### simoco Xd

The complete end-to-end DMR solution supporting both Tier II conventional and Tier III trunked

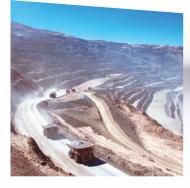
#### Simoco Xd combines extensive experience of delivering radio systems with leading edge digital technology to connect people when it matters



Future proof and resilient, Simoco Xd is a complete end- to-end system consisting of mobiles, portables, base stations and IP connected applications. Simoco Xd is available in DMR Tier II and Tier III with software only upgrade options, scalable from a single base station repeater to large multi-site networks.

As a leading member of the DMR Association, Simoco Wireless Solutions continues to drive future enhancements to the standards in order to provide additional features and maintain interoperability between manufacturers' equipment.







# Why Simoco Xd?

For over 70 years our radio systems have enabled you to do what you do better, staying connected with mission critical communications. Simoco Wireless Solutions is unique in exploiting the capabilities of IP and cloud based technology to deliver non-proprietary professional DMR solutions that are the most scalable, flexible, cost effective and resilient in the world



Reliable and resilient



Expandability



Clear conversations

Integrated data

applications



Ease of deployment



Telephony integration



Safeguarding employees



#### DMR Products 600 Series

#### SDP660 DMR Portable Radio

Offering full keypad functionality for telephone, complex group calls, advanced data messaging and a total of 12 programmable function keys, the SDP660 is ideally suited to organisations with complex operation needs.

Multiple programmable buttons, from side function keys to main keypad for ultimate customisation, with intuitive keypad and full colour display with intuitive interface

#### SDM610 DMR Mobile Radio The SDM610 is an entry level

controller microphone that puts the essentials of voice calls and status messaging right where the user needs it.

The compact design with accessible function keys and simple display give the user the right information and the right control over their communications, making the radio simple to operate in urgent communications situations.



The SDM622 controller microphone features a multi-line graphic display and full keypad. Offering the user high levels of functionality with generous space for visual information and text messages, this is a mobile microphone that is suited to any mission critical environment.



#### SDM630 DMR Mobile Radio

The SDM630 advanced control head provides for extended applications and messaging at the user's fingertips. Designed to push instant messaging, dispatch, telemetry and control applications out to the mobile user, this radio expands their abilities beyond voice communications. The full keypad enables enhanced dialling, giving access to any radio, group or further to telephone networks. Other features include full text message composition, 12 additional programmable keys with press 'n' hold.

#### DMR Products 500 Series & 700 Series

#### SDP560 DMR Portable Radio

The SDP560 is a digital portable radio that is compact, durable and of high quality which is available in VHF/UHF frequency bands.

The SDP560 is capable of operating across multiple modes, including analogue conventional and digital conventional (DMR Tier II). The radio provides a cost effective and flexible migration path for organisations managing the transition from analogue to DMR digital.



#### SDP750 DMR Portable Radio

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.

Additional features include GPS, long battery life and Bluetooth to allow for the connection of additional wireless accessories.



#### SDP760 DMR Portable Radio

The SDP760 offers a rich feature set including full duplex calling, allowing for enhanced communications between office and field staff.

Additional features include a large TFT Screen, GPS, long battery life and an Application Programming Interface (API) capable of delivering third party applications into the hands of your operational teams.



#### SDM730 DMR Mobile Radio

The SDM730's ability to allow the user to operate across a variety of network signature modes means it is not only a safe and futureproof investment, but also provides a cost effective and flexible migration path for organisations managing the transition from analogue to DMR digital



#### SDB670 DMR Base Station

Supporting instant push-to-talk voice communications and VoIP telephone connectivity as well as open-standards applications support, the Simoco Xd digital base station is more than just a radio repeater. Each SDB670 forms the bridge between groups of radios and extends this to the world of IP.

The SDB670 builds on the highly successful and widely deployed Xfin blade, combining RF elements and control intelligence in one box for a unique architecture that has been proven in systems from a single base station to many hundreds.





#### SDB680 DMR Base Station

The SDB680 DMR base station delivers 6.25 kHz equivalent digital communications at 50 Watt transmit power with 100% transmit duty cycle. Exploiting Simoco's experience in radio infrastructure, SDB680 can be interconnected over an IP backhaul to form wide area radio systems without any additional or centralised switching components.

#### **Applications**



#### Simoco Xd Tier III Dispatcher

The Simoco Xd DMR Tier III Dispatcher is a Microsoft Windows based PC Dispatch system with advanced fully integrated AVL mapping functionality. It is an integral part of the Simoco Xd Radio Network solution - with trunked radio functionality, all DMR voice call types, emergency calls and 3 levels of priority.



#### DMR Tier II and Tier III Voice Recorder

The Simoco Xd Voice Recorder is a powerful software application which enables the recording and playback of all Simoco Xd voice calls from a standard specification PC.

Each voice recorder server supports up to 100 channels. Simoco Xd IP flexibility enables additional servers to be added anywhere in your network. Each server acts as a component of a single distributed network system.



