV99 DUAL SWTCH SNGLE IN
D520		008-00010-15	(S) LED 3MM GREEN HLMP1585 DIFSD 2V3 6.
D521		008-00010-15	(S) LED 3MM GREEN HLMP1585 DIFSD 2V3 6.
D522		008-00010-15	(S) LED 3MM GREEN HLMP1585 DIFSD 2V3 6.
D523		001-10000-99	(S) DIODE SMD BAV99 DUAL SWTCH SNGLE IN
D524		001-10000-99	(S) DIODE SMD BAV99 DUAL SWTCH SNGLE IN
FUNCTI		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE RO
GO		008-00010-25	(S) LED 2MM GREEN TOWER 3.8MM BASE ROHM
HUNDS		008-00020-29	(S) LED DISPLAY GREEN 7 SEG SINGLE HDS
IC507		002-10140-21	(S) IC MC14021BDR2 8BIT SHIFT REGSTR.S
IC508		002-10144-99	(S) IC SMD 4*7 SEGMENT LED DRIVER
IC514		002-74905-95	(S) IC SMD 74HC595 SHIFT REGISTER
IC515		002-74900-04	(S) IC SMD 74HC04D HEX INVERTER BUFFD
IC517		002-74907-40	(S) IC 74HC74 DUAL D-TYPE FLIP FLOP SO
P8A		240-00026-23	CONN PADLE BD 8 WAY MICRO MATCH 0-215570
P119		240-00020-87	HEADER 2X5 WAY RGT ANGLE PCB MTG MOLEX
PT501		040-05100-20	SWITCH ROT 10K LOG POT 3A 16VDC SPST P
Q506		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23
Q512		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23
Q513		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23
Q514		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23
Q515		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23
Q516		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23
Q550		000-10008-48	(S) XSTR SMD BCW60/BC848B215 NPN SOT23
R517		036-10000-00	RES M/F 0805 CHIP ZERO OHM
R544		036-15470-00	RES M/F 0805 CHIP 47K 5%
R545		036-15470-00	RES M/F 0805 CHIP 47K 5%
R552		036-13270-00	RES M/F 0805 CHIP 270E 5%
R553		036-13270-00	RES M/F 0805 CHIP 270E 5%
R554		036-13270-00	RES M/F 0805 CHIP 270E 5%
R555		036-13270-00	RES M/F 0805 CHIP 270E 5%
R556		036-15470-00	RES M/F 0805 CHIP 47K 5%
R557		036-15470-00	RES M/F 0805 CHIP 47K 5%
R558		036-15470-00	RES M/F 0805 CHIP 47K 5%
R559		036-15470-00	RES M/F 0805 CHIP 47K 5%
R560		036-15470-00	RES M/F 0805 CHIP 47K 5%
R561		036-15470-00	RES M/F 0805 CHIP 47K 5%
R562		036-15470-00	RES M/F 0805 CHIP 47K 5%
R563		036-15470-00	RES M/F 0805 CHIP 47K 5%
R564		036-13470-00	RES M/F 0805 CHIP 470E 5%
R565		036-13470-00	RES M/F 0805 CHIP 470E 5%
R566		036-13470-00	RES M/F 0805 CHIP 470E 5%
R567		036-13270-00	RES M/F 0805 CHIP 270E 5%
R573		036-14100-00	RES M/F 0805 CHIP 1K 5%
R574		036-13270-00	RES M/F 0805 CHIP 270E 5%
R575		036-13270-00	RES M/F 0805 CHIP 270E 5%
R587		036-12100-00	RES M/F 0805 CHIP 10E 5%
R588		036-14220-00	RES M/F 0805 CHIP 2K2 5%
R589		036-14470-00	RES M/F 0805 CHIP 4K7 5%
R590		036-14220-00	RES M/F 0805 CHIP 2K2 5%
R591		036-13150-00	RES M/F 0805 CHIP 150E 5%
R594		036-12100-00	RES M/F 0805 CHIP 10E 5%
R597		036-13270-00	RES M/F 0805 CHIP 270E 5%
R635		036-15100-00	RES M/F 0805 CHIP 10K 5%
R636		036-13560-00	RES M/F 0805 CHIP 560E 5%
R637		036-13560-00	RES M/F 0805 CHIP 560E 5%
R638		036-13560-00	RES M/F 0805 CHIP 560E 5%
R639		036-13560-00	RES M/F 0805 CHIP 560E 5%
R643		036-15470-00	RES M/F 0805 CHIP 47K 5%
S8B		240-04020-50	SKT 8WAY 2ROW(2X4) PCB MTG MICROMATCH
S10		240-04021-61	SKT TELEPHONE JACK 6-WAY SIDE ENTY 55516
TX		008-00010-21	(S) LED 2MM RED TOWER 3.8MM BASE ROHM SC
TENS		008-00020-29	(S) LED DISPLAY GREEN 7 SEG SINGLE HDSP
UNITS		008-00020-29	(S) LED DISPLAY GREEN 7 SEG SINGLE HDS
WAIT		008-00010-23	(S) LED 2MM YELLOW TOWER 3.8MM BASE ROH

T2035 Control Head Mechanical & Miscellaneous Parts

IPN	Description
220-01322-03	PCB T2033/35 DISPLAY BRD
240-00020-54	PLUG 16 WAY 2X8 FLAT CABLE TERMN MICROMATCH
240-00020-56	PLUG 8WAY 2ROW(2X4) CORD MTG IDC MICROMATCH
240-04020-72	SKT HOUSING 2 WAY CORD MTG ULTREX
240-04020-99	SKT RECEPTACLE SML WIRE CRIMP FOR ULTREX HOU
250-00010-19	SPKR A3M2520 C/W RUBBER SEALING RING
301-00001-05	ADAPTOR FRT PNL T2000 SII
304-07035-00	LIGHT SPREADER A2M2531 BUTTONS T2000 FM1/TR1
311-01042-01	KNOB A3M2530 T2000 S11
311-03080-01	KEYPAD T2035 SII INTERNATIONAL
312-01057-01	LENS T2035 SII GREEN DISPLAY
316-06496-01	PNL FRT SCRN T2035 SII
349-00010-22	SCREW NO 4X3/8 PAN POZI PLASTITE
349-00010-24	SCREW #4X5/8 PLASTITE PAN POZI
356-00010-01	TAG SOLDER 3MM SHORT M6132/3.2
357-00010-03	FIX PUSH ON SFO 2938
365-00100-20	LABEL WHITE S/A 28X11MM QUIKSTIK RW718/4
400-00020-07	SLEEVING 2MM SIL RUBBER
429-20000-05	T2000 SERIES II INSTALLATION GUIDE
459-20300-02	T2030/T2035 SERIES II USERS GUIDE

T2035 VARIANT PARTS

201-00030-10	WIRE #1 T/C WIRE 7/0.2MM PVC BLACK
205-00010-12	CABLE FLAT RBBN 16 CORE 16/7/0.1 GREY
304-07037-00	LIGHT SPREADER A4M2533 KNOB T2000 FM1/TR1
349-00020-30	SCREW TAPTITE M3X6MM PAN POZI BZ

T2035 EMC VARIANT PARTS

205-00010-16	CABLE FLAT RBBN 25 CORE 28 AWG GREY
240-00010-91	CONN MALE ON WIRE 18WAY MICROMATCH
369-00020-30	TAPE VINYLFOAM 2 SIDE S/A 24*1.5MM INSEAL 51
X2EF01	EMC FILTER PCB ASSEMBLY T2020 T2035 T2040 T2050

7.16 T2000 EMC Filter PCB

T2000 EMC Filter Parts List (IPN 220-01383-01)

Ref	Var	IPN	Description
C1		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C2		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C3		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C4	01	015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C4	02	015-23150-01	CAP CER 0805 CHIP 150P 5% NPO 50V
C4	08	015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C5		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C6		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C7		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C8		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C9		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C10		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C11		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C12		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C13		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C14		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C15		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C16		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C17		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C18		015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
PDL-1	01	240-00026-31	CONN PADLE BRD 18WAY MICROMATCH
PDL-1	02	240-00026-31	CONN PADLE BRD 18WAY MICROMATCH
PDL-1	03	240-00026-31	CONN PADLE BRD 18WAY MICROMATCH
PDL-1	08	240-00026-23	CONN PADLE BD 8 WAY MICRO MATCH 0-215570-
SKT-1	01	240-10000-11	(L) CONN SMD SKT 18WAY MICROMATCH
SKT-1	02	240-10000-11	(L) CONN SMD SKT 18WAY MICROMATCH
SKT-1	03	240-10000-11	(L) CONN SMD SKT 18WAY MICROMATCH
SKT-1	08	240-10000-05	CONN SMD SKT 8WAY 2ROW MICROMATCH
	02	205-00010-12	CABLE FLAT RBBN 16 CORE 16/7/0.1 GREY
	08	205-00010-12	CABLE FLAT RBBN 16 CORE 16/7/0.1 GREY
		220-01383-01	PCB T2000 SII EMC FILTER BRD
	02	240-00020-56	PLUG 8WAY 2ROW(2X4) CORD MTG IDC MICROM
	08	240-00020-56	PLUG 8WAY 2ROW(2X4) CORD MTG IDC MICROM
		349-00020-32	SCREW TAPTITE M3X8MM PAN POZI BZ

Variants: 01 = T2020, T2035, T2040 & T2050 EMC radios
02 = Non-EMC remote mounted radios
03 = T2010, T2015 & T2030 radios
08 = Used in T2000-A03/-A04/-A16 remote kits (refer to Section 8.16)

7.17 T2000 Data Interface Decoupling PCB

T2000 Data Interface Parts List (IPN 220-01388-01)

Ref	Var	IPN	Description
C1		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C2		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C3		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C4		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C5		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C6		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C7		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C8		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
C9		018-14100-00	CAP 0603 CHIP 1N 50V X7R +-10%
SKT1		240-02010-40	SKT 9 WAY D RANGE SUB MA
SKT2		240-04020-84	SKT 24 WAY PCB MTG STAG MA
		200-00010-03	WIRE T/C 0.9MM
		220-01388-01	PCB T2000 DATA INT FCE DE-COUPLING
		349-00020-07	(L) SCREW 4-40 X 5/16 PAN POZI TAPTITE BLACK
		354-01041-00	FASTENER SCREW LOCK KIT (4-40 THREAD FOR DRANGE)
		356-00010-05	TAG SOLDER 4MM LONG M MT

Ref	Var	IPN	Description

8 Accessories

This Section provides information on T2000 Series II accessories.

The following accessories are covered in this Section:

8.1.10 PCB Information

T2008 Parts List (IPN 220-01170-03)

Ref	VAR	IPN	Description
CBR		017-15470-01	CAP CER SURFACE BARRIER 47N 20% 50
C1		020-19220-03	CAP ELECT RADL 2200M 35V 16X31MM
C2		020-19220-03	CAP ELECT RADL 2200M 35V 16X31MM
C3		020-19220-03	CAP ELECT RADL 2200M 35V 16X31MM
C4		020-19220-03	CAP ELECT RADL 2200M 35V 16X31MM
C5		020-19220-03	CAP ELECT RADL 2200M 35V 16X31MM
C6		020-19220-03	CAP ELECT RADL 2200M 35V 16X31MM
C7		020-09470-02	CAP ELECT RADL 470M 16V 10X20MM
C8		017-15470-01	CAP CER SURFACE BARRIER 47N 20% 50
C9		051-00006-06	WIRE LINK T/C
C10		022-05150-01	CAP MYLAR 15N 10% 50V
C11		022-04220-01	CAP MYLAR 2N2 10% 50V
C14		022-05100-01	CAP MYLAR 10N 10% 50V
D1		001-00011-50	(S) DIODE MUR810 8A 100V FAST RECOV
D2		001-00012-91	(S) DIODE 16V TRANSIENT SUPPRESSOR
F1	21	265-00010-45	FUSE 1A CARTRIDGE 6*32MM SLOBLOW
F1	22	265-00010-05	FUSE 3A CARTRIDGE 6*32MM BS4265
F1	23	265-00010-45	FUSE 1A CARTRIDGE 6*32MM SLOBLOW
F1	24	265-00010-45	FUSE 1A CARTRIDGE 6*32MM SLOBLOW
F2		265-00010-07	FUSE 10A CARTRIDGE 6*32MM BS4265
IC1		002-00016-63	(S) IC TL494/594 SMPS PWM CTRL
LED1		008-00012-52	(S) LED 2MM TOWER 5MM BASE RED
L1		056-00010-47	IND FXD 125UH PWR CHOKE TOROIDAL
L2		056-00010-20	IND FXD 25UH PWR CHOKE
PL1		240-00020-68	HEADER 2WAY PCB MTG STD
Q1		000-00022-07	(S) XSTR 2N3772 NPN PWR TO-204
Q2		000-00012-15	(S) XSTR BD234 PNP AF PWR TO126
Q3		000-00011-10	(S) XSTR BC548B/BC547B NPN AF SML SI
Q4		000-00011-10	(S) XSTR BC548B/BC547B NPN AF SML SI
R1		030-53120-20	RES FILM AI 120E 5% 0.4W 4X1.6MM
RV1		042-03470-01	RES PRESET 470E CARBON 10MM FLAT
RB1		001-00011-37	(S) DIODE BRIDGE RECT 50V/25AMP
RV2		042-03470-01	RES PRESET 470E CARBON 10MM FLAT
R2		033-03330-00	RES MP816 PWR FILM 330E 10% 16W TO-2
R3		030-52330-20	RES FILM AI 33E 5% 0.4W 4X1.6MM
R4		030-54680-20	RES FILM AI 6K8 5% 0.4W 4X1.6MM
R5		030-54390-20	RES FILM AI 3K9 5% 0.4W 4X1.6MM
R6		030-54180-20	RES FILM AI 1K8 5% 0.4W 4X1.6MM
R7		030-55100-20	RES FILM AI 10K 5% 0.4W 4X1.6MM
R8		030-54470-20	RES FILM AI 4K7 5% 0.4W 4X1.6MM
R9		030-53120-20	RES FILM AI 120E 5% 0.4W 4X1.6MM
R10		030-55680-20	RES FILM AI 68K 5% 0.4W 4X1.6MM
R11		030-55100-20	RES FILM AI 10K 5% 0.4W 4X1.6MM
R12		030-54330-20	RES FILM AI 3K3 5% 0.4W 4X1.6MM
R13		030-54390-20	RES FILM AI 3K9 5% 0.4W 4X1.6MM
R14		030-55220-20	RES FILM AI 22K 5% 0.4W 4X1.6MM
R15		030-54330-20	RES FILM AI 3K3 5% 0.4W 4X1.6MM
R16		030-53470-20	RES FILM AI 470E 5% 0.4W 4X1.6MM
R17		030-53470-20	RES FILM AI 470E 5% 0.4W 4X1.6MM
R18		039-10018-63	RES WIRE WOUND 0.017E A4M1863 T508
R20		030-56220-20	RES FILM AI 220K 5% 0.4W 4X1.6MM
R21		030-53100-20	RES FILM AI 100E 5% 0.4W 4X1.6MM
SW1		232-00010-21	SWITCH PUSH SPST MAINS ON/OFF
*T1	21	053-00010-53	XFMR T4063A 230V MAINS PROTECTED
*T1	22	053-00010-51	XFMR T4065 115V MAINS T508
*T1	23	053-00010-53	XFMR T4063A 230V MAINS PROTECTED
*T1	24	053-00010-53	XFMR T4063A 230V MAINS PROTECTED

