

maxon®

MAKE IT YOUR BUSINESS



Product Catalog

Handhelds

TJ-3100V 2W VHF (140-174 MHz)

TJ-3400U 2W UHF (440-470 MHz)

The **TJ-3000 Series** are durable, lightweight, and easy to use. These versatile radios are pre-programmed to the most common commercial frequencies to provide efficient operation for uses in Construction, Education, Manufacturing, Hospitality, Property Management, and many other applications.



Compatible with other Job Site Radios.
TJ-3100V Offers 27 Selectable VHF Frequencies.
TJ-3400U Offers 89 Selectable UHF Frequencies.

Power Output

Set to 2 Watt output, the max power allowed for many job site radio frequencies.

User Control and Clear Display

LCD backlit display makes for easier viewing.

Channels & Privacy Codes

89 Selectable UHF Frequencies -
157 User selectable tone codes
(53 CTCSS & 104 DCS.)

Robust Audio

1 Watt speaker output.

Rechargeable Li-Ion Battery

Equipped with long life 1800 mAh battery and Rapid Rate Smart Charger.

Programmable

Fully programmable to existing simplex channels, repeater systems, or independent FCC license frequencies.

Durable Construction

Manufactured with tough polycarbonate cabinet. Meets MIL-STD-810F & IP-54.

Weather Channels

Includes the NOAA Weather Channels for instant weather monitoring.

Weather Channels

1	162.550
2	162.400
3	162.475
4	162.425
5	162.450
6	162.500
7	162.525



SPECIFICATIONS

GENERAL

TJ-3100V	140-174 MHz
TJ-3400U	440-470 MHz
Operating Voltage	3.7 V DC
Operating Temperature	-22° to 140° F (-30° to 60° C)
Frequency Stability	± 2.5 PPM
Dimensions (H/W/D)	3.9 x 2 x 1" (99x51x25 mm)
Channel Spacing	12.5 kHz per channel
PLL Stepping	2.5/6.25 kHz
Weight (W/ Battery)	5.3 oz. (151 g.)
Battery Life (Hours)	14 hr*
Battery Drain mAh	Tx 1200, Rx 300, Stby 60
Battery Capacity	1800 mAh Li-Ion
Charge Time Estimate	2-3 Hours
	*90/5/5 duty cycle with battery save

TRANSMITTER

Output Power	2 Watt UHF/VHF
Spurious and Harmonic	60dB
FM Hum and Noise	40dB (12.5 kHz), 45dB (25 kHz)
Audio Distortion	5% max w/ 1kHz Modulation
Audio Response	+1 -3dB from 6dB per octave pre-emphasis and characteristic 300 - 3000 Hz
Output Impedance	50 ohms

RECEIVER

Sensitivity	.28uV 12dB SINAD
Squelch Sensitivity	.25uV 12dB SINAD
Selectivity	60dB
FM Hum and Noise	40dB
Audio Output Power	1 Watt across 8-ohm load
Input Impedance	50 Ohms
Audio Distortion	< 5% at rated output
Audio Response	+1 -3dB from 6dB per octave pre-emphasis and characteristic 300 - 3000 Hz

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.

Specifications are subject to change without notice.

ACCESSORIES



Charger Options

Single Slot Rapid Rate Desktop Charger
Six Unit Multi Charger
Single Slot Vehicular Charger
1800 mAh Li-Ion Batteries



Speaker Mic Options

Standard Speaker Microphone
Heavy Duty Speaker Microphone
Heavy Duty Speaker Microphone w/Vol Control



Ear Piece Options

"D" Style Earhook Speaker w/Lapel Mic/PTT
"C" Style Earhook Speaker w/Lapel Mic/PTT
Clear Earbud Speaker w/Lapel Mic/PTT



Other Options

Nylon Carrying Case
Leather Carrying Case w/Belt Loop/Swivel
Programming Software and Cable (USB)
UHF "Stubby" Antenna

PACKAGE INCLUDES:

Radio, 1800 mAh Li-Ion battery, rapid rate desktop charger, antenna, belt clip and user manual.

Approvals	FCC	Industry Canada
TJ-3100V	099TJ-3100	9680A-TJ3100V
TJ-3400U	099TJ-3400	9680A-TJ3400U



Manufactured to ISO-9002:2000 quality standard.

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TM-8102 50W VHF (138-174 MHz)

TM-8402A 40W UHF (400-470 MHz)

TM-8402B 40W UHF (450-520 MHz)

The TM-8000 Series mobiles provide affordability and durability for your in-vehicle or dispatch applications. With crisp, continuous and high quality communications, you can have real time contact with drivers to ensure that your business is running efficiently. In addition, Maxon's mobile radios provide a wide range of voice and data features and the capability of adding a Bluetooth mobile dongle kit for extended out-of-vehicle range.



- 512 Channels, Up to 32 Groups (Dynamic)
- Alpha Numeric Display (10 Characters)
- 12.5/15/25 kHz Channel Spacing
- User Selectable Squelch Control
- Compandered Audio
- CTCSS/DCS
- DTMF Encode/Decode, DTMF ANI
- 2 Tone Decode and 5 Tone Encode/Decode
- Voice Inversion Scrambler
- Normal and Priority Scan Options
- User Adjustable Power, 40W (UHF) 50W (VHF)
- Remote Stun and Revive
- Four Programmable Function Buttons
- DE-15 Data Connector
- PA Function, External Speaker Jack
- Meets Mil-Std 810F



SPECIFICATIONS

GENERAL

TM-8102	138-174 MHz
TM-8402A	400-470 MHz
TM-8402B	450-520 MHz
Channel Spacing	12.5/15 kHz (U.S. Only) 12.5/25 KHz (Outside U.S.)
Dimensions (H/W/D)	1.75 x 6.5 x 6.75" (45x165x171.5 mm)
Weight	38.9 oz. (1.1 kg.)
Operating Voltage	13.8 V DC
PLL Channel Step	2.5/6.25 kHz
Frequency Stability	± 1.5 PPM (1.1 Kg to 140°F)
Current Drain	50 W Tx-11A, 25 W Tx-6.5A Rx @ Max Audio 800 mA Standby 300mA
Operating Temperature	-22° to 140° F (-30° to 60° C)
External Audio Jack	3.5mm 4 Watt/4 Ω

TRANSMITTER

Output Power	VHF 50 Watt, UHF 40 Watt
Spurious and Harmonic	70dB
FM Hum and Noise	40dB (12.5 kHz), 45dB (25 kHz)
Output Impedance	50 ohms
Audio Distortion	Less than 5% at rated output
Audio Response	+1, -3dB from 6dB per octave pre-emphasis and characteristic 300 ~ 3000 Hz

RECEIVER

Sensitivity	.25uV 12dB SINAD
Squelch Sensitivity	.22uV 10dB SINAD
Selectivity	65dB (12.5 kHz), 70dB (25 kHz)
Spurious and Harmonic	75dB
FM Hum and Noise	40dB (12.5 kHz), 45dB (25 kHz)
IF Frequencies	21.4 MHz and 455 kHz
Input Impedance	50 ohms
Audio Output Power	4 Watt
Audio Distortion	3% max w/ 1 kHz modulation
Audio Response	+1, -3dB from 6dB per octave pre-emphasis and characteristic 300 ~ 3000 Hz

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ACCESSORIES



ACCESSORY OPTIONS

Heavy Duty Microphone
Heavy Duty DTMF Microphone
10 Amp Power Supply 110/220V AC
Programming Software and Cable (USB)
Desktop Base Station Microphone
External Speaker
GPS Module
Bluetooth Mobile Dongle TBM-800BTD
XRC-31 Repeater Cable

PACKAGE INCLUDES:

Radio, heavy duty microphone, mounting hardware, and 12V fused power cable.

- 1 RSSI
- 2 Ignition Sense
- 3 External Speaker
- 4 Audio Frequency Out
- 5 External Mic
- 6 Tx Data 1
- 7 Rx Data 1
- 8 External Push To Talk
- 9 Flat (discriminator) Audio
- 10 COR/Carrier Operated Squelch
- 11 External Input
- 12 DC +5.0V
- 13 Horn Relay 1
- 14 Horn Relay 2
- 15 Ground

Data Port Pin Out



DE-15 Female

Approvals	FCC	Industry Canada
TM-8102	099TM-8102	9680A-TM8102
TM-8402A	099TM-8402A	9680A-TM8402A
TM-8402B	099TM-8402B	N/A



Manufactured to ISO-9001:2000 quality standard.

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TMD-1124 45W VHF (136-174 MHz)
TMD-1424 45W UHF (400-470 MHz)

The TMD-1000 Series of radios combine exceptional two-way radio functionality with analog and TDMA digital technology.



- 45 Watt VHF/UHF; 1,024 Channels
- DMR Tier II TDMA/Analog per Channel
- Full Color Display
- Contact List Capacity 512
- Programmable 12.5/25 kHz per Channel
- 2.5/5.0/6.25 kHz PLL Channel Stepping
- CTCSS/DCS
- 2-Tone Encode/Decode/5-Tone Selcall
- QDC-1200, Stun/Kill OTA
- Voice Inversion Scrambler
- Digital Encryption (256 Bit)
- MIL-STD-810F/G Compliant
- Locking Mic Connector
- IP Site Connect
- One Touch Call & Text



Product Features

Ergonomic Design

The industrial design ensures convenient operation and remarkable performance for the most extreme uses.



Reliable Quality

The TMD-1000 is in strict compliance with MIL-STD-810F/G, ensuring outstanding performance even under harsh environments.