Simoco Push is an industry leading secure Push to Talk over Cellular solution. Leveraging DMR's Application Interface Specification (AIS) protocol, Simoco Push is a fully integrated platform for DMR Tier III and Cellular PTT users.

Simoco Push's versatility allows it to be utilised and deployed in numerous professional environments; such as expanding your fleet's communication options, increasing and extending coverage and acting as a senior level communication tool by allowing access to calls at the push of a button, without the use of a radio.







Velocity provides organisations a high performance intelligent edge computing platform that harnesses wired and wireless communications, bringing reliable and always on mission critical communications.

It has the adaptability of converging your DMR network and broadband LTE into one device which support a migration to LTE and secures your investment for the future.

## PULSE

The Simoco Pulse AIR Data Modem is a DMR Tier III radio modem for wireless communications in remote SCADA telemetry systems. The unit enables third party RTUs to be wirelessly connected to the SCADA telemetry network using DMR Tier III technology and DNP3 protocol.

The range of Simoco Xd DMR Tier III Telemetry Products enables devices to be easily deployed into a wide range of industry sectors for the monitoring and control of equipment such as switches, valves, pumps and control modules.









With resilience built-in to the base stations, and tough portables and mobiles, Simoco Xd provides a robust platform for always-available communications.



Simoco's fully distributed IP architecture doesn't require any site, regional or central switching elements resulting in the ultimate level of system resilience at the lowest possible cost.



**Scalability** 

Growing your Simoco Xd network is simply a matter of adding new Xd bases, all connected via IP infrastructure – this is quick, easy and cost-effective. Our unified communications approach means that your DMR solutions can be integrated with your wider IT systems, delivering a truly integrated communications infrastructure.



Open interfaces are available for dispatch and other applications, plus multiple digital inputs and outputs are available on portables, mobiles and base stations allowing for the creation of a system tailored to specific needs.



With full-duplex speech it's possible to get the message across more clearly and succinctly. DMR digital technology provides better noise rejection and preserves voice quality over a greater range than analogue.



Fully Integrated Communications Open interfaces are available for dispatch and other applications, plus multiple digital inputs and outputs are available on portables, mobiles and base stations allowing for the creation of a system tailored to specific needs.

#### **Key Features**



Run your radio network with maximum efficiency, avoiding wasted energy and transmission on sites that do not contain members for a group call. Our group presence checking feature requests radio terminals registered on every predefined site to signal their interest in an imminent group call, so that the call in question is only set up on required sites. In turn, this improves group call reliability, and network efficiency.



Control the precise access levels and rights of every user on your radio network, with granular visibility and control over each individual. Our enhanced subscriber management feature gives managers 99 access levels and 36 parameters with which to manage radio terminal users.



Deliver watertight security and robust compliance across your radio network, with the support of some of the most powerful encryption algorithms available. Simoco Xd DMR Tier III encrypts and decrypts all radio system conversations, or can be configured to pass encrypted conversations between authorised terminals and groups through without decrypting in the infrastructure.



Typically, customers are required to select either a VHF or UHF frequency when designing and deploying a new radio communication system. Simoco Xd can accommodate VHF and UHF base stations on the same infrastructure, allowing crossband terminals to seamlessly intercommunicate across all call types.



Save power across your radio network, simultaneously reducing costs and improving your environmental posture. The hibernation facility across

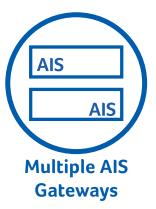
Simoco Xd DMR Tier III systems means that control channels will stop transmitting when not in use for a pre-defined period of time, while still keying up periodically to enable roaming radio terminals to find and register on the hibernating site. Hibernation is particularly useful for sites without a connection to grid power such as solar sites.



Enable two people to communicate simultaneously during an individual call, and telephone users to seamlessly interconnect to your radio network.Supporting full duplex calling in a multi-site system requires both aligned and offset support, so Simoco Xd is built with the agility to dynamically switch between aligned and offset modes according to the location of users.



Enhance the reliability and integrity of your voice recording solution by streaming two separate audio streams to dual active voice recorders which may be geographically separated for redundancy purposes.



Improve the reliability of your dispatch solution by deploying multiple AIS gateways that may be geographically seperated for redundancy purposes. Any third party dispatcher connected to a Simoco Xd DMR Tier III radio system via a group of AIS gateways can poll each of them individually, checking for signs of failure and, if necessary, registering with an alternative gateway.



For generations Simoco Wireless Solutions has been migrating customers to new technologies. This experience is employed to help you make the most of DMR whilst supporting the radio features you have been using in analogue. All system components work in both analogue and digital modes, enabling migration solutions that minimise operational disruption during system rollout.



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 with 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 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 when a lone worker is unresponsive. OOO OOO Dynamic Group Number Assignment Manage groups flexibly across the radio network by dynamically adding and removing terminals from particular talkgroups. Our Dynamic Group Number Assignment (DGNA) feature temporality adds talkgroups to specified radio terminals using over the air signalling only.

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