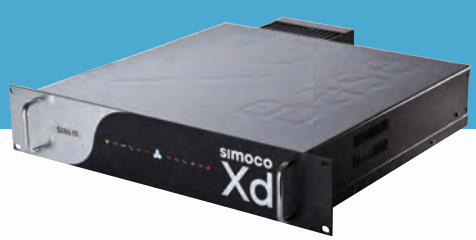
simoco Xd
CONNECTIONS THAT COUNT

Instant push-to-talk digital voice communications

VoIP connectivity

Supports DMR Tier II and Tier III

DMR Base Station



// DMR Base Station

A single common hardware platform supporting analogue, DMR Tier II and DMR Tier III modes and repeater mode, VoIP telephone connectivity as well as open standards applications. The SDB670 can be interconnected over an IP backbone to form wide area radio systems without any additional or centralised switching components.

The SDB670 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. Integrated telephone interconnect in each base station means that there are fewer network components to fail 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 SDB670 Base Station inherently supports a wide variety of advanced features:

- **Dispatcher** – The Simoco Xd Dispatcher is available for simple direct IP connection to the Base Station and provides voice, messaging and radio-system health monitoring information to PC-based operators.
- **Third Party Applications** – Simoco works with third parties to integrate its products with the radio system and support the wider availability of this interface.
- **Configuration & Monitoring** – IP for configuration and monitoring allows these activities to be carried out anywhere within your network, from a direct connection alongside the SDB670 to, via VPN, many miles away. This enables you to administer the system the way you want to.
- **Auto Switching** – The Simoco Xd base station automatically switches modes depending on the received signal. This enables a smooth migration from analogue to digital and supports a mixed terminal fleet.

Integrated Telephony

Telephone and radio communications naturally sit together, so Simoco provides telephone connectivity directly from within all base stations. The SDB670 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.

Simoco Xtend

Simoco Xtend enables system designers to interconnect DMR Tier II radio sites over an IP backbone. It is possible to connect a logical channel on one base station to up to 8 other radio sites. This provides wide area working for Tier II deployment.

// Features that make connections count

SDB670

- Compact 2U size
- Optional mountings for rack mount and wall mount installations
- Easily identifiable indications for transmit & receive in both slots
- Health and alarms are clear at a glance, with further information available via IP
- Management application
- Integrated power supply
- 100% duty cycle at 25W
- IP connectivity for applications interface, configuration, monitoring, telephony and trunking support
- Programmable facilities connector
- Battery backup

// Simoco Xd - Specifications

General

Frequency	AC (136-174MHz), TU (400-480MHz)
Power Supply	12V DC or 110/240V AC
Frequency Stability	+/-0.5ppm
Channel Spacing	12.5kHz, 25kHz
Channel Capacity	2000
Dimensions	408mm (width) x 487mm (deep) x 88.9mm (height) (19" rack mount)
Weight	9.2kg
Emission masks	7K60FXD (data), 7K60FXE (voice), 7K60F1W (voice and data) for 4FSK digital modulation, 11K0F3E for 12.5kHz modulation

Transmitter

RF Output Power	0.5 – 25W
Modulation Limiting	+/-2.5 @ 12.5kHz, +/-5.0 kHz @ 25kHz
FM Hum and Noise	-40dB (TIA-603-B)
Conducted / Radiated Emission	Complies with ETS086-1 / ASNZS4295 / TIA603-B
Adjacent Channel Power	-60dBc (ETS086-1)
Spurious emissions	-80dBc
Audio Response	+1/-3dB (analogue)
Audio Distortion	3% (TIA-603-B)
Digital Vocoder	Type AMBE+2 half rate

Receiver

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

Environmental

Storage Temperature	-40°C to +80°C
Operating Temperature	-30°C to +60°C

All specifications are subject to change without prior notice.

DMR

For more information please contact your local Simoco representative:

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