



## Simoco Xd 700 Series

### Simoco Xd SDP750 DMR Portable Radio

The Simoco Xd SDP750 is a digital portable radio capable of operating across multiple modes, including analogue 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 SDP750 offers a rich feature set including full duplex calling, allowing for enhanced communications between office and field staff. Additional features include GPS, long battery life and Bluetooth to allow 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 organisations managing the transition from analogue to DMR digital.

## Features

- ▶ **Three operating modes - analogue 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**
- ▶ **Fully compliant with ETSI DMR standards**
- ▶ **MIL-STD-810 & IP67**
- ▶ **Market-leading 1.8W audio output**
- ▶ **-121dBm digital sensitivity (typical) – increase coverage area and improve audio quality**
- ▶ **Group, emergency, broadcast 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>	256
<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>Operating Voltage</b>	DC 7.3V ± 15%
<b>Battery</b>	Standard: 2400mAh (Li-Ion) Option: 3400mAh (Li-Ion)
<b>Battery (5–5–90 duty cycle, High TX Power)</b>	Analogue: 12 Hours Digital: 14 Hours
<b>Model Variant</b>	SDP750 without GPS & Man Down SDP750 with GPS & Man Down SDP750 with GPS, Man Down, Full Duplex & Bluetooth

## Receiver

<b>Digital Sensitivity</b>	Typical: -121dBm / BER 5% Typical: -118dBm / BER 1%
<b>Analogue 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@25 kHz (TIA603 & ETSI) 60dB@12.5 kHz (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% Analogue 5% Digital
<b>Hum and Noise</b>	49dB @ 25kHz 43dB @ 12.5kHz 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% Analogue 5% Digital
<b>Hum and Noise</b>	49dB @ 25kHz 43dB @ 12.5kHz 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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