**SR-20C Technical Specifications**

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| **GENERAL** |  |
|  |  |
| **Control Operation** | Microprocessor |
| **Mode of Operation** | Full Duplex |
| **Number of Channels** | 1 , 2, 8 & 16, synthesized |
| **Frequency Range** | 30-50, 136-174 and 403-520 MHz |
| **TX/RX Separation** | VHF4.5 MHz min. |
|  | UHF 3/5/10 MHz |
| **Operating Voltage** | 13.8, Optional 24/48 Volt DC |
| **Max. Current Drain** | < 0.5 A Standby |
|  | < 2.8 A Off-Hook at 2 watts |
|  | < 4.8 A Off-Hook at 10 watts |
|  | < 7.3 A Off-Hook at 30 watts |
| **Antenna Impedance** | 50 ohms |
| **Antenna Connection** | N-Type |
| **Shock/Vibration** | Mil-Std C, D & E Tested RF Modules |
|  | Accelerated Life Tested (ALT) RF Modules |
|  |  |
| **CENTRAL PROCESSING INTERFACE UNIT (CPIU) C.O.** | |
|  | |
| **Control Operation** | System Microprocessor Control |
|  | for all Signaling and Monitoring. |
| **Standard Line Interface** | 2 Wire, Ring & Tip, 4 Wire E&M |
| **Connection Type** | RJ-11, RJ-14 W/E&M Signaling |
|  | 6 Wire with Separate E&M Signaling Connection |
| **Signaling to Telco** | DTMF, Pulse Dial (10-20 PPS) Programmable |
| **Hybrid Return Loss** | Greater than 55 dB |
| **Audio Impedance** | 600 ohms |
|  |  |
| **CPIU SUBSCRIBER TERMINAL** |  |
|  |  |
| **Control Operation** | System Microprocessor Control for all |
|  | Signaling and Monitoring |
| **Loop Voltage to Telephone Set** | -48 VDC (-24 VDC Optional) |
| **Loop Resistance** | 600-1800 ohms Self Adjusting |
| **Signaling** | DTMF |
| **Connection Type** | RJ-11C Jack |
| **Hybrid Return Loss** | Greater than 55dB |
|  |  |

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| **RECEIVER** |  | |  | |
|  | **VHF** | | **UHF** | |
| **Channel Spacing:** | **12.5 kHz** | **20/25/30 kHz** | **12.5 kHz** | **20/25 kHz** |
| **Sensitivity** |  |  |  |  |
| EIA: 12 dB | .35 µV | .30 µV | .35 µV | .30 µV |
| CEPT 84:29 dB | .45 µV | .40 µV | .45 µV | .40 µV |
| **Selectivity** |  |  |  |  |
| EIA: | -70 dB | -80 dB | -65 dB | -75 dB |
| CEPT 84: | -70 dB | -80 dB | -65 dB | -75 dB |
| **Intermodulation**\* |  |  |  |  |
| EIA: | -70 dB | -78 dB | -65 dB | -75 dB |
| CEPT 84: | -73 dB | -73 dB | -70 dB | -70 dB |
| **Frequency Stability** |  |  |  |  |
| (-30° C to +50° C) | ±.00025% | | | |
| **Spur Rejection** |  |  |  |  |
| EIA: |  | -80 dB |  | -75 dB |
| CEPT 84: |  | -75 dB |  | -70 dB |
| **Image Rejection** |  |  |  |  |
| EIA |  | -80 dB |  | -75 dB |
| CEPT 84 |  | -80 dB |  | -75 dB |
| **Input Impedance** | 50 ‡ | | | |
| \*Local mode provides an additional 10 dB protection against wideband interference. | | | | |
| **TRANSMITTER** |  | |  | |
|  | **VHF** | | **UHF** | |
| **Frequency Stability** |  |  |  |  |
| (-30° C to +50° C): | ±.00025% | | | |
| **Spurs/Harmonics** |  |  |  |  |
| 1-10W: | -35 dBm (.25 µW) | | | |
| 25-40/45W: | -13 dBm (.50 µW) | | | |
| **Audio Response:** | +1/-3 dB (From a 6 dB/Oct. Pre-Emphasis) | | | |
|  | 300 to 3000 Hz, 2550 Hz @ 12.5 kHz | | | |
| **Audio Distortion:** | <3% EIA | | | |
| **FCC Modulation** |  |  |  |  |
| @ 20/25/30 kHz: | 16K0F1D, 16K0F2D, 16K0F3E | | | |
| @ 12.5 kHz: | 11K0F1D, 11K0F2D, 11K0F3E | | | |
| **Output Impedance:** | 50 ‡ | | | |
| **Modulation Sensitivity:** | 80 mV for 60% max. deviation at 1000 Hz | | | |
| **Channel Spacing:** | **20/25/30 kHz** | **12.5 kHz** | **20/25 kHz** | **12.5 kHz** |
| FM Noise EIA: | 45 dB | 40 dB | 40 dB | 35 dB |
| CEPT 84: | 55 dB | 50 dB | 50 dB | 45 dB |
|  |  |  |  |  |

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| **SERVICE CONDITIONS** |  |
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| **Ambient Temperature** | -30° C to +60° C |
| **Relative Humidity** | 5 to 95% at -30° C to +60° C |
| **Duty Cycle** | Continuous, Unattended at any RF power setting |
|  |  |
| **REGULATIONS** |  |
|  |  |
| **FCC Compliance Parts** | 15, 22, 74, 90, 94, and 95A |
| **DOC Compliance** | RSS 119, Issue 3 |
|  |  |
| **MECHANICAL CHARACTERISTICS** |  |
|  |  |
| **WALL MOUNT ENCLOSURE:** |  |
| **Base Station** | 12.0″H x 10.0″W x 7.0″ D |
|  | 30.5 cm x 25.4 cm x 17.8 cm |
|  | 17 lbs., 7.7 kg |
| **Subscriber Terminal** | Same as Base Station |
| **OUTDOOR ENCLOSURE:** |  |
| **Base or Subscriber Terminal** | 14.0″H x 12.0″W x 8.0″D |
|  | 35.5 cm x 30.5 cm x 20.3 cm |
|  | 23 lbs., 10.5 kg |
| **19″ RACK MOUNT ENCLOSURE:** |  |
| **Base or Subscriber Terminal** | 8.5″H x 17.0″W x 9.0″D |
|  | 21.6 cm x 43.2 cm x 22.85 cm |
|  | 18 lbs., 8.1kg |

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