Ref	VAR	IPN	Description

T2008 Mechanical & Miscellaneous Parts

IPN	Description
065-00010-20	BEAD FERRITE BALUN 4B1 PHILIPS
200-00010-03	WIRE T/C 0.9MM
201-00030-02	WIRE #1 T/C WIRE 7/0.2MM PVC RED LED WIRING-330MM
201-00030-04	WIRE #1 T/C WIRE 7/0.2MM PVC YELLOW INTERNAL SPEAKER LINK (REFER TO WIRING DIAG.)
201-00030-05	WIRE #1 T/C WIRE 7/0.2MM PVC GREEN C8 & C9 WIRING TO HEATSINK
201-00030-10	WIRE #1 T/C WIRE 7/0.2MM PVC BLACK
201-00030-10	WIRE #1 T/C WIRE 7/0.2MM PVC BLACK
	LED WIRING - 330MM, MIC CLIP - 300MM.
205-00010-03	CABLE TWIN CYCLE FLEX 2/7/0.2MM BLACK
205-00010-06	CABLE TWIN AUTO 153 2/28/0.3 RED & BLACK
220-01170-03	PCB T508-21
232-00010-21	SWITCH PUSH SPST MAINS ON/OFF
240-00026-19	PLUG HOUSING 7-POS CONN 172495-1
240-00026-20	PLUG RECEPTL 7-POS CONN 172773-1
240-02010-75	SKT RECEPTL T2000 172775-1
240-04021-63	CONN 2WAY 24AWG (BLACK) INLINE HRMAPHR.
252-00010-02	CLIP MIC MTG
265-00010-07	FUSE 10A CARTRIDGE 6*32MM BS4265
302-05220-00	(L) BRKT HEAT TRANSFER T508/T2008
303-03031-00	CASE 1 PR TOP/BTTM PLASTIC COMPL
308-13064-01	HSINK A1M1755 DCAST T508/2008
316-06442-00	PNL FRT A3A697 COMPL T2008 PWR SUPPLY
319-30055-00	SPACER A4M2615 MIC MTG T2008
340-00010-06	FUSE CLIP PCB MTG 6.3MM CARTRIDGE FUSE
340-00011-52	COVER INSULATING FUSEHLDR PCB MTD
345-00040-08	SCREW M3*12MM PAN POZI ST BZ Q1 MOUNTING AND PCB TO HEATSINK
349-00010-28	SCREW NO6X1/2 PAN POZI TYPE 25
349-00010-33	SCREW SLFTAP NO 6*3/4IN TYPE AB PAN PZI BZ FOR WALL MOUNTING
349-00010-40	SCREW SELFTAP NO 8X3/8IN AB PAN SLOT BZ
349-00010-40	SCREW SELFTAP NO 8X3/8IN AB PAN SLOT BZ
349-00020-30	SCREW TAPTITE M3X6MM PAN PZI BZ EARTH PCB TO HEATSINK MOUNTING X 2
349-00020-31	SCREW TAPTITE M3X10MM PAN POZI BZ
349-00020-45	SCREW TAPTITE M4X20MM PAN POZI BZ BRIDGE RECTIFIER MOUNTING
352-00010-08	NUT M3 COLD FORM HEX ST BZ Q1 MOUNTING
353-00010-10	WASHER M3 FLAT 7MM*0.6MM ST BZ
353-00010-12	WASHER M3 SPRING BZ Q1 MOUNTING
353-00010-24	WASHER M4 FLAT ST BZ A4M1957
353-00010-24	WASHER M4 FLAT ST BZ A4M1957 BRIDGE RECTIFIER MOUNTING
356-00010-04	TAG SOLDER 3MM HEAVY DUTY EARTH MAINS EARTH TAG TO HEATSINK
356-00010-05	TAG SOLDER 4MM LONG M6144/4.2
362-00010-09	GASKET SIL INSULATING TO-3 Q1
365-00011-54	LABEL WHITE RW1556/2 90*24MM SPECIAL ADHESV
365-00100-03	LABEL BLANK 10.8X30MM S/A METLSD POLYES
365-00100-04	LABEL BLANK 30X6.7MM S/A METALLISED POLYES
365-00100-07	LABEL BLANK 47X30MM S/A METLSD POLYES
365-00100-20	LABEL WHITE S/A 28X11MM QUIKSTIK RW718/4
365-01372-00	LABEL POWER CORD CODE/WARNING
369-00010-05	FOOT PLASTIC 10MM SQ SELF ADHESIVE BLACK
369-00010-14	TIE CABLE NYLON 100*2.6MM
369-00020-25	SPONGE RUBBER 3/8 INCH SQ SKELLERUP S3 TOP CASE 2 X 56MM
369-00020-45	TAPE AL FOIL S/A 3M NO 425
399-00010-10	RUBBER BAND NO 33 MAINS PLUG
399-00010-51	BAG PLASTIC 75*100MM
399-00010-59	BAG PLASTIC 225*300MM
400-00010-30	SLEEVING 3MM PVC 2X 3.5MM
400-00010-30	SLEEVING 3MM PVC

IPN	Description
	2X5MM OVER M3X12MM PAN POZI SCREWS.
400-00020-03	SLEEVING 1MM SIL RUBBER D1 WIRING
400-00020-05	SLEEVING 1.5MM SIL RUBBER LED WIRES, Q1
409-20008-01	USER GUIDE T2008 PWR SUPPLY
410-00010-36	PKG POLY FOAM 2 PCS T508 A1M1860
410-01038-01	PKG SLEEVE CARD T2008 KIWI P.O.
410-01087-00	CRTN T508/T2008PS OUTER (5 X UNITS)
T2008-21 VARIANT PARTS	
240-00010-18	PLUG 3 PIN MLDED ON 2.4M 0.75MM2 230V MAINS NEW ZEALAND MAINS SUPPLY PLUG (T2008-21)
T2008-22 VARIANT PARTS	
240-00010-19	PLUG US 3PIN MOULDED ON 2.4M FLEX 120V 10A USA MAINS SUPPLY PLUG (T2008-22)
T2008-23 VARIANT PARTS	
240-00010-22	PLUG MLDED 3PIN ON 2.0M 5AMP 240V MAINS UK MAINS SUPPLY PLUG (T2008-23)
T2008-24 VARIANT PARTS	
240-00010-20	(L) PLUG EURO SAFETY PLUG WITH 2.5M CABLE EUROPEAN MAINS SUPPLY PLUG (T2008-24)

8.10 T2000-A450X CTCSS & Scrambler Kit

The T2000-A450X CTCSS and scrambler PCB plugs into an options connector on the top side of the T2000 Series II logic PCB, and can be configured in two ways:

Product Code	Option	T201X	T2020	T203X	T2040	T2050
T2000-A4500	CTCSS	x	x	✓	✓	x
T2000-A4502	Scrambler	✓	✓	✓	✓	✓

The CTCSS option is used in trunked radios, and has 38 independent receive and transmit tones, set by solder links on the T2000-A450X PCB.

The scrambler option can be used in either trunked or conventional radios, and is enabled/disabled by the auxiliary ( ) key (conventional models) or function (Fn) key (trunked models). The scrambler uses a simple frequency inversion algorithm that prevents casual eavesdropping by other radio users. After descrambling, the recovered speech suffers from some degradation in clarity.

Note: The T2000-A4500 CTCSS kit is only compatible with the following radio and PGM software versions:

Radio	Radio Software Version	PGM Software Version
T2030	3.24 or later	later than 1.44
T2035	3.28 or later	
T2040	5.36 or later	later than 2.57

The following topics are covered in this Section:

8.10.1 Components Required

The T2000-A450X kits contain the following components:

Quantity	Description
1	T2000-A450X PCB assembly
12mm	PVC foam tape

8.10.2 Fitting

1 Refer to Figure 8.10.1.

Remove the top cover of the radio by unscrewing the four cover screws, unscrew the logic PCB and fold out.

2 Select the T2000-A450X link options, as described in Section 8.10.3, "T2000-A450X Link Options".

Position the T2000-A450X PCB as shown, and plug into the connector on the T2000 logic PCB:

Model	PCB IPN	Connector Circuit Reference
T2010 & T2015	220-01377-01 or later	P2
T2020, T203X, T2040 & T2050	220-01344-02 or later	#T3K45

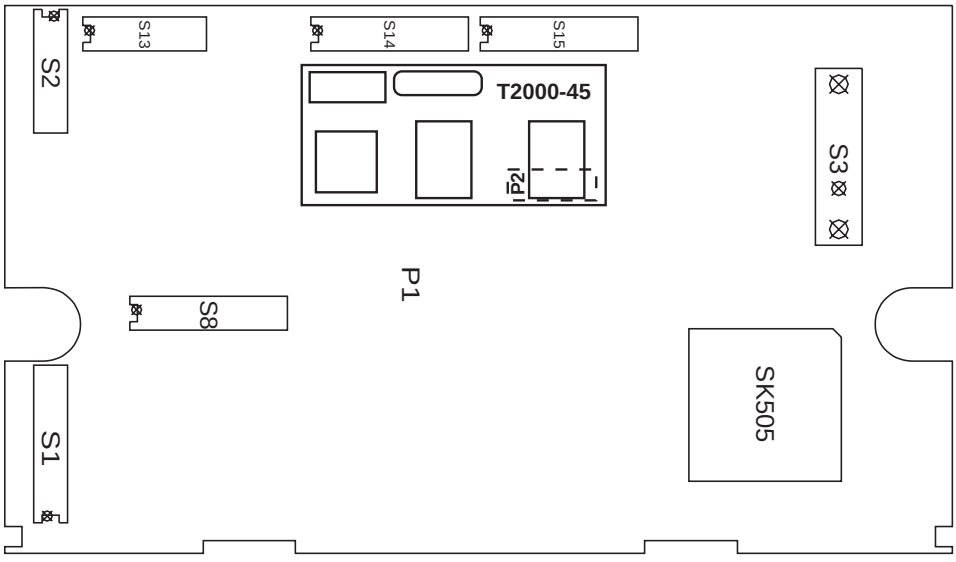


Figure 8.10.1 T2000-A450X PCB Mounting (T201X logic PCB shown)

2 Position the foam tape provided on top of #IC5, on the T2000-A450X PCB.

3 Carefully fold the logic PCB back in position and secure using the three logic PCB retaining screws.

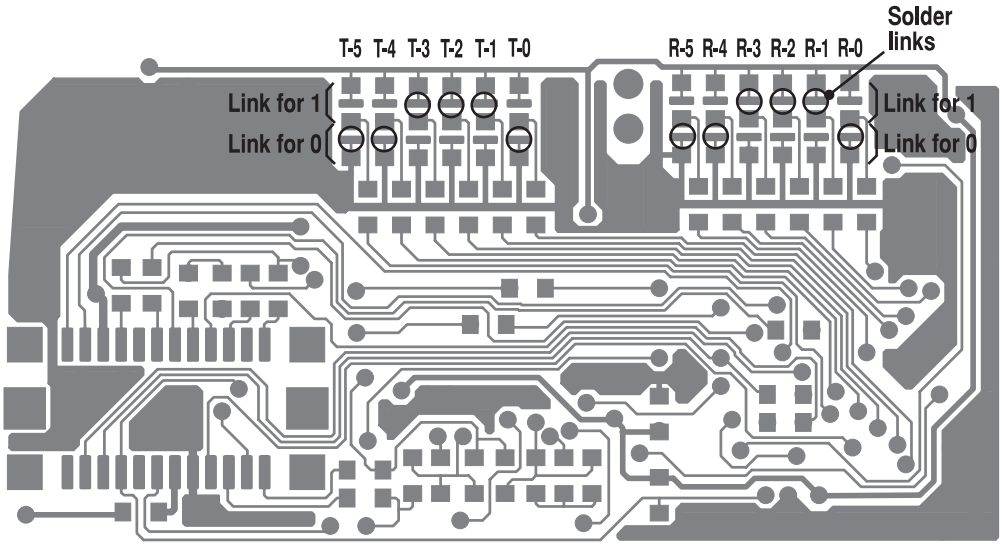
Refit the top cover.

8.10.3 T2000-A450X Link Options

There are 2 groups of links on the underside of the T2000-A4500 PCB, the receive (R) group and the transmit (T) group. Each group contains 6 bits that are pulled logic high or low, by either solder links or zero ohm resistors.

The receive settings are set by links R-0 to R-5 and the transmit settings by links T-0 to T-5. A short to the 5V line represents a '1', and a short to ground represents a '0'.

The following diagram shows the T2000-A450X PCB, with links indicated.



T2000-A450X PCB IPN 220-01335-04 (bottom side):
links for transmit & receive 110.9Hz CTCSS frequency shown.

T2000-A4500 CTCSS PCB Links

The following table gives the linking details for the 38 independent transmit and receive CTCSS frequencies.

Tone Number	R-5 T-5	R-4 T-4	R-3 T-3	R-2 T-2	R-1 T-1	R-0 T-0	CTCSS Frequency (Hz)
1	0	0	0	0	0	0	67
2	0	0	0	0	0	1	71.9
3	0	0	0	0	1	0	74.4
4	0	0	0	0	1	1	77
5	0	0	0	1	0	0	79.7
6	0	0	0	1	0	1	82.5
7	0	0	0	1	1	0	85.4
8	0	0	0	1	1	1	88.5
9	0	0	1	0	0	0	91.5
10	0	0	1	0	0	1	94.8
11	0	0	1	0	1	0	97.4
12	0	0	1	0	1	1	100
13	0	0	1	1	0	0	103.5
14	0	0	1	1	0	1	107.2
15	0	0	1	1	1	0	110.9

Tone Number	R-5 T-5	R-4 T-4	R-3 T-3	R-2 T-2	R-1 T-1	R-0 T-0	CTCSS Frequency (Hz)
16	0	0	1	1	1	1	114.8
17	0	1	0	0	0	0	118.8
18	0	1	0	0	0	1	123
19	0	1	0	0	1	0	127.3
20	0	1	0	0	1	1	131.8
21	0	1	0	1	0	0	136.5
22	0	1	0	1	0	1	141.3
23	0	1	0	1	1	0	146.2
24	0	1	0	1	1	1	151.4
25	0	1	1	0	0	0	156.7
26	0	1	1	0	0	1	162.2
27	0	1	1	0	1	0	167.9
28	0	1	1	0	1	1	173.8
29	0	1	1	1	0	0	179.9
3 0	0	1	1	1	0	1	186.2
31	0	1	1	1	1	0	192 .8
32	0	1	1	1	1	1	203.5
33	1	0	0	0	0	0	210.7
34	1	0	0	0	0	1	218.1
35	1	0	0	0	1	0	225. 7
36	1	0	0	0	1	1	233.6
37	1	0	0	1	0	0	241.8
3 8	1	0	0	1	0	1	250.3

T2000-A4502 Scrambler PCB Links

The T2000-A4502 has the following R settings linked during manufacture. The T settings have no effect.

