

simocoXd

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Digital voice and data capabilities

Integrated Man Down

DMR Tier II conventional and Tier III trunked

Digital Portable



// Digital Portable



Available for DMR Tier II conventional, DMR Tier III trunked and analogue modes of operation, Simoco Xd portables offer radio communication 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 diverse operation needs.

The SDP650 is designed for users with less complex needs while still incorporating all of the Simoco Xd benefits in a 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.

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

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 Duplex¹ Calling

Full duplex calls allow for natural and intuitive communications without the need to push-to-talk, a feature, which up until now has only been available on TETRA high-end radio systems. This is a benefit of DMR's TDMA approach and 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 telephone user. In high pressure situations this reduces the risk of miscommunication.

Full duplex calling is available on Simoco Xd portables as a software upgrade feature.

GPS and Intelligent Man Down

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 will be sent to a designated recipient.

Lone Worker

In order to safeguard workers all Simoco Xd portables have a built-in Lone Worker facility. The Lone Worker feature can be configured to alert a dispatcher, fixed mobile or terminal in the event of the user being unresponsive after a configurable period of time.



Note¹ supported in hardware (depending on the model) and will be available as a future software upgrade.

// Features and Benefits

SDP600 Range

- 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
- Integrated GPS antenna
- 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
- Single selector knob for volume control and quick menu navigation
- Increased battery life due to 50% duty cycle inherent with two-slot TDMA

SDP660 Specifics

1. Multiple programmable buttons, from side function keys to main keypad for ultimate customisation
2. Full keypad for free form dialling
3. Colour display designed for a full range of ambient lighting conditions

SDP650 Specifics

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
- 2-Year standard warranty



// Simoco Xd - Specifications



General

Frequency	AC (136 MHz-174 MHz), TU (400-480 MHz), UW (440-520 MHz)
Dimensions	137 x 64 x 36 mm
Weight	199g (transceiver) 141g (standard battery)
Battery Life	(with standard battery) 12 hours
Power Supply	7.2 V DC nominal
Channel Spacing	12.5 kHz, 25 kHz
Frequency Stability	± 2 ppm
Channel Capacity	2000
Emission Masks	7K60FXD (data), 7K60FXE (voice), 7K60F1W (voice and data) for 4FSK digital modulation, 11K0F3E for 12.5 kHz modulation

Transmitter

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

Receiver

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

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
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All specifications are subject to change without prior notice.
²5 W RF power 400-470 MHz, 4 W RF power 470-480 MHz.

For more information please contact your local Simoco representative:

