



# simoco

## 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), and digital trunking (DMR Tier III).

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.

### Features

- ▶ Three operating modes – analog conventional, digital conventional (DMR Tier II), and digital trunking (DMR Tier III)
- ▶ Available in VHF and UHF frequency bands
- ▶ AES encryption 256 bit
- ▶ Exceptional RF performance – exceeds ETSI and TIA-603 specifications
- ▶ Full duplex calls
- ▶ 71mm Transflective TFT LCD display
- ▶ Text and status messaging
- ▶ Fully compliant with ETSI DMR standards
- ▶ MIL-STD-810 & IP54
- ▶ -121dBm receiver sensitivity (typical) – increase coverage area and improve audio quality
- ▶ DTMF dialing
- ▶ Group, emergency, broadcast and all-calls
- ▶ Text and status messaging
- ▶ Lone worker support
- ▶ Supplementary services support
- ▶ Authentication
- ▶ GPS
- ▶ Bluetooth module – enables connection of wireless 3rd party audio accessories
- ▶ Advanced noise reduction software for clear comms under high ambient noise conditions



## General Specification

<b>Frequency Bands</b>	VHF: 136–174MHz UHF: 400–470MHz UHF: 450–520MHz*
<b>Channel Capacity</b>	1024
<b>Channel Space</b>	12.5/25kHz
<b>Dimensions (H x W x D)</b>	60x174x190 mm
<b>Weight</b>	1500g
<b>LCD</b>	71 mm TFT LCD (320x240 pixels, 262k colors)
<b>Operating Voltage</b>	DC 13.6V Nominal DC 10.5–16V Extreme
<b>Current Drain (Transmit)</b>	8.7A (45 W) 7A (25 W) 4A (5 W)
<b>Model Variants</b>	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

<b>Digital Sensitivity</b>	Typical: -121 dBm/BER 5% Typical: -118dBm/BER 1%
<b>Analog Sensitivity</b>	Typical: -121 dBm/12dB SINAD
<b>Intermodulation</b>	>75dB (TIA603) >70dB (ETSI)
<b>Blocking</b>	>95dB (TIA603 & ETSI)
<b>Spurious Response Rejection</b>	75dB (TIA603 & ETSI)
<b>Adjacent Channel Selectivity</b>	70dB @ 25kHz (TIA603&ETSI) 60dB @ 12.5kHz (TIA603&ETSI)
<b>Conducted Spurious Emission</b>	-57dBm (<1GHz) -47dBm (>1GHz)
<b>Rated Audio Power Output</b>	5W (Full Duplex) 6.2W (Half-Duplex)
<b>Rated Audio Distortion</b>	3% (Analog) 5% (Digital)
<b>Hum and Noise</b>	48dB @ 25kHz Analog 42dB @ 12.5kHz Analog 55dB @ Digital
<b>Audio Response</b>	+1 ~ -3dB
<b>Digital Vocoder Type</b>	AMBE+2
<b>Digital Protocol</b>	ETSI-TS102 361 -1, -2, -3, -4

## Transmitter

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

## Reliability

<b>Operating Temperature</b>	-30 – +65°C
<b>Storage Temperature</b>	-40 – +85°C
<b>Dust &amp; Water Intrusion</b>	Radio Body: IP54 Control Head: IP67
<b>Environmental Standards</b>	MIL-STD-810 C/D/E/F/G Standard
<b>ESD</b>	IEC 61000-4-2 (1level 4) ±8kV (Contact), ±15kV (Air)

## GPS

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

## Standard Accessories



Mounting bracket  
7A0CM02S564

Palm Microphone  
7A0CM02S564

Power Cord  
7A0DC000Z00