

Simoco Xd 700 Series

Simoco Xd SDP760 DMR Portable Radio

The Simoco Xd SDP760 is a digital portable radio capable of operating across multiple modes, including analogue conventional, digital conventional (DMR Tier II) digital trunking (DMR Tier III) and MPT.

Best in class sensitivity ensures crystal-clear communications in fringe areas and harsh environments while a compact form factor means the radio is suitable for a wide range of users.

The SDP760 offers a rich feature set including full duplex calling, allowing for enhanced communications between office and field staff. Additional features include a large TFT Screen, GPS, long battery life and an Application Programming Interface (API) capable of delivering third party applications into the hands of your operational teams.

The radio's ability to allow the user to operate across a variety of network signature modes means it is not only a safe and future-proof investment, but also provides a cost effective and flexible migration path for organisations managing the transition from analogue to DMR digital.

Standard Features

- ▶ Four operating modes - analogue conventional, digital conventional (DMR Tier II), digital trunking (DMR Tier III)* and MPT*
- ▶ Available in VHF and UHF frequency bands
- ▶ Exceptional RF performance – exceeds ETSI and TIA-603 specifications
- ▶ 51mm Transflective TFT LCD display
- ▶ Text and status messaging
- ▶ Fully compliant with ETSI DMR standards
- ▶ MIL-STD-810 & IP67
- ▶ Single frequency mode
- ▶ Market leading 1.8W audio output
- ▶ -121dBm receiver sensitivity (typical) – increase coverage area and improve audio quality
- ▶ DTMF dialing
- ▶ Group, emergency, priority and all-calls
- ▶ Vibration alert
- ▶ Authentication
- ▶ Supports lone worker alerts

Optional Features

- ▶ AES encryption 256 bit*
- ▶ Full duplex calls
- ▶ GPS
- ▶ Man-down

*license required



General Specification

Frequency Bands	VHF:136–174MHz UHF:400–470MHz
Channel Capacity	DMR Tier II Channels - 1023 DMR Tier III Channels - 2300
Channel Bandwidth	12.5/25kHz
Dimensions (H x W x D)	125x54x35mm
Weight	320g (Standard battery and antenna)
LCD	51 mm High Resolution QVGA TFT LCD (240x320 pixels, 262k colours)
Operating Voltage	DC 7.3V \pm 15%
Battery	Standard: 2400mAh (Li-Ion) Option: 3400mAh (Li-Ion)
Battery** (Standard battery, 5-5-90 duty cycle)	Analogue: 12hours Digital: 14hours
Model Variant	SDP760 with GPS, Man down and Full Duplex (Bluetooth available on request)

Receiver

Digital Sensitivity	Typical: -121dBm / BER 5% Typical: -118dBm / BER 1%
Analogue Sensitivity	Typical: -121dBm / 12dB SINAD
Intermodulation	>70dB (TIA603) >65dB (ETSI)
Blocking	84dB (TIA603 & ETSI)
Spurious Response Rejection	>70dB (TIA603 & ETSI)
Adjacent Channel Selectivity	70dB @ 25kHz (TIA603&ETSI) 60dB @ 12.5kHz (TIA603&ETSI)
Conducted Spurious Emission	-57dBm (<1GHz) -47dBm (>1GHz)
Rated Audio Power Output	1.8W
Rated Audio Distortion	3% (Analogue) 5% (Digital)
Hum and Noise	49dB @ 25kHz Analogue 43dB @ 12.5kHz Analogue 55dB @ Digital
Audio Response	+1 ~ -3dB
Digital Vocoder Type	AMBE+2
Digital Protocol	ETSI TS 102 361-1, -2, -3, -4

Transmitter

Frequency Stability	0.5ppm
RF Power Output	VHF: High: Up to 5W Low: Up to 1.25W UHF: High: Up to 4.5W Low: Up to 1.25W
Digital Modulation	7K60FXD (Data Only) 7K60FXE (Data and Voice)
Analogue Modulation	16K0F3E @ 25kHz 11K0F3E @ 12.5kHz
Adjacent Channel Power	70dB @ 25kHz 60dB @ 12.5 kHz
Conducted and Radiated Emission	-36dBm (<1GHz) -30dBm (>1GHz)
Transmission Deviation limits	5kHz @ 25kHz 2.5kHz @ 12.5kHz
Audio Distortion	3% (Analogue) 5% (Digital)
Hum and Noise	49dB @ 25kHz Analogue 43dB @ 12.5kHz Analogue 55dB @ Digital
Audio Response	+1 ~ -3dB

Reliability

Operating Temperature	-30 – +60°C
Storage Temperature	-40 – +85°C
Dust & Water Intrusion	IP67 (IEC60529)
Environmental Standards	MIL-STD-810 C/D/E/F/G
ESD	IEC 61000-4-2 (level 4) \pm 8kV (Contact), \pm 15kV (Air)

GPS

TTFF Cold Start	<120s
TTFF Hot Start	<10s
Horizontal Positioning Accuracy	<10s
Acquisition Sensitivity	<-140dBm
Tracking Sensitivity	<-152dBm

Standard Accessories



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simocoXd **DMR** ANALOGUE

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**Battery performance is dependant on temperature and operational configuration.
Specifications based on standard operating conditions. Not all frequency bands are permissible for every market area.
See Simoco Wireless Solutions Product Catalogue for a full list of specifications. All specifications are subject to change without prior notice.
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