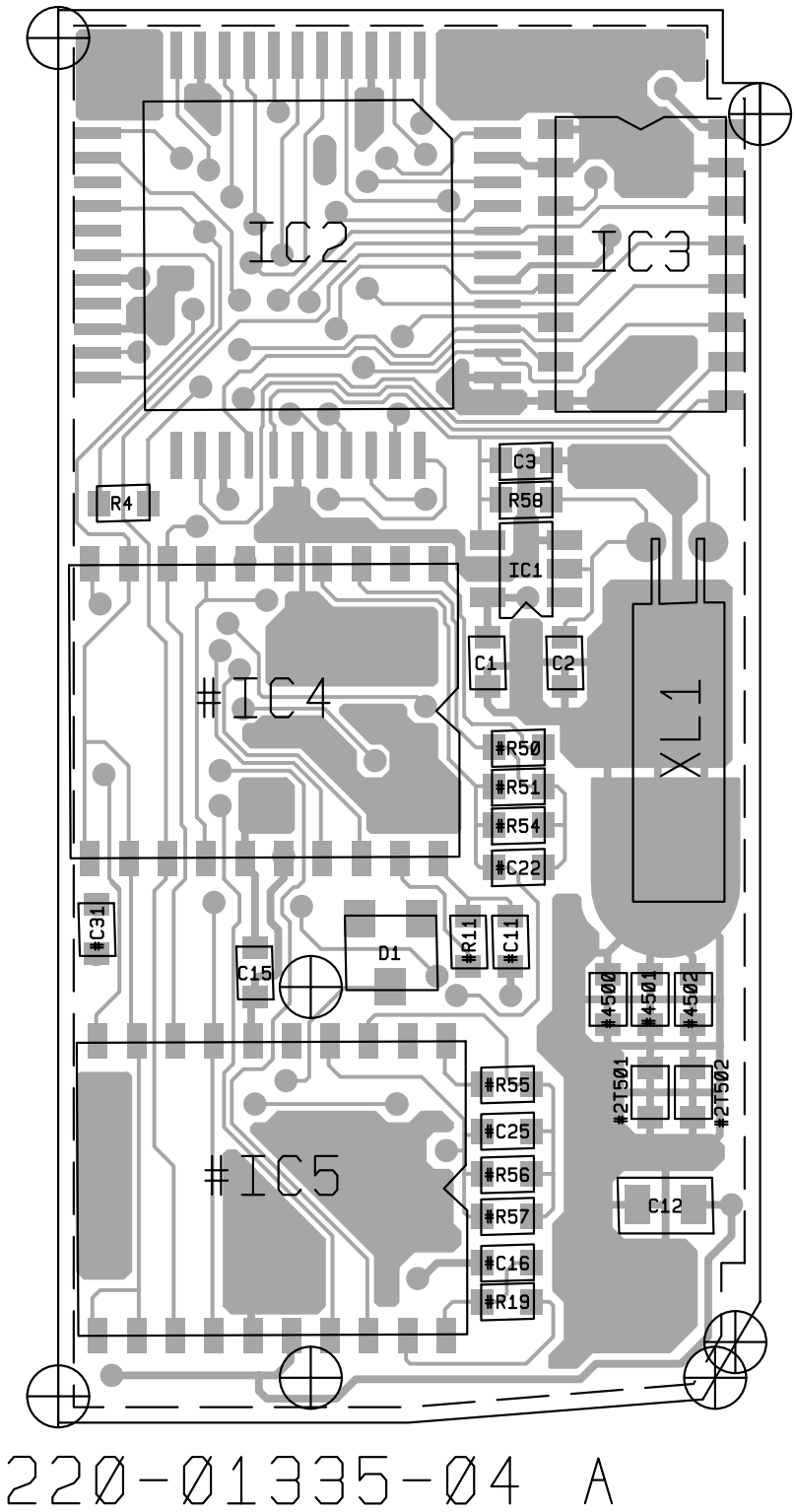
R-5	R-4	R-3	R-2	R-1	R-0
1	1	1	1	1	1

8.10.4 PCB Information

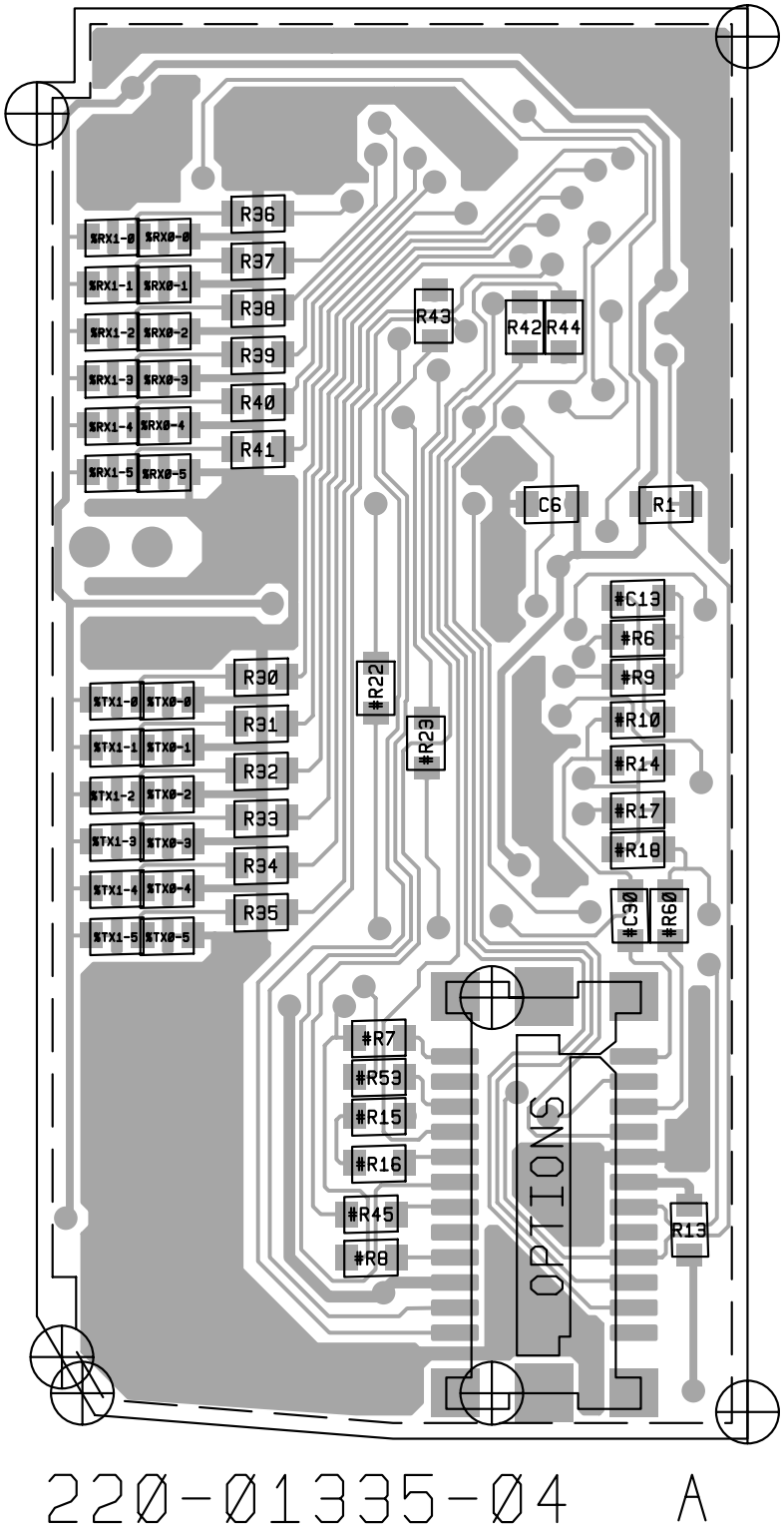
T2000-A450X Parts List (IPN 220-01335-04)

Ref	Var	IPN	Description
#4500	CTCSS	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +
#2T502	SCRAM	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +
C1		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V
C2		018-12330-10	CAP 0603 CHIP 33P 50V NPO +-1%
C3		018-12150-10	CAP 0603 CHIP 15P 50V NPO +-1%
C6		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V
#C11	CTCSS	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V
#C11	SCRAM	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
C12		015-27100-10	CAP CER 0805 CHIP 1M +80-20% Y5V 16V
#C13	CTCSS	018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C15		018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C16	SCRAM	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
#C22	CTCSS	018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
#C22	SCRAM	018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
#C25	SCRAM	018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
#C30	CTCSS	018-16100-01	CAP 0603 CHIP 100N +80-20% Y5V 16V
D1		001-10000-70	(S) DIODE SMD BAV70 DUAL SWITCH SOT-23
IC1		002-74900-40	(LSH) IC SMD TC7S04F SINGLE INV GATE SO-
IC2		002-18937-10	LSH) IC SMD Z89371-16FSC OTP DSP 44PIN Q
IC3		002-74917-30	LSH) IC SMD 74HC173D 4BIT DTYPE REGISTE
#IC4	CTCSS	002-11454-80	LSH) IC SMD MC145480DW PCM CODEC F
#IC4	SCRAM	002-11454-80	LSH) IC SMD MC145480DW PCM CODEC F
#IC5	SCRAM	002-11454-80	LSH) IC SMD MC145480DW PCM CODEC F
OPTION		240-10000-09	CONN SMD 24WAY (SKT/CAP WITH MTG LUGS
R1		038-15150-00	RES 0603 CHIP 15K 1/16W +-5%
R4		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
#R6	CTCSS	038-15470-00	RES 0603 CHIP 47K 1/16W +-5%
#R6	SCRAM	038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
#R7	CTCSS	038-14330-00	RES 0603 CHIP 3K3 1/16W +-5%
#R8	SCRAM	038-11470-00	RES 0603 CHIP 4E7 1/16W +-5%
#R9	CTCSS	038-16470-00	RES 0603 CHIP 470K 1/16W +-5%
#R9	SCRAM	038-11470-00	RES 0603 CHIP 4E7 1/16W +-5%
#R10	CTCSS	038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
#R10	SCRAM	038-11470-00	RES 0603 CHIP 4E7 1/16W +-5%
#R11	CTCSS	038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
#R11	SCRAM	038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R13		038-11470-00	RES 0603 CHIP 4E7 1/16W +-5%
#R15	SCRAM	038-11470-00	RES 0603 CHIP 4E7 1/16W +-5%
#R17	SCRAM	038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
#R18	SCRAM	038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
#R19	SCRAM	038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
#R22	CTCSS	038-15150-00	RES 0603 CHIP 15K 1/16W +-5%
#R22	SCRAM	038-15150-00	RES 0603 CHIP 15K 1/16W +-5%
#R23	SCRAM	038-15150-00	RES 0603 CHIP 15K 1/16W +-5%
R30		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R31		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R32		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R33		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R34		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R35		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R36		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R37		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R38		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R39		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R40		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R41		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R42		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R43		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R44		038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
#R50	CTCSS	038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
#R50	SCRAM	038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
#R51	CTCSS	038-16470-00	RES 0603 CHIP 470K 1/16W +-5%
#R51	SCRAM	038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
#R53	SCRAM	038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
#R54	CTCSS	038-16220-00	RES 0603 CHIP 220K 1/16W +-5%
#R55	SCRAM	038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
#R56	SCRAM	038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R58		038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
#R60	SCRAM	038-11470-00	RES 0603 CHIP 4E7 1/16W +-5%
XL1		274-01063-00	(L) XTAL 3.579545MHZ MINITURE CYLINDRICA
		220-01298-01	(L) PCB FLEXI T3000 OPTIONS LOOM
		220-01335-04	PCB T3000-4500 CTCSS OPTION BOARD
		365-00011-38	LABEL STATIC WARNING YELLOW A4A315
		365-00011-54	LABEL WHITE RW1556/2 90*24MM SPECIAL AD
		369-00020-49	TAPE SA TESAMOLL 9*3 (25 M ROLLS)
		369-00020-50	TAPE SA TESAMOLL 6*3MM (25 M ROLLS)
		399-00010-86	BAG STATIC SHIELDING 127X203MM
		410-01064-01	PKG HEADER CARD (NEW TAIT LOGO)
		418-24500-00	FITTNG INS T2000-45 SCRAMBLER KIT

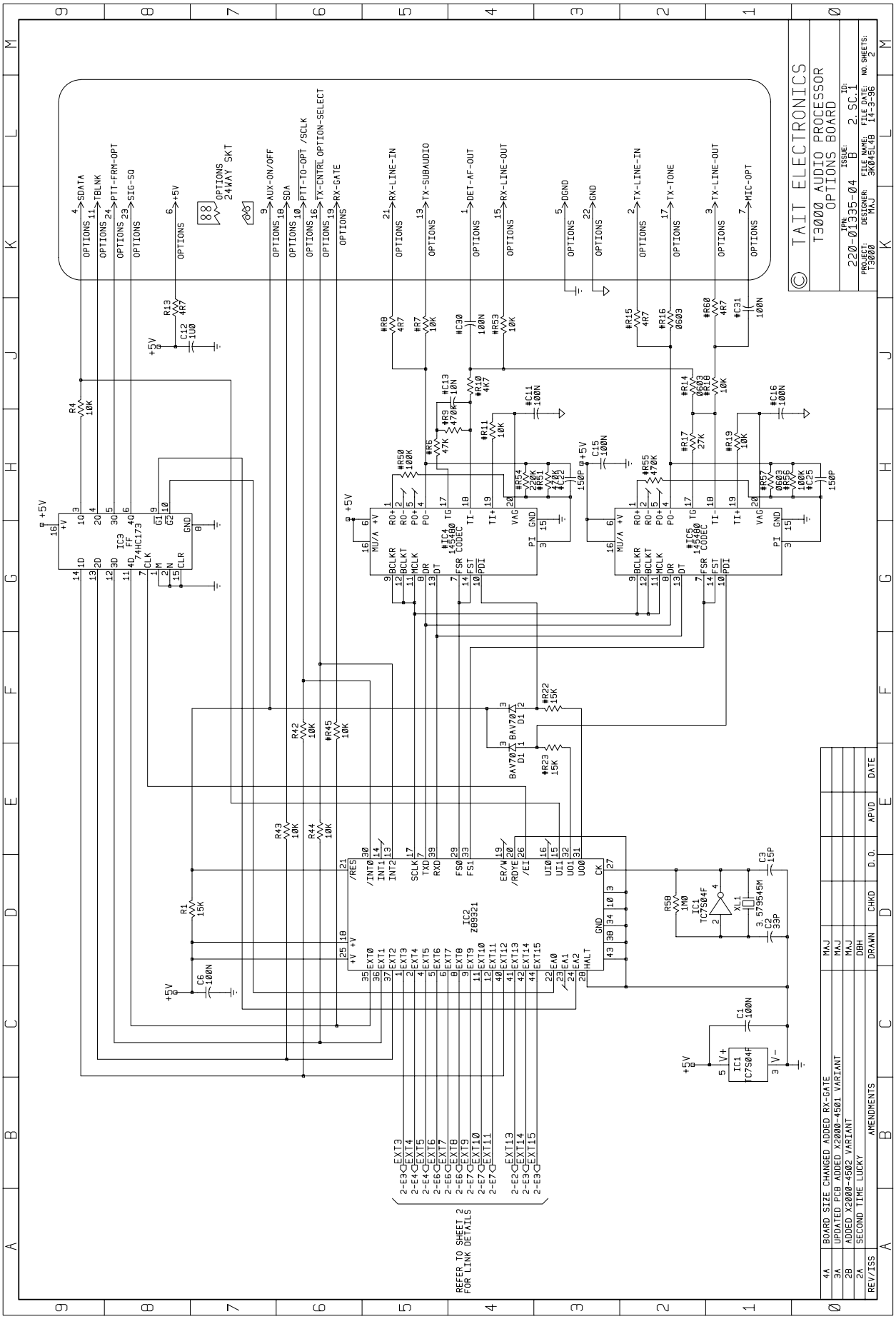
Variants: CTCSS = CTCSS option
SCRAM = Scrambler option



T2000-A450X PCB (IPN 220-01335-04) - Top Side



T2000-A450X PCB (IPN 220-01335-04) - Bottom Side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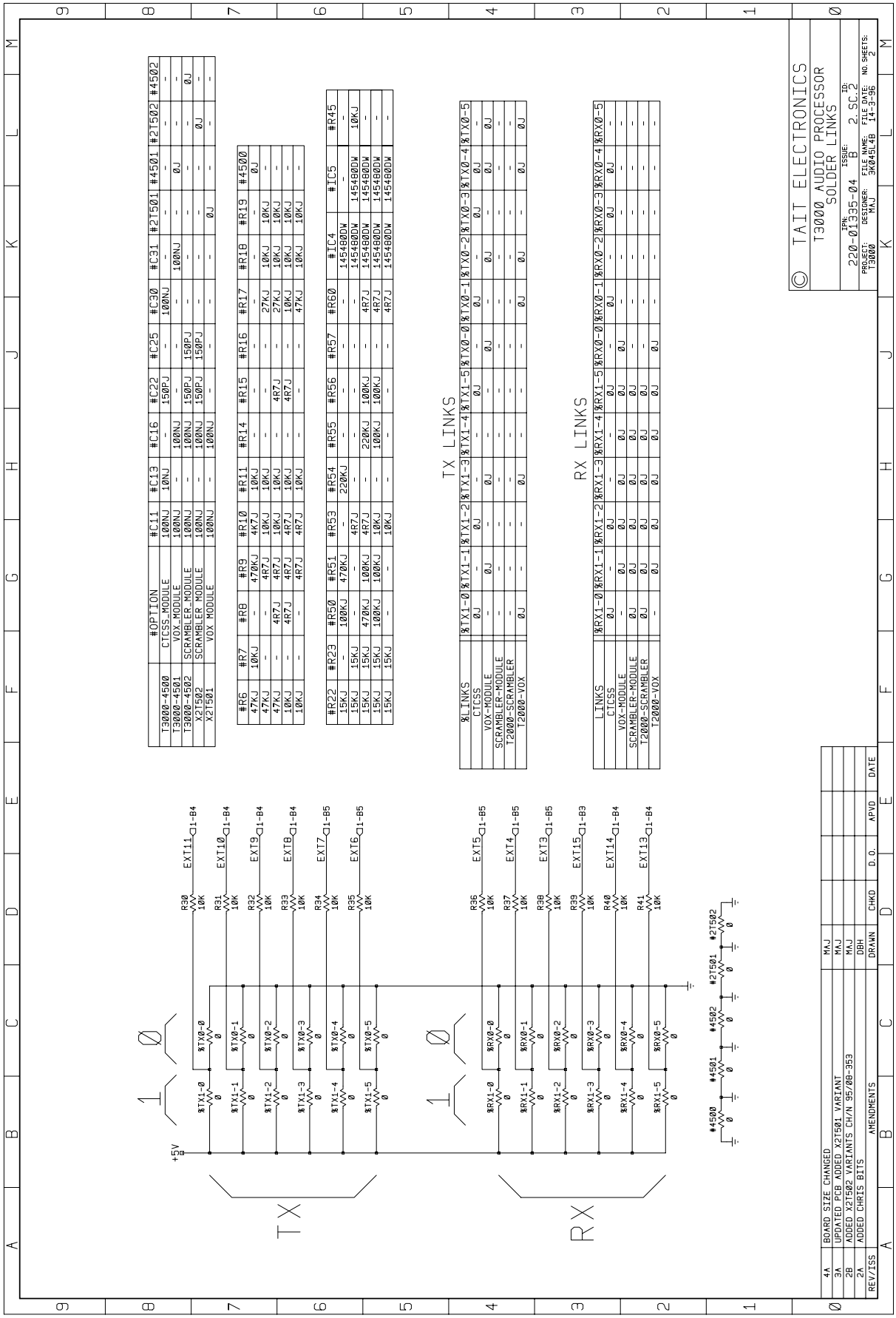
T3000 AUDIO PROCESSOR
OPTIONS BOARD
IPN: 220-01335-04
ISSUE: B
ID: 2.SC.1
PROJECT: T3000
DESIGNER: MAJ
FILE NAME: 3K045L4B
FILE DATE: 14-3-96
NO. SHEETS: 2
REV/ISS
4A BOARD SIZE CHANGED ADDED RX-GATE MAJ
3A UPDATED PCB ADDED X2000-4501 VARIANT MAJ
2B ADDED X2000-4502 VARIANT DBH
2A SECOND TIME LUCKY
AMENDMENTS DRAWN CHKD D.O. APVD DATE
REFER TO SHEET 2 FOR LINK DETAILS
IC1 TC75S04F
IC2 Z80321
IC3 74HCL173
IC4 145480 CODEC
IC5 145480 CODEC
XL1 3.579545M
OPTIONS 24WAY SKT
SDATA
TBLNK
PTT-FRM-OPT
SIG-SQ
AUX-ON/OFF
SDA
PTT-TO-OPT /SCLK
TX-CNTRL OPTION-SELECT
RX-GATE
RX-LINE-IN
TX-SUBAUDIO
DET-AF-OUT
RX-LINE-OUT
DGND
GND
TX-LINE-IN
TX-TONE
TX-LINE-OUT
MIC-OPT



