

S SERIES Base Stations & Repeaters



*Analog & Digital
Base Stations & Repeaters
30 to 870 MHz
255 Channels
50/35 Watts RF Power
FLEX•MODE™
Remote Diagnostics*




Powerful. Innovative. Rugged and reliable. The new S Series is the smallest full specification Base Station/Repeater in its class. With advanced modular construction techniques, you are assured of reliable and long lasting performance.



S SERIES

Base Stations & Repeaters

<p>GENERAL</p> <p>Frequency - MHz</p> <table border="0"> <tr> <td>30-50</td> <td>66-80*</td> </tr> <tr> <td>72-88</td> <td>135-160</td> </tr> <tr> <td>148-174</td> <td>195-225*</td> </tr> <tr> <td>320-350*</td> <td>345-375*</td> </tr> <tr> <td>400-435</td> <td>450-485</td> </tr> <tr> <td>485-520</td> <td>806-870</td> </tr> </table> <p>Channels 255 (Binary)</p> <p>RF Output - Watts 50 W below 800 MHz 35 W above 800 MHz</p> <p>Power Supply 13.8 VDC (110/240 VAC w/opt Power Supply)</p> <p>Analog Performance Conforms to TIA / EIA 603</p> <p>Operating Temperature - C° -30 to +60</p> <p>Size - W x H x D - in. 19 (483 mm) x 3.5 (2 RU or 89 mm) x 13 (360 mm)</p> <p>Weight - lbs. 19.8 (9 kg)</p> <p>Programming RS-232</p> <p>Diagnostics Voltage, Temp, VSWR, TX Power, RSSI, VCO Volts</p> <p>Optional Features:</p> <ul style="list-style-type: none"> Cross-banding Local Control 100 Watts RF Output (Below 800) 75 + 140 Watts RF Output (Above 800) Simplex Change over relay (Base/Simplex Operation) Low Standby Current (195 MA) <p>* For export and Federal Government only.</p>		30-50	66-80*	72-88	135-160	148-174	195-225*	320-350*	345-375*	400-435	450-485	485-520	806-870	<p>RECEIVER</p> <p>Sensitivity (12 dB SINAD) < -117 dBm (-120 dBm typical)</p> <p>Intermodulation Rejection -80 dB min. below 800 MHz -70 dB min. above 800 MHz</p> <p>SQ Threshold < 8 dB SINAD</p> <p>Tight Squelch > 20 dB SINAD</p> <p>Adjacent Channel Rejection</p> <table border="0"> <tr> <td>25 kHz</td> <td>85 dB</td> </tr> <tr> <td>12.5 kHz</td> <td>78 dB</td> </tr> </table> <p>Signal Displacement Bandwidth</p> <table border="0"> <tr> <td>12.5 kHz</td> <td>≤ 1 kHz</td> </tr> <tr> <td>25 kHz</td> <td>≤ 2 kHz</td> </tr> </table> <p>Frequency Stability -ppm ± 2.5 below 400 MHz (± 1.0 optional) ± 1.0 above 400 MHz</p> <p>Spurious & Image Response Rejection >100 dB</p> <p>Audio Response DC to 3000 Hz (-3.0 dB)</p> <p>Audio distortion <2% total harmonic distortion maximum</p> <p>FM Hum and Noise</p> <table border="0"> <tr> <td>25 kHz</td> <td>>50 dB</td> </tr> <tr> <td>12.5 kHz</td> <td>>45 dB</td> </tr> </table> <p>RF Input Impedance 50 ohms with type "N" (F)</p> <p>Blocking >100 dB</p> <p>Audio Output 600 Ohms balanced (differential) 0 dBm nominal Adjustable +10 to -15 dBm for 60% System Deviation RF Signal</p> <p>Power Consumption < 600 mA (typical 440mA)</p> <p>Rx Audio Filters HighPass (enable/disable) Pre-Emphasis (enable/disable) Compression (enable/disable) (Internal Jumpers)</p>		25 kHz	85 dB	12.5 kHz	78 dB	12.5 kHz	≤ 1 kHz	25 kHz	≤ 2 kHz	25 kHz	>50 dB	12.5 kHz	>45 dB
