

## SD-125EL Series - Professional Two-Way Radio

Maxon's RF Link modules allow frequency signals to be exchanged for the reliable control and monitoring of remote devices.

Adding the expansion lid to Maxon's SD-125EL RF link modules provides the benefit of installing CTCSS modules, modem boards, or other option boards. Take a look and see how they can extend your communication possibilities installing the (optional) Maxon CTCSS Encoder / Decoder (SD-010) for the SD-125E Series increases privacy during audio applications and operates on all EIA standard CTCSS tones.

Applications: Water/waste treatment plants • Oil & Gas field SCADA • Security/Alarm systems • Gate ID Tag systems • Remote controls • Commercial Sign Control • Automatic Vehicle Location • Kill Switches • Weather monitoring • Irrigation systems • Emergency Call boxes • Low power repeaters.



### SD-125EL Features

- LED Status Indicator
- 1 VHF (V2) and 3 UHF (U1\*, U2 & U3\*) Bands Available
- 16 Channels (Dip Switch select)
- 5/1 Watt Tx Power Out
- 12.5/25 KHz Channel Bandwidth
- Tx Time Out Timer

\* Contact RFI/Maxon for availability



Vehicle Tracking



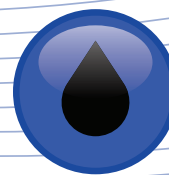
Security Systems



Low Power Repeaters



Weather Monitoring



SCADA



Irrigation Systems

# Frequency Bands

SD-125EL-U1 (400-430MHz) SD-125E V2 (148-174MHz)

SD-125EL-U2 (450-470MHz) SD-125E U3 (470-490MHz)

## Specifications

- **Channel Bandwidth** 12.5/25kHz
- **PLL Channel Step** 2.5kHz, 5kHz, 6.25kHz
- **Power requirement** 9-18 V DC, 12V Nominal
- **Current Drain** Tx Hi: 2A, Tx Lo: 1A, Stdy 65mA
- **Temperature Range** -30° to 60° C
- **Weight** 267g
- **Lock time** <10ms
- **LED Status** Yellow - Busy  
Green - Receive/Decode  
Red - Transmit
- **TX Time out timer** 10 - 200 seconds
- **Carrier Detect**
- **Busy Channel Lock out**
- **BNC Female Antenna Connector**
- **Squelch - Software aligned**
- **Serial Baud Rate** 1200

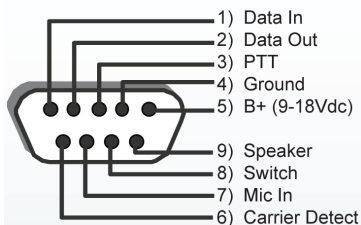
## Dimensions

- 117 x 63 x 35mm

## Approvals

- IC • FCC • RCM

### DE9 Male Connector



## Transmitter

- **Output Power** VHF/UHF 5/1 Watt
- **FM Hum & Noise** >40dB (12.5kHz)  
>40dB (25kHz)
- **Modulation Sensitivity** 100mV RMS @ 60% peak dev
- **Spurious Emissions** <-57dBm
- **Frequency Deviation** Peak±2.5, min.±1.9kHz(12.5kHz)  
Peak±5.0, min.±3.8kHz (25kHz)
- **Adj Channel Power** <70dBc(25kHz)  
<60dBc (12.5kHz)
- **Audio Response** Within +1/-3dB of 6dB octave pre emphasis characteristics from 300~30000Hz

## Receiver

- **Sensitivity** 0.30µV (12.5 kHz),  
0.28µV (25 kHz)
- **Selectivity** >60dB (12.5 kHz),  
>70dB (25 kHz)
- **Intermodulation** >65dB
- **Spurious Emissions** <-57dBm (9kHz - 1GHz),  
<-47dBm (1GHz - 4GHz)
- **Rx Hum and Noise** <40dB (12.5 kHz),  
<40dB (25 kHz)
- **Receiver Response Time** <16 ms
- **Squelch Attack Time**  
RF Level @ Threshold < 40ms  
RF Level @ Threshold +20dB < 30ms
- **Squelch Decay Time** 5 ms Min., 20 ms Max.
- **Audio Output Power** 0.5 Watts



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