

1535A Specification

1. GENERAL SPECIFICATION

	Items	Specifications
1	Tx Frequency range	462.55MHz ~ 462.7250MHz
2	Tx VCO Frequency range	Same as item 1
3	RX Frequency range	Same as item1
4	RX VCO Frequency range	441.15MHz ~ 446.325MHz (Lower Heterodyne)
5	Channel Number Channel Spacing	15CH 25KHz
6	Frequency Control	PLL Synthesizer with Temperature Compensated Crystal Reference
7	IF frequencies	21.4 MHz for 1'st IF 450KHz for 2'nd IF
8	Modulation	FM (F3E emissions)
9	Standard Test Modulation signal	Modulated audio Frequency : 1KHz Test modulation : +/-1.5KHz
10	TX Frequency stability	Max. +/-2.5ppm (-20°C to +50°C)
11	Nominal test temperature Range	25°C +/- 5°C
	Extreme operating temperature Range	-20°C to +50°C
12	Antenna Impedance	50 ohm +/- 25 ohm
13	Power source	4 AAA Alkaline batteries or 4 AAA Ni-HM rechargeable batteries
	Test Power Supply Voltage	6.0Vdc. +/-0.1Vdc
	Extreme Supply Voltage Range	4.4Vdc to 6.5Vdc
15	Battery life time (Typ. 5/5/90 duty)	Min. 45 Hours
16	Microphone	Self contained Electret
17	Speaker	Self contained 16 ohm

1535A DETAILED SPECIFICATION

A. RECEIVER SECTIONS

* Normal test condition *

	TYP.	LIMIT				
1. MAXIMUM USABLE SENSITIVITY * 1KHz +/-1.5KHz DEV. * REF. CHANNEL 1 & 8	-124dBm	<-120dBm				
2. 20dB QUIETING SENSITIVITY * 1HKz +/-1.5KHz DEV. * REF. CHANNEL 1 & 8, 12dB SINADDER	-118dBm	<-116dBm				
3. 6dB BANDWITH * REF. 1KHz +/-1.5KHz DEV.	+/-3.0KHz	+/-1.0KHz				
4. MODULATION ACCEPTANCE BANDWITH * REF. 1KHz +/-1.5KHz DEV.		<+/-4.5KHz				
5. ADJACENT CHANNEL TWO SIGNAL SELECTIVITY & SENSITIZATION * +/- 1 CHANNEL SPACING		>50dB				
6. SPURIOUS RESPONSE ATTENUATION * FROM 100KHz TO 1GHz		>50dB				
7. INTER-MODULATION SPURIOUS RESPONSE ATTENUATION		>50dB				
8. SPURIOUS EMISSIONS * CONDUCTIVE CONNECTION		<-53dBm				
9. RECEIVE FREQUENCY RESPONSE * REF. 1KHz +/-1.5KHz DEV. 250Hz 3KHz	-18.0dB -12.0dB	+/-2.0dB +/-3.0dB				
10. AUDIO OUTPUT LEVEL * REF. 1KHz +/-1.5KHz DEV. * (16 ohm LOAD) * Volume INITIAL	560mV	+/-50mV				
11. MAXIMUM AUDIO OUTPUT LEVEL * REF. 1KHz +/-1.5KHz DEV. *16 ohm LOAD * VOLUME MAX.	250mW	+/-10mW				
12. AUDIO OUTPUT DISTORTION * REF. 1KHz +/-1.5KHz DEV. * (8 ohm LOAD)		<5%				
13. MAX. S/N RATIO * REF. 1KHz +/-1.5KHz DEV. * (8 ohm LOAD)	36 dB	>34dB				
14. RX VCO REF. VOLTAGE * REF. CHANNEL 1 * REF. CHANNEL 8	1.7V 1.7V	+/-0.3V +/-0.3V				
15. SQUELCH THRESHOLD * REF. 1KHz +/-1.5KHz DEV.*	9dBsinadder	-3dB - +7dB				
16. CURRENT CONSUMPTION * Un-squelched Volume Max. * Squelched * Power Off	200mA 35mA 10uA	+/-40mA <40mA <15uA				

B. TRANSMITTER SECTIONS

	TYP	LIMIT	#1	#2
1. TRANSMITTER FREQUENCY TOL. * REF. CHANNEL 1		<+/-200Hz		
2. TRANSMITTER RF POWER * REQUIRED CONDUCTIVE CONNECTION * REF. CHANNEL 1 & 8	2.0W	+0W / -0.4W		
3. TRANSMITTER OCCUPIED BANDWIDTH * REQUIRED CONDUCTIVE CONNECTION * REF. CHANNEL 1 @12.5KHz		<-50dBC		
4. TRANSMITTER SPURIOUS * REQUIRED CONDUCTIVE CONNECTION * REF. CHANNEL 8		<-50dBC		
5. MODULATION SENSITIVITY * REF. 1KHz AUDIO * CHANNEL 1 , @+/-1.5KHz	8mV	+/-3mV		
6. MODULATION LIMITING * REF. 1KHz AUDIO, CHANNEL 1 * (INPUT AUDIO ; 200mVrms)	+/-2.2KHz	+/-0.2KHz		
7. CTCSS CODE DEVIATION * CH 1 * CH38	0.4KHz	+/-0.1KHz		
8. MODULATION AUDIO DISTORTION * REF. 1KHz AUDIO +/-1.5KHz	3%	<5%		
8.TX AUDIO FREQUENCY RESPONSE * REF. 1KHz AUDIO, CHANNEL 1 * (INPUT AUDIO ; 3mVrms) 250Hz 3KHz 6KHz	-31.0dB +6.0dB -16.0dB	+/-3.0dB +/-3.0dB +/-3.0dB		
9. TX MODULATION S/N * REF. 1KHz AUDIO, CHANNEL 1 * (REF. INPUT AUDIO ; 8mVrms)		>30dB		
10. TX VCO REF. VOLTAGE * CHANNEL 1 * CHANNEL 14	1.7V 1.7V	+/-0.3V +/-0.3V		
11. CURRENT CONSUMPTION	700mA	+/-100mA		