#OPTION	#C11	#C13	#C16	#C22	#C25	#C30	#C31	#2T501	#4501	#2T502	#4502
T3000-4500 CTCSS_MODULE	100NJ	10NJ	-	150PJ	-	100NU	-	-	-	-	-
T3000-4501 VOX_MODULE	100NJ	-	100NJ	-	150PJ	-	100NU	-	0J	-	-
T3000-4502 SCRAMBLER_MODULE	100NJ	-	100NJ	150PJ	150PJ	-	-	-	-	-	0J
X21502 SCRAMBLER_MODULE	100NJ	-	100NJ	150PJ	150PJ	-	-	-	-	0J	-
X21501 VOX_MODULE	100NJ	-	100NJ	-	-	-	-	0J	-	-	-

#R6	#R7	#R8	#R9	#R10	#R11	#R14	#R15	#R16	#R17	#R18	#R19	#4500
47KJ	10KJ	-	470KJ	4K7J	10KJ	-	-	-	-	-	-	0J
47KJ	-	-	4R7J	10KJ	10KJ	-	-	-	27KJ	10KJ	10KJ	-
47KJ	-	4R7J	4R7J	10KJ	10KJ	-	4R7J	-	27KJ	10KJ	10KJ	-
10KJ	-	4R7J	4R7J	4R7J	10KJ	-	4R7J	-	10KJ	10KJ	10KJ	-
10KJ	-	-	4R7J	4R7J	10KJ	-	-	-	47KJ	10KJ	10KJ	-

#R22	#R23	#R50	#R51	#R53	#R54	#R55	#R56	#R57	#R60	#IC4	#IC5	#R45
15KJ	-	100KJ	470KJ	-	220KJ	-	-	-	-	1454800W	-	-
15KJ	15KJ	-	-	4R7J	-	-	-	-	-	1454800W	1454800W	10KJ
15KJ	15KJ	470KJ	100KJ	4R7J	-	220KJ	100KJ	-	4R7J	1454800W	1454800W	-
15KJ	15KJ	100KJ	100KJ	10KJ	-	100KJ	100KJ	-	4R7J	1454800W	1454800W	-
15KJ	15KJ	-	-	10KJ	-	-	-	-	4R7J	1454800W	1454800W	-

TX LINKS

&LINKS	&TX1-0	&TX1-1	&TX1-2	&TX1-3	&TX1-4	&TX1-5	&TX0-0	&TX0-1	&TX0-2	&TX0-3	&TX0-4	&TX0-5
CTCSS	0J	-	0J	-	-	0J	-	0J	-	0J	0J	-
VOX-MODULE	-	0J	-	0J	-	-	0J	-	0J	-	0J	0J
SCRAMBLER-MODULE	-	-	-	-	-	-	-	-	-	-	-	-
T2000-SCRAMBLER	-	-	-	-	-	-	-	-	-	-	-	-
T2000-VOX	0J	-	-	0J	-	-	-	0J	0J	-	0J	0J

RX LINKS

LINKS	&RX1-0	&RX1-1	&RX1-2	&RX1-3	&RX1-4	&RX1-5	&RX0-0	&RX0-1	&RX0-2	&RX0-3	&RX0-4	&RX0-5
CTCSS	0J	-	0J	-	0J	0J	-	0J	-	0J	0J	-
VOX-MODULE	-	0J	0J	0J	0J	0J	0J	-	-	-	-	-
SCRAMBLER-MODULE	0J	0J	0J	0J	0J	0J	-	-	-	-	-	-
T2000-SCRAMBLER	0J	0J	0J	0J	0J	0J	-	-	-	-	-	-
T2000-VOX	-	0J	0J	0J	0J	0J	0J	-	-	-	-	-

8.12.4 T2000-60 Set-Up

Test Equipment Required

- AF signal generator
- modulation analyser
- high impedance voltmeter (e.g. VTVM)
- IBM† or compatible personal computer
- lead to connect radio to CE and AE, if required (refer to Figure 8.12.2 & Figure 8.12.3)
- oscilloscope
- power supply (+13.8V)
- RF signal generator
- 40dB RF attenuator

The following diagram shows a typical test set-up.

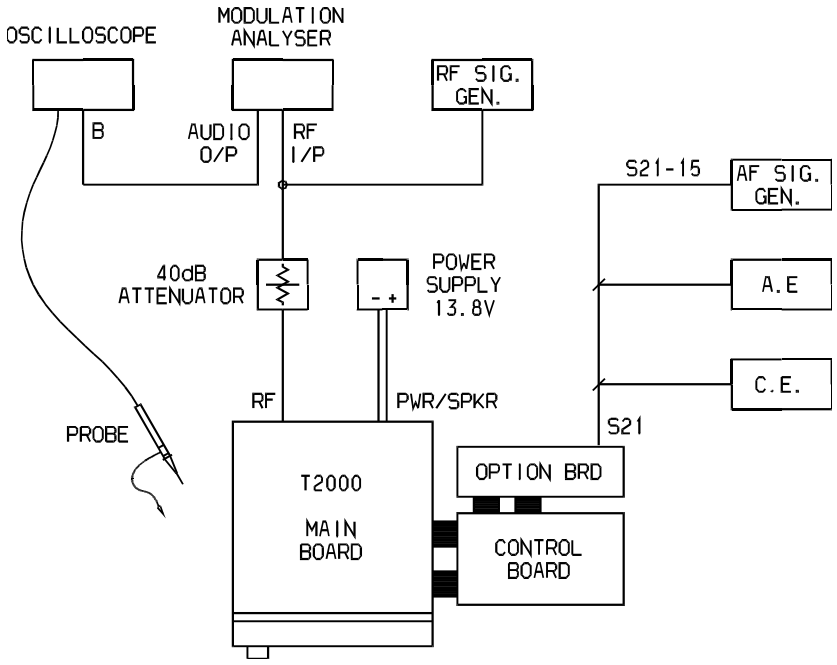


Figure 8.12.2 Test Equipment Set-Up

† IBM is the registered trademark of International Business Machines.

Rx Audio Level

1 Set up the test equipment as shown.

2 Ensure that pin 5 of S21 is loaded with the impedance normally presented by the AE (typically 600Ω).

3 Apply an RF signal at a level of -50dBm on an appropriate channel. Internal modulation at 1kHz should be enabled, with the deviation set to ±1.5kHz for a narrow band radio and ±3kHz for a wide band radio.

Note: If CTCSS or Selcall is enabled, ensure that the signalling mutes are overridden (for T2040 radios, refer to Section 5.8.5, "Test Facilities Available").

4 Connect the scope probe to pin 5 of S21, and adjust RV1 to the level required by the AE.

Tx Audio Level

1 Set up the test equipment as shown.

2 Connect a 600Ω impedance AF signal generator to pin 15 of S21. If the internal impedance of the AE is not 600Ω, either load the AF signal generator to get an internal impedance equivalent to the AE or alternatively, use the AE to provide the test signal (this is possible with most packet radio modems).

3 Apply an audio test signal to TX-AUDIO and set the radio to transmit (for T2040 radios, refer to Section 5.8.5, "Test Facilities Available").

4 Connect the scope probe to pin 15 of S21 and adjust the AF signal generator to a frequency of 1kHz at a level of 700mVp-p.

While the radio is transmitting, adjust RV2 to produce a deviation on the modulation analyser as stipulated by the AE.

If you are using the test signal from the AE instead of the AF signal generator, there will be some means of adjusting the signal level inside the AE.

8.13 T2000-A66 Single Port UART Kit

The T2000-A66 single port UART kit allows computer control of a T2030, T2035 or T2040 Series II radio. With full remote control, either semi or fully automatic communication systems can be developed.

The following topics are covered in this Section:

8.13.1 Components Required

The T2000-A66 kit contains the following components:

Quantity	Description
1	T2000-A66 UART PCB assembly
1	Data Interface Decoupling PCB assembly (refer to Section 7.17)
2	M2.5x10mm pan Pozi Taptite screws
2	M2.5 shakeproof washers
2	M2.5 nuts
1	locking screw kit (in plastic bag)
2	4-40x¼ pan Pozi Taptite screws (black)
20mm	foam tape

8.13.2 Fitting

Refer to Figure 8.13.1.

1 Remove the top cover of the radio by unscrewing the four cover screws, unclip the D-range blanking plate in the rear of the T2000 radio, unscrew the logic PCB and fold out.

2 T2000-A66 Mounting

Position the T2000-A66 PCB on the top side of the logic PCB, as shown, matching P1 on the bottom side of the T2000-A66 PCB to the pads labelled 'P1' on the logic PCB.

Use the two M2.5x10mm screws, nuts and shakeproof washers to secure in place.

Note: The screws are fitted from the ***bottom*** of the logic PCB, and secured with the nuts and washers on the ***top*** side of the UART PCB.

Torque the screws to 2.5in.lb. This ensures that the pressure connector, P1, makes contact with the corresponding pads on the logic PCB.

Caution: **Over-tightening the screws will cause the T2000-A66 PCB to bend, resulting in possible track damage.**

3 T2000 Data Interface Decoupling PCB Mounting

Fit the decoupling PCB to the T2000 chassis, guiding the PCB through the hole provided.

Holes are provided in the T2000 chassis for the D-range locking screws. Use the two black 4-40 Taptite screws provided in the kit to form threads.

Open the locking screw kit, discard the nuts, then secure the D-range using the two locking screws and spring washers.

2

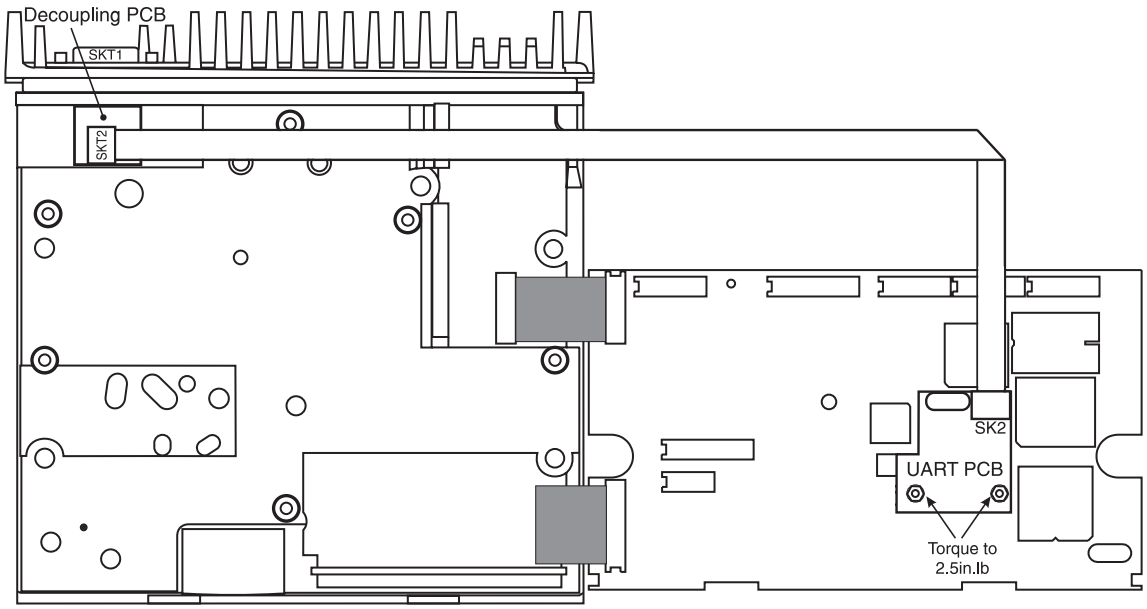


Figure 8.13.1 T2000-A66 Single Port UART PCB Mounting

4 Fold the T2000-A66 loom as shown, then plug into SKT2 on the decoupling PCB.

5 Fold the logic PCB back in position, and secure using the three logic PCB retaining screws and refit the top cover.

8.13.3 Signal Specifications

The following table describes the signals used on the decoupling PCB 9 way D-range connector (SKT1). The unused pins may be used for other signals, if required.

SKT1 Pin No.	Signal	Description
2	TXD	**Transmit data:** Serial data output from UART PCB. This signal complies with the electrical requirement s of the RS-232 specification.
3	RXD	**Receive data:** Serial data input to UART PCB. This signal complies with the electrical requirements of the RS-232 specification.
5	DGND	**Digital ground:** Ground reference for all digital signals.

The following diagram shows the pin designations of SKT1, viewed from the rear of the radio.

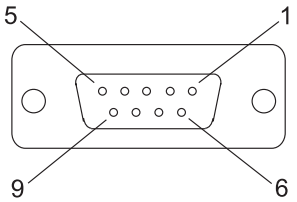
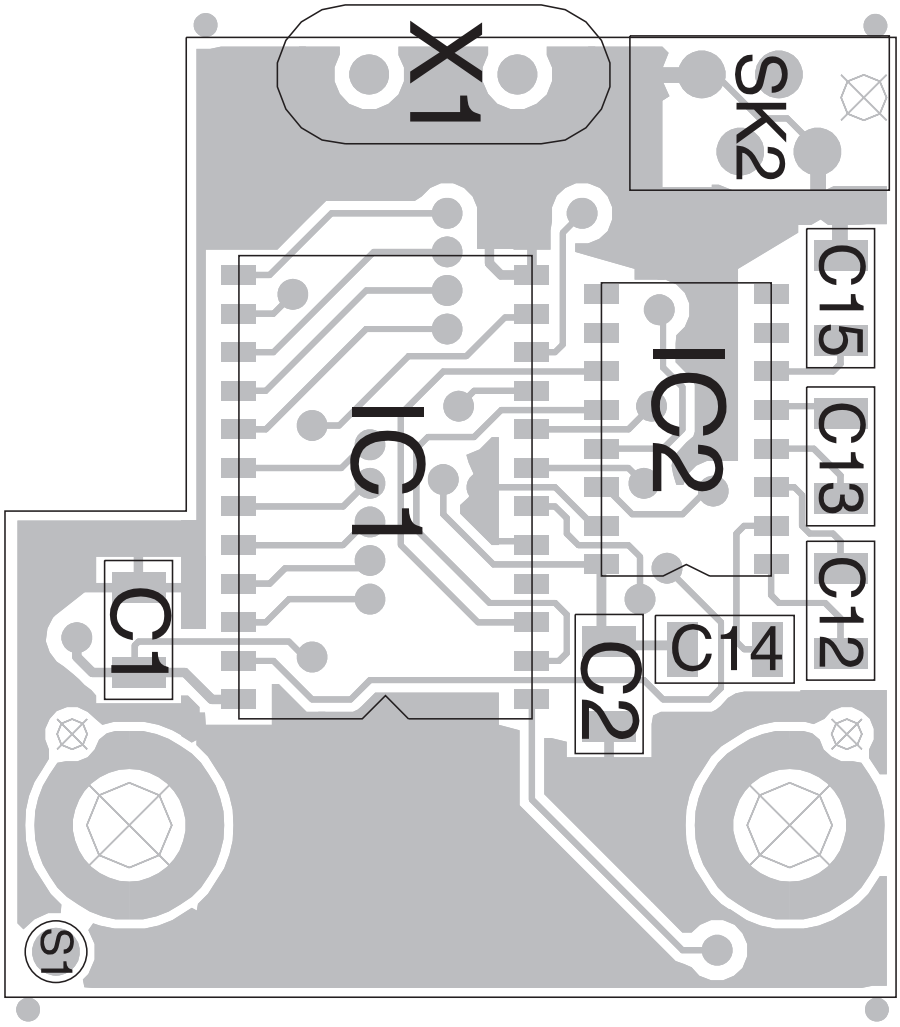


Figure 8.13.2 9 Way D-Range Connector (SKT1)

