

simocoXd

**simocoXd**  
CONNECTIONS THAT COUNT

Dependable digital  
communications in  
hostile environments

Integrated Man Down

Supports DMR Tier II  
and Tier III

**Digital Portable**





# // Digital Portable



Capable of analogue, DMR Tier II and DMR Tier III modes of operation, Simoco Xd DMR portables offer best in class radio communication with a market leading feature set including intelligent man down, lone worker and full compliance with ETSI DMR standards.

Offering full keypad functionality for telephone, complex group calls, advanced data messaging and a total of 12 programmable function keys, the SD660 is ideally suited to organisations with complex operation needs.

The SDP650 is designed for users with less complex needs while still incorporating all of the Simoco Xd benefits in a cost effective, simple to use and highly programmable portable.

### Digital, Interoperable and Cost Effective

The DMR standard cost effectively offers the benefits of a digital air interface, including spectral efficiency, quality audio to the edges of reception, enhanced battery life and certified interoperability. Combined with Simoco's experience in high end digital portable radios and all IP voice networks, the DMR standard has allowed us to apply our extensive experience of digital mission critical radio to more cost effective applications.



As members of the DMR Association, Simoco continues to work on further enhancements to the standards to provide additional features and maintain interoperability between manufacturers' equipment.

### Robust IP67 Radio

Our portables are constructed in a strong robust chassis offering IP67 protection against dust and water ingress. This makes them ideal for use in harsh and hostile environments.

### Intuitive User Interface

With a menu system designed around a typical mobile phone interface, users can quickly access the full benefits of DMR with a minimum amount of training, allowing staff to quickly be operationally effective. Customisation of programmable keys lets system owners closely match the radio functionality to organisational processes. A comprehensive range of accessories from traditional remote speaker-mics to unobtrusive surveillance kits are available to complement the use of the radio.

### Full Duplex<sup>1</sup> Calling

Full duplex calls allow for natural and intuitive communications without the need to push-to-talk, a feature, which up until now have only been available on TETRA high-end radio systems. This is a benefit of DMR's TDMA approach which uses no more radio resource than a push-to-talk simplex call and has potential to reduce airtime requirements.

Full duplex conversations are used for quick and clear understanding when communicating with a radio dispatcher or via telephone systems and can also enhance individual radio to radio calls. In high pressure situations this reduces the risk of miscommunication. Full duplex calls are available on Simoco Xd portables as a software upgrade.

### GPS<sup>1</sup> & Intelligent Man Down<sup>1</sup>

For the protection of users in hazardous situations, the combination of GPS with intelligent Man Down allows fast alerting of problems, sending messages to other radios or control room applications. Using the integrated accelerometer, after a pre-determined period the portable radio being in a non-upright position, an alarm will sound and a duress message sent to a designated recipient.

### Lone Worker

Lone worker application built into terminals to safeguard workers whilst operating in hazardous environments. The lone worker application can be configured to alert either dispatcher, fixed mobile or terminals.

### Bluetooth<sup>®1</sup>

Bluetooth<sup>®</sup> enhances the radio with further expansion options such as audio accessories and data connectivity. Bluetooth is available on Simoco Xd portables as a software upgrade.

Note<sup>1</sup> supported in hardware (depending on the model) and will be available as a future software upgrade

# // Features that make connections count

## SDP600 Features

- Integrated Man Down - motion and positional sensor for full employee safety
- IP67 protection from water and dust ingress
- Ear-piece speaker for full duplex calling mode
- Lone worker application built into the portable
- Integral GPS Antenna for dedicated satellite performance placed optimally within the radio
- High output main speaker for loud & clear digital audio
- Status and Short Data/Text messaging compliant with ETSI standards
- Multi-colour LED for clear indication of radio status
- Easy access to emergency button for no-doubt notification
- Ergonomic push to talk
- Selector knob enhances usability, for control of volume and brings speed scrolling to the radio
- IP67 rated side connector
- Increased battery life

## Features - SDP660

1. Multiple programmable buttons, from side function keys to main keypad for ultimate customisation
2. Intuitive keypad
3. Full colour display with intuitive interface

## Features - SDP650

1. Simple display for easy single word channel identification
2. Two side programmable keys and two front programmable keys
3. Easy access up and down channel change

### Standard Package Includes:

- Radio transceiver
- Antenna
- Single unit charger
- Standard battery
- Belt clip
- Quick reference guide
- 3-Year standard warranty



# // Simoco Xd - Specifications



General	
Frequency	AC (136MHz-174MHz), TU (400-480MHz)
Dimensions	137 x 64 x 36 mm
Weight	199g (transceiver) 141g (standard battery)
Battery Life	(with standard battery) 13 hours
Power Supply	7.2V nominal
Channel Spacing	12.5kHz, 25kHz
Frequency Stability	± 2ppm
Channel Capacity	2000
Emission masks	7K60FXD (data), 7K60FXE (voice), 7K60F1W (voice and data) for 4FSK digital modulation, 11K0F3E for 12.5kHz modulation

Transmitter	
RF Output Power	5W <sup>1</sup> (programmable)
Modulation Limiting	+/-2.5 @ 12.5kHz, +/-5.0 kHz @ 25kHz
FM Hum and Noise	40dB (TIA-603-B)
Conducted / Radiated Emission	-36dBm
Adjacent Channel Power	-60dBc @12.5kHz
Audio Response	+1/-3dB (analogue)
Audio Distortion	3% (TIA-603-B)
Digital Vocoder Type & Protocol	AMBE+2 half rate

Receiver	
Analogue Sensitivity	-117.5dBm (12dB SINAD)
Digital Sensitivity	3dBμV (1% BER)
Intermodulation	65dB (ETS086-1)
Adjacent Channel Selectivity	60dB @12.5kHz (ETS086-1)
Spurious Rejection	70dB (ETS086-1)
Hum and Noise	40dB (TIA603-B)
Audio Response	+1/-2dB (0.3-2.55kHz analogue)
Conducted Spurious Emission	-57dBm

Environmental	
Storage Temperature	-40°C to +80°C
Operating Temperature	-30°C to +60°C
IP Rating / Humidity	IP67 (IEC60529)

Options	
GPS	L1, TTFF < 60s
Bluetooth®	Class 2

All specifications are subject to change without prior notice.  
<sup>1</sup>5W RF power 400-470MHz, 4W RF power 470-480MHz

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For more information please contact your local Simoco representative:

