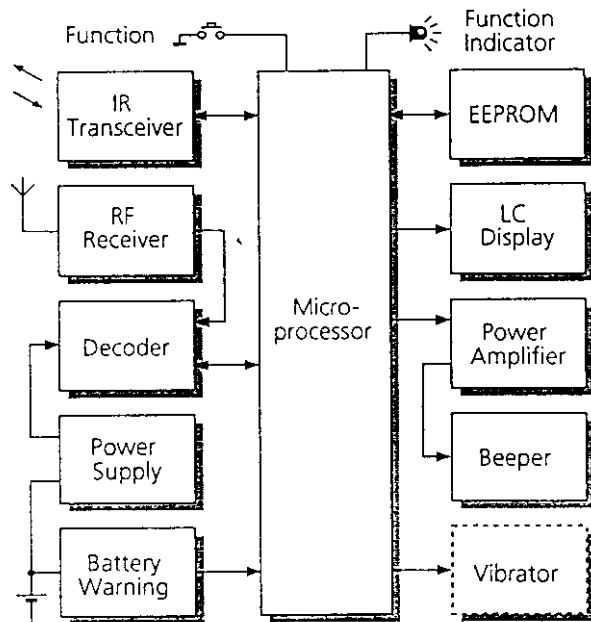


HF/UHF Pocket Receiver H/U912D - Circuit Description

General Description



U/H912D is a pocket paging receiver used in the teleCOURIER 900 paging system. There are two basic versions: H912D for the HF band 25 to 50 MHz, and U912D for the UHF band 415 to 485 MHz.

Pagings are indicated using sound, an LED, and a vibrator (optional). Display messages are presented on a 12-digit LC display.

The user controls the function of the pocket unit with a single pushbutton.

The pager consists of three main parts: receiver circuit board, processor circuit board, and display.

Receiver Circuit Board

Consists of an RF receiver, IR transceiver, and battery warning circuit.

Processor Circuit Board

Consists of a microprocessor, decoder, power supply, and an EEPROM. The decoder decodes the baseband signal from the RF receiver and also controls battery saving. A watchdog circuit in the decoder checks the function of the microprocessor.

Decoder function is determined by parameters that are stored in a separate EEPROM. The parameters are transferred to the decoder by the processor. The processor stores parameters in the decoder and reads decoded data from it via a serial bus. The

power supply consists of a single LR06 (AAA) battery and a voltage converter. The processor also has a built-in LCD driver, and controls the beeper, LED, and vibrator.

LC Display

The LC display consists of a 12-digit LCD window and communicates with the processor via a heat-seal connector.

Detailed Description

Refer to drawings 10604, 10614, and 10662.

HF Receiver

The HF receiver is a single IF, superheterodyne receiver with an intermediate frequency of 455 kHz.

The receiver is turned on by the signal RXEN.

The antenna is a ferrite loop antenna, tuned by C200. The RF signal from the antenna is amplified in the amplifier TR201/TR200. The amplifier is tuned by L201. Test point TPTR200 is used to measure the dc current through the transistors.

The local oscillator and mixer are in IC200. The frequency is set with L202. Test point TPIC200 is used to measure the dc current in IC200.

The IF signal is filtered in FL200 and fed to the IF circuit. Test point TPIF is used to measure the conversion gain of the frontend.

IC200 also contains an op-amplifier, a detector, comparator, quick-start circuit, voltage regulator, and battery warning test circuit. IF signal is demodulated by ceramic discriminator X201. The baseband output signal from the detector is filtered between TPAF and TPLP, and fed to the comparator. The demodulated data is fed to the decoder via pin CODE on J200.

To compensate for duty cycle variations when the radio is turned on the quick-start circuit supplies a fast charge to capacitor C210. The quick-start signal comes from the decoder via pin QS on J200.

The voltage regulator supplies 1.0 V to stabilise the operating point on the transistors. The battery warning signal (LOBATT) goes high when battery voltage drops below about 1.15 V. Test point TPV10 is used to measure the regulated supply.

UHF Receiver

The UHF receiver is a single IF, superheterodyne receiver. The RF path is partly balanced and the local oscillator operates on the RF frequency divided by two. The intermediate frequency is 455 kHz.

The receiver is turned on by the signal RXEN.