Superior Voice

With the combined application of narrowband codec and digital error-correction technologies, the TMD-1000 is capable of ensuring superior voice under noisy environments or at the edge of the coverage area. In addition, voice is optimized with the adoption of AGC technology and a 3 Watt speaker for loud, clear and crisp voice communication.

Higher Spectrum Efficiency and Channel Capacity

Benefiting from the TDMA technology, the TMD-1000 allows twice the channels based on the same spectrum resource. This is beneficial to relieve the increasing shortage of spectrum resources.

Versatile Features

In addition to conventional communications services, the TMD-1000 features rich data services and selectable functions such as text messaging, emergency, radio enable/disable, remote monitor, call alert, radio check, and GPS (optional).

Equipped with performance from
 **TEXAS
INSTRUMENTS**

Functions and Options

Dual Modes (Analog + Digital)

TMD-1000 series can operate in either analog or digital mode. It is compatible with the prevalent analog system ensuring a smooth analog-to-digital transition.

Versatile Voice Calls

TMD-1000 supports various voice call types, including Private Call, Group Call and All Call.

Voice Channel Annunciation

Identify channels through audio notification.

Various Analog Signaling Types

TMD-1000 supports various analog signaling types (CTCSS/DCS, QDC-1200, 2-Tone Encode/Decode and 5-Tone).

Secure Communication

TMD-1000 provides high level digital encryption utilizing advanced 256-bit algorithm and voice inversion for analog.

One Touch Text

TMD-1000 has the ability to send a text message with the press of one button.

Individual Button Function Lock

TMD-1000 has the ability to lock features individually.

IP Connectivity and Roaming

TMD-1000 supports talking with any other terminals as well as smooth roaming within IP connected repeater system.

Industrial Design Features



SPECIFICATIONS

GENERAL

TMD-1124 TMD-1124G	136-174 MHz
TMD-1424, TMD-1424G	400-470 MHz
Channel Capacity	1024
Zone Capacity	64 (Each with a maximum of 16 channels)
Channel Spacing	25/20/12.5 kHz (Analog) 12.5 kHz (Digital)
Operating Voltage	13.6V DC±1.5%
Frequency Stability	± 1.5 PPM
Antenna Impedance	50 Ω
Dimensions (H/W/D)	2.4 x 6.8 x 6.9" (60.6x172x176 mm)
Weight	3.8 lbs. (1700 g.)
LCD Display (TPD-1124/1424)	220x176 Pixels/262,000 Colors/ 2"

TRANSMITTER

RF Output Power	45 Watt VHF/UHF
FM Modulation	11K0F3E (12.5 kHz), 14K0F3E (20 kHz), 16K0F3E (25 kHz)
4FSK Digital Modulation	12.5 kHz Data Only: 7K60FXD, 12.5 kHz Data & Voice: 7K60FXW
Conducted/Radiated Emission	-36dBm<1GHz, -30dBm>1GHz
Modulation Limiting	±2.5 kHz (12.5 kHz), ±4.0 kHz (20 kHz), ±5.0 kHz (25 kHz)
FM Noise	40dB (12.5 kHz), 43dB (20 kHz), 45dB (25 kHz)
Adjacent Channel Power	60dB (12.5 kHz), 70dB (20/25 kHz)
Audio Distortion	<3%
Digital Vocoder Type	AMBE3000 Vocoder Chip with AMBE+2 Voice Compression Algorithm
Digital Protocol	ETSI-TS102 361-1-2-3

RECEIVER

Sensitivity (Analog)	0.22μV (Typical) 12dB SINAD
Sensitivity (Digital)	0.22μV V/BER 5%
Selectivity TIA-603 ETSI	>60dB (12.5 kHz), 70dB (25 kHz)
Intermodulation TIA-603 ETSI	>70dB (12.5/20/25 kHz)
S/N	40dB (12.5 kHz), 43dB (20 kHz), 45dB (25 kHz)
Audio Output Power	Internal (20 Ω) 3W/External (8 Ω) 8W
Audio Distortion	<3%
Audio Response	+1, ~ -3dB
Spurious Emission	<-57dBm

Specifications are subject to change without notice

PACKAGE INCLUDES:

Radio, microphone, power cord and mounting hardware

ACCESSORIES



Heavy Duty Mobile Microphone
14 Amp Power Supply 110V/220V AC
12' or 20' Coax Mag Mount Base
VHF or UHF 1/4 Wave Antenna
Programming Software and Cable (USB)

Rear Accessory Connector Pinout

Pin No.	Pin Name	Description
1	Blank USB Power Supply	+5V Power Supply
2	Ground	
3	GPS_3 Universal Input/Output Port (Chim Ant)	Universal Input/Output Port. Set the function in GPS.
4	SW-B+ sense Power Output	1.2V Power Output. Output Current: 0.5A
5	External Alarm	Programmable Output Pin (The default is External Alarm)
6	Power Ground	
7	Tx Audio Input/External MIC (Audio)	Tail External MIC Signal Input. Audio Channel is available when pins the tail part on the External PTT.
8	Rx Audio Output	Rx Audio Signal Output
9	Speaker	External Speaker Output
10	On-USB	USB Data Cable
11	USB GROUND	Ground Wire
12	GPS_2 Universal Input/Output Port (Monitor)	Universal Input/Output Port. The function is set in GPS and its default is Monitor.
13	ACC_103	Tail Accessory Recognition Port. It forms a Accessory Recognition Status and 1 Default Status with Pin 35.
14	Emergency Sw	When Emergency is available, its pin turns to low level.
15	ACC_103	Tail Accessory Recognition Port. Its definition is as that in the Accessory Recognition Form.
16	PROGRAM_IN_PTT	Programmable Input Pin (The default is PTT, low level is available. It is able to set the function and input the pin in GPS).
17	Audio Ground	
18	Speaker	External Speaker Output
19	On-USB	USB Data Cable
20	GPS_3 Universal Input/Output Port/Serial Port Rx	Universal Input/Output Port
21	Ground	
22	GPS_2 Universal Input/Output Port/Serial Port Tx	Universal Input/Output Port
23	GPS_3 Universal Input/Output Port	Universal Input/Output Port. Set the function in GPS.
24	AUX Audio Out 1	AUX Audio (External Speaker) Output 1
25	AUX Audio Out 2	AUX Audio (External Speaker) Output 2
26	Ign Sense	Ignition Voltage Input Pin

ENVIRONMENTAL

Operating Temperature	-30° C to +60° C
Storage Temperature	-40° C to +85° C
ESD	IEC 61000-4-2/±8KV/±15 KV
U.S. Military Standard	MIL-STD-810F/G
Shock/Vibration	MIL-STD-810F/G

Approvals

FCC

TMD-1124	P6NDM-9800V
TMD-1124G	P6NDM-9800V
TMD-1424	P6NDM-9800U
TMD-1424G	P6NDM-9800U



Manufactured to ISO-9002:2000 quality standard.

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TP-5116 5/2W VHF (136-174 MHz)

TP-5416 4/2W UHF (400-470 MHz)

The TP-5000 Series is designed as a rugged and lightweight radio to deliver clear, reliable communications for your industrial or commercial needs. IP-54 approved and built to MIL-STD 810F Ratings.



- 16 Channels with Optional Voice Annunciation
- 5/2 Watt VHF, 4/2 Watt UHF Power Output
- 12.2/25 kHz Channel Spacing
- CTCSS/DCS
- Voice Scrambler - Inversion
- Comander Function
- 1 Watt Audio Output
- Priority and Conventional Scanning
- Time-Out Timer (TOT)
- 2-Tone Paging Decode
- BCL/BCLO (Busy Channel Lock Out)
- DTMF ANI
- Remote Stun and Revive
- Power Save Mode
- VOX
- 2 Programmable Function Buttons



SPECIFICATIONS

GENERAL

TP-5116	136-174 MHz
TP-5416	400-470 MHz
Operating Voltage	7.5 V DC
Operating Temperature	-22° to 140° F (-30° to 60° C)
Frequency Stability	± 2.5 PPM
Dimensions (H/W/D)	4.42 x 2 x 1.25" (112x56x32 mm)
Channel Spacing	12.5/25 kHz per channel
PLL Stepping	2.5/6.25 kHz
Weight (W/ Battery)	10 oz. (284 g.)
Battery Life (Hours)	15/19 hr*
Battery Capacity	2600 mAh Li-Ion
Charge Time Estimate	3-4 Hours
	*90/5/5 duty cycle with battery save

TRANSMITTER

Output Power	VHF 5/2 Watt, UHF 4/2 Watt
Frequency Stability	±2.5 ppm (-30° to 60° C)
Spurious and Harmonic	-65dB
FM Hum and Noise	40dB (12.5 kHz), 45dB (25 kHz)
Audio Distortion	Less than 5% at rated output
Audio Response	+1, -3dB from 6dB per octave pre-emphasis and characteristic 300 ~ 3000 Hz

RECEIVER

Sensitivity	.282uV 12dB SINAD
Squelch Sensitivity	.25uV 10dB SINAD
Selectivity	60dB (12.5 kHz), 70dB (25 kHz)
Spurious and Harmonic	70dB
Inter-modulation	60dB
FM Hum and Noise	40dB
Audio Output Power	1 Watt across 16-ohm load
Audio Distortion	Less than 5% at rated output
Audio Response	+1, -3dB from 6dB per octave pre-emphasis and characteristic 300 ~ 3000 Hz

Approvals	FCC	Industry Canada
TP-5116	O25PZ-S100	5624A-TP5116
TP-5416	O25PZ-S400	5624A-TP5416



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.

Specifications are subject to change without notice

ACCESSORIES

CHARGER OPTIONS

Dual Slot Rapid Rate Desktop Charger
Six Unit Multi Charger
Single Slot Vehicular Charger
2200 & 2600 mAh Li-Ion Batteries

SPEAKER MIC OPTIONS

Standard Speaker Microphone
Heavy Duty Speaker Microphone
Heavy Duty Speaker Microphone w/ Vol Control

EAR PIECE OPTIONS

"D" Style Earhook Speaker with Lapel Mic/PTT
"C" Style Earhook Speaker with Lapel Mic/PTT
Clear Earbud Speaker with Lapel Mic/PTT

OTHER OPTIONS

Nylon Carrying Case
Leather Carrying Case w/ Belt Loop Swivel
Programming Software and Cable (USB)

PACKAGE INCLUDES:

Radio, 2600 mAh Li-Ion battery, dual slot rapid rate desktop charger, antenna, belt clip and user manual.

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TP-8102 5/2W VHF (136-174 MHz)

TP-8402 4/2W UHF (400-470 MHz)

The TP-8000 Series is Manufactured and approved to withstand total water immersion up to 1 meter for thirty minutes. In addition, the TP-8000 offers 512 channels, voice scrambling, multiple scan modes, and 2-Tone decode. The TP-8000 is a full featured radio that can be configured for almost any application.



- 512 Channels - Dynamic Grouping
- 5/2 Watt VHF, 4/2 Watt UHF Power Output
- 12.5/25 kHz Channel Spacing
- 2.5/6.25 kHz PLL Stepping
- Remote Stun And Revive
- CTCSS/DCS
- 2/5 Selcall and DTMF ANI
- 2 Tone Decode
- 10 Character A/N Display with Function Icons
- Voice Scrambler - Inversion
- 1 Watt Audio Output
- Priority and Conventional Scanning
- TOT/BCL/BCLO
- User Adjustable Squelch (0-9 Level Settings)
- User Selectable Hi/Lo Power
- VOX
- 6 Programmable Buttons with 12 Functions
- IP67; MIL-STD-810F Compliant



SPECIFICATIONS

GENERAL

TP-8102	136-174 MHz
TP-8402	400-470 MHz
Operating Voltage	7.5 V DC
Operating Temperature	-22° to 140° F (-30° to 60° C)
Frequency Stability	± 2.5 PPM
Dimensions (H/W/D)	4.37 x 2 x 1.25" (112x56x32 mm)
Channel Spacing	12.5/25 kHz per channel
PLL Stepping	2.5/6.25 kHz
Weight (W/ Battery)	9.1 oz. (258 g.)
Battery Life (Hours)	15/19 hr*
Battery Capacity	2600 mAh Li-Ion
Charge Time Estimate	2-3 Hours
	*90/5/5 duty cycle with battery save

TRANSMITTER

Output Power	VHF 5/2 Watt, UHF 4/2 Watt
Frequency Stability	± 2.5 ppm (-30° to 60° C)
Spurious and Harmonic	-65dB
FM Hum and Noise	40dB (12.5 kHz), 45dB (25 kHz)
Audio Distortion	5% Maximum
Audio Response	+1, -3dB from 6dB per octave pre-emphasis and characteristic 300 ~ 3000 Hz

RECEIVER

Sensitivity	.282uV 12dB SINAD
Squelch Sensitivity	.25uV 10dB SINAD
Selectivity	60dB (12.5 kHz), 70dB (25 kHz)
Spurious and Harmonic	70dB
Inter-modulation	60dB
FM Hum and Noise	40dB
Audio Output Power	1 Watt across 16-ohm load
Audio Distortion	Less than 5% at rated output
Audio Response	+1, -3dB from 6dB per octave pre-emphasis and characteristic 300 ~ 3000 Hz

Approvals	FCC	Industry Canada
TP-8102	O25PZ-100	5624A-TP8102
TP-8402	O25PZ-400NW	5624A-PZ400C



Manufactured to ISO-9002:2000 quality standard.

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ACCESSORIES



Charger Options

Dual Slot Rapid Rate Desktop Charger
Six Unit Multi Charger
Single Slot Vehicular Charger
2200 & 2600 mAh Li-Ion Batteries



Speaker Mic Options

Standard Speaker Microphone
Heavy Duty Speaker Microphone
Heavy Duty Speaker Microphone w/ Vol Control



Ear Piece Options

"D" Style Earhook Speaker with Lapel Mic/PTT
"C" Style Earhook Speaker with Lapel Mic/PTT
Clear Earbud Speaker with Lapel Mic/PTT



Other Options

Nylon Carrying Case
Leather Carrying Case w/ Belt Loop Swivel
Programming Software and Cable (USB)

PACKAGE INCLUDES:

Radio, 2600 mAh Li-Ion battery, dual slot rapid rate desktop charger, antenna, belt clip and user manual.

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TPD-1116 5/1W VHF (136-174 MHz)
TPD-1416 4/1W UHF (406-470 MHz)

TPD-1124 5/1W VHF (136-174 MHz)
TPD-1424 4/1W UHF (400-470 MHz)

The TPD-1000 Series of radios combine exceptional two-way radio functionality with analog and TDMA digital technology.



- 5/1 Watt (VHF) - 4/1 Watt (UHF) Power Output
- VHF (136-174 MHz) - UHF (400-470/450-520 MHz)
- Contact List Capacity 512 (Display Model Only)
- DMR Tier II TDMA/Analog
- Versatile Voice Calls
- Direct or Repeater Mode
- 12.5/20/25 kHz Channel Spacing
- Various Analog Signaling Types
- DTMF Keypad - Encode/Decode
- Input Frequency Capable
- Multiple Scan Functions
- Individual Button Function Lock
- Voice Annunciation
- Vibrate Standard
- CTCSS/DCS
- QDC-1200. Stun/Kill OTA
- ANI, 2-Tone Encode/Decode/5-Tone Selcall
- IP67 Approved & Meets MIL-STD 810F



TPD-1124/TPD-1424



TPD-1116/TPD-1416



Product Features

Ergonomic Design

The industrial design ensures convenient operation and remarkable performance for the most extreme uses. Units with display and keypad provide the ability to text and visual status.

Increased Operations

Compared to analog operation, the TPD-1000 can obtain up to 40% additional operation time in digital mode. The TPD-1000 is equipped with a standard high capacity 2000mAh Li-Ion battery.

Reliable Quality

The TPD-1000 is strictly compliant with MIL STD-810 C/D/E/F/G and IP67 standards, ensuring outstanding performance even under harsh environments.

Superior Voice

With the combined application of narrowband codec and digital error-correction technologies, the TPD-1000 is capable of ensuring superior voice under noisy environments or at the edge of the coverage area. In addition, voice is optimized with the adoption of AGC technology and a 1.5 Watt speaker for loud, clear, and crisp voice communication.

Higher Spectrum Efficiency and Channel Capacity

Benefiting from the TDMA technology, the TPD-1000 allows twice the channels based on the same spectrum resource. This is beneficial to relieve the increasing shortage of spectrum resources.

Versatile Features

In addition to conventional communications services, the TPD-1000 with display and keypad features rich data services and selectable functions such as text messaging, mixed scan, emergency, radio enable/disable, remote monitor, call alert, radio check, man down (optional), voice recording (optional), etc.



Equipped with performance from

**TEXAS
INSTRUMENTS**

Functions and Options

Dual Modes (Analog + Digital)

TPD-1000 series can operate in either analog or digital mode. It is compatible with the prevalent analog system, ensuring a smooth analog-to-digital transition.

Versatile Voice Calls

TPD-1000 supports various voice call types, including Private Call, Group Call, All Call and Emergency Call.

Vibrate Alert & Voice Channel Annunciation

Vibrate alerts any voice or message under noisy/low-volume conditions. Identify channels through audio notification.

Various Analog Signaling Types

TPD-1000 supports various analog signaling types (CTCSS/DCS, DTMF, QDC-1200, 2-Tone Encode/Decode and 5-Tone).

Secure Communication

TPD-1000 provides high level digital encryption utilizing advanced 256-bit algorithm and voice inversion for analog.

One Touch Text (Display Model Only)

TPD-1000 has the ability to send a text message with the press of one button.

Individual Button Function Lock

TPD-1000 has the ability to lock features individually.

IP Connectivity and Roaming

TPD-1000 supports talking with any other terminals as well as smooth roaming within IP connected repeater system.

Advanced Features (Optional)

TPD-1000 supports optional advanced features including man down, and voice recording.