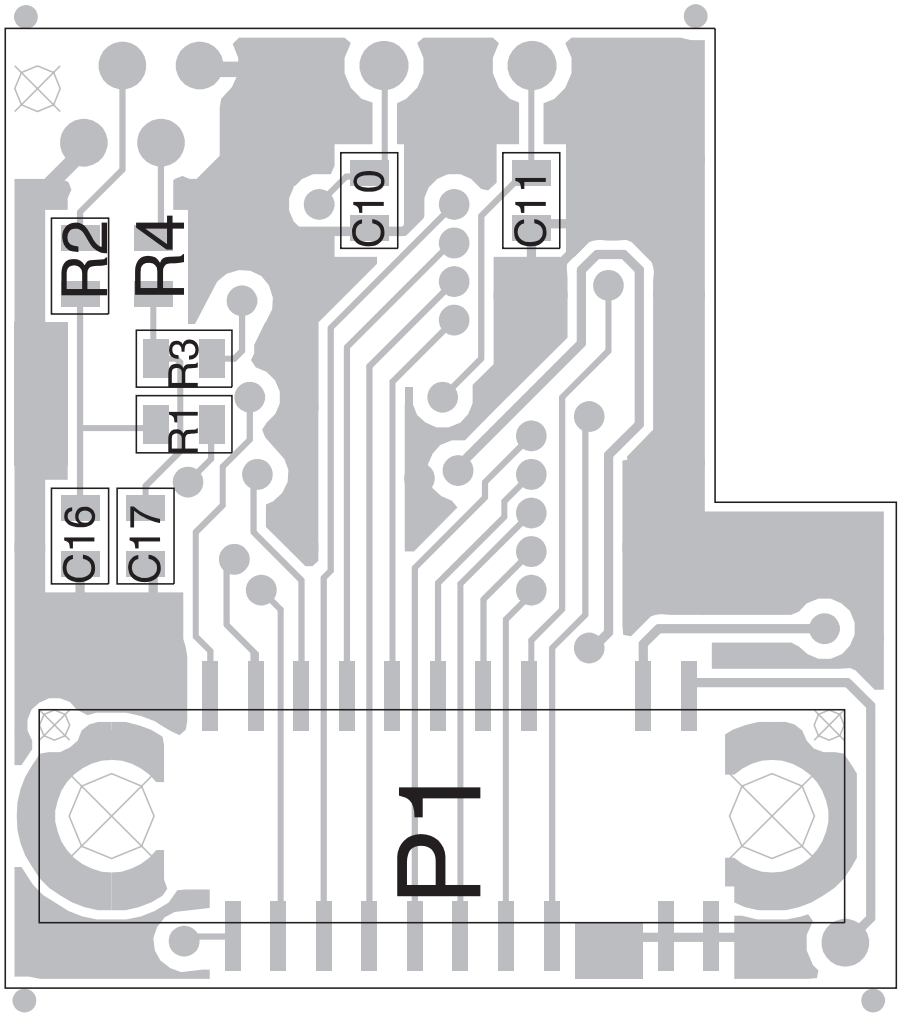
8.13.4 PCB Information

T2000-A66 Parts List (IPN 220-01348-04)

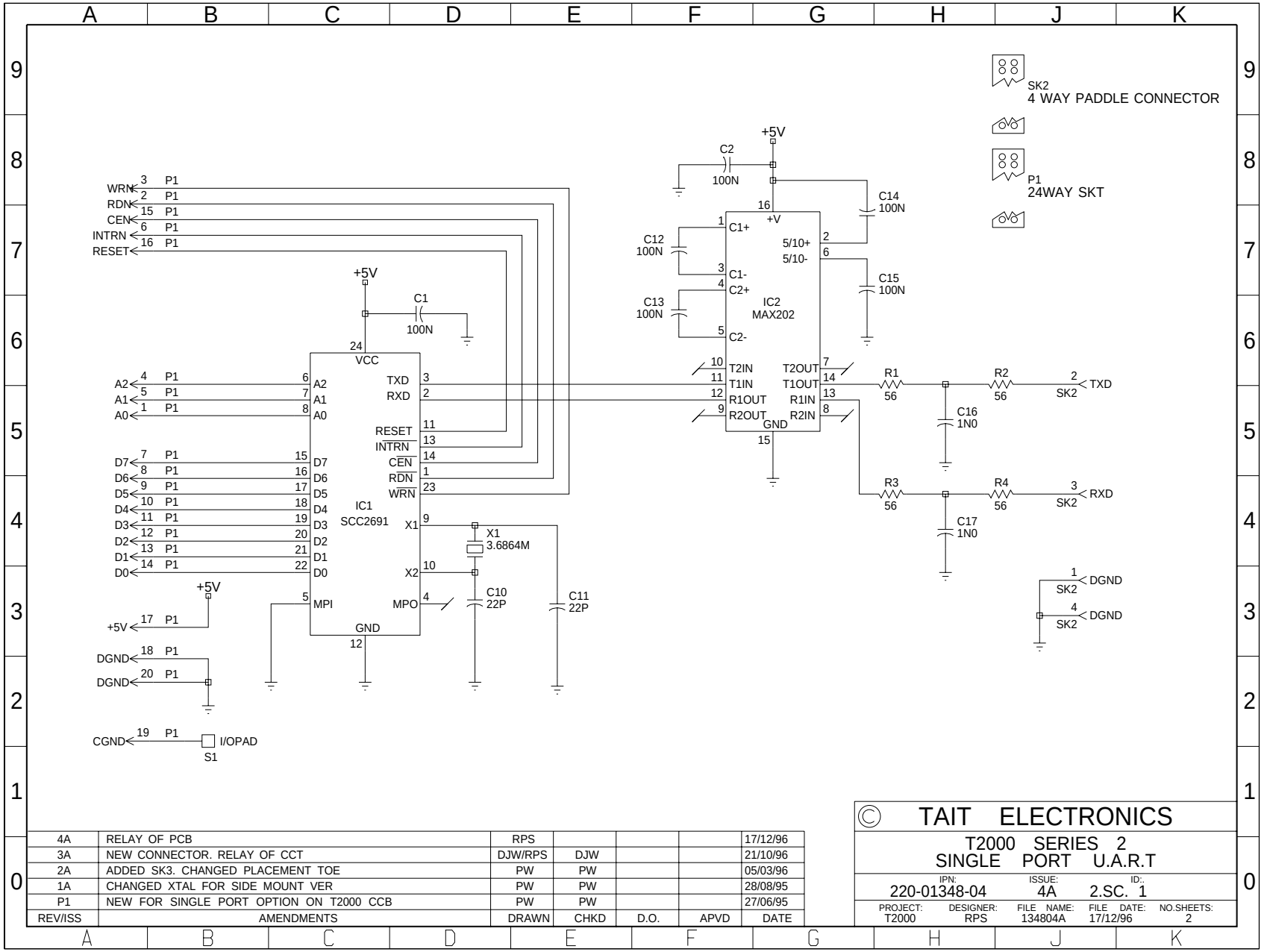
Ref	IPN	Description
C1	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C2	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C10	015-22220-01	CAP CER 0805 CHIP 22P 5% NPO 50V
C11	015-22220-01	CAP CER 0805 CHIP 22P 5% NPO 50V
C12	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C13	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C14	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C15	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C16	015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
C17	015-24100-08	CAP CER 0805 CHIP 1N 10% X7R 50V
IC1	002-10269-10	(LSH) IC SMD SCC2691 UART SOL24
IC2	002-10020-20	(LSH) IC SMD ADM202 RS-232 CONVERTOR SO-16
P1	240-10000-10	CONN SMD 20PIN SCREW DOWN PRICKLE CONTACT
R1	036-12560-00	RES M/F 0805 CHIP 56E 5%
R2	036-12560-00	RES M/F 0805 CHIP 56E 5%
R3	036-12560-00	RES M/F 0805 CHIP 56E 5%
R4	036-12560-00	RES M/F 0805 CHIP 56E 5%
SK2	240-00021-20	HEADER 4WAY PADDLE BRD STAGGERED PINS MICROMATC
X1	274-01056-00	XTAL 3.6864MHZ AT-51 HOLDER C/W TEFLON INS
	205-00010-53	CABLE FLAT RBBN 4 CRE 16/7/0.1 GREY (SCAP FRM 16C)
	220-01348-04	PCB T2000 SII UART
	240-00026-22	PLUG 4WAY 2ROW MICROMATCH IDC CABLE 0-215083-4
	345-00020-02	SCREW M2.5*10MM PAN POZI BZ
	349-00020-07	(L) SCREW 4-40 X 5/16 PAN POZI TAPTITE BLACK
	352-00010-04	NUT M2.5 MACH HEX ST BZ
	353-00010-04	WASHER M2.5/M2.6 SHAKEPROOF INT BZ
	354-01041-00	FASTENER SCREW LOCK KIT (4-40 THREAD FOR DRANGE)
	356-00010-05	TAG SOLDER 4MM LONG M MT
	369-00020-35	TAPE PVC FOAM 1 SIDE S/A 9*10MM INSEAL 5375 1x 20mm TOP SIDE PCB OVER IC1
	X2DC01	T2000 INT FACE DE-COUPLING BOARD



T2000-A66 Single Port UART PCB (IPN 220-01348-04) - Top Side



T2000-A66 Single Port UART PCB (IPN 220-01348-04) - Bottom Side



REV/ISS	AMENDMENTS	DRAWN	CHKD	D.O.	APVD	DATE
4A	RELAY OF PCB	RPS				17/12/96
3A	NEW CONNECTOR. RELAY OF CCT	DJW/RPS	DJW			21/10/96
2A	ADDED SK3. CHANGED PLACEMENT TOE	PW	PW			05/03/96
1A	CHANGED XTAL FOR SIDE MOUNT VER	PW	PW			28/08/95
P1	NEW FOR SINGLE PORT OPTION ON T2000 CCB	PW	PW			27/06/95

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T2000 SERIES 2
SINGLE PORT U.A.R.T

IPN:	ISSUE:	ID:
220-01348-04	4A	2.SC. 1

PROJECT:	DESIGNER:	FILE NAME:	FILE DATE:	NO.SHEETS:
T2000	RPS	134804A	17/12/96	2

8.15 T2000-A70 Data Modem Kit

The T2000-A70 conventional data modem allows a T2010 or T2015 radio to be used in data applications, and also provides remote channel control via six BCD lines.

The command protocol and some test procedures are provided for those wanting to write their own software. The protocol definition is based on the T2000 CCI protocol, with specific extensions to support binary transmission and reception.

Note: This interface is only compatible with radio firmware version 2.22, or later. If you have a Series II HC05 logic PCB (PCB IPN 220-01377-0X), with v2.05 radio firmware, contact your nearest authorised Tait dealer.

After upgrading from v2.05 radio software, it is necessary to change the link resistors on the top side of the logic PCB. Remove link resistor #R714 and fit #R714A.

The following topics are covered in this Section:

8.15.1 Components Required

The T2000-A70 kit contains the following components:

Quantity	Description
1	T2000-A70 data modem PCB assembly
1	Data interface decoupling PCB assembly (refer to Section 7.17)
1	connecting loom
2	M2.5x10mm pan Pozi Taptite screws
2	M2.5 shakeproof washer
2	M2.5 nut
1	female screw lock kit (in plastic bag)*
2	4-40x5/16 pan Pozi Taptite screws (black)

* Discard unused parts from the female screw lock kit.

8.15.2 Fitting

Refer to Figure 8.15.2.

1 Remove the top cover of the radio by unscrewing the 4 bottom cover screws, unscrew the logic PCB and fold out.

2 T2000-A70 Mounting

Position the data modem PCB on the top side of the logic PCB, as shown, matching P3 on the bottom side of the data modem PCB to connector S3 on the logic PCB.

Use the 2 M2.5x10mm screws, nuts and shakeproof washers to secure in place, as shown.

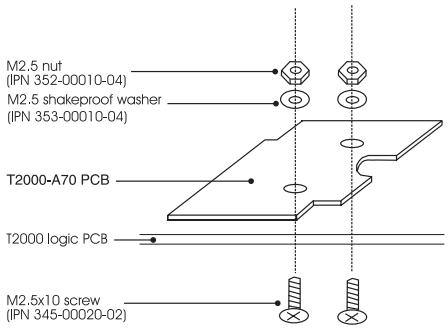


Figure 8.15.1 T2000-A70 PCB Mounting

The screws are fitted from the ***bottom*** of the logic PCB, and secured with the nuts and washers on the ***top*** side of the data modem PCB.

Torque the screws to 2.5in.lb.

Caution: **Over-tightening the screws will cause damage to the data modem PCB, and compression of connector P3.**

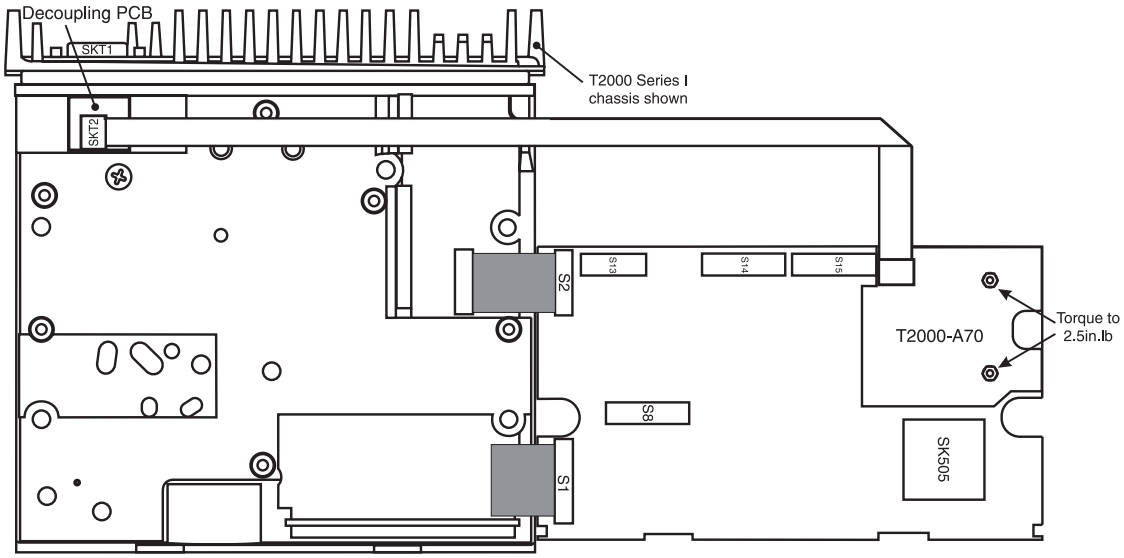


Figure 8.15.2 T2000-A70 Data Modem PCB Mounting

3 T2000 Data Interface Decoupling PCB Mounting

Unclip the D-range blanking plate in the rear of the T2000 chassis.

a T2000 Series I Chassis

Refer to Figure 8.15.3.

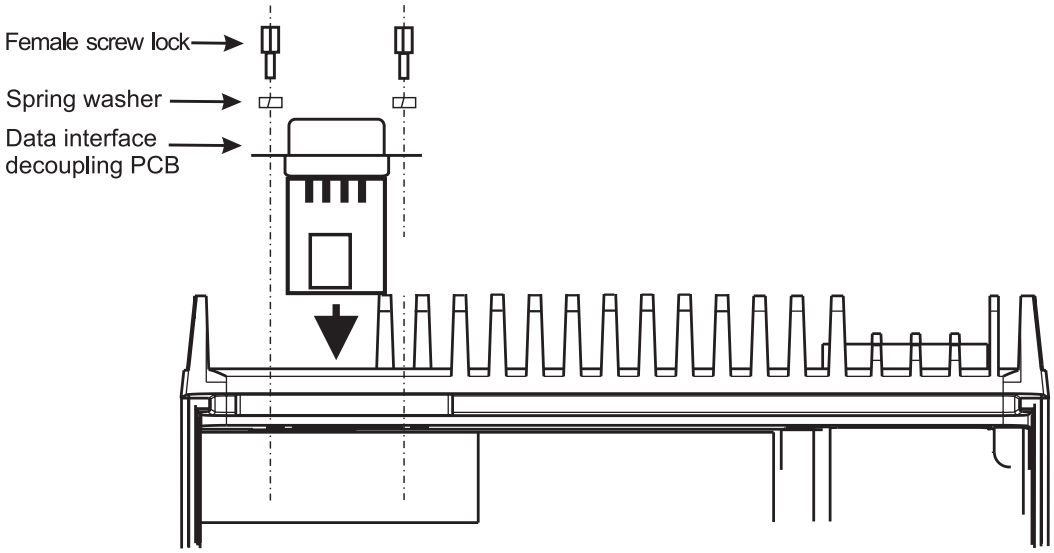


Figure 8.15.3 Data Interface Decoupling PCB Mounting: Series I Chassis

Holes are provided in the T2000 chassis for the D-range screw locks. Use the 2 black 4-40 Taptite screws provided in the kit to form threads.