The antenna is a metal wire loop antenna, tuned by C302. Except for the tuning components mentioned below the frequency bands are determined by several components listed on the schematic diagram. RF signal from the antenna is amplified in cascaded amplifiers TR301/TR351. The amplifiers are tuned by C303 and C353, respectively. Test points TP1 and TP2 are used to measure the dc current through each transistor.

The local oscillator is a standard Butler with a third order overtone crystal. The frequency is set with C326. Test point TP7 is used to measure the dc current through transistor TR303.

The local oscillator signal is fed to frequency tripler TR304 which is tuned by C346. Output from this stage is the RF frequency divided by 2. Test point TP8 is used to measure the dc current through the transistor.

Mixer TR302/352 is a balanced overtone type. LO signal is fed common mode and the RF is fed differential mode. At the output of TR351 the RF signal is converted from single-ended to differential by L303/L353. To eliminate noise in the mixer, all frequencies except the RF channel are differentially short circuited on the mixer input by a parallel resonant circuit consisting of L302, L352, C311, and C339. The IF is extracted differentially on the collectors of TR302/TR352. Test point TP3 is used to measure the dc current through the transistors.

The IF signal is buffered in TR305, filtered in FL300, and fed to the IF circuit. Test point TP4 is used to measure the dc current through the transistor, and test point TP6 is used to measure the conversion gain of the frontend.

The IF circuit, IC300, consists of two op-amplifiers, a detector, comparator, quick-start circuit, voltage

regulator, and battery warning test circuit. IF signal is demodulated by ceramic discriminator X302. The baseband output signal from the detector is filtered between TP10 and TP11, and fed to the comparator. The demodulated data is fed to the decoder via pin CODE on J300.

To compensate for duty cycle variations when the radio is turned on the quick-start circuit supplies a fast charge to capacitor C331. The quick-start signal comes from the decoder via pin QS on J300. Test point TP9 is used to measure the dc current through IC300.

The voltage regulator supplies 1,0 V and is temperature compensated to stabilise the operating point on the transistors. The battery warning signal (LOBATT) goes high when battery voltage drops below about 1,15 V. Test point TP12 is used to measure the regulated supply.

IR Transceiver

The IR transceiver is used to communicate with the central unit when the pocket unit is placed in the storage rack. The IR transceiver has the designation IC201 in HF versions of the pocket receiver and IC301 in UHF versions.

Processor Circuit Board

IC100 is a mask programmed microprocessor with onchip RAM and ROM. It controls the function of the different parts of the receiver.

Parameters determining the function of the receiver are stored in EEPROM IC102. By changing these parameters it is possible to adapt the pager for a specific installation. Power is supplied via TR100. The processor opens TR100 by pulling pin 34 low. It uses pins 28, 29, 32, and 50 to read and write parameters in the EEPROM.

The processor has a built-in LCD driver.

Beeper LS500 is connected to a balanced bridge power amplifier consisting of TR500, TR501, TR502 and TR504. TR505/TR506 invert the phase of the signal for the right half of the bridge. The tone

signal appears at pin 45 of IC100. The volume is determined by pins 30 and 31 of IC100. The logic levels of these outputs are converted to a voltage level on the emitter of TR507. This voltage determines the maximum peak-to-peak voltage applied to LS500 and thus the volume.

The function switch is connected to pin 26 of the processor.

LED100 is connected via R117 to pin 44.

Vibrator V101 (optional) is driven by TR101 when pin 46 of IC100 is pulled high. At power-up the processor uses pin 43 to check if a vibrator is mounted.

A test load is connected by TR102 to check battery condition. This is done by the processor by applying a high level to pin 47. The low battery detector on the receiver unit is connected to pin 33 of IC100. When the RF receiver is on, a high level on this pin indicates low battery voltage.

A communication sequence is started when the pager is placed in a storage rack. The pager and the storage rack communicate via IR. The IR transceiver is located on the receiver unit. Data to be transmitted via IR appears on pin 35 of IC100. Received data is fed via TR103 to pin 15. The logic level on pin 15 is normally high when the receiver is not in a storage rack (no IR detected). When the receiver is in the storage rack the level should be low (IR detected).

Decoder IC101 is used to control battery saving and decode received code. It also includes a timer and watchdog circuit. Various decoder functions such as battery saving period and decision rules are determined by parameters that are stored in the decoder by the processor.

The watchdog circuit is used to check processor function. The decoder starts the receiver by pulling pin 13 high. At the same time a pulse appears on pin 12. This pulse provides a faster start of the

receiver. Received code is fed from the receiver to pin 16 of IC101.