Industrial Design Features



SPECIFICATIONS

GENERAL

TPD-1116 TPD-1124	136-174 MHz
TPD-1416, TPD-1424	406-470/450-520 MHz
Channel Capacity	16/1024
Zone Capacity	64 (Each with a maximum of 16 channels)
Channel Spacing	25/20/12.5 kHz (Analog) 12.5 kHz (Digital)
Operating Voltage	7.4 V DC
Battery Capacity	2000 mAh Li-Ion
Frequency Stability	± 1.0 PPM
Antenna Impedance	50 Ω
Dimensions (H/W/D)	5.2 x 2.2 x 1.5" (130x55x38 mm)
Weight (W/ Battery)	11.75 oz. (333 g.)
Front Case	Polycarbonate
LCD Display (TPD-1124/1424)	.8 Thin Film Transistor (TFT)
Battery Life (Hours)	Analog: 10.5 Hours, Digital: 14 Hours
	90/5/5 duty cycle

TRANSMITTER

RF Output Power	VHF 5/1 Watt, UHF 4/1 Watt
FM Modulation	11K0F3E (12.5 kHz), 14K0F3E (20 kHz), 16K0F3E (25 kHz)
4FSK Digital Modulation	12.5 kHz Data Only: 7K60FXD, 12.5 kHz Data & Voice: 7K60FXW
Conducted/Radiated Emission	-36dBm<1GHz, -30dBm>1GHz
Modulation Limiting	±2.5 kHz (12.5 kHz), ±4.0 kHz (20 kHz), ±5.0 kHz (25 kHz)
FM Noise	40dB (12.5 kHz), 43dB (20 kHz), 45dB (25 kHz)
Adjacent Channel Power	60dB (12.5 kHz), 70dB (20/25 kHz)
Audio Distortion	<3%
Digital Vocoder Type	AMBE3000 Vocoder Chip with AMBE+2 Voice Compression Algorithm
Digital Protocol	ETSI-TS102 361-1-2-3

RECEIVER

Sensitivity (Analog)	.22μ V (Typical) 112dB SINAD
Sensitivity (Digital)	.22μ V/BER 5%
Selectivity TIA-603 ETSI	>60dB (12.5 kHz), 70dB (25 kHz)
Intermodulation TIA-603 ETSI	>70dB (12.5/20/25 kHz)
S/N	40dB (12.5 kHz), 43dB (20 kHz), 45dB (25 kHz)
Audio Output Power	1.5 Watt
Audio Distortion	<3%
Audio Response	+1, ~ -3dB
Spurious Emission	<-57dBm

ACCESSORIES



Earhook Speaker with Lapel Mic/PTT
 Heavy Duty Speaker Microphone
 Rapid Rate Desktop Charger
 Six Unit Gang Charger
 Nylon Carrying Case
 Leather Carrying Case with Belt Loop Swivel
 Spring Loaded Belt Clip
 Programming Software and Cable (USB)

PACKAGE INCLUDES:

Radio, 2000 mAh Li-Ion battery, desktop charger, antenna, belt clip and user manual

ENVIRONMENTAL

Operating Temperature	-30° C to +60° C
Storage Temperature	-40° C to +85° C
ESD	IEC 61000-4-2/±8KV/±15 KV
U.S. Military Standard	MIL-STD-810 C/D/E/F/G
Dust & Water Protection	IP67 Standard
Shock/Vibration	MIL-STD-810 C/D/E/F/G

Approvals	FCC
TPD-1116	P6NDH-9100V
TPD-1124	P6NDH-9800V
TPD-1416	P6NDH-9100
TPD-1424	P6NDH-9800U



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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TPD-8424 3W UHF (440-470 MHz)

The TPD-8000 Series of radios combine exceptional two-way radio functionality with analog and TDMA digital technology.



- 512 Channels (16 Zones, 32 Ch per Zone)
- 3W Digital, 2W Analog RF Output Power
- 2200 mAh Li-Ion Battery
- 1 Watt Audio Output
- One Touch Text
- USB Charger (Radio Direct or Desktop)
- IP-54 Approved - Meets Mil-Std 810F
- Choice of Numeric or Alphanumeric Display
- Etiquette (Vibrate) Mode
- Direct or Repeater TDMA Tier II Mode
- Stores 10 Messages (Up to 40 Characters Each)
- Voice Recording & Playback
- Remote Stun/Revive
- Encryption (16 Bit) Digital Mode



SLEEK, STYLISH & POWERFUL DIGITAL RADIOS

Maxon's TPD-8000 Series radios are the best choice for any application. The TPD-8000 provides a powerful performance in a compact size. The many features make this multi-functioning device perfect for education, hotel & restaurant, management, or industrial use.



TEXT



Send and receive messages up to 40 characters

CHARGE



Easily charges with USB via radio or desktop charger

LAMP



Built-in LED flashlight to assist in the dark

ONE TOUCH



Send a text message with the simple push of one button

RECORD



Recording capability allows conversations to be recorded for playback

AUDIO



Large speaker provides high quality audio even in noisy situations



Strong And Clear Audio

The TPD-8000 keeps communication clear even in high levels of noise or at the edge of coverage area. Hear a crisp, clear voice from near or far. In a busy restaurant, retail store, or school you'll get a clear message every time.

Durable, All Day

The multifunctional design ensures convenient operation and remarkable performance for a variety of uses. The aluminum metal frame body stands up to tough use while remaining light and compact. The 2200 mAh Li-Ion battery provides use for up to 14 hours*, sure to last for your entire work day.

*Based on a 90-5-5 Duty Cycle (Digital Mode)

Dual Modes (Analog + Digital)

The TPD-8000 can operate in either analog or digital mode. It is compatible with the prevalent analog system, ensuring a smooth analog-to-digital transition. Exclusive reception of analog channel in digital mode.

Compact Design

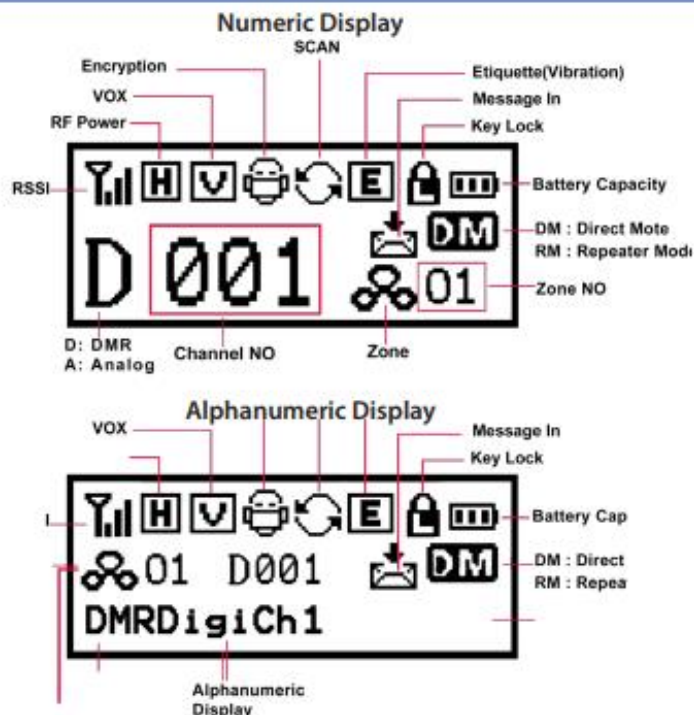
In the stockroom or classroom the small and sturdy design of the TPD-8000 is a comfortable fit. The design of the TPD-8000 will provide the power and audio quality you need all while fitting in the palm of your hand.



Additional Features

- 3 Watts Output Power
- Dual Mode - DMR & Analog
- Vibrate Function
- Multiple Scan Modes
- Encryption
- VOX
- Keypad Lock
- Programmable Key Function
- Remote Stun/Revive
- Die-Cast Aluminum Frame
- Locking Audio Connector

Two Display Options



SPECIFICATIONS

GENERAL

TPD-8424 UHF	440-470 MHz
Channel Capacity	512; 16 Zones, max 32 Ch Per Zone
Digital	DMR Tier II TDMA
Channel Spacing	25/20/12.5 kHz (Analog) 12.5 kHz (Digital) 2 Time Slots of 6.25 Each
Operating Voltage	3.7V
Battery Capacity	2200 mAh Li-Ion
Frequency Stability	± 1.0 PPM (-30° to +60° C)
Antenna Impedance	50 Ω
Dimensions (H/W/D)	3.89 x 2 x .82" (99x51x21 mm)
Weight (W/ Battery)	5.86 oz. (160 g.)
Case/Frame	Polycarbonate/Aluminum Die Cast
LCD Display	3 Lines Mono - Choice of Alphanumeric or Numeric
Battery Life (Hours)	Analog: 10.5 Hours, Digital: 14 Hours 90/5/5 duty cycle

TRANSMITTER

RF Output Power	3 Watt Digital, 2 Watt Analog
FM Modulation	11K0F3E (12.5 kHz), 14K0F3E (20 kHz), 16K0F3E (25 kHz)
4FSK Digital Modulation	12.5 kHz Data Only: 7K60FXD, 12.5 kHz Data & Voice: 7K60FXW
Conducted/Radiated Emission	-36dBm<1GHz, -30dBm>1GHz
Modulation Limiting	±2.5 kHz (12.5 kHz), ±4.0 kHz (20 kHz), ±5.0 kHz (25 kHz)
FM Noise	40dB (12.5 kHz)
Adjacent Channel Power	60dB (12.5 kHz), 70dB (20/25 kHz)
Audio Distortion	3% maximum with 1kHz modulation
Digital Vocoder Type	AMBE3000 Vocoder Chip with AMBE+2 Voice Compression Algorithm
Digital Protocol	ETSI-TS102 361-1-2-3

RECEIVER

Sensitivity (Analog)	.22µ V 12dB SINAD
Sensitivity (Digital)	.22µ V/BER 5%
Selectivity TIA-603 ETSI	>65dB (12.5 kHz), 70dB (20/25 kHz)
Intermodulation TIA-603 ETSI	>70dB (12.5/20/25 kHz)
S/N	40dB (12.5 kHz), 43dB (20 kHz), 45dB (25 kHz)
Audio Output Power	1.0 Watt
Audio Distortion	< 3% at rated output
Audio Response	+1, ~ -3dB From 6dB per octave de-emphasis characteristics
Spurious Emission	70dB

PACKAGE INCLUDES:

Radio, 2200 mAh Li-Ion battery, desktop charger, antenna, belt clip and user manual.