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<p>TRANSMITTER</p> <p>Transmit Output Power 10 W - 50 W below 800 MHz</p> <p>100% Duty Cycle 10 W - 35 W above 800 MHz</p> <p>Power Amplifier Protection High Temp and High VSWR (auto)</p> <p>Transmitter Current Drain < 11 Amps (8.6 Amps typical)</p> <p>Transmit Bandwidth Full band</p> <p>Output Impedance - ohms 50 ohms nominal, Type "N" (F)</p> <p>Frequency Stability - ppm ± 2.5 below 400 MHz (± 1.0 optional) ± 1.0 above 400 MHz</p> <p>Spurious and Harmonic < -90 dBc</p> <p>Carrier Attack Time 4 ms typical (with VCO "on") 20 ms typical (with VCO "off")</p> <p>Hum and Noise</p> <table border="0"> <tr> <td>5 kHz</td> <td>-50 dB minimum</td> </tr> <tr> <td>2.5 kHz</td> <td>-44 dB minimum</td> </tr> </table> <p>Audio Response +1 to -3 dB (Per TIA) Pre-Emphasis Curve</p> <p>Audio Distortion ≤ 2% 1000 Hz @ 60% RSD</p> <p>Audio Input 600 Ohms unbalanced (+6 to -15 dBm)</p> <p>Audio (Line) Input Sensitivity +10 dBm to -10 dBm variable</p> <p>Audio Input Response 300 Hz to 3.0 kHz (with High Pass/ Low Pass)</p> <p>Audio Input Conditioning HighPass (enable/disable) Pre-Emphasis (enable/disable) Compression (enable/disable) (Internal Jumpers)</p> <p>Deviation Limiting ±5 kHz or ±2.5 kHz maximum system deviation (programmable)</p> <p>TX-DC Input Freq. Response DC to 3.4 kHz</p>		5 kHz	-50 dB minimum	2.5 kHz	-44 dB minimum	<p>FCC TYPE ACCEPTANCE</p> <table border="0"> <thead> <tr> <th>FCC Part</th> <th>Band</th> <th>FCC ID</th> <th>Emissions</th> </tr> </thead> <tbody> <tr> <td>22, 74, 90, 90.210</td> <td>VHF</td> <td>ARUSRV50B</td> <td>16K0F3E, 16K0F9W, 11K0F3E, 11K0F9W</td> </tr> <tr> <td>90, 90.210</td> <td>UHF</td> <td>ARUSRU50ABC</td> <td>16K0F3E, 16K0F9W, 11K0F3E, 11K0F9W</td> </tr> <tr> <td>22,90</td> <td>800 MHz</td> <td>ARUSRE35AB</td> <td>16K0F3E, 14K8F2D,</td> </tr> <tr> <td></td> <td>LB</td> <td>Export and Federal Government only</td> <td>14K8F1D</td> </tr> </tbody> </table>		FCC Part	Band	FCC ID	Emissions	22, 74, 90, 90.210	VHF	ARUSRV50B	16K0F3E, 16K0F9W, 11K0F3E, 11K0F9W	90, 90.210	UHF	ARUSRU50ABC	16K0F3E, 16K0F9W, 11K0F3E, 11K0F9W	22,90	800 MHz	ARUSRE35AB	16K0F3E, 14K8F2D,		LB	Export and Federal Government only	14K8F1D
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		<p>Specifications subject to change without notice. Measurements made in accordance with applicable EIA standards. © 1999 RELM Wireless Corporation</p> <div style="text-align: center;">  <p>RELM COMMUNICATIONS</p> </div> <p style="text-align: center;">A DIVISION OF RELM WIRELESS CORPORATION 7505 TECHNOLOGY DRIVE • WEST MELBOURNE, FL 32904 800-648-0947 • (407) 984-1414 • Fax (407) 984-0434 www.relm.com</p>																									