When valid data is received, the decoder pulls IC101 pin 3 high. This is fed to IC100 pin 14 and starts the processor. Decoded data is then read by the processor using pins 2, 100, and 20. Pin 2 of IC100 is used by the processor to clock data to/from the decoder. Data appears on pin 100. Pin 20 is used to direct data to or from the decoder.

An internal timer in IC101 applies a pulse to pin 7 once every minute. The processor uses this pulse to increment its internal real-time clock and for other similar functions. The timer is controlled by crystal X100, connected to pin 1 and 2.

If the processor fails to respond when a valid code has been detected by IC101, the watchdog circuit is activated. The decoder then applies a low pulse to pin 10. This forces pin 12 on IC100 low to restart the processor. The watchdog circuit is also activated if the processor fails to respond to the timer pulse from the decoder.

Internal timing of processor IC100 is provided by resonator X101 connected to pins 7 and 8. Oscillation appears only when the processor is activated for example by the decoder or by the function switch.

LC Display

The display unit consists of a 12-digit LCD window and communicates with the processor via a heat-seal connector. Orientation and character table are variable parameters that are selected in the EEPROM.

Power Supply

Power is supplied by a single LR06 (AAA) cell. Some circuits are powered directly from the battery and others via a voltage converter. The voltage converter consists of IC103, L102, and D100A/B. The voltage converter output is maintained at about 3.0 V.

FCC 10. BX 24 4/2 J

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STRUKTURUTSKRIFT

Prod. nummer	Produktname	Löp. nr	Opn nr	Matr. nr	Artikelbenämning	Senaste revisionsdatum	Ing. kvant	Enh	Textrad 1
U912D		10	100	SENREV					1998-05-06 / SH
		15	900	250322	EMBALLAGE 912 & 5012	J12532	1,000	ST	
		20	544487		MOTTAGARKORT A	U912RXD	1,000	ST	
		30	544488		MOTTAGARKORT B	U912RXD	1,000	ST	
		40	544489		MOTTAGARKORT C	U912RXD	1,000	ST	
		50	544490		MOTTAGARKORT D	U912RXD	1,000	ST	
		60	544491		MOTTAGARKORT E	U912RXD	1,000	ST	
		70	544493		KÅPA KOMPLETT GRÅ	912D	1,000	ST2	
		80	544494		KÅPA KOMPLETT SVART	912D	1,000	ST2	
		90	544499		PROCESSORKORT STD	912PUD	1,000	ST	
		100	544500		PROCESSORKORT VIBR.	912PUD	1,000	ST	
		110	544567		KÅPA KOMPL L.GRÅ TELET.	5012D	1,000	ST2	
		120	544568		KÅPA KOMPL M.GRÅ ERICS.	5012D	1,000	ST2	
		130	544597		KÅPA KOMPL L.GRÅ ACKER.	5012D	1,000	ST2	
		140	544598		KÅPA KOMPL M.GRÅ ALCAT.	5012D	1,000	ST2	

STRUKTURUTSKRIFT

Prod. nummer	Produktnamn	Löp. nr	Opn nr	Matr. nr	Artikelbenämning	Senaste revisionsdatum	Ing. kvant	Enh	Textrad 1
544493	KÅPA KOMPLETT GRÅ	10	100	SENREV					1997-12-01 / SH
20		900		230727	BATT. BLECK (-) 912D	M60175G	1,000	ST	
30				230787	BATT. BLECK (+) 912D&T	M60035F	1,000	ST	
40				280689	KÅPHALVA FR. GRÅ 912D	M60161F	1,000	ST	
50				280700	TRYCKKNAPP RÖD 912D	M60171C	1,000	ST	
60				280701	IR-GLAS 912D	M60170B	1,000	ST	
70				280784	DAMMSKYDD HÖGTAL. 912D	M60363A	1,000	ST	
80				280791	KÅPHALVA BAK GRÅ 912D	M60162B	1,000	ST	
90				300283	SKRUV P-TYPE 1.7x3.0*0.9*4.0		3,000	ST	
100				300403	SKRUV P-TYPE 1.7x3.5x0.9x11		3,000	ST	
110				490332	TEJF DISPLAYSTÖD 912D	M60243B	1,000	ST	
120				490335	TEJF TILL TOPP 912D	M60380A	1,000	ST	
130				544495	CLIPS GRÅ 912D		1,000	ST	
140				544497	BATTERILOCK GRÅ 912D		1,000	ST	
150				544576	TOPP KOMPLETT 912D		1,000	ST	