Specifications are subject to change without notice

ACCESSORIES



Charger Options

Desktop Charger with USB Cord
2200 mAh Li-Ion Battery
Charger Connector Links



Speaker Mic Options

Standard Speaker Microphone
Heavy Duty Speaker Microphone



Ear Piece Options

"D" Style Earhook Speaker with Lapel Mic/PTT
"C" Style Earhook Speaker with Lapel Mic/PTT
Clear Earbud Speaker with Lapel Mic/PTT



Other Options

Case Covers - 3 Colors (Black, Blue, Orange)
Molded Belt Clip with Screw
Programming Software and Cable (USB)

ENVIRONMENTAL

Operating Temperature	-22° to 140° F (-30° to 60° C)	
Storage Temperature	-40° to 185° F (-40° to 85° C)	
ESD	IEC 61000-4-2/±8KV/±15 KV	
U.S. Military Standard	MIL-STD-810 C/D/E/F/G	
Dust & Water Protection	IP54 Standard	
Shock/Vibration	MIL-STD-810 C/D/E/F/G	
Approvals	FCC	Industry Canada
TPD-8424	VSOTPD-8424	9680A-TPD-8424



Manufactured to ISO-9002:2000 quality standard.

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TS-2116 2W VHF (136-174 MHz)

TS-2416 2W UHF (400-470 MHz)

The Spartan TS-2000 Series are durable, lightweight, and easy to use. Delivers clear, reliable communications for hotels, restaurants, retail stores, shopping centers, property management and other industrial or commercial needs.



Preprogrammed to operate with other Jobsite Business Radios or fully programmable to existing simplex channels, repeater systems or independent FCC licensed frequencies.

- 16 Channels
- Audio Channel Annunciation
- 2 Watt Power Output
- 12.5/25 kHz Channel Spacing
- CTCSS/DCS
- 700 mW Audio Output
- Time-Out Timer (TOT)
- Power Save Mode
- VOX



SPECIFICATIONS**GENERAL**

TS-2116	136-174 MHz
TS-2416	400-470 MHz
Operating Voltage	3.8 V DC
Operating Temperature	-13° to 131° F (-25° to 55° C)
Frequency Stability	± 2.5 PPM
Dimensions (H/W/D)	4.1 x 2.1 x 1.1" (105x54x30 mm)
Channel Spacing	12.5 kHz per channel
PLL Stepping	2.5/6.25 kHz
Weight (W/ Battery)	5.9 oz. (170 g.)
Battery Life (Hours)	14 hr*
Battery Drain mAh	Tx 1200, Rx 300, Stby 60
Battery Capacity	2000 mAh Li-Ion
Charge Time Estimate	2-3 Hours
	*90/5/5 duty cycle with battery save

TRANSMITTER

Output Power	2 Watt, UHF/VHF
Spurious and Harmonic	-36dB (1GHz), -30dB (1GHz)
FM Hum and Noise	-40dB (12.5 kHz), -45dB (25 kHz)
Audio Distortion	<5%
Adjacent Channel Power	-70db, -60db

RECEIVER

Sensitivity	.18uV / .20uV
Selectivity	65dB / 55dB
FM Hum and Noise	40dB
Audio Output Power	700 mW
Audio Distortion	<5% at rated output
Intermodulation Reject Radio	55dB

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Specifications are subject to change without notice.

ACCESSORIES**Charger Options**

Single Slot Rapid Rate Desktop Charger
Six Unit Multi Charger
2000 mAh Li-Ion Batteries

**Speaker Mic Options**

Standard Speaker Microphone
Heavy Duty Speaker Microphone
Heavy Duty Speaker Microphone w/Vol Control

**Ear Piece & Headset Options**

"D" Style Earhook Speaker w/Lapel Mic/PTT
"C" Style Earhook Speaker w/Lapel Mic/PTT
Clear Earbud Speaker w/Lapel Mic/PTT
Dual Muff Headset
Head Frame w/Boom Mic

**Other Options**

Nylon Carrying Case
Leather Carrying Case w/Belt Loop/Swivel
Programming Software and Cable (USB)

PACKAGE INCLUDES:

Radio, 2000 mAh Li-Ion battery, rapid rate desktop charger, antenna, belt clip and user manual.

Approvals	FCC	Industry Canada
TS-2116	P6N-TH288V	N/A
TS-2416	P6N-TH288U	N/A



Manufactured to ISO-9002:2000 quality standard.

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TS-3116 5/1W VHF (136-174 MHz)

TS-3416 4/1W UHF (400-470 MHz)

The Spartan TS-3000 Series are durable, lightweight, and easy to use. Delivers clear, reliable communications for hotels, restaurants, retail stores, shopping centers, property management and other industrial or commercial needs.



Preprogrammed to operate with other Jobsite Business Radios or fully programmable to existing simplex channels, repeater systems or independent FCC licensed frequencies.

- 16 Channels
- Audio Channel Annunciation
- 5/1 VHF, 4/1 UHF Watt Power Output
- 12.5/25 kHz Channel Spacing
- 2-Pin Audio Connector
- CTCSS/DCS
- 700 mW Audio Output
- Time-Out Timer (TOT)
- Power Save Mode
- VOX



SPECIFICATIONS

GENERAL

TS-3116	136-174 MHz
TS-3416	400-470 MHz
Operating Voltage	7.5 V DC
Operating Temperature	-13° to 131° F (-25° to 55° C)
Frequency Stability	± 2.5 PPM
Dimensions (H/W/D)	4.6 x 2.2 x 1.3" (116x56x34 mm)
Channel Spacing	12.5 kHz per channel
PLL Stepping	2.5/6.25 kHz
Weight (W/ Battery)	7.2 oz. (203 g.)
Battery Life (Hours)	14 hr*
Battery Drain mAh	Tx 1200, Rx 300, Stby 60
Battery Capacity	1500 mAh Li-Ion
Charge Time Estimate	2-3 Hours
	*90/5/5 duty cycle with battery save

TRANSMITTER

Output Power	5/1 W VHF, 4/1 W UHF
Spurious and Harmonic	-36dB (1GHz), -30dB (1GHz)
FM Hum and Noise	-40dB (12.5 kHz), -45dB (25 kHz)
Audio Distortion	<5%
Adjacent Channel Power	-70db, -60db

RECEIVER

Sensitivity	.25uV / .25uV
Selectivity	70dB / 60dB
FM Hum and Noise	40dB
Audio Output Power	700 mW
Audio Distortion	< 5% at rated output
Intermodulation Reject Radio	65dB

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Specifications are subject to change without notice.

ACCESSORIES



Charger Options

Single Slot Rapid Rate Desktop Charger
Six Unit Multi Charger
1500 mAh Li-Ion Batteries



Speaker Mic Options

Standard Speaker Microphone
Heavy Duty Speaker Microphone
Heavy Duty Speaker Microphone w/Vol Control



Ear & Headset Piece Options

"D" Style Earhook Speaker w/Lapel Mic/PTT
"C" Style Earhook Speaker w/Lapel Mic/PTT
Clear Earbud Speaker w/Lapel Mic/PTT
Dual Muff Headset
Head Frame w/Boom Mic



Other Options

Nylon Carrying Case
Leather Carrying Case w/Belt Loop/Swivel
Programming Software and Cable (USB)
UHF "Stubby" Antenna

PACKAGE INCLUDES:

Radio, 1500 mAh Li-Ion battery, rapid rate desktop charger, antenna, belt clip and user manual.

Approvals	FCC	Industry Canada
TS-3116	P6N-TH368V	N/A
TS-3416	P6N-TH368U	N/A



Manufactured to ISO-9002:2000 quality standard.

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TSD-4416 5/1W UHF (410-470 MHz)
TSD-4116 5/1W VHF (136-174 MHz)
TSD-4424 5/1W UHF (410-470 MHz)
TSD-4124 5/1W VHF (136-174 MHz)

The Spartan TSD-4000 Series of radios combine exceptional two-way radio functionality with analog and DMR Tier II TDMA digital technology.



- 512 Channels (16 Channels with 32 Zones)
- 5W RF Output Power VHF & UHF
- 2600 mAh Li-Ion Battery
Battery Life Based on a 90/5/5 Duty Cycle:
23 Hours Digital and 17 Hours Analog
- 1 Watt Audio Output
- Direct or Repeater TDMA Tier II Mode
- Ch. Tri-Mode - DMR, Analog or Mixed
- Smooth Analog-to-Digital Transition
- Remote Stun/Revive
- Encryption AES (128, 192, 256)
- Contact Menu for Individual & Group Calling (Display)
- Voice Recording (Display)
- Lone Worker (Display)
- Call Log (Display)
- Flashlight (Display)
- Remote Monitoring
- CTCSS/DCS, VOX
- 2-Pin Audio Connector
- IP54; MIL-STD-810F/G Compliant



**1 & 2-Year Extended Warranty Available

SPECIFICATIONS

GENERAL

TSD-4116 VHF	136-174 MHz
TSD-4416 UHF	410-470 MHz
TSD-4124 VHF (Display)	136-174 MHz
TSD-4424 UHF (Display)	410-470 MHz
Channel Capacity	512; 16 Ch. w/32 Zones
Digital	DMR Tier II TDMA
Channel Spacing	25/20/12.5 kHz (Analog) 12.5 kHz (Digital) 2 Time Slots of 6.25 Each
Operating Voltage	7.4VDC
Battery Capacity	2600 mAh Li-Ion
Frequency Stability	± 1.0 PPM (-30° to +60° C)
Antenna Impedance	50 Ω
Dimensions (H/W/D)	4.6 x 2.16 x 1.33" (118x55x34 mm)
Weight (w/ Battery)	9.0 oz. (234 g.)
Case/Frame	Polycarbonate/Aluminum Die Cast
Battery Life (Hours)	Analog: 17 Hours, Digital: 23 Hours 90/5/5 duty cycle

