

ECLIPSE SERIES SPECIFICATIONS SUMMARY

	Frequency	Receiver	Exciter	Power Amplifier	Channel Spacing
Eclipse 50 Series	25-32 MHz	R50	T50	PA50A	Software selectable <i>Note: Eclipse 50 Series requires 28V supply</i>
	30-40 MHz	R50	T50	PA50B	
	38-50 MHz	R50	T50	PA50C	
Eclipse 70 Series	66-88 MHz	R71A	T70A	PA70	12.5,15,20,25,30 kHz in 5 or 6.25 kHz steps
Eclipse 150 Series	136-156 MHz	R150A	T150A	PA150A	12.5,15,20,25,30 kHz in 5 or 6.25 kHz steps
	148-174 MHz	R150B	T150B	PA150B	
Eclipse 220 Series	215-240 MHz	R220A	T220A	PA220A	6.25, 7.5, 12.5, 25 in 6.25 or 7.5 kHz steps
Eclipse 350 Series	300-330 MHz	R350D	T350D	PA350D	12.5,20,25,30 kHz in 10 or 12.5 kHz steps
	330-360 MHz	R350C	T350C	PA350C	
	360-380 MHz	R350A	T350A	PA350A	
	375-400 MHz	R350B	T350B	PA350B	
Eclipse 500 Series	400-430 MHz	R500A	T500A	PA500A	12.5, 25 kHz in 5, 10, 6.25 or 12.5 kHz steps
	425-453 MHz	R500D	T500D	PA500A / PA501A	
	450-490 MHz	R500B	T500B	PA500B / PA501B	
	485-520 MHz	R500C	T500B	PA500B / PA501B	
Eclipse 800 Series	800-830 MHz	R800A	T800A	n/a	12.5, 25 kHz in 6.25, 10 or 12.5 kHz steps
	850-870 MHz	R800B	T800B	n/a	
	896-930 MHz	R800C	n/a	n/a	
	928-941 MHz	n/a	T800C	n/a	

General	Receiver	Exciter	Power Amp	With Fan	PA 501	SMPS-12	PS-PS
Weight	1.45 Kg	1.8 Kg	3.55 Kg	4.85 Kg	4.65 Kg	2.6 Kg	8.0 Kg
Dimension	2UW	2UW	3UW	4UW	5UW	2UW	4UW

*(width) 2UW=62mm(2 7/16 inch)

Mounting Rack	13UW wide, 4U high, 19 inch 4.55 kg
Blank Front Panel	Available in 1UW, 2UW, 3UW, 4UW width
Power	+13 Vdc or 120/240 volt, 50/60 Hz AC with SMPS12 power supply or PS12 power supply
Channel Capacity	100 Channels, BCD coded 00-99
Tone Squelch	Fully programmable, one EIA Tone per channel
Programming	Through serial port of IBM compatible PC
Software	TechHelp (Dos) or Service Monitor (Win 95/98/XP), WinTekHelp (for Series 50)
Test & Diagnostics	Front panel test connector and ALM, SQ, ALC, Tx and PWR LEDs
Audio Response	Selectable flat or 750uSec pre/de-emphasis
Audio Interface	Standard 600 Ohm 0dBm balanced and Hi-Z unbalanced

Receivers	R50	R71	R150	R220	R350	R500	R800
Frequency spread for 1dB degradation	25 MHz	15 MHz	20 MHz	25 MHz	5 MHz	10 MHz	25 MHz

