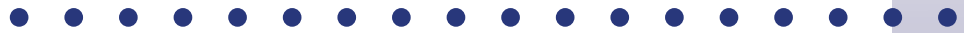




Model 20981 UHF Radio Modem



- Frequency Range 450–470 MHz
- Programmable Output Power 1–3 W
- 2 Channels
- Channel Width 12.5 kHz

OVERVIEW

The Model 20981 UHF Data Radio is an integrated modem and radio that provides digital data transmission at data rates of 9600 bps in a 12.5 kHz channel over a frequency range of 450–470 MHz. The user data interface is a serial port through a 15-pin D connector, and is configured for RS-232 signal levels. The Data Radio comes in a small, compact package that is easy to integrate into new systems or retrofit into existing systems.

LED Indicators

Transmit and receive LEDs provide the operational status of the Data Radio.

Antenna

The antenna interface to the Data Radio is through a standard 50 Ω female BNC connector. A variety of antennas can be used.



SPECIFICATIONS

Parameter	Specification
Frequency Range	450–470 MHz
Channel Width	12.5 kHz
Serial Output	RS-232
Data Rate	9600 bps
Modulation	4FSK
Channels	2
Operating Bandwidth	20 MHz
Synthesizer Step Size	5.0/6.25 kHz
Emissions Bandwidth	8.0 kHz
Frequency Stability	±1.0 ppm (-30°C to +60°C) ±1.5 ppm (-30°C to +75°C)
Transmitter	
RF Output Power	1–3 W
RF Load Impedance	50 Ω
PTT Attack Time	<10 ms
Spurious and Harmonics	<-25 dBm
Current Drain	1.1 A (max.) @ 1 W 1.6 A (max.) @ 2 W
Receiver	
Sensitivity	0.30 µV (max.) @ 10-3 BER
Adjacent Channel Selectivity	>60 dB
Spurious and Image Rejection	>70 dB
IMD Rejection	>67 dB
Squelch Attack Time	<15 ms
Receive Current Drain	<120 mA
Environmental	
Operating Temperature	-35°C to +60°C
Relative Humidity	0–95% noncondensing
Power and Mechanical	
Supply Voltage	11–16 VDC, up to 3 A in Transmit mode
RF Connector	BNC
Power/Data Connector	15-pin subminiature D-type
Regulatory	
Approvals	FCC Identifier AIERIT39-46006 Industry Canada Identifier 1084A-RIT394

ORDERING INFORMATION

Part Number	Description
20981	UHF Data Radio
M488306-01	AWOS 3000 CDP Installation Kit
M488679-00	DCP Installation Kit
M489171-00	1 dB 50 W BNC Attenuator
M489125-00	Yagi Antenna
M489126-00	Omni Antenna
M491361	Antenna Cable 15 m (50 ft)

DIMENSIONS & WEIGHT

Dimensions	91 mm L × 58 mm W × 25 mm H (3.6"L × 2.3"W × 1.0"H)
Weight	0.17 kg (6 oz)



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