TRANSMITTER

RF Output Power	5/1 Watts
FM Modulation	11K0F3E (12.5 kHz), 14K0F3E (20 kHz), 16K0F3E (25 kHz)
4FSK Digital Modulation	12.5 kHz Data Only: 7K60FXD, 12.5 kHz Data & Voice: 7K60FXW
Conducted/Radiated Emission	-36dBm<1GHz, -30dBm>1GHz
Modulation Limiting	±2.5 kHz (12.5 kHz), ±4.0 kHz (20 kHz), ±5.0 kHz (25 kHz)
FM Noise	40dB (12.5 kHz)
Adjacent Channel Power	60dB (12.5 kHz), 70dB (20/25 kHz)
Audio Distortion	3% maximum with 1kHz modulation
Digital Vocoder Type	AMBE3000 Vocoder Chip with AMBE+2 Voice Compression Algorithm
Digital Protocol	ETSI-TS102 361-1-2-3

RECEIVER

Sensitivity (Analog)	0.25µV @ 12dB SINAD
Sensitivity (Digital)	0.22µV/BER 5%
Selectivity TIA-603 ETSI	>65dB (12.5 kHz), 70dB (20/25 kHz)
Intermodulation TIA-603 ETSI	>70dB (12.5/20/25 kHz)
S/N	40dB (12.5 kHz), 43dB (20 kHz), 45dB (25 kHz)
Audio Output Power	1.0 Watt
Audio Distortion	< 3% at rated output
Audio Response	+1, ~ -3dB From 6dB per octave de-emphasis characteristics
Spurious Emission	70dB

PACKAGE INCLUDES:

Radio, 2600 mAh Li-Ion battery, rapid rate desktop charger, antenna, belt clip and user manual.

Specifications are subject to change without notice.

ACCESSORIES



Charger Options

Dual Slot Rapid Rate Desktop Charger
2600 mAh Li-Ion Battery
TSA-6110TS4 - 6 Unit Gang Charger w/Dual Slot



Speaker Mic Options

Standard Speaker Microphone
Heavy Duty Speaker Microphone
Heavy Duty Speaker Microphone w/Vol Control



Ear Piece Options

"D" Style Earhook Speaker w/Lapel Mic/PTT
"C" Style Earhook Speaker w/Lapel Mic/PTT
Clear Earbud Speaker w/Lapel Mic/PTT



Other Options

Nylon Carrying Case
Leather Carrying Case w/Belt Loop Swivel
Programming Software and Cable (USB)

ENVIRONMENTAL

Operating Temperature	-30° C to +60° C
Storage Temperature	-40° C to +85° C
ESD	IEC 61000-4-2/±8KV/±15 KV
U.S. Military Standard	MIL-STD-810F/G
Dust & Water Protection	IP-54 Standard
Shock/Vibration	MIL-STD-810F/G

Approvals	FCC	Industry Canada
TSD-4116	VSOXP-100D	184A-XP100D
TSD-4416	VSOXP-400D	184A-XP400D
TSD-4124	VSOXP-100D	184A-XP100D
TSD-4424	VSOXP-400D	184A-XP400D



Manufactured
to ISO-9002:2000
quality standard.

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Repeaters

DMR & Analog Repeater ER9000

- ◆ 19 Inches, 1U Cabinet Size Design with Power Supply Inside
- ◆ 100% Continuous Duty Cycle with 50W/45W High Power Output
- ◆ Mixed Mode Multi-site IP Connect to Support Digital and Analog Repeaters
- ◆ Community Repeater

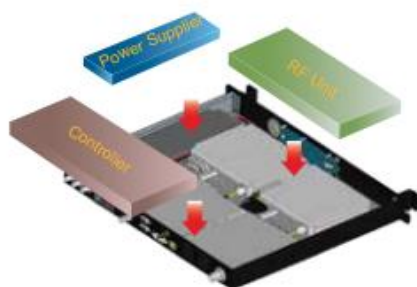


Advantage Features

19 inches, 1U standard cabinet size design with power supply inside.



100,000 hours MTBF performance based on military modular design with high reliability.



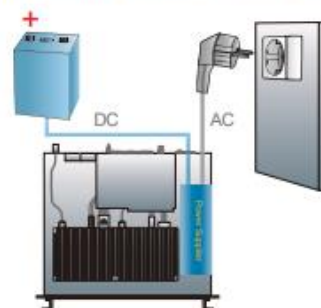
The unique designed mixed mode multi-site IP connect to support digital and analog repeaters up to 64 sites which allows wide area coverage and cross bands communication.



Unique 100% duty cycle at 50W (VHF) / 45W (UHF) high power output in 1U cabinet.



Supports AC/DC power supply and switches to the backup battery automatically when AC power is interrupted with the built-in float circuit design.



Supports remote diagnosis, maintenance and software upgrade.



Accessories

				
Duplexer	AC Power Cable	Power Cord	Programming Cable	Fuse

Maxon retains right to change the products design and specification without prior notice. Parts supply for the market is different, please contact the local dealer. Promotional photos are for reference only. All products as per the material subjects.

Specifications

General

Frequency Range	ER-9000 VHF: 136-174MHz ER-9000 U1: 400-470MHz
Channel Capacity	128
Channel Space	12.5/20/25KHz
Dimensions(H*W*D)	44*483*375mm
Weight	7.6Kg
LCD	1.8 inch TFT LCD 128x160 pixels, 262Kcolors
Operating Voltage	DC 13.6V±15% AC 100 - 240VA
Current Drain	<1A(Standby) <6A(Transmit@25W) <10A(Transmit@50W)
Frequency Stability	0.5ppm
Continuous duty Cycle	100%

Transmitter

Frequency Stability	0.5ppm
RF Max. Power Output	High Power Model: 45/50W Low Power Model: 25W
Digital Modulation	7K60FXD(Data Only) 7K60FXW(Data and Voice)
FM Modulation	16K C F3E@25KHz / 14K C F3E@20KHz 11K C F3E@12.5KHz
4FSK Modulation Accuracy	5%
4FSK BER	0%
4FSK and Magnitude Error	5%/1%
Adjacent Channel Power	70dB@25/20KHz / 60dB@12.5KHz
Conducted and Radiated Emission	-36dBm <1GHz / -30dBm >1GHz
Transmission Deviation limits	5KHz@25KHz / 4KHz@20KHz / 2.5KHz@12.5KHz
Audio Distortion	3%
Hum and Noise	48dB@25KHz / 46dB@20KHz 43dB@12.5KHz
Audio Response	+1 ~ -3dB

Receiver

Digital Sensitivity	-120dBm / BER 5% -116dBm / BER 1%
Digital Dynamic Faded Sensitivity (100KM/H & 8KM/H Rayleigh Fading)	-104dBm
Analog Sensitivity	-120dBm / 12dB SINAD
Intermodulation	75dB (TIA603) / 70dB(ETSI)
Blocking	95dB (TIA603 & ETSI)
Spurious Response Rejection	75dB (TIA603 & ETSI)
Adjacent Channel Selectivity	75dB@25 KHz (TIA603) 70dB@25 KHz (ETSI) 70dB@20KHz (TIA603 & ETSI) 65dB@12.5KHz (TIA603) 60dB@12.5 KHz (ETSI)
Conducted Spurious Emission	-57dBm
Rated Audio Power Output	1W (16Ω Load)
Rated Audio Distortion	3%
Hum and Noise	48dB @25KHz / 46dB@ 20KHz 43dB@12.5KHz
Audio Response	+1 ~ -3dB
Digital Vocoder Type	AMBE++
Digital Protocol	ETSI-TS102 361 -1, -2, -3, -4

Reliability

Operating Temperature	-30 ~ +60 C
Storage Temperature	-40 ~ +85 C
Shock&Vibration	MIL-STD-810 C/D/E/F/G Standard
ESD	IEC 61000-4-2(level 4) ±8KV(Contact) , ±15KV(Air)
Surge Immunity Test (EN 6100-4-5)	Differential Mode:6KV Common Mode:6KV



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 Web: www.maxonamerica.com
 E-mail: maxon@maxonamerica.com

UDM-240ZH - Handheld Intercom UDM-240ZV Vehicular or Base Repeater

2-IN-1 COMMUNICATION DEVICE

The Maxon UDM Series provides both direct and repeater mode (mobile radio) communications. Ideal for dispatch centers, tour groups, tow trucks, outside vehicle communication, and anywhere else you need to stay connected wireless & LICENSE FREE.

