

SD-171EX 5/1W VHF (146-174 MHz)

SD-174EX 5/1W UHF (450-490 MHz)



- 5/1 Watt
- LED Status Indicator
- 16 Channels (Dip Switch Select)
- 2-Tone Decode
- DE-9 Pin Male Connector
- TX Time Out Timer
- 12.5/25 kHz Channel Spacing
- Carrier Detect
- Busy Channel Lockout
- CTCSS/DCS Encode/Decode
- POCSAG Protocol Optional
- Squelch - Software Aligned

### Applications

Water/Waste Treatment Plants  
Oil and Gas Field SCADA  
Security/Alarm Systems  
Gate Systems  
Remote Controls  
Sign Control  
Automatic Vehicle Location  
Murphy/Kill Switches  
Weather Monitoring  
Irrigation Systems  
Emergency Call Boxes  
Low Power Repeaters

**The Maxon SD-170EX Series** of radios are durable, reliable and designed to meet the needs for a variety of wireless applications in VHF or UHF frequencies.

The modules incorporate the most requested mechanical footprint, DE-9 male connector, and BNC antenna connection. Adjustable transmit power settings provides the power needed on any job and the tri-color LED indicator gives instant on-sight status of the radios operation. The die cast aluminum cabinet/lid provides resistance to RF interference; and gives exceptional environmental durability in the most extreme conditions. The SD-170EX can also be configured with POCSAG for paging applications.

Whether implementing a new system or installing into an existing system, the Maxon family of data telemetry radios have been the choice of OEM and end-users worldwide for over 35 years.

## SPECIFICATIONS

### GENERAL

|                       |  |
|-----------------------|--|
| SD-171EX              | 146-174 MHz  |
| SD-174EX              | 450-490 MHz  |
| Channel Spacing       | 12.5/25 kHz  |
| PLL Channel Step      | 5, 6.25 kHz  |
| Power Requirement     | 9-18 V DC, 12V nominal                                 |
| Current Drain         | Tx Hi: 2.0, Tx Lo: 1A, Stdy 65mA                       |
| Operating Temperature | -22° to 140° F (-30° to 60° C)                         |
| Dimensions (L/W/H)    | 4.6 x 2.4 x 1.4" (117x62x35 mm)                        |
| Weight                | 9.4 oz. (267 g.)                                       |
| Lock Time             | <10ms  |
| LED Status            | Green - Receive/Decode<br>Red - Transmit Yellow - Busy |
| TX Duty Cycle         | 35% @ Temp Range Listed                                |

### TRANSMITTER

|                        |  |
|------------------------|--|
| Output Power           | 5/1 Watt Programmable  |
| FM Hum and Noise       | 40dB (12.5 kHz), 40dB (25 kHz)   |
| Modulation Sensitivity | 100mV RMS (60% peak dev)   |
| Spurious Emissions     | -36dBm   |
| Frequency Deviation    | ±2.5, Min. ±1.9 kHz (12.5 kHz)<br>±5.0, Min. ±3.8 kHz (25 kHz)             |
| Adj. Channel Power     | 70dB (25 kHz), 60dB (12.5 kHz)   |
| Audio Response         | +1, -3dB from 6dB per octave pre-emphasis and characteristic 300 ~ 3000 Hz |

### RECEIVER

|                     |  |
|---------------------|--|
| Sensitivity         | .30μV (12.5 kHz), 0.28μV (25 kHz)                        |
| Selectivity         | 65dB (12.5 kHz), 70dB (25 kHz)                           |
| Intermodulation     | -70dB  |
| Spurious Emissions  | -57dB (9kHz-1GHz), -47dB (1GHz-4GHz)                     |
| RX Hum/Noise        | -40dB (12.5 kHz), 40dB (25 kHz)                          |
| Spurious/Harmonic   | 65dB   |
| Response Time       | <16ms  |
| Squelch Attack Time | <20/40 ms (RSSI/Analog)<br><10/30ms (RSSI/Analog), ±20dB |
| Squelch Decay Time  | 5 ms Min., 20 ms Max                                     |
| Audio Output Power  | 0.5 Watt   |

### PACKAGE INCLUDES:

Radio Only

Specifications are subject to change without notice

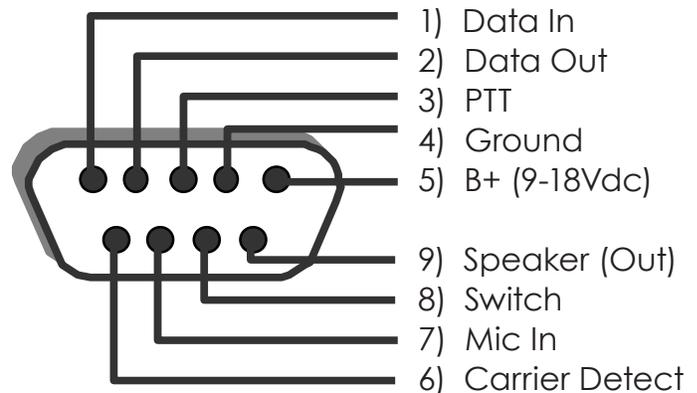
## ACCESSORIES



### ACCESSORY OPTIONS

BNC 6" Antenna VHF/UHF  
PC Programming Software and Cable (USB)  
Extender Board for Service and Alignment  
Heat Sink

### DE-9 Pin Male Connector



| Approvals | FCC        | Industry Canada |
|-----------|------------|-----------------|
| SD-171EX  | RXUSD-171E | 153B-SD-171E    |
| SD-174EX  | RXUSD-174E | 153B-SD-174E    |

RoHS  
2002/95/EC



Manufactured to ISO-9002:2000  
quality standard.

NOTE: Some features indicated by specifications listed are prohibited by FCC rule and are not available on models sold in the U.S. or its territories.

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