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wireless solutions

Simoco Xd 700 Series

Simoco Xd SDM730 DMR Mobile Radio

The Simoco Xd SDM730 is a digital mobile radio terminal capable of operating across multiple modes, including analog 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 features including full duplex calling capabilities, allow for enhanced communications between office and field staff. Additional features include a large TFT Screen, Bluetooth functionality, GPS and a rich Application Programming Interface (API)* capable of delivering third party applications into the hands of your operational teams.

The industrial temperature specification, military test specs, IP 54 rating, noise reduction and 5W audio level mean it is well suited for communication in harsh environments.

The SDM730'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 organizations managing the transition from analog to DMR digital.

Standard Features

- ▶ Four operating modes - analog 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 & IP54
- ▶ Single repeat 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
- ▶ Authentication
- ▶ Supports lone worker alerts

Optional Features

- ▶ AES encryption 256 bit*
- ▶ Full duplex calls
- ▶ GPS
- ▶ Bluetooth connectivity supports wireless accessories
- ▶ Advanced noise reduction software for clear comms under high ambient noise conditions*



*software license required

simocoXd **DMR**
DIGITAL MOBILE RADIO ASSOCIATION

ANALOG

General Specification

Frequency Bands	VHF: 136–174MHz UHF: 400–470MHz UHF: 450–520MHz*
Channel Capacity	1024
Channel Space	12.5/25kHz
Dimensions (H x W x D)	60x174x190 mm
Weight	1500g
LCD	71 mm TFT LCD (320x240 pixels, 262k colors)
Operating Voltage	DC 13.6V Nominal DC 10.5-16V Extreme
Current Drain (Transmit)	8.7A (45 W) 7A (25 W) 4A (5 W)
Model Variants	SDM730 25/45 W without GPS SDM730 25/45 W with GPS SDM730 25/45 W with GPS, Full Duplex and Bluetooth (45W model only available in regions where local regulations allow)

Receiver

Digital Sensitivity	Typical: -121 dBm/BER 5% Typical: -118dBm/BER 1%
Analog Sensitivity	Typical: -121 dBm/12dB SINAD
Intermodulation	>75dB (TIA603) >70dB (ETSI)
Blocking	>95dB (TIA603 & ETSI)
Spurious Response Rejection	75dB (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	5W (Full Duplex) 6.2W (Half-Duplex)
Rated Audio Distortion	3% (Analog) 5% (Digital)
Hum and Noise	48dB @ 25kHz Analog 42dB @ 12.5kHz Analog 55dB @ Digital
Audio Response	+1 ~ -3dB
Digital Vocoder Type	AMBE+2
Digital Protocol	ETSI-TS102 361 -1, -2,-3,-4

Transmitter

Frequency Stability	0.5ppm
RF Power Output	Selectable levels; 45/25/5 W (45 W model) or 25/5 W (25 W model)
Digital Modulation	7K60FXD (Data Only) 7K60FXE (Data and Voice)
Analog Modulation	16K0F3E @ 25kHz 11K0F3E @ 12.5kHz
Adjacent Channel Power	70dB @ 25kHz 60dB @ 12.5kHz
Conducted and Radiated Emission	-36dBm (<1 GHz) -30dBm (>1 GHz)
Transmission Deviation limits	5kHz @ 25kHz 2.5kHz @ 12.5kHz
Audio Distortion	3% (Analog) 5% (Digital)
Audio S/N	48dB @ 25kHz Analog 42dB @ 12.5kHz Analog 55dB @ Digital
Audio Response	+1 ~ -3dB

Reliability

Operating Temperature	-30 – +65°C
Storage Temperature	-40 – +85°C
Dust & Water Intrusion	IP54
Environmental Standards	MIL-STD-810 C/D/E/F/G Standard
ESD	IEC 61000-4-2 (1 level 4) ±8kV (Contact), ±15kV (Air)

GPS

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

Standard Accessories



Mounting bracket
7A0CM02S564

Palm Microphone
7A0CM02S564

Power Cord
7A0DC000Z00

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simocoXd **DMR** **ANALOG**

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Specifications based on standard operating conditions. Not all combinations of frequency bands and options 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. Simoco Wireless Solutions does not accept liability for any error or omission in this document.