UDM-240ZV – Vehicular or Base Repeater

- UDM Vehicle Repeater works w/All Major Brands of Mobiles via customizable cable
- 2.4 GHz ISM Band - Zigbee Wireless Protocol
- Communicate up to 320' from repeater to UDM-240ZH mic in "Repeater Mode"
- Separate Mic Gain & Audio Adjustments
- Dynamic Programming
- Charger - Vehicle Mount or Desktop



IDEAL FOR TOUR GROUPS, DISPATCH OFFICES, & OUTSIDE-OF-VEHICLE MOBILE RADIO COMMUNICATIONS

UDM-240ZH – Handheld Speaker Mic/Intercom

- Communicate through a connected mobile radio from 320' away in Intercom Mode and also between mics directly up to 160' in "Intercom mode"
- Desktop Charger (Optional Vehicle Mount)
- Displays Channel & Volume Status
- Earphone Jack 3.5 mm
- Group/Individual ID Mode Selectable
- IP67 Certified

UDM-240ZH



UDM-240ZH Standard Package



SPECIFICATIONS UDM-240ZH

GENERAL

Frequency Band	ISM 2.4-2.48 GHz
Frequency Stability	+30ppm at -10~+50C
Channel	16 Ch Dynamic
Power	DC 6V 500mA
Battery	Li-Poly 3.7V, 1150mA
Dimensions (H/W/D)	3.5 x 2.3 x 1.2" (88x59x30 mm)
Weight	4.3 oz. (123 g.)

TRANSMITTER

Power	20dBm
Power Consumption	110mA
Mic Input	50~100 mVrms

RECEIVER

Power	20dBm
Power Consumption	110mA
Mic Input	50~100mVrms

UDM-240ZV Standard Package



SPECIFICATIONS UDM-240ZV

GENERAL

Frequency Band	ISM 2.4-2.48 GHz
Frequency Stability	+30ppm at -10~+50C
Channel	16 Ch Dynamic
Power	DC 13.8V
Dimensions (H/W/D)	1.4 x 3.9 x 3.9" (35x100x99 mm)
Weight	9.7 oz. (275 g.)

TRANSMITTER

Power	20dBm
Power Consumption	110mA
Mic Input	50~100 mVrms

RECEIVER

Sensitivity	-98dBm at 1% BER
Audio Frequency Band	300-3000Hz
Power Consumption	Standby (100mA) RX(120mA)

UDM-240ZV Interface Cable Pin Function and Color Code Guide

8	- GND	Blue-White	8
7	- HI - PTT (output)	Blue	7
6	- Low - PTT (output)	Green-White	6
5	- Disc (audio input)	Green	5
4	- HI - Busy (input)	Orange-White	4
3	- Mic (audio output)	Orange	3
2	- Low - Busy (input)	Brown-White	2
1	- VCC 13.8V	Brown	1

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.

Specifications are subject to change without notice

ACCESSORIES



ACCESSORY OPTIONS

12 VDC Lighter Adapter
(12-24V Input; 5V 800 mA Output)
Vehicle Mounting Bracket

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Data Radios

SD-125EL V2 5/1W VHF (148-174 MHz)

SD-125EL U1 5/1W UHF (400-430 MHz)

SD-125EL U2 5/1W UHF (440-470 MHz)



- 5/1 Watt
- LED Status Indicator
- 16 Channels (Dip Switch Select)
- DE-9 Male Connector
- TX Time Out Timer
- 12.5/25 kHz Channel Spacing
- Carrier Detect
- Busy Channel Lockout
- BNC Female Antenna Connector
- POCSAG Protocol Optional

Applications

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



The Maxon SD-125EL Series of data/telemetry radios are designed to meet the needs for a variety of wireless applications in a cost effective package.

The modules incorporate the most requested mechanical footprint and connectors. Adjustable transmit power settings from one to five watts provides the power needed on any job and the 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-125EL 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 25 years.



SPECIFICATIONS

GENERAL

SD-125EL V2	148-174 MHz
SD-125EL U1	400-430 MHz
SD-125EL U2	440-470 MHz
Channel Spacing	12.5/25 kHz
PLL Channel Step	2.5, 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 Red - Transmit
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	60dB
Frequency Deviation	±2.5, Min. ±1.9 kHz (12.5 kHz) ±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	.25µV (12.5 kHz), 0.35µV (25 kHz)
Selectivity	50dB (12.5 kHz), 60dB (25 kHz)
Intermodulation	-65dB
Spurious Emissions	-70dB
Spurious/Harmonic	65dB
Response Time	<16ms
Audio Output Power	0.5 Watt

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.

ACCESSORIES



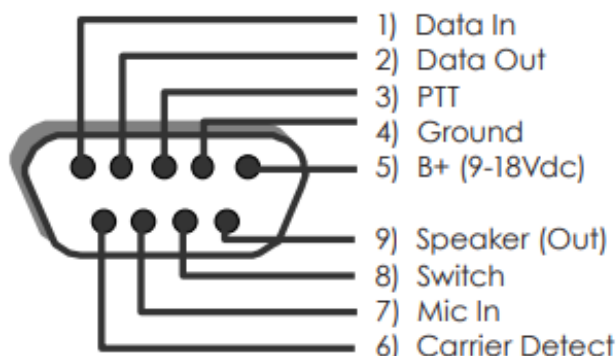
ACCESSORY OPTIONS

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

PACKAGE INCLUDES:

Radio Only

DE-9 Male Connector



Approvals	FCC	Industry Canada
SD-125EL V2	RXUSD-125EV2	153B-SD-125EV2
SD-125EL U1	RXUSD-125EU1	153B-SD-125EU1
SD-125EL U2	RXUSD-125EU2	153B-SD-125EU2

RoHS
2002/95/EC



Manufactured to ISO-9002:2000
quality standard.

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

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



- 5/1 Watt
- LED Status Indicator
- 16 Channels (Dip Switch Select)
- Modem Options* (GMSK/FFSK)
- CTCSS/DCS Encode/Decode
- DE-15 Female Connector
- TX Time Out Timer
- 12.5/25 kHz Channel Spacing
- Carrier Detect
- Busy Channel Lockout
- 2-Tone Decode

*ACC-513E GMSK 9600 Baud
ACC-514E FFSK 4800 Baud

Applications

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



The Maxon SD-170EL Series of radios are durable, reliable and designed to meet the needs for a variety of wireless applications. Include the optional FFSK or GMSK modem boards to add even more diversity to this cost effective radio.

The modules incorporate the most requested mechanical footprint and BNC antenna connection. Adjustable transmit power settings from one to five watts provides the power needed on any job and the tri-color LED indicator gives instant on-sight status of the radios operation. Combine that with low current drain and fast transmitter/receiver attack times for operation in the harshest of system demands. The die cast aluminum cabinet/lid provides resistance to RF interference; and gives exceptional environmental durability in the most extreme conditions.

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 25 years.



SPECIFICATIONS

GENERAL

SD-171EL	146-174 MHz
SD-174EL	450-490 MHz
Channel Spacing	12.5/25 kHz
PLL Channel Step	2.5, 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 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) ±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) <10/30ms (RSSI/Analog), ±20dB
Squelch Decay Time	5 ms Min., 20 ms Max
Audio Output Power	0.5 Watt

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.

Specifications are subject to change without notice

ACCESSORIES



ACCESSORY OPTIONS

BNC 6" Antenna VHF/UHF
ACC-514E FFSK (4800 25 kHz, 2400 12.5 kHz) Baud Modem
ACC-513E GMSK (9600 25 kHz, 4800 12.5 kHz) Baud Modem
PC Programming Software and Cable (USB)
Extender Board for Service and Alignment
Heat Sink

PACKAGE INCLUDES:

Radio Only

DB-15 CONNECTOR

BUSY	6		11	SERIAL DATA OUT (OPT)
DATA MOD IN	1		12	SERIAL BUSY OUT (OPT)
MIC IN	7			
DATA OUT	2			
SERIAL IN (PROG)	8			
PTT IN	3		13	GPS DATA IN (OPT)
SPEAKER OUT	9			
VIN (12V)	4		14	GROUND (OPT)
SERIAL DATA IN (OPT)	10			
SERIAL OUT (PROG)	5		15	GPS DATA OUT (OPT)

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

RoHS
2002/95/EC



CE 0678

Manufactured
to ISO-9002:2000
quality standard.

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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 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 System
Gate Systems
Remote Controls
Commercial 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 25 years.



SPECIFICATIONS

GENERAL

SD-171EX	146-174 MHz
SD-174EX	450-490 MHz
Channel Spacing	12.5/25 kHz
PLL Channel Step	2.5, 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 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) ±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) <10/30ms (RSSI/Analog), ±20dB
Squelch Decay Time	5 ms Min., 20 ms Max
Audio Output Power	0.5 Watt

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.

Specifications are subject to change without notice

ACCESSORIES



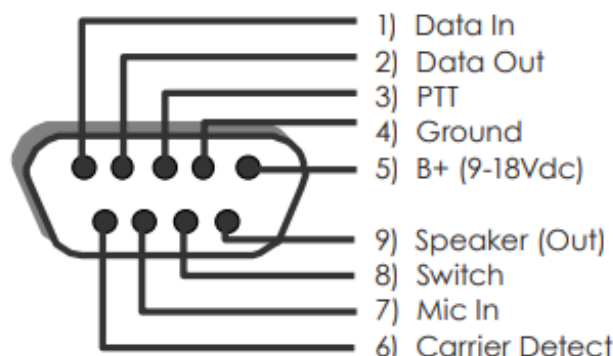
ACCESSORY OPTIONS

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

PACKAGE INCLUDES:

Radio Only

DE-9 Male Connector



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



Manufactured to ISO-9002:2000 quality standard.