STRUKTURUTSKRIFT

Prod. nummer	Produktname	Löp. nr	Opn nr	Matr. nr	Artikelbenämning	Senaste revisionsdatum	Ing. kvant	Enh	Textrad 1
544567	KÅPA KOMPL L.GRÅ TELEF. 5012D	10	100	SENREV				—	1997-12-17 / SH
		20	900	230783	BATT.BLECK (-) 5012D M60509D		1,000	ST	
		30		230787	BATT.BLECK (+) 912D&T M60035F		1,000	ST	
		40		280360	BATT.LOCK SÄK.LÅS 280360C1		1,000	ST	
		50		280784	DAMMSKYDD HÖGTAL. 912D M60363A		1,000	ST	
		60		280869	KÅPHALVA BAK LJ.GRÅ 5012D		1,000	ST	
		70		280871	KÅPHALVA FRAM LJ.GRÅ 5012D		1,000	ST	
		80		280873	BATT.LOCK LJ.GRÅ 5012D M60505B		1,000	ST	
		90		280875	DISPL.FÖNST. SV. 5012D M60506A		1,000	ST2	
		100		280876	LJUSLEDARE 5012D M60507D		1,000	ST	
		110		280947	TRYCKKNAPP GRÖN 5012D M60692A		1,000	ST	
		120		280959	IR-GLAS 5012D "teletrecer"		1,000	ST	
		130		300283	SKRUV P-TYPE 1.7*3.0*0.9*4.0		3,000	ST	
		140		300403	SKRUV P-TYPE 1.7*3.5*0.9*11		3,000	ST	
		150		490332	TEJP DISPLAYSTÖD 912D M60243B		1,000	ST	
		160		490427	TEJP IR-GLAS 5012D M60511B		1,000	ST	
		170		544571	CLIPS LJUSGRÅ 5012		1,000	ST2	

STRUKTURUTSKRIFT

Prod. nummer	Produktnamn	Löp. nr	Opn nr	Matr. nr	Artikelbenämning	Senaste revisionsdatum	Ing. kvant	Enh	Textrad 1
544568	KÅPA KOMPL M.GRÅ ERICS. 5012D	10	100	SENREV					1987-12-17 / SH
		20	900	230783	BATT.BLECK (-)	5012D M60509D	1,000	ST	
		30		230787	BATT.BLECK (+)	912D&T M60035F	1,000	ST	
		40		280360	BATT.LOCK SÅK.LÅS	280360C1	1,000	ST	
		50		280784	DAMMSKYDD HÖGTAL.	912D M60363A	1,000	ST	
		60		280870	KÅPHALVA BAK	SV.GRÅ 5012D	1,000	ST	
		70		280872	KÅPHALVA FRAM	SV.GRÅ 5012D	1,000	ST	
		80		280874	BATT.LOCK SV.GRÅ	5012D M60505B	1,000	ST	
		90		280875	DISPL.FÖNST. SV.	5012D M60506A	1,000	ST2	
		100		280876	LJUSLEDARE	5012D M60507D	1,000	ST	
		110		280947	TRYCKKNAPP GRÖN	5012D M60692A	1,000	ST	
		120		280958	IR-GLAS	5012D "ERICSSON"	1,000	ST	
		130		300283	SKRUV P-TYPE	1.7*3.0*0.9*4.0	3,000	ST	
		140		300403	SKRUV P-TYPE	1.7x3.5x0.9x11	3,000	ST	
		150		490332	TEJP DISPLAYSTÖD	912D M60243B	1,000	ST	
		160		490427	TEJP IR-GLAS	5012D M60511B	1,000	ST	
		170		544572	CLIPS MÖRKGRÅ	5012	1,000	ST2	

** Slut på DF 544568 **

STRUKTURUTSKRIFT

Prod. nummer	Produkt-namn	Löp. nr	Opp nr	Matr. nr	Artikelbenämning	Senaste revisionsdatum	Ing. kvant	Enh	Textrad 1
544500	PROCESSORKORT VIBR.	10	100	SENREV					1998-01-13 / SH
		20	900	090096	DISPLAY LCD 912D	M60188D	1,000	ST	
		30		180679	INTER-CONNECTOR 912D	M60179C	1,000	ST	
		40		490303	TEJP VIBMOTOR 912	M60037E	1,000	ST	
		50		490304	MOTOR AT-M08-0040		1,000	ST	
		60		544380	GEMENSAM SMD SATS	912PUD	1,000	ST	

