

TRANSISTOR, DIODE, AND IC FUNCTIONS

RULE PART NUMBER: 2.983 (d)6

DL-3492 TRANSCEIVER

Reference Designator	Function	JDEC or Vendor
CR101A	TCXO Varactor	BB639
CR200	Protection Diode	MMBD6050LT1
CR240	2nd LO Varactor	BB535
CR520	Power Control	MMBD701LT1
CR540	Antenna Switch	MMBV3401
CR541	Antenna Switch	MMBV3401
CR592	Power Control	MMBD701LT1
CR840	VCO Varactor	BB535
Q100	Receive Enable Switch	MUN5213T1
Q101A	TCXO Oscillator	MMBT3904
Q101	Receive Enable Switch	MUN5114T1
Q102A	TCXO Buffer	MMBT3904
Q110	RF Enable Switch	MUN5213T1
Q130	TX Enable Switch	MUN5213T1
Q131	TX Enable Switch	MUN5213T1
Q132	TX Enable Switch	MUN5114T1
Q133	TX Enable Switch	MUN5213T1
Q134	TX Enable Switch	MUN5114T1
Q135	TX Enable Switch	PZT2222AT1
Q200	RF Amplifier Bias	MSB1218-RT1
Q201	Low Noise RF Amplifier	NE85633
Q211	1st LO Mixer	NE25118
Q240	2nd LO Buffer	MMBT918
Q260	2nd LO Amplifier	NE85633
Q261	2nd LO Amplifier Bias	MSB1218-RT1
Q500	PA Driver	MSA2111
Q520	RF Power Amplifier	PZT2222AT1
Q800	TCXO Level Amplifier	MSD1819A-RT1
Q840	Synthesizer Enable	MUN5213T1
Q841	Tx Pin shift Positive	MUN5213T1
Q842	TxPin shift Negative	MUN5213T1
Q843	Lowband pin shift Positive	MUN5213T1
Q844	Lowband pin shift Negative	MUN5213T1
Q845	VCO	MSD1819A-RT1
Q911	Diagnostics Enable	MMBT3904
U110	5.5 Volts Regulated	TK11900M
U111	9.6 Volts Regulated	TK11900M
U130	Power Control	MC33174D
U230	2nd If/Demodulator/Limiter	SA676DK
U510	6W Pwr module, 900 MHz	BGY114E
U520	Power Control	MC33172D
U800	FRACTIONAL-N Synthesizer	SA7025
U840	Shist register 8-STG SOI	MC14094
U900	TLC5620ID quad 8 bit dac	TLC5620ID
U901	Shift register 8-STG SOI	MC14094
U902	3 2CH analog mux/de-mux	MC14053

TRANSISTOR, DIODE, AND IC FUNCTIONS (continued)

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HNET MODEM

Reference designator	Function	Type
CZ1	Transient Voltage Suppressor 5.6v, 0805	VC080505A150
CZ2	Transient Voltage Suppressor 5.6v, 0805	VC080505A150
CZ3	Transient Voltage Suppressor 14v, 0805	VC080514A300
CZ6	Transient Voltage Suppressor 14v, 0805	VC080514A300
CZ7	Transient Voltage Suppressor 14v, 0805	VC080514A300
CZ8	Transient Voltage Suppressor 14v, 0805	VC080514A300
CZ9	Transient Voltage Suppressor 14v, 0805	VC080514A300
CZ10	Transient Voltage Suppressor 14v, 0805	VC080514A300
CZ11	Transient Voltage Suppressor 14v, 0805	VC080514A300
CZ12	Transient Voltage Suppressor 14v, 0805	VC080514A300
CZ4	Transient Voltage Suppressor 5.6v, 0805	VC080505A150
CZ5	Transient Voltage Suppressor 5.6v, 0805	VC080505A150
D1	reverse power supply protection	1N4001
D2	reference setting	BAV99LT1
D3	TTL input protection	BAV99LT1
D4	TTL input protection	BAV99LT1
D5	TTL input protection	BAV99LT1
D6	negative peak detector	MBD301LT1
D7	positive peak detector	MBD301LT1
D8	DIODE,ZENER 4.7v	BZX84C4V7LT1
DS1	Led, Narrow Beam, Yellow	HLMP-6400-010
DS2	Led, Narrow Beam, Red	HLMP-6000-010
DS3	LED, Narrow Beam, Green	HLMP-6500-010
Q1	LED Switch	MMBT3904LT1
Q2	LED Switch	MMBT3904LT1
Q3	LED Switch	MMBT3904LT1
Q4	phase peak shape formatter	MMBT3904LT1
Q5	phase peak shape formatter	MMBT3904LT1
U1	RS-232 Driver/Receiver 5v	MC145407DW
U2	Data Set (sync/async) Interface	MC145428DW
U4	Undervoltage Sensing Circuit	MC33064D
U5	Microprocessor ,QFP-80	68HC711K4FU
U6	CPLD 64 Macrocell, Digital Modem	PZ5064-I12A44
U7	Dual , Op Amp	LMC6484AIM
U8	Quad, Op Amp	TLC2274I
U9	Digital Potentiometer	AD8402AR50
U10	Quad, Op Amp	TLC2274I
U11	Analog Multiplexers/Demultiplexers	MC74HC4053D
U12	Filter, Linear Phase Low Pass	LTC1069-7
U13	Regulator,Micropower Voltage	LP2951CD
U14	Regulator,Micropower Voltage	LP2951CD

TRANSMITTER TUNE UP PROCEDURE

RULE PART NUMBER: 2.983 (d)(9)

TRANSMITTER TUNE UP PROCEDURE

1. Connect the transceiver to be aligned to a DC power source. A DC current meter capable of measuring at least 2.5 Amps should be connect in line with the DC source. Connect the output of the transceiver through a watt meter and into a 50 ohm dummy load.
2. Load the synthesizer with the center channel frequency.
3. Key the transmitter and make certain that the supply voltage at the RF board is 13.3 VDC. (Do not transmit for extended periods of time.)
4. Adjust C525 clockwise for 5.0 Watts of output power.
5. Check the power levels on the low and the high frequencies for 5.0 Watts +/- 1 Watt.