

// Simoco Xd - Specifications



General

Frequency	AC (136-174 MHz), TU (400-480 MHz), UW (440-520 MHz)
Power Supply	13.6 V DC (25 W), 13.9 V DC (50 W) or 110/240 V AC ¹
Frequency Stability	+/-0.5 ppm
Channel Spacing	12.5 kHz, 25 kHz
Channel Capacity	2000
Dimensions	408 mm (width) x 487 mm (deep) x 88.9 mm (height) (19" rack mount)
Weight	9.2kg / 8.95 kg / 8.7 kg ²
Emission masks	7K60FXD (data), 7K60FXE (voice), 7K60F1W (voice and data) for 4FSK digital modulation, 11K0F3E for 12.5 kHz modulation

Transmitter

RF Output Power	25 W and 50 W variants
Modulation Limiting	+/-2.5 @ 12.5 kHz, +/-5.0 kHz @ 25 kHz
FM Hum and Noise	-40dB (TIA-603-B)
Conducted / Radiated Emission	Complies with ETS086-1 / ASNZS4295 / TIA603-B
Adjacent Channel Power	-60 dBc (ETS086-1)
Spurious emissions	-80 dBc
Audio Response	+1/-3 dB
Audio Distortion	3% (TIA-603-B)
Digital Vocoder	AMBE+2

Receiver

Analogue Sensitivity	-117.5 dBm (12 dB SINAD)
Digital Sensitivity	-117.5 dBm (BER 1%)
Intermodulation	70 dB (ETS086-1)
Adjacent Channel Selectivity	65 dB (ETS086-1)
Spurious Rejection	70 dB (ETS086-1)
Hum and Noise	-40 dB (TIA603-B)
Audio Response	+1/-2 dB (0.3-2.55kHz)
Audio Distortion	3% @ 4 W
Conducted Spurious Emission	-57 dBm (ETS086-1)

Environmental

Storage Temperature	-40°C to +80°C
Operating Temperature	-30°C to +60°C (DC variants) -30°C to +55°C (AC variant)

¹ 110/240 V AC refers to SDB670 (25 W) variants which are available in EMEA only.

² SDB670 110/240 V AC, SDB670 13.6 V DC, SDB680

All specifications are subject to change without prior notice.



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simoco
wireless solutions

simocoXd

Digital voice and data capabilities

IP distributed architecture

DMR Tier II conventional and Tier III trunked

DMR Base Station



// DMR Base Station



A single common hardware platform supporting DMR Tier II conventional, DMR Tier III trunked and analogue modes, VoIP telephone connectivity as well as open standard voice and data applications. The SDB600 series can be interconnected over an IP backbone to form a wide area radio system without any additional or centralized switching components.

The SDB600 series uses a well proven IP architecture combining RF elements and control intelligence in one box, proven in systems from a single base station to many hundreds.

Dependable Communications

Simoco Xd uses a tried and tested all-IP architecture, which has been deployed in a range of business-critical applications for many years. This architecture offers resilience at the network level, by distributing control functions among all base stations in the network. The integrated approach means that there are few network components and spares holding is reduced.

Remotely configurable base stations ensure that outages are less likely, have less impact on communications and are faster and simpler to resolve.

Improved User Experience

The IP connection of the SDB600 series base station inherently supports a wide variety of advanced features:

- **Applications** – The SDB600 series base station provides a standard IP interface to enable a wide range of applications to be deployed on the network.
- **Configuration & Monitoring** – IP for configuration and monitoring allows these activities to be carried out anywhere on the network. System administration can be performed at single or multiple locations.

Integrated Telephony

Telephone and radio communications naturally sit together, so Simoco Wireless Solutions provides telephone connectivity directly from within all base stations.

The SDB600 series implements this by a direct SIP/VoIP connection, without the need for a gateway between the radio and telephone systems and without compromising the features of either system.

Auto Switching

The Simoco Xd SDB600 series base station automatically switches between Tier II conventional and analogue modes depending on the received signal. This enables a smooth migration from analogue to digital and supports a mixed terminal fleet during the transition period.

Simoco Xtend

For DMR Tier II conventional systems, Simoco Xtend enables radio sites to interconnect over an IP backbone. It is possible to connect a logical channel on one base station to up to 15 other radio sites. This provides wide area working in both analogue and digital modes.



// Features and Benefits

SDB600 Series

- Single platform for conventional and trunked systems
- Optional mountings for rack mount and wall mount installations
- Easily identifiable indications for transmit and receive in both TDMA slots
- Health and alarms are clear at a glance, with further information available via IP
- Compact 2U size
- Network management software included
- Integrated power supply
- 100% duty cycle at full power
- IP connectivity for applications interface, configuration, monitoring, telephony and trunking support
- Programmable facilities connector
- Battery backup