* * Slut på DF 544500 * *

Tillhör arkiv nr:

TU:

Parts List No.	Product name	Ref.No.	Description	Art.No.
544380	COMMON SMD KIT 912PUD	980605	Latest revision date for this parts list	SENREV
		PC	PC-BOARD VERSION 40396 C	010561
		C100	CAP.CHIP X7R 10N 0603 50V 10%	040702
		C102	CAP.TANTAL CHIP M10 D 10V 20%	040742
		C103	CAP.TANTAL CHIP M10 D 10V 20%	040742
		C104	CAP.CHIP X7R 22N 0603 25V 10%	040719
		C105	CAP.CHIP X7R 22N 0603 25V 10%	040719
		C110	CAP.CHIP NPO 47P 0603 50V 2%	040712
		C111	CAP.CHIP NPO 47P 0603 50V 2%	040712
		C112	CAP.CHIP NPO 22P 0603 50V 2%	040710
		C113	CAP.CHIP NPO 15P 0603 50V 2%	040734
		C500	CAP.CHIP X7R 1U0 0805 10V 10%	040765
		C501	CAP.CHIP X7R 1U0 0805 10V 10%	040765
		C502	CAP.CHIP X7R U10 0805 25V 10%	040692
		D100	DIODE SCHOTTKY SOT23 BAT54C	070201
		D101	DIODE CHIP SOT323 DAN202U	070227
		D500	DIODE CHIP SOT323 DAN202U	070227
		D501	DIODE CHIP SOT323 DAN202U	070227
		IC100	UP Progr. S912D V4.00 UPD78P0308GF QFP	080735
		IC101	DECODER IC SO-16 EL00 19	080563
		IC102	EE-PROM 2K SO-8 93LC568X/SN	080564
		IC103	VOLT.CONV. 3V SOT89 S-8435BF	080569
		IC104	VOLTAGE DETECTOR SOT89 7700YVA	080561
		J102	FEMALE CONTACT SMD 16P 1-177560-6	180647
		L100	COIL CHIP 3U3H 1008CS 10%	060168
		L101	COIL CHIP 1U5H SIMID 02 10%	060151
		L102	CHOKE 220UH D75C	060206
		L103	COIL CHIP U47H 1008CS 10%	060133
		LED100	LIGHT EM.DIODE SMD RED CL-200HR-C-TU	090095
		LS500	AUDIO TRANSDUCER MWT-01A	150048
		R100	RESISTOR CHIP 1K0 0603 1%	020656
		R101	RESISTOR CHIP M10 0603 1%	020663
		R102	RESISTOR CHIP 10K 0603 1%	020666
		R103	RESISTOR CHIP 10K 0603 1%	020666
		R104	RESISTOR CHIP 10K 0603 1%	020666
		R105	RESISTOR CHIP 10K 0603 1%	020666
		R107	RESISTOR CHIP M10 0603 1%	020663
		R108	RESISTOR CHIP 10K 0603 1%	020666
		R109	RESISTOR CHIP M10 0603 1%	020663
		R110	RESISTOR CHIP 4M7 0603 5%	020662
		R111	RESISTOR CHIP 1K0 0603 1%	020656
		R112	RESISTOR CHIP 10K 0603 1%	020666
		R113	RESISTOR CHIP 10K 0603 1%	020666
		R114	RESISTOR CHIP 47R 0805 5%	020605
		R115	RESISTOR CHIP 10K 0603 1%	020666
		R116	RESISTOR CHIP 1K0 0603 1%	020656
		R117	RESISTOR CHIP K15 0603 1%	020711
		R118	RESISTOR CHIP K33 0603 1%	020664
		R119	RESISTOR CHIP 10M 0805 0W1 5%	020625
		R120	RESISTOR CHIP 10K 0603 1%	020666
		R121	RESISTOR CHIP 1M0 0603 1%	020667
		R122	RESISTOR CHIP M22 0603 1%	020714
		R123	RESISTOR CHIP 10K 0603 1%	020666
		R125	RESISTOR CHIP M39 0603 1%	020698
		R126	RESISTOR CHIP 4M7 0603 5%	020662
		R130	RESISTOR CHIP M10 0603 1%	020663

