



# MIDLAND<sup>®</sup>

## SD-225 SERIES DATA RADIO



- 1 OR 5 WATTS TRANSMIT POWER, VHF & UHF
- UP TO 16 CHANNELS
- DB 9-PIN INTERFACE CONNECTOR
- OPTIONAL AFSK / 1200 BAUD MODEM
- PROGRAMMABLE CTCSS / DCS CODES PER CHANNEL
- LED STATUS INDICATOR
- ROHS (RESTRICTION OF HAZARDOUS SUBSTANCE) COMPLIANT
- PROGRAMMABLE 12.5 / 25 KHZ BY CHANNEL
- TRANSMIT TIME-OUT TIMER



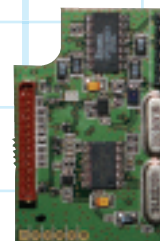
### COMPATIBLE OPTION BOARDS

#### Specifications

#### VHF Model SD-225V

#### UHF Model SD-225U1\*/SD-225U2

Frequency Range	148 - 174 MHz	400 - 440 MHz* / 440 - 480 MHz
Channels	1 of 16, dip switch selectable	
Channel Spacing (wide/narrow)	30, 25 / 15, 12.5 kHz	25 / 12.5 kHz
PLL Step	5.0, 6.25 kHz	
Channel Spread	26 MHz	40 MHz
Antenna Impedance	50 Ω	
Operating Voltage	9V DC to 18 DC, 12V Nominal	
Frequency Stability	±5.0 PPM	±2.5 PPM
Operating Temperature	-22°F to +140°F (-30°C to +60°C)	
Dimensions (H x W x D)	4-5/8" x 2-7/16" x 1-13/16" (117 x 62 x 30 mm)	
Weight	7.7 oz. (218 gm)	
FCC Identifier	MMASD225V2	MMASD225U2/U1
FCC Compliance	Parts: 22, 74, 90, 210	
Industry Canada Certification Number	3690A-195332	3690A-195333A
Current Consumption	Standby (muted) <65 mA	
	Transmit 5 watts <2.0 A	
	Transmit 1 watts <1.0 A	
	Receiver <80 mA	
TX to RX / RX to TX Attack Time	<15 ms	
RSSI Squelch Attack Time	<5 ms	
Data Rate	9600 Baud Rate with TX Limiter	



**AFSK1200**  
4800/9600 BAUD MODEM  
ACC-512

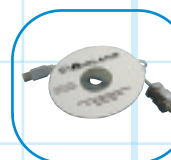
ACCEPTS LOW SPEED DATA TO PROVIDE MONITORING AND CONTROL OF EXTERNAL DEVICES.  
4800 FOR 12.5 KHZ CHANNEL SPACING AND 9600 FOR 25 KHZ CHANNEL SPACING



6" VHF ANTENNA,  
148-174 MHz,  
BNC CONNECTOR  
(CA-1506U) UNCU



6" UHF ANTENNA,  
440-470 MHz,  
BNC CONNECTOR  
(CA-4506B)



PC PROGRAMMING KIT:  
SOFTWARE & CABLE  
WINDOWS® 95  
OR LATER  
(ACC-917 CD, SOFTWARE  
/ ACC-2050, CABLE)

#### Receiver Specifications

Measurement per ANSI / TIA / EIA-603

#### VHF

#### UHF

Sensitivity RX (12 dB SINAD)	-118 dBm(0.28uV) @ nominal condition	-117 dBm(0.32uV) @ nominal condition
Sensitivity (Data SINAD)	-114 dBm @ nominal condition	-114 dBm @ nominal condition
Selectivity (wide/narrow)	73 dB / 65 dB	
Intermodulation	65 dB	
Spurious Rejection	70 dB	
RX Hum & Noise 25/12.5 kHz	40 dB	
Squelch Opening Range	RF Level for 6 to 14 dB SINAD	
Squelch Delay Time	5 ms Min, 20 ms Max	
Audio Output (method @ <10% THD Level)	2.5V @ 600 Ω	

#### Transmitter Specifications

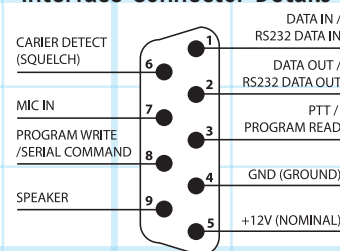
Measurement per ANSI / TIA / EIA-603

#### VHF

#### UHF

RF Power Output High	5 Watts	
RF Power Output Low	1 Watt	
Spurious and Harmonic Emissions	60 dB	
Modulation	11K0F3E, 16K0F3E, 19K6F3D	
FM Hum and Noise	25 kHz 40 dB/12.5 kHz 36 dB	
Modulation Sensitivity	100 mV RMS @ 60% peak dev.	
Frequency Error	±5.0 ppm	±3.0 ppm
Frequency Deviation	25 kHz Peak ±2.5	12.5 kHz Peak ±5.0
Adjacent Channel Power	25 kHz Channel Spacing 70 dB @ nominal condition	
	12.5 kHz Channel Spacing 60 dB @ nominal condition	

#### Interface Connector Details



FOR MORE INFORMATION, CONTACT:

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\*THIS DEVICE HAS NOT BEEN APPROVED BY THE FEDERAL COMMUNICATIONS COMMISSION. THIS DEVICE IS NOT, AND MAY NOT BE, OFFERED FOR SALE OR LEASE, OR SOLD OR LEASED UNTIL THE APPROVAL OF THE FCC HAS BEEN OBTAINED.

SD-225 SERIES DATA RADIO FEATURES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.