Fit the decoupling PCB to the T2000 chassis, guiding the PCB through the hole provided, as shown.

Open the female screw lock kit, then secure the D-range using the 2 screw locks and spring washers.

b T2000 Series II Chassis

Refer to Figure 8.15.4.

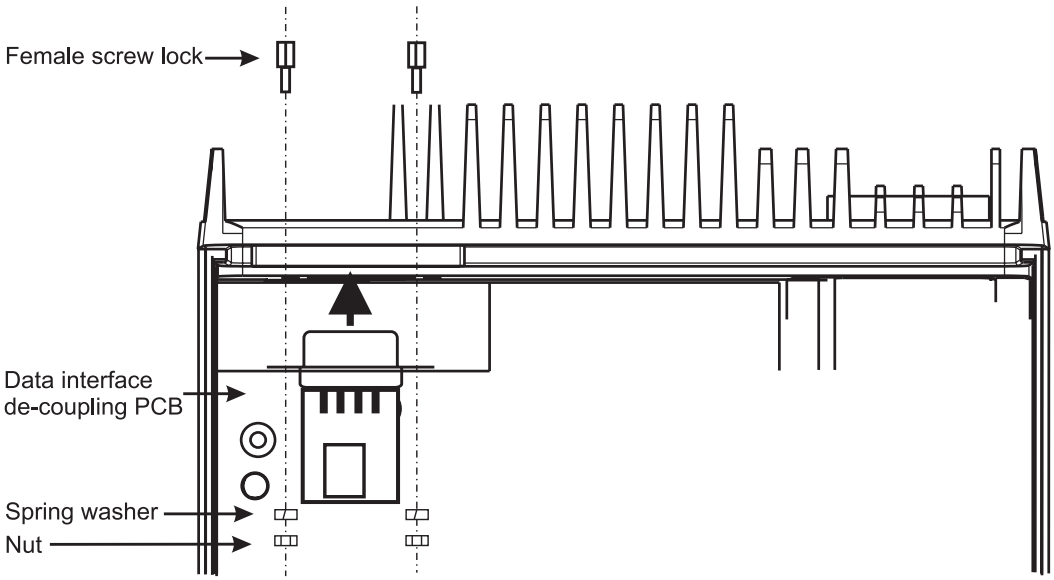


Figure 8.15.4 Data Interface Decoupling PCB Mounting: Series II Chassis

Fit the decoupling PCB to the T2000 chassis, from the inside rear of the radio, as shown.

Secure the D-range in position using the screw locks, spring washers and nuts provided in the female screw lock kit.

4 Fold the data modem loom as shown, then plug into SKT2 on the decoupling PCB.

5 Fold the logic PCB back in position, secure using the 3 logic PCB retaining screws, and refit the top cover.

Note: Check that the loom is not pinched by the cover or screws during reassembly.

8.15.3 T2000-A70 Link Options

PCB links have been provided on the T2000-A70 data modem PCB for different operational requirements. To change settings, the PCB links are either solder shorted, or fitted with 0Ω SMD resistors.

The following table sets out the link selection options on the T2000-A70 data modem PCB.

Option	#R19	#R2010	#R2015
Baud Rate:			
1200	Fitted	-	-
2400	Not fitted	-	-
Radio Type:			
T2010	-	Fitted	Not fitted
T2015	-	Not fitted	Fitted

8.15.4 Signal Specifications

Data Interface Decoupling PCB

The following tables describe the signals on the decoupling PCB 9 way D-range connector (SKT1) and 4 way connector (SKT2). The diagram shows the pin designations of SKT1, viewed from the rear of the radio.

Note: Pins 1, 4, 6, 7, 8 and 9 on SKT1 are connected to I/O pads, so that additional signals can be interfaced to the radio through the external connector.

SKT1 Pin No.	Signal	Description
1	PAD1	Spare
2	TXD	Transmit data
3	RXD	Receive data
4	PAD2	Spare
5	DGND	Ground reference for all digital signals
6	PAD3	Spare
7	RTS	Spare
8	CTS	Spare
9	PAD4	Spare

SKT2 Pin No.	Signal	Description
1	DGND	Ground reference for all digital signals
2	RXD	Receive data
3	TXD	Transmit data
4	DGND	Ground reference for all digital signals

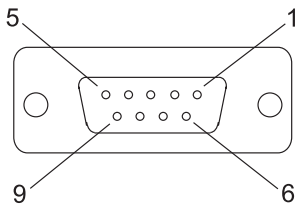


Figure 8.15.5 9 Way D-Range Connector (SKT1)

Data Modem PCB

The following tables describe the signals on the data modem PCB connectors P3 and PDL-1. For P3 signal descriptions, refer to Section 5.9, “Options Interface Specifications”.

P3 Pin No.	Signal
1	BCD-0
2	BCD-1
3	BCD-2
4	BCD-3
5	BCD-4
6	BCD-5
7	TX-SIG-IN
8	DET-AF-OUT
9	/BUSY
10	N/C

P3 Pin No.	Signal
11	/PTT-TO-OPT
12	/RX-GATE
13	/IN-LOCK
14	/PTT-FRM-OPT
15	/SIG-SQUELCH
16	MIC-MUTE
17	DGND
18	PWR-CTRL
19	GND
20	+5V

PDL-1 Pin No.	Signal	Description
1	DGND	Ground reference for all digital signals
2	TXD	Transmit data
3	RXD	Receive data
4	DGND	Ground reference for all digital signals

8.15.5 Programming

For those wanting to write their own software, the command protocol and some test procedures are provided in this Section. The protocol definition is based on the T2000 CCI protocol, with specific extensions to support binary transmission and reception.

Note: For modem control of channel change, the **BCD Channel Selection** field in the **Edit - Options** menu must be set to *Enabled* during radio programming.

Common Abbreviations

CCI Computer Controlled Interface
DTE Data Terminal Equipment (e.g. Computer, ***inform*** data head)
RU Radio Unit
RXD Received Data
TXD Transmitted Data

Command Protocol Description

The DTE is connected to the RU via a serial port on the data modem PCB. Commands are generated by the DTE, and responses or unsolicited messages returned by the RU. There is a prescribed format for all messages, which allows transmission errors to be detected.

Control of the RU is accomplished by the DTE sending a command sequence (a "packet") and receiving a response (a "transaction"). Unsolicited messages may originate from the RU.

The RU will issue a prompt character to indicate to the DTE that it is ready to accept a new command. After issuing a command, the DTE must wait for another prompt before beginning the next transaction. The prompt character is "." (full stop, ASCII code = $2E).

Messages directed to the RU will always be responded to, either explicitly by means of a return message ("Ready" or "Error"), or implicitly, by just the prompt "." being issued.

The RU will not originate a message: messages returned by the RU are for information purposes only, and no reply will be expected from the DTE.

This protocol definition is based on the T2000 CCI protocol, with specific extensions to support binary data transmission and reception.

Message Format

All message packets take the general form:

[IDENT][SIZE][PARAMETERS][CHECKSUM]<CR>

The following table explains each component of the message packet.

Message Component	Description
[IDENT]	The message identifier. Identifiers are single ASCII characters (lower-case alphabetical) which categorise the message type.
[SIZE]	The number of characters which make up the [PARAMETERS] field. [SIZE] is an 8-bit number expressed in ASCII-hex notation (two characters).
[PARAMETERS]	An optional field, depending upon the command. Parameter values are generally character strings, unless explicitly stated otherwise. Parameter type is dependent upon the command - there is no explicit type definition.
[CHECKSUM]	An 8 bit checksum of fields [IDENT], [SIZE] and [PARAMETERS]. It is expressed in ASCII-hex notation (two characters).
	Calculating [CHECKSUM]: [CHECKSUM] is calculated by applying the following algorithm: **1** Take the modulo-2 sum of all message bytes preceding [CHECKSUM]. **2** Retain bits 0 to 7, discarding any higher order bits resulting from the summation. **3** Form the two's complement of the remainder. **4** Convert the binary number into two ASCII-hex digits, MSD first.
<CR>	The packet terminator. It is the ASCII "carriage return" character ($0D).

Table 8.15.1 Message Format

General message format characteristics:

- All fields in a message are encoded in ASCII, except for the [PARAMETERS] field of the transmit and receive commands, which is encoded in Binary.
- Where numeric values are represented in ASCII-hex notation (two characters per byte), digits A to F are upper case.
- The minimum length of a command packet is 5 characters (i.e. this is when [SIZE] = 00).
- The maximum length of the [PARAMETERS] field is 111 characters. The maximum length of the command packet is therefore 116 characters ([SIZE] = 0x6F).

Messages To The RU

If the RU receives a command without error, and all parameters are valid, then the command will be executed and an acknowledge will be returned to the DTE. If an error arises, the DTE will be notified with an appropriate response.

The following Table describes the commands available to the DTE to control operation of the RU.

Command	Description	Message		Comments
		[IDENT]	[PARAMETERS]	
Go To Channel	This forces the RU to change to another (conventional) channel.	g	[CHANNEL NUMBER] This is a string of characters representing the new channel number. The range of allowed characters is 0 to 9 only, and the maximum number of digits is 3. Valid channel numbers are 1 to [NUM CHANNELS].	The value of [CHANNEL NUMBER] must be valid for the RU being controlled. The range of allowed values depends upon the RU's programming, type and the link selections on the data modem PCB (refer to Section 8.15.3). The maximum allowable value is returned by the 'Query' command.
Query	This requests the RU to respond with a block of data identifying the type of RU attached, and the version of modem firmware.	q	None	The Query data is returned to the DTE as a 'Query Response' message (refer to "Messages from the RU").
Transmit	This requests the RU to broadcast a block of data on the radio channel.	b	The data to broadcast is encoded as binary data. Note that this field may contain unprintable ASCII characters (such as CR/LF) and protocol command characters (such as ".").	The maximum length of data that may be sent with the 'Transmit' command is 111 characters.
Null	This requests the RU to return an acknowledgement to the DTE. The DTE can use this command to check that an RU is connected.	n	None	

Table 8.15.2 Messages To The Radio Unit

Messages From The RU

Messages may be sent to the DTE by the radio as part of a transaction (i.e. in response to a command issued by the DTE) or unsolicited. In the case of solicited commands, the prompt character will be issued after the RU response to terminate the transaction and signify that another may begin.

Note: In the case of solicited commands, the prompt character, "•", will be issued after the RU response, to terminate the transaction and signify that another may begin.

Unsolicited commands from the RU will not cause the issuing of the prompt character, as it is possible for an unsolicited command (e.g. Receive) to occur during a solicited command (e.g. Transmit).

The following Table describes messages from the RU to the DTE.

Command	Description	Message		Comments
		[IDENT]	[PARAMETERS]	
Receive	Unsolicited. This presents data received by the RU to the DTE. The data received by the RU has been broadcast by another RU/DTE, using the Transmit command.	i	The data received is encoded as binary data. Note that this field may contain unprintable ASCII characters (such as CR/LF) and protocol command characters (such as '•').	
Query Response	Solicited The RU's response to a Query command.	m	[RU TYPE] A single character, representing the model of the RU. 0 = unknown 3 = T2010 4 = T2015 [VERSION] Firmware version. A character string, in the format of X.XX, identifying the capabilities of the RU/modem. [PVERSION] Protocol Version. A character string, in the format of X.XX, identifying the command protocol version supported. [NUM CHANNELS] The number of channels supported by the Go To Channel command. A 3 digit ASCII number.	**1** The value of [PVERSION] = 1.01 is reserved for the first release of firmware implementing this command protocol. Subsequent enhancements and major upgrades will increment this number accordingly. **2** Additional fields may be added to this message in future releases to provide more information about the RU environment. In particular, it may be necessary to pass the DTE some information on how the RU has been programmed, or what optional hardware is fitted.
Ready	"•" This response indicates that a transaction has been completed, and the RU is ready for the next command.	None	None	After issuing a command, the DTE must wait for another prompt before beginning the next transaction.

Continued on next page

Command	Description	Message			Comments
		[IDENT]	[PARAMETERS]		
Error	Solicited response to a transaction error. This advises the DTE that the RU has detected an error condition and cannot proceed with the current transaction. Unsolicited response to a system error. In some cases, an exception condition in the RU may cause an 'Error' message to be sent to the DTE independently of any control transactions. A prompt or 'Ready' will be issued after an 'Error' occurs, to indicate the RU's availability to accept further commands.	e	[ETYPE]	Error type. A single character representing the error category. 0 = transaction error. This indicates some problem with communications. All such errors result in the transaction being terminated, without the current command being executed.	**Transition error numbers ([ETYPE] = 0):** **1 0x01 = unsupported command error** This may arise when the DTE expects a later version of RU than is attached, and attempts to use a command which is not recognised by the RU. **2 0x02 = checksum error** indicates that the checksum calculated by the RU did not match the one received in the command packet. **3 0x03 = parameter error** This encompasses values out of range, or missing fields. **4 0x10 = communication failure** This encompasses all low level mechanisms, i.e. framing error, overrun error, parity error etc. **5 0x20 = invalid channel number** This may arise when the DTE issues a 'Go To Channel' command with a [CHANNEL NUMBER] exceeding the maximum allowable number.
			[ENUM]	Error number. A character string representing a decimal number in the range of 00 to 99, which can identify the specific error condition. For [ETYPE] = 0, 01 = unsupported command 02 = checksum error 03 = parameter error 10 = communication failure 20 = invalid channel number	

Table 8.15.3 Messages From The Radio Unit

Software Tests

The following Table explains the commands that may be sent to test the software.

Command	Test Procedure	Expected Result
Go To Channel	**1.** Send command "g01206"	Radio changes channel to 2, then returns the command prompt.
	2. Send command "g0203D4"	Radio changes channel to 3, then returns the command prompt.
	3. Send command "g03004A2"	Radio changes channel to 4, then returns the command prompt.
	4. Send command "g0225D0"	Radio sends error message "e03020A6" (invalid channel)
Transmit	**1.** Send command "b04this82"	Radio transmits this data and "i04this7B" is received by the other radio.
	2. Send command "b17This is a test command.14"	Radio transmits this data and "i17This is a test command.0D" is received by the other radio.
	3. Send a "b" command while the PTT is pressed.	Radio sends error message "e03010A7" (communication error)
	4. Send a command while the busy led is lit	Radio sends error message "e03010A7" (communication error)
Null	Send command "n0032"	Radio returns a prompt (".•").
Query	Send command "q002F"	**T2010:** a valid message could be "m0C31.011.01004D9" i.e. [RU TYPE] = T2010, [VERSION] = 1.01 [PVERSION] = 1.01 [NUM CHANNELS] = 04 **T2015:** a valid message could be "m0C41.011.01024D6" [RU TYPE] = T2015, [VERSION] = 1.01 [PVERSION] = 1.01 [NUM CHANNELS] = 24
Command Line Errors	**1.** Send command "b03this83"	Radio sends error message "e03003A5" (parameter error).
	2. Send command "b04this83"	Radio sends error message "e03002A6" (checksum error).
	3. Send command "t04this70"	Radio sends error message "e03001A7" (unsupported command).

Table 8.15.4 Software Test Commands

8.15.6 Circuit Description

The T2000-A70 data modem PCB is based on a CML FX469LS 1200/2400 baud FFSK modem IC (IC1) and the baud rate is selectable by PCB links.

Receive audio is recovered and fed into IC1 via a buffer amplifier, with filtering (IC5), to attenuate all but the FFSK tones. The signal is demodulated in IC1 and the data fed into the microprocessor, IC2. The data, complete with its length & checksum information, is fed to the DTE via IC4, which converts the 0V/5V TTL levels to RS232.

On transmit, data is sent from the DTE to IC2, via IC4. It is processed and sent on to IC1, where it is modulated and the output goes to the TX-SIG-IN input of the radio, via a unity gain buffer, IC6. IC2 also monitors inputs from the radio's logic PCB and controls various output lines.

The microprocessor checks that the radio is in lock, and is not busy. It then mutes the microphone, activates the radio PTT and 30ms later, the PWR-CTRL signal goes low, releasing the transmit inhibit.

Both buffer amplifiers are biased at half rail by IC1, pin11.

If a channel change is required, the data is sent to IC7, which toggles the appropriate BCD lines to change the radio channel.