Tillhör arkiv nr:

TU:

Parts List No.	Product name	Ref.No.	Description	Art.No.
544380	COMMON SMD KIT 912PUD	R131	RESISTOR CHIP 68R 0805 5%	020586
		R134	RESISTOR CHIP M39 0603 1%	020698
		R135	RESISTOR CHIP 1K0 0603 1%	020656
		R136	RESISTOR CHIP M39 0603 1%	020698
		R500	RESISTOR CHIP K56 0603 1%	020655
		R501	RESISTOR CHIP 2K2 0603 1%	020657
		R502	RESISTOR CHIP M10 0603 1%	020663
		R503	RESISTOR CHIP M10 0603 1%	020663
		R504	JUMPER OR 0805	020636
		R505	RESISTOR CHIP M10 0603 1%	020663
		R506	RESISTOR CHIP 1K0 0603 1%	020656
		R507	RESISTOR CHIP 2K2 0603 1%	020657
		R508	RESISTOR CHIP K56 0603 1%	020655
		R509	RESISTOR CHIP 3K9 0603 1%	020672
		R510	RESISTOR CHIP 7K5 0603 1%	020683
		R511	RESISTOR CHIP 5K6 0603 1%	020673
		S100	PUSH BUTTON SWITCH SMD SKQLLC	170289
		TR100	TRANSISTOR CHIP SOT323 BC858CW	070232
		TR101	TRANSISTOR CHIP SOT323 BC848CW 2SC4081	070225
		TR102	TRANSISTOR CHIP SOT323 BC848CW 2SC4081	070225
		TR103	TRANSISTOR CHIP SOT323 BC848CW 2SC4081	070225
		TR104	TRANSISTOR CHIP SOT323 BC848CW 2SC4081	070225
		TR500	TRANSISTOR CHIP SOT323 BC807W-40	070230
		TR501	TRANSISTOR CHIP SOT323 BC807W-40	070230
		TR502	TRANSISTOR CHIP SOT323 BC817W-40	070231
		TR504	TRANSISTOR CHIP SOT323 BC817W-40	070231
		TR505	TRANSISTOR CHIP SOT323 BC858CW	070232
		TR506	TRANSISTOR CHIP SOT323 BC848CW 2SC4081	070225
		TR507	TRANSISTOR CHIP SOT323 BC817W-40	070231
		X100	CRYSTAL SMD 76.800 MC-306	101751
		X101	CER. RESONATOR CHIP PBRC-4.00-B	120045
		X102	CRYSTAL SMD 32.768 MC-306	101757

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* * * SLUT * * *

STRUKTURUTSKRIFT

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Sida: 14

Prod. nummer	Produktnamn	U912RXD	Löp. nr	Opn nr	Matr. nr	Artikelbenämning	Senaste revisionsdatum	Ing. kvant	Enh	Textrad 1
544487	MOTTÄGARKORT A	U912RXD	10	100	SENREV					1998-04-14 / SH
			20	900	230751	ANTENN (TRÅD) U912D M60177E		1,000		ST
			30		544590	SMD-SATS BAND A U912RXD		1,000		ST

* * Slut på DF 544487 * *

Tillhör arkiv nr:

TU:

Parts List No.	Product name	Ref.No.	Description	Art.No.
544590	SMD-KIT BAND A	U912RXD 971002	Latest revision date for this parts list COMMON COMPONENT KIT U912RXD	SENREV 544486
		C305	CAP.CHIP NPO 4P7 0603 50V P25	040707
		C313	CAP.CHIP N750 15P 0805 25V 5%	040505
		C314	CAP.CHIP NPO 8P2 0603 50V P25	040733
		C320	CAP.CHIP NPO 68P 0603 50V 5%	040713
		C342	CAP.CHIP NPO 12P 0603 50V 2%	040709
		C355	CAP.CHIP NPO 3P3 0603 50V P25	040746
		R420	CAP.CHIP X7R 22N 0603 25V 10%	040719

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* * * SLUT * * *

Tillhör arkiv nr:

TU:

