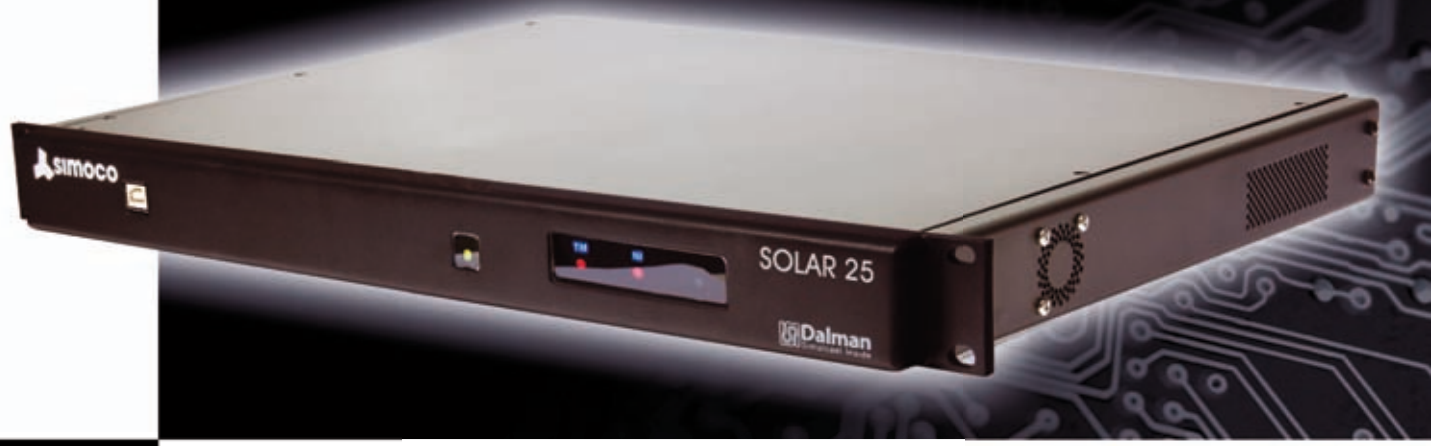
SOLAR 25

Solar 25

Scalable P25 Simulcast over IP Infrastructure that simplifies deployment and support and reduces lifetime ownership costs.



Solar 25 builds on the success of the Solar 2 principles of a straight-forward plug & play Digital IP Simulcast and Voting solution, extending this capability to the P25 network environment.

The system consists of Network Interface and Traffic Manager Modules, which can be selectively deployed in the 1U Chassis to achieve the desired network solution. The compact form factor and modular architecture means Solar 2 can be more effectively deployed in a small system desktop and larger network solution environments, where rack space is at a premium. Traffic Manager, at the heart of the system, provides voice routing, redundancy options and supervision, whilst fully duplex Network Interfaces provide connectivity of remote stations and dispatch consoles to the IP infrastructure.

- Low bandwidth (64Kbps per Network Interface), low latency (65ms min) simulcast infrastructure over an IP network
- Scalable, Dynamic architecture allows real-time system reconfiguration and expansion
- Synchronisation of audio input to Base Station automatically compensate for network delay
- Full audio bandwidth for best voice quality and supports the transfer of signaling tone
- Integral RSSI voting for best received signal selection
- Minimal set up procedures and no regular adjustment or maintenance after commissioning
- Global Synchronization signal (eg 1 PPS input from a GPS receiver) required at each site
- 16 connections, each user-configurable as an input or an output, enables remote supervision of the local environment
- Traffic Manager Multi channel support, SNMP monitor & control and redundancy options

Solar 25 revolutionises Simulcast system technology by utilising IP inter site connectivity. Digital VoIP audio inputs synchronise automatically, simplifying initial set up and ongoing adjustment and maintenance, which when allied to plug & play, hot swap, real time and remote maintenance routines, enable system deployment and support without specialist training and equipment. Integral RSSI Voting features come as standard further optimising wide area coverage capability.

Technical Data

Solar 25

1. Specification

Audio I/O	4 wire duplex -24 to 0 dBm, 300Hz to 3.2KHz from Console or Base Station +/- 0.5dB flatness across band
IP interface	10 Base/T RJ45 - UDP/IP
Environment	8 Binary I/O
GPS 1 PPS	1 PPS Delivered to Solar via

2. Environmental and Physical

Temperature	Operating: -10 to 60˚C, Storage: -25 to 85˚C
Power Supply	100-240 VAC 50-60Hz, 10-36VDC, 32-72VDC
Physical Dimensions	19" rack, 30.5cm deep
Weight	TM - 3.5Kg, NI - 3.3Kg
CE Mark	EN55022/24 & 61000-3-2/3
FCC approval	15B

3. Traffic Manager Capacity

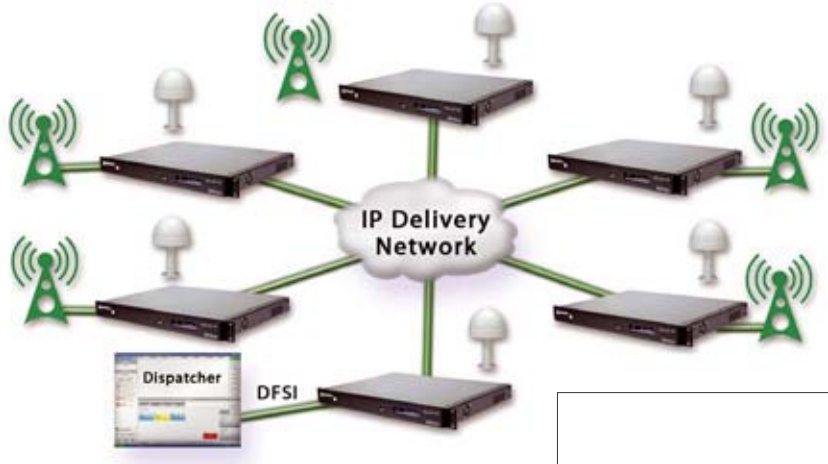
A single Solar 2 Traffic Manager can accommodate a maximum number of 32 Base Stations with a maximum of 16 console interface connections by default. With the additional channel option, the user can select Stations to form independent channel groups (to a maximum of 16) and allocated the number of console connections to each channel as appropriate.

4. Voting

Receiver selection or receiver voting is conducted in the digital domain by the TM using signal information passed down from the Station Interface. Due to the noise free nature of the digital Link, no further signal evaluation is necessary at the TM which means that the IP data packets contain both the received audio and the signal level/ quality information together so voter risetime is the absolute minimum. Solar can accommodate either, a ramping voltage or a set of tones as a source of RSSI signal.

5. Synchronization

Synchronization operates within 2 micro seconds compared with other base stations for both talk in and talk out directions. Switching the "vote" mid transaction will only cause a disturbance of the input within the specified figure. Monitoring & Control System configuration and status is available via a PC running the Engineering Terminal software supplied, and is connected either via USB or over the IP network to traffic manager. Standards based management is also available via the SNMP Monitoring & Control option on the Traffic Manager allowing connection and sending of traps to a higher level management system. A closed contact summary alarm output is also provided on the Central NI for connection to external alarm systems.



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Team Simoco Ltd
Field House
Uttoxeter Old Road
Derby DE1 1NH
England

Tel: +44 (0) 1332 375500
Fax: +44 (0) 1332 375666