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SD-271 V2 5/1W VHF (136-174 MHz)

SD-274 U1 5/1W UHF (400-440 MHz)

SD-274 U2 5/1W UHF (430-470 MHz)

SD-274 U3 5/1W UHF (450-490 MHz)



- 5/1 Watt
- LED Status Indicator
- 16 Channels (Dip Switch Select)
- Modem Options *(GMSK/4FSK)
- Supports 19200 bps Data Rate
- CTCSS/DCS Encode/Decode
- DE-15 Female Connector
- 12.5/25 kHz Channel Spacing
- External Software Channel Steering
- 6 Programmable Squelch Levels
- Variable Speaker Output

Applications

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



The Maxon SD-270 Series of radios are durable, reliable and designed to meet the needs for a variety of wireless applications. Include the optional GMSK (9600 Baud Rate) or the 4FSK (19200 Baud Rate) modem boards to add even more diversity to this cost effective radio.

The modules incorporate the most requested mechanical footprint and BNC antenna connection. Transmit power settings from one to five provide the power needed on any job and the LED indicator gives instant on-sight status of the radios operation. Combine that with low current drain and fast transmitter/receiver attack times for operation in the harshest of system demands. The die cast aluminum cabinet/lid provides resistance to RF interference; and gives exceptional environmental durability in the most extreme conditions.

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.

*ACC-213 GMSK 9600 Baud
ACC-214 4FSK 19200 Baud



SPECIFICATIONS

GENERAL

SD-271 V2	136-174 MHz
SD-274 U1	400-440 MHz
SD-274 U2	430-470 MHz
SD-274 U3	450-490 MHz
Channels	16 (Dip Switch)
Channel Spacing	12.5/25 kHz
PLL Channel Step	2.5, 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.)
LED Status	Green - Receive
	Red - Transmit
TX Duty Cycle	35% @ Temp Range Listed

TRANSMITTER

Output Power	5-1 Watt Programmable
FM Hum and Noise	>40dB (12.5 kHz), >45dB (25 kHz)
Spurious Emissions	-36dBm
TX Attack Time	<5 ms
Frequency Deviation	<5 kHz (25 kHz), <2.5 kHz (12.5 kHz)
Adj. Channel Power	-70dB (25 kHz), -65dB (12.5 kHz)
Audio Response	300Hz - 3 kHz +1, -3dB (25 kHz)
	300Hz - 2.55 kHz +1, -3dB (12.5 kHz)

RECEIVER

Sensitivity (12dB Sinad)	<-119dB Extreme <-115dB
Image Rejection	>70dB
Intermodulation	>65dB
RX Hum/Noise	<5%
Spurious/Rejection	>70dB
Lock Time	<5ms
Audio Output Power	0.5 Watt @ 8 ohms

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.

Specifications are subject to change without notice.

Not available in Canada.

SD-274 U1 and U2 models not available in US.

ACCESSORIES



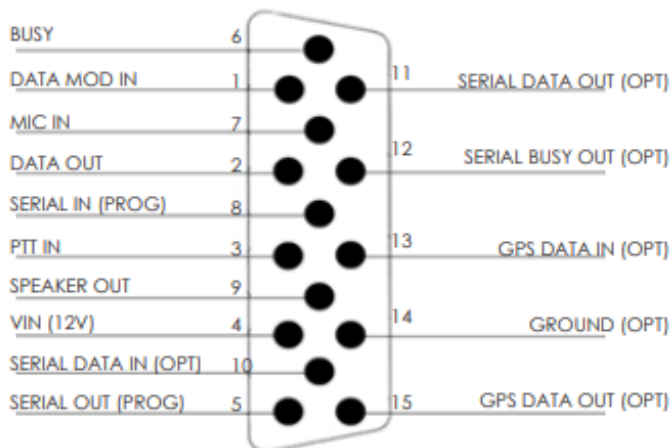
ACCESSORY OPTIONS

BNC 6" Antenna VHF/UHF
 ACC-213 GMSK (9600 25 kHz, 4800 12.5 kHz) Baud Modem
 ACC-214 4FSK (19200 25 kHz, 9600 12.5 kHz) Baud Modem
 PC Programming Software and Cable (USB)
 Heat Sink
 RS-232 Interface/Alignment Board

PACKAGE INCLUDES:

Radio Only

DE-15 CONNECTOR



Approvals	FCC	RCM
SD-274 U3	UU3FC302U2	Yes
SD-274 U3 w/ACC-213	UU3FC302U2D	Yes
SD-274 U3 w/ACC-214	UU3FC302U2F	Yes
SD-271 V2	UU3FC302V	Yes
SD-271 V2 w/ACC-214	UU3FC302VD	Yes
SD-274 U1	N/A	Yes
SD-274 U2	N/A	Yes



CE22000



Manufactured to
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SD-671D V2 VHF RF Data Modem with LED (150-174 MHz)
SD-674D U2 UHF RF Data Modem with LED (410-470 MHz)



- Power Output Programmable Per Channel:
10/5/2W for VHF, 5/2W for UHF
- DMR Tier II TDMA/Analog
- 32 Channels (Dip Switch)
- 9V to 24V DC Operation
- LED Status Indicator
- Modem Already Integrated into Radio
- RF Communication Data Speed 9600bps (OTA)
- RS-232C Communication Speed
115,200bps/9600bps
- Digital Voice uses AMBE+2 Voice Codec
- DE-15 Pin Female Connector
- Built in AT Commands

Applications

Water/Waste Treatment Plants
Oil and Gas Field SCADA
Security/Alarm Systems
Gate Systems
Remote Controls
Sign Control
Weather Monitoring
Irrigation Systems
Voice/Emergency Call Boxes
Low Power Digital Repeaters (2 Users)



Maxon's SD-670D Series of Radio-Frequency data modems are rugged, reliable, and designed for a variety of RF applications in either Digital or Analog mode like SCADA, Call boxes, Weather stations, Water pumps, Remote Controls, and can even be used together with another SD-670D RF modem to make a 2 person Low Power Repeater. The SD-670D uses an AMBE3000 vocoder chip with AMBE+2 voice compression algorithm to provide excellent audio quality and to allow for high-speed data transmission through its integrated modem.

SD-670s incorporate Maxon's popular mechanical footprint and a BNC antenna connection. Its die-cast aluminum housing shields the radio from RF interference and gives exceptional durability in the most extreme environments. Transmit power settings between 2 Watts, 5W, and 10W* (*VHF only) provide the power needed for any job and the LED indicator gives an instant, on-sight status of the radio's operation. Reduce the operating power needed for this device with the Power Save* feature in SD-670's programming software. SD-670's versatility with its Analog and Digital modes, durability, low current drain, high data speed, and fast transmitter/receiver attack times for operation make this the ideal radio for the harshest of system demands.

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-671D V2	150-174 MHz
SD-674D U2	410-470 MHz
Channels	32 (Dip Switch)/AT Commands
Power Requirement	9V-24V DC, 12V nominal
Current Drain (Digital & Analog)	D: Tx Hi: 1, Tx Lo: 0.6A, Stdy 115mA* A: Tx Hi: 1.6, Tx Lo: 1A, Stdy 115mA*
Channel Spacing	25/20/12.5 kHz (Analog) 12.5 kHz (Digital) 2 Time Slots of 6.25 Each
Dimensions (L/W/H)	4.77 x 2.44 x .96" (110x55x25 mm)
Weight	9.9 oz. (280 g.)
LED Status	Green = Rx, Red = Tx

TRANSMITTER

Output Power	10/5/2W for VHF, 5/2W for UHF
FM Modulation	11K0F3E (12.5 kHz), 14K0F3E (20 kHz), 16K0F3E (25 kHz)
4FSK Digital Modulation	12.5 kHz Data Only: 7K60FXD, 12.5 kHz Data & Voice: 7K60FXE
FM Hum and Noise	>40dB (12.5 kHz), >45dB (25 kHz)
Spurious Emissions	-36dBm
TX Attack Time	<5ms
Adj. Channel Power	-70dB (25 kHz), -65dB (12.5 kHz)
Audio Response	300Hz - 3 kHz +1, -3dB (25 kHz) 300Hz - 2.55 kHz +1, -3dB (12.5 kHz)
Digital Vocoder Type	AMBE3000 Vocoder Chip with AMBE+2 Voice Compression Algorithm
Digital Protocol	ETSI-TS102 361-1-2-3

RECEIVER

Sensitivity (Analog)	0.25μV @ 12dB SINAD
Sensitivity (Digital)	0.22μV/BER 5%
Selectivity TIA-603 ETSI	>65dB (12.5 kHz), 70dB (20/25 kHz)
Intermodulation TIA-603 ETSI	>70dB (12.5/20/25 kHz)
RX Hum/Noise	<5%
Spurious/Rejection	>70dB
Lock Time	<5ms
Audio Output Power	0.5 Watt @ 8 ohms

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.

Specifications are subject to change without notice.

ACCESSORIES**ACCESSORY OPTIONS**

BNC 6" Antenna VHF/UHF
Magnetic Mount with 1/4 Wave Antennas
PC Programming Software and Cable (USB)
Aluminum Pin Style Heat Sink

PACKAGE INCLUDES:
Radio Only

DE-15 PIN CONNECTOR

CARRIER DETECTOR	6		
N/A	1		11 TX_DATA
MIC_IN	7		
N/A	2		12 RTS
FLASH_PRO	8		
PTT	3		13 GPS_TX_DATA
SPEAKER_OUT	9		
DC12V	4		14 GROUND
RX_DATA	10		
CTS	5		15 GPS_RX_DATA

ENVIRONMENTAL

Operating Temperature	-22° to 140° F (-30° to 60° C)
TX Duty Cycle	50% @ Temp Range Listed

Approvals	FCC	Industry Canada
SD-671D V2	VSOMD-100D	184A-MD-100D
SD-674D U2	VSOMD-400D	184A-MD-400D



Manufactured to
ISO-9002:2000 quality standard.

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