Parts List No.	Product name	Ref.No.	Description	Art.No.
544486	COMMON COMPONENT KIT U912RXD	980629	Latest revision date for this parts list	SENREV
	PC		PC-BOARD VERSION 40360 K	010547
	C301		CAP.CHIP NPO 68P 0603 50V 5%	040713
	C302		TRIMCAP.CHIP 3P 3*4,5MM	050028
	C303		TRIMCAP.CHIP 3P 3*4,5MM	050028
	C304		CAP.CHIP X7R 2N2 0603 50V 10%	040718
	C306		CAP.CHIP NPO 10P 0603 50V P25	040708
	C307		CAP.CHIP NPO P82 0603 50V P25	040729
	C308		CAP.CHIP X7R 2N2 0603 50V 10%	040718
	C309		CAP.CHIP NPO 1P0 0603 50V P25	040705
	C310		CAP.CHIP NPO 3P9 0603 50V P25	040731
	C311		CAP.CHIP NPO 2P7 0603 50V P25	040768
	C312		CAP.CHIP NPO 68P 0603 50V 5%	040713
	C315		CAP.CHIP X7R U22 0805 16V 10%	040741
	C316		CAP.CHIP X7R 2N2 0603 50V 10%	040718
	C317		CAP.CHIP X7R 2N2 0603 50V 10%	040718
	C318		CAP.CHIP NPO 10P 0603 50V P25	040708
	C319		CAP.CHIP NPO 3P9 0603 50V P25	040731
	C321		CAP.CHIP X7R 22N 0603 25V 10%	040719
	C322		CAP.CHIP X7R 22N 0603 25V 10%	040719
	C323		CAP.CHIP X7R U22 0805 16V 10%	040741
	C324		CAP.CHIP X7R 1U0 0805 10V 10%	040765
	C325		CAP.CHIP X7R 22N 0603 25V 10%	040719
	C326		TRIMCAP.CHIP 6P TZC03Z	050033
	C327		CAP.CHIP X7R 22N 0603 25V 10%	040719
	C328		CAP.CHIP X7R 1U0 0805 10V 10%	040765
	C329		CAP.CHIP X7R 22N 0603 25V 10%	040719
	C330		CAP.CHIP X7R 22N 0603 25V 10%	040719
	C331		CAP.TANTAL CHIP 4U7 R 4,0V 20%	040743
	C332		CAP.CHIP NPO N18 0603 50V 5%	040700
	C333		CAP.CHIP X7R N47 0603 50V 10%	040738
	C334		CAP.CHIP NPO N10 0603 50V 5%	040715
	C335		CAP.CHIP X7R N56 0603 50V 10%	040716
	C336		CAP.CHIP X7R 1U0 0805 10V 10%	040765
	C337		CAP.CHIP X7R 1U0 0805 10V 10%	040765
	C338		CAP.CHIP NPO 5P6 0603 50V P25	040763
	C339		CAP.CHIP NPO 2P7 0603 50V P25	040768
	C340		CAP.CHIP X7R U22 0805 16V 10%	040741
	C341		CAP.CHIP X7R 22N 0603 25V 10%	040719
	C343		CAP.CHIP X7R 2N2 0603 50V 10%	040718
	C344		CAP.CHIP X7R 22N 0603 25V 10%	040719
	C345		CAP.CHIP X7R 2N2 0603 50V 10%	040718
	C346		TRIMCAP.CHIP 6P TZC03Z	050033
	C347		CAP.CHIP NPO 68P 0603 50V 5%	040713
	C353		TRIMCAP.CHIP 3P 3*4,5MM	050028
	C354		CAP.CHIP X7R 2N2 0603 50V 10%	040718
	C356		CAP.CHIP NPO 10P 0603 50V P25	040708
	C357		CAP.CHIP NPO P82 0603 50V P25	040729
	C359		CAP.CHIP NPO 1P0 0603 50V P25	040705
	C360		CAP.CHIP NPO 3P9 0603 50V P25	040731
	C365		CAP.CHIP X7R U22 0805 16V 10%	040741
	C366		CAP.CHIP X7R 2N2 0603 50V 10%	040718
	D300		DIODE CHIP SOT323 BAV99W	070226
	FL300		FILTER CERAMIC SMD ATECFM5-455CL	120042
	IC300		IC FM IF AMPLIFIER CXA1474AN	080590
	IC301		PHOTO-REFLECTOR PR-11 RANK B	090086

Tillhör arkiv nr:

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Parts List No.	Product name	Ref.No.	Description	Art.No.
544486	COMMON COMPONENT KIT U912RXD	J300	MALE CONTACT SMD 16P 1-178987-6	180646
		L300	COIL CHIP 12NH 0805CS 20%	060173
		L301	COIL CHIP U10H 0603 5%	060217
		L302	COIL CHIP 12NH 0805CS 20%	060173
		L303	COIL CHIP 8N2H 0805CS 20%	060172
		L304	COIL IF-BALUN SMD CP-55 5119-H003	060211
		L305	COIL CHIP 1UH 1008CS 10%	060141
		L306	COIL CHIP 27NH 0805CS 20%	060174
		L307	COIL CHIP U22H 1008CS 2%	060125
		L308	COIL CHIP U10H 0603 5%	060217
		L351	COIL CHIP U10H 0603 5%	060217
		L352	COIL CHIP 12NH 0805CS 20%	060173
		L353	COIL CHIP 8N2H 0805CS 20%	060172
		R301	RESISTOR CHIP 5K6 0603 1%	020673
		R302	RESISTOR CHIP 5K6 0603 1%	020673
		R303	RESISTOR CHIP 22K 0603 1%	020660
		R304	RESISTOR CHIP K39 0603 1%	020670
		R305	RESISTOR CHIP K10 0603 1%	020653
		R306	RESISTOR CHIP 1K8 0603 1%	020659
		R307	RESISTOR CHIP 1K8 0603 1%	020659
		R308	RESISTOR CHIP K82 0603 1%	020731
		R309	RESISTOR CHIP 2K2 0603 1%	020657
		R310	RESISTOR CHIP K68 0603 1%	020679
		R311	RESISTOR CHIP 12K 0603 1%	020708
		R312	RESISTOR CHIP 1K0 0603 1%	020656
		R313	RESISTOR CHIP K82 0603 1%	020731
		R314	RESISTOR CHIP 68K 0603 1%	020661
		R315	RESISTOR CHIP 68K 0603 1%	020661
		R316	RESISTOR CHIP 68K 0603 1%	020661
		R317	RESISTOR CHIP 68K 0603 1%	020661
		R318	RESISTOR CHIP 68K 0603 1%	020661
		R319	RESISTOR CHIP 68K 0603 1%	020661
		R320	RESISTOR CHIP 82K 0603 1%	020671
		R321	RESISTOR CHIP 22K 0603 1%	020660
		R322	RESISTOR CHIP 15K 0603 1%	020654
		R323	RESISTOR CHIP 4M7 0603 5%	020662
		R324	RESISTOR CHIP 22K 0603 1%	020660
		R325	RESISTOR CHIP 1K0 0603 1%	020656
		R326	RESIST. CHIP NTC 4K7 0805 10%	020573
		R327	RESISTOR CHIP 12K 0603 1%	020708
		R328	RESISTOR CHIP 1K8 0603 1%	020659
		R329	RESISTOR CHIP 22K 0603 1%	020660
		R330	RESISTOR CHIP 1K0 0603 1%	020656
		R331	RESISTOR CHIP 68K 0603 1%	020661
		R332	RESISTOR CHIP 68K 0603 1%	020661
		R333	RESISTOR CHIP 2M2 0603 5%	020705
		R351	RESISTOR CHIP 5K6 0603 1%	020673
		R352	RESISTOR CHIP 5K6 0603 1%	020673
		R354	RESISTOR CHIP K39 0603 1%	020670
		R356	RESISTOR CHIP 1K8 0603 1%	020659
		TR300	TRANSISTOR CHIP SOT323 BC858CW	070232
		TR301	TRANSISTOR CHIP SOT323 BFS25A	070221
		TR302	TRANSISTOR CHIP SOT323 BFS25A	070221
		TR303	TRANSISTOR CHIP SOT323 BFS25A	070221
		TR304	TRANSISTOR CHIP SOT323 BFS25A	070221
		TR305	TRANSISTOR CHIP SOT323 BC848CW 2SC4081	070225

Tillhör arkiv nr:

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Parts List No.	Product name	Ref.No.	Description	Art.No.
544486	COMMON COMPONENT KIT U912RXD	TR351	TRANSISTOR CHIP SOT323 BFS25A	070221
		TR352	TRANSISTOR CHIP SOT323 BFS25A	070221
		X302	RESONATOR CERAMIC SMD CD8C455CX33	120047

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