Frequency stability	1 ppm standard (TCXO) Temp -30 to +60C
Sensitivity	0.25 uV (-119 dBm) for 12 dB SINAD, 0.35 uV (-116 dBm) for 20 dB Quieting
Spurious & Image	Rejection 90 dB
Selectivity	80 dB at 25 kHz spacing per RS-204-C, 70 dB at 12.5 kHz spacing
Intermodulation	80 dB per RS-204-C
Modulation acceptance	7.5 and 3.75 kHz
Squelch	Noise squelch, adjustable from 6 to 26 dB SINAD Carrier squelch, adjustable from 1 to 200 uV
Audio response	+1 to -3 dB
Audio level	600 Ohm line adjustable from -10 to +10 dBm Monitor output, 3 watts @ 4 Ohms Discriminator & subtone output 1 V peak at 100% system deviation
Audio Distortion	Less than 3 % at 1 kHz, 60% system deviation with 750 uSec de-emphasis
COS output	Opto-coupled +12V, GND and free Switch connections
Alarms	Unlock, tuning voltage, signal strength, external mute and supply voltage

Exciters / Transmitters	T50	T70	T150	T220	T350	T500	T800
Frequency spread	25 MHz	15 MHz	20 MHz	2 MHz	5 MHz	10 MHz	25 MHz
Frequency stability	+/- 2.5 ppm standard			1 ppm standard			
Power output adjustable	0.5 to 1 watt			5 to 25 watts			1 to 15 watts
Power regulation	+/- 10% from 12-16 Vdc, 0 to 50 deg C, all channels						
Duty Cycle	100% to 40 deg C Temp -30 to +60C						
Carrier & modulation attack time	Less than 20 mSec						
Spurious and harmonics	Less than 0.25 uW (-36dBm)						
Audio response	+1 to -3 dB						
Audio distortion	Less than 3% at 60% system deviation at 1 kHz						
Residual hum & noise	Less than -50 dB relative to 60% system deviation						
Audio input level	600 Ohm line, -30 to +10 dBm Hi-Z input, 25 mV to 1 Vrms Subtone input compatible with receivers, Test microphone, 6 mV rms at 200 Ohms						
Remote keying	DC Opto-coupled input						
External ref. option	Allows the transmitter to be phase locked to an external 1 MHz reference						
Alarms	Unlock, tuning voltage, forward and reverse power, time out and supply voltage						

DC Power Consumption (DC Amps)	R50	R71A	R150	R220	R350	R500	R800
Idle	0.50	0.40	0.39	0.39	0.42	0.43	0.41
50% vol.	0.55	0.48	0.48	0.48	0.52	0.51	0.51
100% vol.	0.60	0.65	0.66	0.66	0.68	0.68	0.69

Transmitter		Standard					50 Watt PA		100 Watt PA		
Tx Model	Idle	2W	5W	10W	15W	25W	35W	50W	50W	75W	100W
T50	0.32	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6.0	7.5	11.5
T70	0.3	1.6	2.2	3.0	4.0	4.7	4.4	6.0	n/a	n/a	n/a
T150	0.3	1.8	2.5	3.3	3.9	5.0	5.0	6.2	10.0	12.0	14.4
T220	0.2	2.3	3.2	4.2	5.0	6.6	n/a	n/a	n/a	12.8	15.0
T350	0.2	1.8	2.5	3.3	4.1	5.6	4.6	5.2	n/a	n/a	n/a
T500	0.2	2.3	3.2	4.2	5.0	6.6	4.4	4.8	12.0	15.0	17.6
T800	0.2	2.2	2.8	3.8	5.0	n/a	n/a	n/a	n/a	n/a	n/a

Note: for a repeater or base station add Rx, Tx and PA currents for a total figure

AC Power Input (AC Amps)		Quiescent			Tx On		PA On	
Switch Mode Supplies		Rx	Rx / Tx	Rx / Tx / PA	15W	25W	50W	100W
SMPS12-2	13.8 Vdc	0.18	0.21	0.21	0.67	0.58	1.22	2.14
SMPS28-1	28.0 Vdc	0.085	0.175	0.213	n/a	0.73	0.98	1.38
Linear Supply		Quiescent			Tx On		PA On	
PS12	13.8 Vdc	Rx	Rx / Tx	Rx / Tx / PA	15W	25W	50W	100W
		0.08	0.11	0.11	0.67	0.75	1.37	2.35

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