8.15.7 PCB Information

T2000-A70 Parts List (IPN 220-01378-01)

Ref	IPN	Description
C1	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C2	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C5	018-12220-10	CAP 0603 CHIP 22P 50V NPO +-1%
C6	018-12330-10	CAP 0603 CHIP 33P 50V NPO +-1%
C7	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C8	016-07100-01	CAP ELECT 6X4MM CHIP 1M 20% 16V
C9	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C11	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C12	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C13	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C14	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C15	018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C20	018-15100-00	CAP 0603 CHIP 10N 50V X7R +-10%
C21	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C22	014-08100-00	CAP TANT CHIP 10M 16VW +-20% 6X3.2X2.5MM
C23	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C24	016-07100-01	CAP ELECT 6X4MM CHIP 1M 20% 16V
C25	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C26	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
C27	015-23470-08	CAP CER 0805 CHIP 470P 10% X7R 50V
C29	018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C30	018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C31	018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C32	018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C33	018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C34	018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C35	018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C36	018-13150-00	CAP 0603 CHIP 150P 50V NPO +-5%
C37	015-06100-08	CAP CER 1206 CHIP 100N 10% X7R 50V
IC1	002-20046-90	(S) IC FX469LS FFSK MODEM 1200/2400 BAUD
IC2	002-20068-07	(S) IC MC68HC705C8FN 1 TIME PROG MICRO-P
IC4	002-10020-20	(LSH) IC SMD ADM202 RS-232 CONVERTOR SO-
IC5	002-10340-64	(S) IC SMD MC34064 LO VOLT SENSE
IC6	002-10003-58	(S) IC SMD LM358 DUAL OP AMP
IC7	002-74905-95	(S) IC SMD 74HC595 SHIFT REGISTER
PDL-1	240-00021-20	HEADER 4WAY PADDLE BRD STAGGERED PINS
P3	240-10000-10	CONN SMD 20PIN SCREW DOWN PRICKLE CON
R1	038-17100-00	RES 0603 CHIP 1M 1/16W +-5%
R4	038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R5	038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R6	038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R7	038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R8	038-15100-00	RES 0603 CHIP 10K 1/16W +-5%
R9	038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
R10	036-15560-00	RES M/F 0805 CHIP 56K 5%
R11	038-16100-00	RES 0603 CHIP 100K 1/16W +-5%
R13	036-15330-00	RES M/F 0805 CHIP 33K 5%
R14	038-14470-00	RES 0603 CHIP 4K7 1/16W +-5%
R15	038-13100-00	RES 0603 CHIP 100E 1/16W +-5%
R16	038-13100-00	RES 0603 CHIP 100E 1/16W +-5%
R17	038-13100-00	RES 0603 CHIP 100E 1/16W +-5%
R18	038-13100-00	RES 0603 CHIP 100E 1/16W +-5%
R20	038-14100-00	RES 0603 CHIP 1K0 1/16W +-5%
#R2010	038-10000-00	RES 0603 CHIP ZERO OHM 1/16W +-5%
SK2	240-04020-42	SKT 44 PIN SMD PLCC CHIP CARRIER
XTAL1	274-01070-00	XTAL 4.000MHZ HC49U/S C/W TEFLON INSULAT
	205-00010-13	CABLE FLAT RBBN 10 CORE 10/7/0.1 GREY
	220-01378-01	(L) PCB T201X SII 1200/2400 BAUD DATA MODEM
	345-00020-02	SCREW M2.5 * 10 PAN POZI ST BZ
	352-00010-04	NUT M2.5 MACH HEX ST BZ
	353-00010-04	WASHER M2.5/M2.6 SHAKEPROOF INT BZ
	316-80032-00	PKG FOAM A4M2495

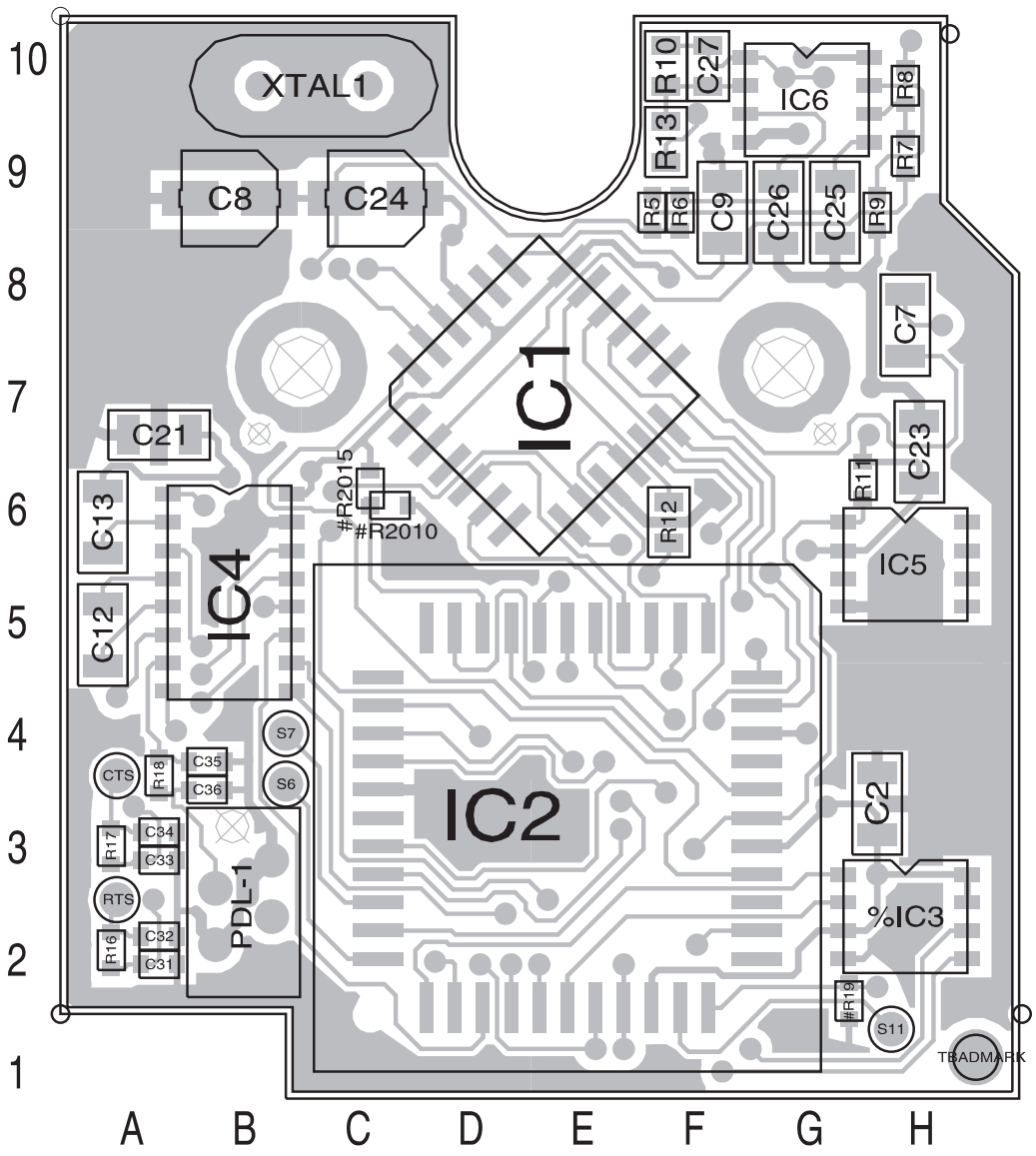
Ref	IPN	Description
	365-00011-38	LABEL STATIC WARNING YELLOW A4A315
	365-00011-54	LABEL WHITE RW1556/2 90*24MM SPECIAL ADH
	399-00010-51	BAG PLASTIC 75*100MM
	399-00010-87	BAG STATIC SHIELDING 102X152MM
	410-00010-60	CARTON 150X112X56MM VICTOR
	418-27000-00	FITTNG INS T2000-70 MODEM KIT
	X2DC01	T2000 INT FACE DECOUPLING PCB ASSEMBLY

T2000-A70 Grid Reference Index (IPN 220-01378-01)

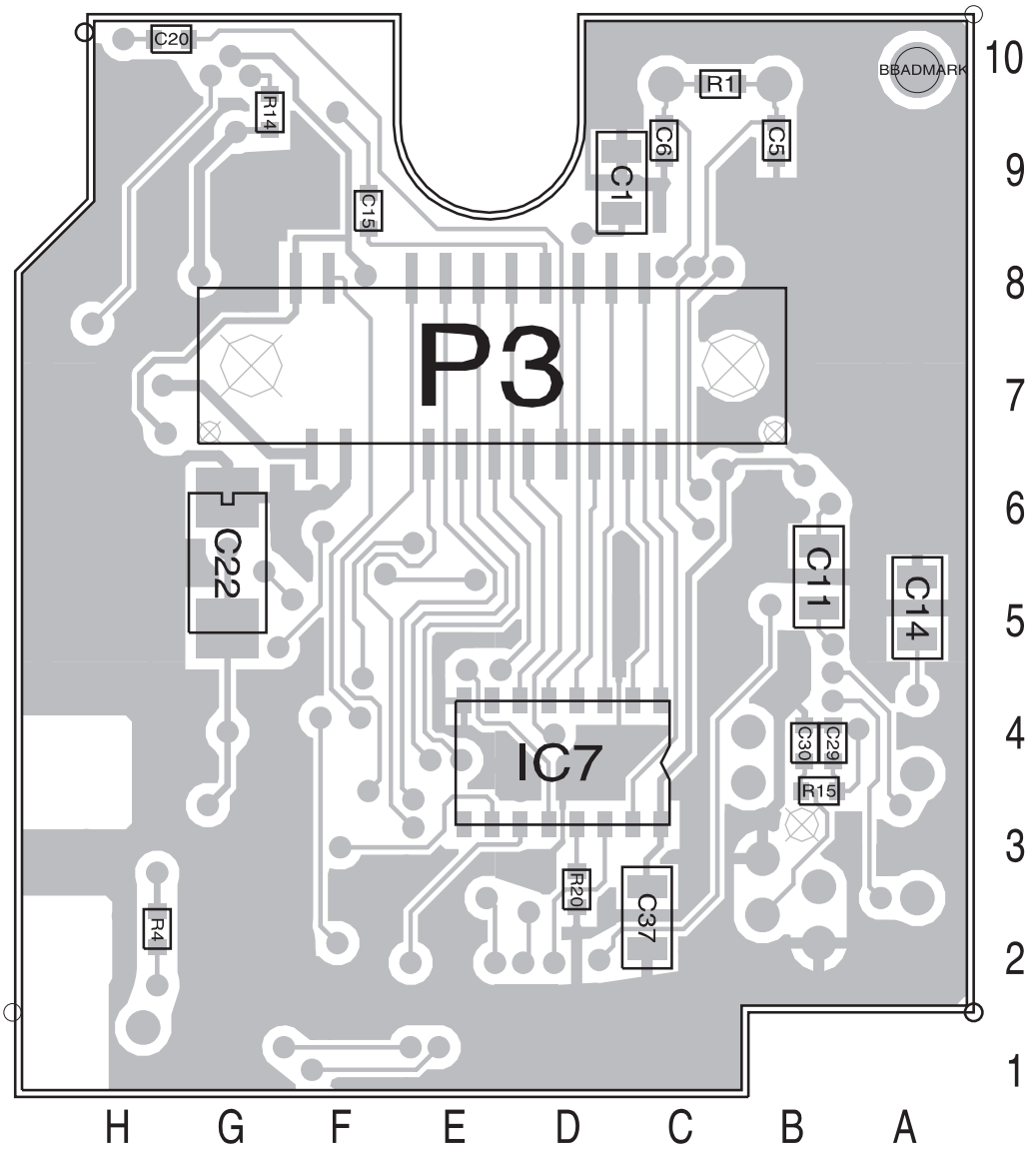
Device	PCB	Circuit
C1	2:D9	1-C6
C2	1:H4	1-J6
C5	2:B9	1-A5
C6	2:C9	1-A5
C7	1:H8	1-D4
C8	1:B9	1-D3
C9	1:F9	1-D3
C11	2:B6	1-L4
C12	1:A5	1-L4
C13	1:A6	1-M4
C14	2:A5	1-M4
C15	2:F9	1-F5
C20	2:H10	1-F6
C21	1:A7	1-M4
C22	2:G6	1-J6
C23	1:H7	1-F3
C24	1:C9	1-E4
C25	1:G9	1-D5
C26	1:G9	1-E3
C27	1:F10	1-E5
C29	2:B4	1-N3
C30	2:B4	1-N3
C31	1:A2	1-N3
C32	1:A2	1-P3
C33	1:A3	1-P3
C34	1:A3	1-Q3
C35	1:B4	1-Q3
C36	1:B4	1-Q3
C37	2:C2	1-L2
CTS	1:A4	1-R4
IC1	1:E7	1-B3
IC2	1:E3	1-H3
%IC3	1:H3	1-K5
IC4	1:B5	1-L3
IC5	1:H6	1-K6
IC6	1:G10	1-E6
IC6	1:G10	1-E5
IC6	1:G10	1-F3
IC7	2:D4	1-K1
P3	2:E7	1-A8
PDL-1	1:B3	1-C8
R1	2:C10	1-B5
R4	2:H2	1-K5
R5	1:F9	1-D4
R6	1:F9	1-E3
R7	1:H9	1-D6
R8	1:H10	1-E6
R9	1:H9	1-E6
R10	1:F10	1-E5
R11	1:H6	1-H7
R12	1:F6	1-B3
R13	1:F9	1-F5
R14	2:G10	1-E4
R15	2:B4	1-N3
R16	1:A2	1-P3
R17	1:A3	1-P3
R18	1:A4	1-Q4
#R19	1:G2	1-K5
R20	2:D3	1-L0
#R2010	1:C6	1-F3
#R2015	1:C6	1-F4
RTS	1:A3	1-R4

Device	PCB	Circuit
S6	1:B4	1-J3
S7	1:B4	1-J4
S11	1:H2	1-J5
XTAL1	1:C10	1-A5

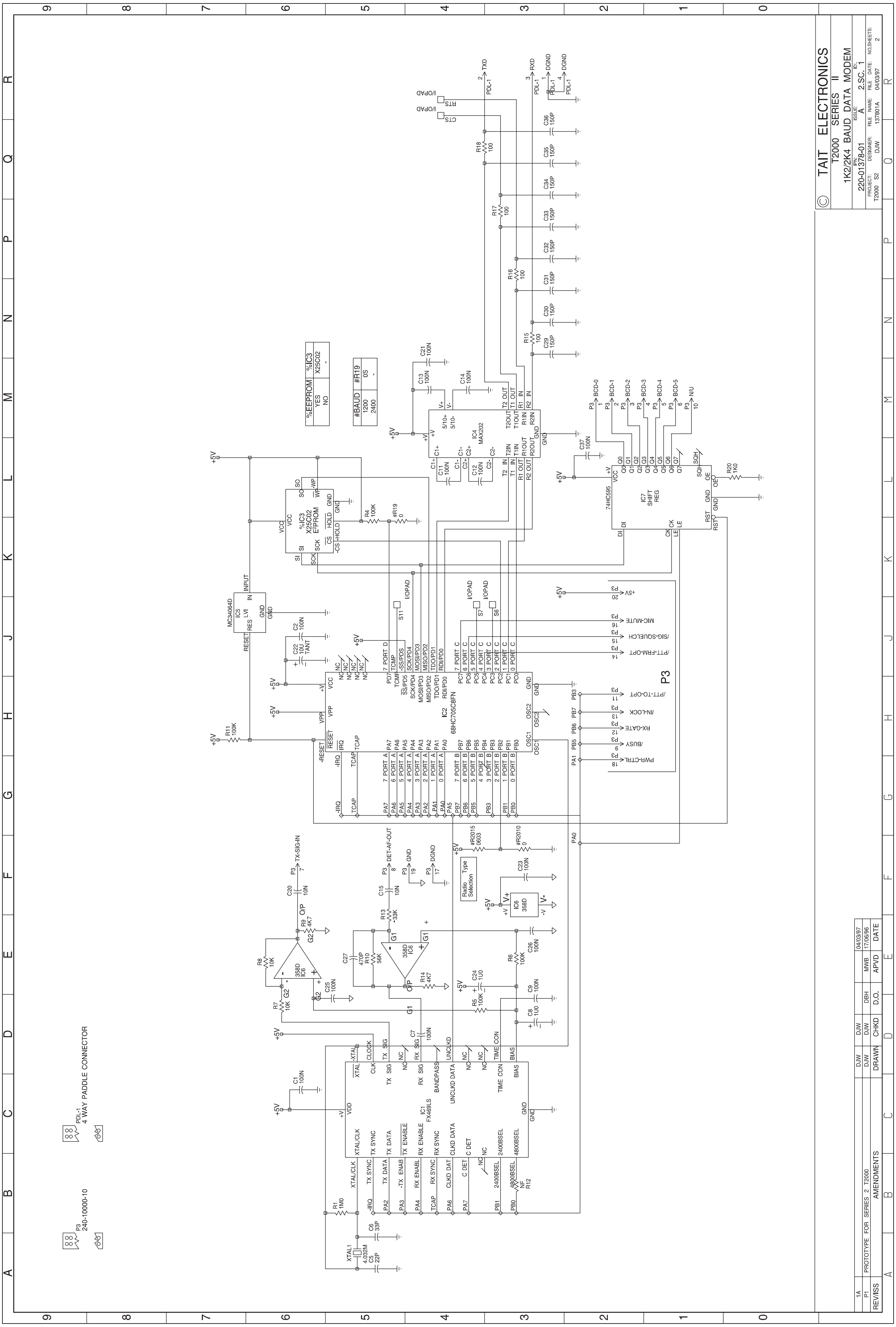
Device	PCB	Circuit



T2000-A70 Data Modem PCB (IPN 220-01378-01) - Top Side



T2000-70 Data Modem PCB (IPN 220-01378-01) - Bottom Side


TAIT ELECTRONICS
T2000 SERIES II
1K2/2K4 BAUD DATA MODEM
220-01378-01
68HC705C8FN
MAX202
74HC595
FX469LS
X25C02
MC34064D
4 WAY PADDLE CONNECTOR
PROTOTYPE FOR SERIES 2 T2000

8.16 T2000-A03/-A04/-A16 Remote Loom Kits

The T2000-A03 6m remote loom and T2000-A04 4m remote loom installation kits are for use with T2020, T2040 and T2050 radios in situations where the 3m remote loom or underdash mounting is unsuitable.

