



## 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 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 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. Bluetooth functionality also allows for the connection of additional wireless accessories.

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 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
- ▶ 51mm Transflective TFT LCD display
- ▶ Text and status messaging
- ▶ Fully compliant with ETSI DMR standards
- ▶ MIL-STD-810 & IP67
- ▶ 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
- ▶ Supports man-down and lone worker alerts
- ▶ Supplementary services support
- ▶ Authentication
- ▶ GPS
- ▶ Bluetooth connectivity supports wireless accessories
- ▶ Advanced noise reduction software for clear comms under high ambient noise conditions
- ▶ Vibration alert



## General Specification

<b>Frequency Bands</b>	VHF:136–174MHz UHF:400–470MHz UHF:450–520MHz*
<b>Channel Capacity</b>	1024
<b>Channel Bandwidth</b>	12.5/25kHz
<b>Dimensions (H x W x D)</b>	125x54x35mm
<b>Weight</b>	320g (Standard battery and antenna)
<b>LCD</b>	51 mm transfective TFT LCD (240x320 pixels, 262k colours)
<b>Operating Voltage</b>	DC 7.3V ±15%
<b>Battery</b>	Standard: 2400mAh (Li-Ion) Option: 3400mAh (Li-Ion)
<b>Battery (Standard battery, 5-5-90 duty cycle)</b>	Analog: 12hours Digital: 14hours
<b>Model Variant</b>	SDP760 without GPS & Man down SDP760 with GPS & Man down SDP760 with GPS, Man down, Full Duplex and Bluetooth

## Receiver

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

## Transmitter

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

## Reliability

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

## GPS

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

## Standard Accessories



Standard 2400 mAh Li-ion battery  
7A0BAL1SZXC



SDP700 Series single way charger  
including power lead 7A0BC00SZC1-B1



SDP700 Series belt clip  
7A0BB000Z00



SDP700 Series wrist wrap  
7A0LY000Z00

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simocoXd **DMR** **ANALOG**

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Specifications based on standard operating conditions. Not all frequency bands are permissible for every market area. See Simoco Product Catalogue for a full list of specifications. All specifications are subject to change without prior notice. Simoco does not accept liability for any error or omission in this document.

\*For summer 2017 release