The T2000-A16 6m shielded remote loom is suitable for use with EMC model radios, and for installations where electromagnetic radiation may cause problems with sensitive equipment installed nearby or interference to the radio's own antenna.

Once installed, the loom should not be subjected to any pinching, crushing or chafing, nor should it interfere with the operation of the vehicle controls.

Note: These instructions must be read in conjunction with Section 3.1 "Servicing Precautions" and Section 3.2 "Disassembly Instructions".

The following topics are covered in this Section:

8.16.1 Components Required

The T2000 remote loom kits contain the following components:

Quantity	Description
1	remote loom, complete with 8 way connectors
1	remote mounting bracket
1	remote back panel
1	dummy front panel
2	remoting connector cover (fitted to the remote back panel & dummy front panel)
2	M4 pressed captive nut (for remote control head assembly)
2	thumbscrew (for remote mounting bracket)
4	ESD plug (to fit over remote back panel screw heads: T2000-A16 only)
2	No 6x3/4 self-tapping screw (for remote mounting bracket)
4	No 4x 3/8 pan Pozi Plastite screw (dummy front panel mounting)
2	M3x6 pan Pozi Taptite screw (connector PCB mounting)
4	M3x8 pan Pozi Taptite screw (EMC filter PCB mounting)
1	EMC filter PCB (Series II radio chassis)
1	connector PCB (Series I radio chassis)

8.16.2 Fitting To Locally Mounted Radios

1 Remove the top cover of the radio by unscrewing the 4 bottom cover screws.

Remove the 3 logic PCB retaining screws and fold back the logic PCB. If necessary, remove the 3 option PCB mounting screws before lifting the logic PCB.

Remove the microprocessor shield retaining screws and the screw securing the control head ground lead, then remove the microprocessor shield.

Remove the bottom cover of the radio and unplug the loom running between the control head and the logic PCB (on EMC model radios, the loom runs between the control head and the EMC filter PCB).

The control head can now be detached from the chassis.

Remove the 4 adaptor plate retaining screws from the control head and remove the adaptor plate from the back of the control head.

2 Refer to Figure 8.16.1.

Unclip the remote back panel remoting connector cover (3).

Pass one end of the remote loom through the connector cover hole and plug onto the 8 way connector (6) on the top side of the control head PCB.

T2000-A03 & T2000-A04 kits: Remove the ground lead from under one of the control head PCB screws, and discard the ground lead.

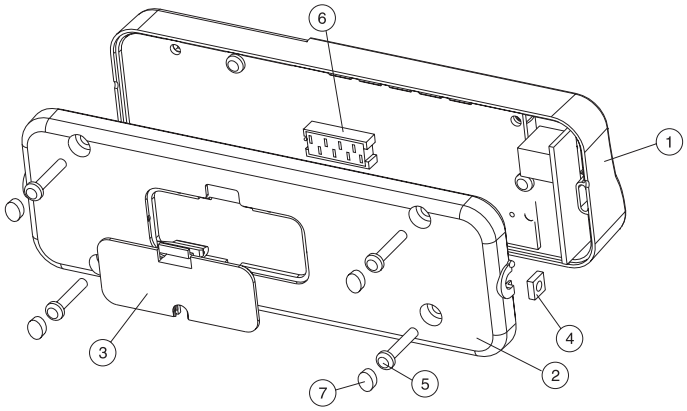
T2000-A16 kit: Remove the screw from the control head that secures the control head ground lead. Discard the ground lead, and use this screw to secure the remote loom drain wire solder tag to the control head PCB.

Note: Ensure that the tag does not make contact with any devices in the control head.

3 Fit the 2 captive M4 nuts (4) into the slots on the remote back panel (2), and mount the remote back panel onto the control head front assembly (1).

Secure in place using the 4 No. 4x5/8 Plastite screws previously used for the adaptor plate, and push the 4 ESD plugs (7) over the screw heads (T2000-A16 only).

Refit the remoting connector cover, pushing the slot in the cover onto the remote loom cable.



Item	Description	IPN	Quantity	Torque (in.lb)
1	CONTROL HEAD FRONT ASSEMBLY		1	
2	REMOTE BACK PANEL	316-06432-XX	1	
3	REMOTING CONNECTOR COVER	316-85125-XX	1	
4	CAPTIVE NUT M4 PRESSED	352-00010-17	2	
5	NO 4X5/8 SCREW (REMOTE BACK PANEL SCREWS)	349-00010-24	4	8 (0.9Nm)
6	MICROMATCH CONNECTOR 8 WAY	240-04020-50	1	
7	ESD PLUG (OVER REMOTE BACK PANEL SCREWS)	360-01057-00	4	

Figure 8.16.1 Remote Control Head Assembly

4 T2000 Series I chassis

Refer to Figure 8.16.2.

Mount the adaptor plate (2) onto the chassis and secure the connector PCB to the 2 chassis pillars, using the 2 M3x6 Taptite screws provided.

As the pillars are not threaded, care must be taken that the screws are not inserted at an angle.

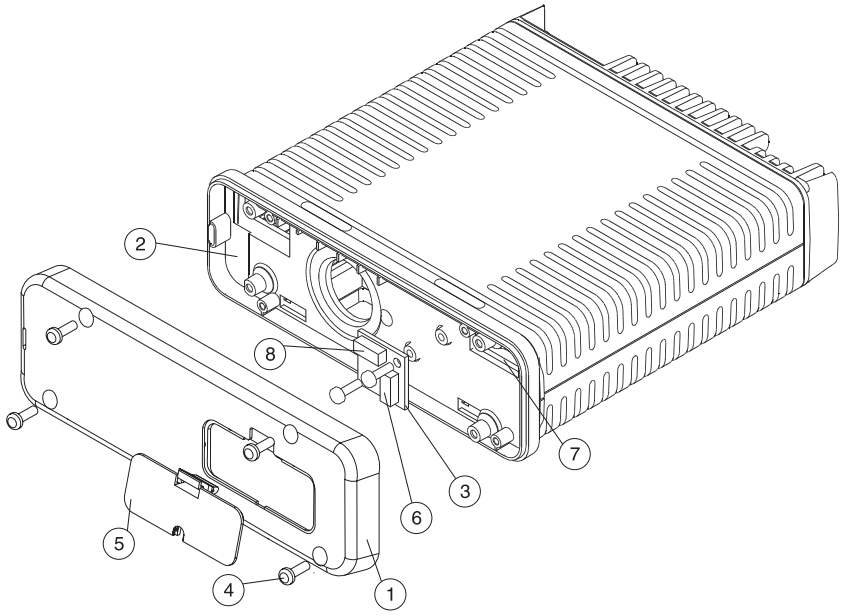
Pass the logic PCB loom through the slot in the adaptor plate and chassis (7) and plug the loom onto one of the 8 way connectors (8) on the connector PCB.

Unclip the remoting connector cover (5) from the dummy front panel and pass the unconnected end of the remote loom through the hole in the dummy head front panel.

Plug the 8 way remote loom connector onto the 8 way connector (6) on the connector PCB.

T2000-A16 kit: Secure the remote loom drain wire solder tag under one of the connector PCB screws.

Mount the dummy front panel (1) onto the adaptor plate (2), using the No 4x3/8 Plastite screws (4) provided.



Item	Description	IPN	Quantity	Torque (in.lb)
1	DUMMY FRONT PANEL	316-06433-XX	1	
2	ADAPTOR PLATE (T2000 SERIES I)	301-00001-XX	1	
3	CONNECTOR PCB	220-01274-XX	1	
4	NO 4X3/8 SCREW (DUMMY FRONT PANEL SCREWS)	349-00010-22	4	8 (0.9Nm)
5	REMOTING CONNECTOR COVER	316-85125-XX	1	
6	8 WAY CONNECTOR PCB SOCKET (FOR REMOTE LOOM)	240-04020-50	1	
7	SLOTS IN ADAPTOR PLATE & CHASSIS FOR LOGIC PCB LOOM			
8	8 WAY CONNECTOR PCB SOCKET (FOR LOOM TO LOGIC PCB)	240-04020-50	1	

Figure 8.16.2 Connector PCB Mounting

5 T2000 Series II Chassis

Refer to Figures 8.16.3 and 8.16.4.

Fit the EMC filter PCB (18) provided in the kit to the chassis, first passing the loom on the bottom side of the PCB through the chassis hole, as shown.

Secure the EMC filter PCB in place, using the 4 M3x8 Taptite screws.

Note: EMC model radios will already have an EMC filter PCB fitted. Check that the top side connector (SKT-1) is 8 way. If not, discard the existing filter PCB and fit the new PCB provided.

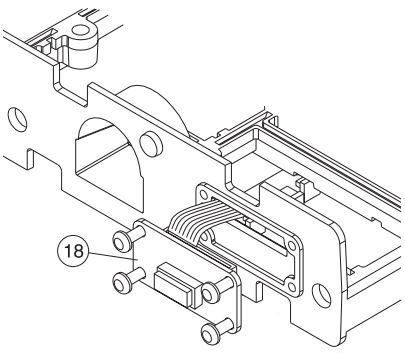


Figure 8.16.3 EMC FIlter PCB Mounting

Plug the EMC filter PCB loom onto the logic PCB.

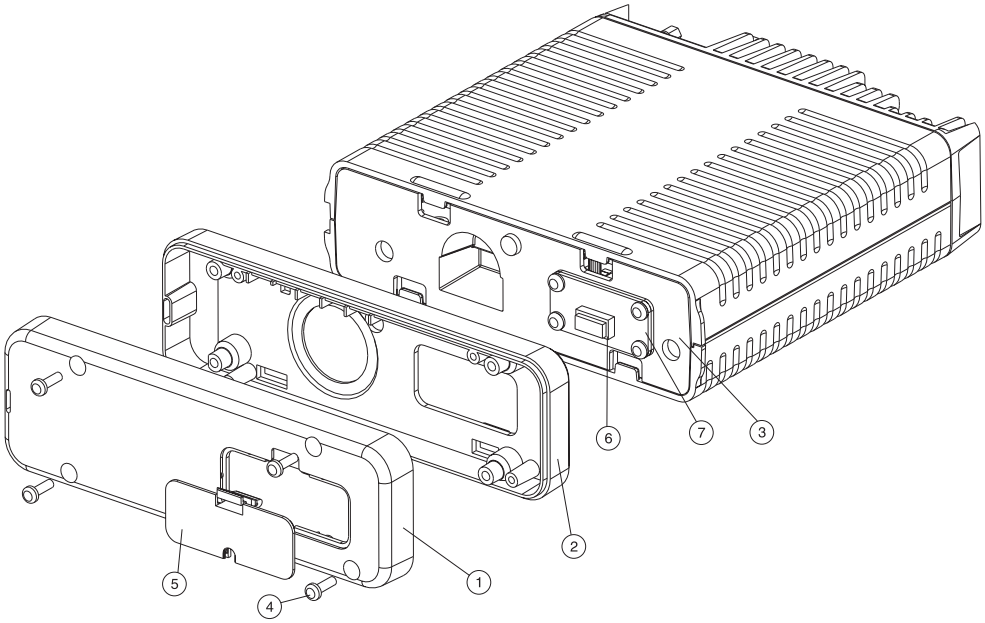
Unclip the remoting connector cover (5) from the dummy front panel (1), and pass the unconnected end of the remote loom through the holes in the dummy front panel and the adaptor plate (2).

Plug the 8 way loom connector onto the 8 way connector (6) on the top side of the EMC filter PCB.

T2000-A16 kit: Secure the remote loom drain wire solder tag under one of the EMC filter PCB screws.

Mount the dummy head front panel (1) onto the adaptor plate (2), using the 4 No 4x3/8 Plastite screws (4) provided.

Mount the dummy front panel assembly onto the chassis.



Item	Description	IPN	Quantity	Torque (in.lb)
1	DUMMY FRONT PANEL	316-06433-XX	1	
2	ADAPTOR PLATE	301-00001-XX	1	
3	MAIN CHASSIS ASSEMBLY		1	
4	NO 4X3/8 SCREW (DUMMY FRONT PANEL SCREWS)	349-00010-22	4	8 (0.9Nm)
5	REMOTING CONNECTOR COVER	316-85125-XX	1	
6	8 WAY EMC FILTER PCB SOCKET	240-04020-50	1	
7	EMC FILTER PCB	220-01383-XX	1	

Figure 8.16.4 Dummy Front Panel Assembly

6 Reposition the bottom cover of the radio and the microprocessor shield and replace the microprocessor shield retaining screws, tightening them to a torque of 12in.lb (1.4Nm).

Refit the logic PCB, any options PCBs that were fitted and the top cover. Tighten the top cover to a torque of 15in.lb (1.8Nm).

Refit the remoting connector cover, pushing the slot in the cover onto the remote loom cable.

7 Mount the remote mounting bracket in the desired position (this must be on a flat surface), using the 2 No 6x3/4 self-tapping screws.

Place the control head in the bracket, positioned for a good viewing angle, and secure in place with the 2 thumbscrews.

8.16.3 Fitting To Remote Mounted Radios

1 Refer to Figures 8.16.2, 8.16.3 & 8.16.4.

Remove the radio dummy front panel (1) by removing the 4 dummy front panel screws (4).

Note: In later T2000 radios, the radio dummy front panel is fitted with a remoting connector cover (3). This is unclipped to access the remote loom connector. When fitting a remote loom, it is therefore unnecessary to remove the dummy front panel.

Unplug the old remote loom from the connector PCB (Series I chassis) or EMC filter PCB (Series II chassis).

Series II chassis: Check that the top side connector (SKT-1) on the EMC filter PCB is 8 way. If not, discard the existing filter PCB and fit the new PCB provided in the kit (refer to Section 8.16.2, "Fitting To Locally Mounted Radios", step (5)).

If necessary, replace the old dummy front panel with the new dummy front panel, complete with remoting connector cover, provided in the kit.

Pass the new remote loom through the connector cover hole in the dummy front panel, and plug the 8 way remote loom connector onto the 8 way connector (6) on the connector PCB or EMC filter PCB.

T2000-A16: Fit the remote loom drain wire solder tag under one of the connector PCB or EMC filter PCB screws.

Mount the dummy front panel onto the adaptor plate (2), and secure in place using the 4 dummy front panel screws.

Refit the remoting connector cover, pushing the slot in the cover onto the remote loom cable.

2 Refer to Figure 8.16.1.

Remove the control head remote back panel (2) by removing the 4 remote back panel screws (5), taking care not to loose the captive nuts (4). EMC model radios will also have ESD plugs (7) over the remote back panel screws.

Note: In later T2000 radios, the control head remote back panel is fitted with a remoting connector cover (3). This is unclipped to access the remote loom connector. When fitting a remote loom, it is therefore unnecessary to remove the remote back panel.

Unplug the old remote loom from the 8 way connector on the control head PCB (6).

If necessary, replace the old remote back panel with the new remote back panel, complete with remoting connector cover, provided in the kit.

Pass the new remote loom through the connector cover hole in the remote back panel, and plug the 8 way connector on the new remote loom onto the 8 way connector on the control head PCB.

T2000-A16: Fit the remote loom drain wire solder tag under one of the control head PCB screws.

Note: Ensure that the solder tag does not make contact with any devices in the control head.

Fit the 2 captive M4 nuts into the slots in the remote back panel and mount the remote back panel onto the control head front assembly (1).

Secure in place using the 4 remote back panel screws, and push the 4 ESD plugs (7) over the screw heads (T2000-A16 only).

Refit the remoting connector cover, pushing the slot in the cover onto the remote loom cable.