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## SOLAR Simulcast

Synchronized Simultaneous Broadcast over IP Networks

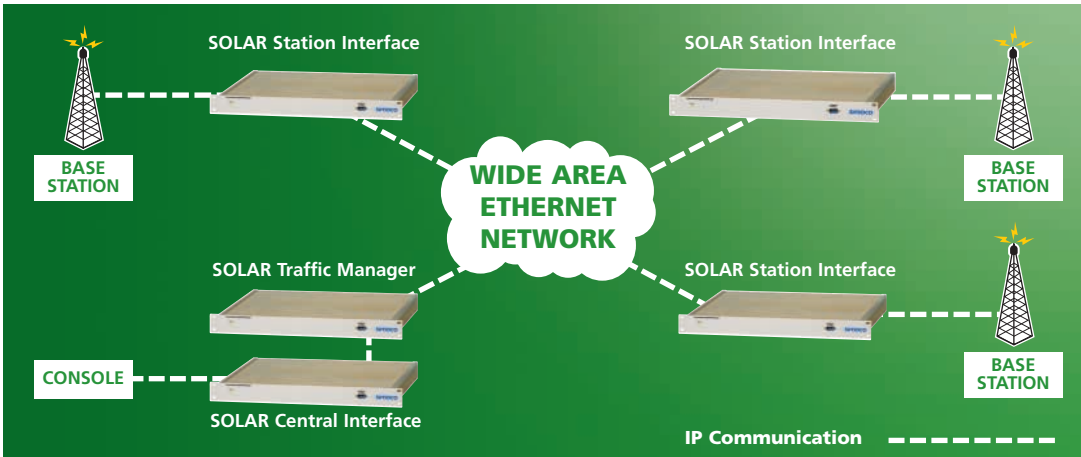


SOLAR is an integrated infrastructure for a single channel, wide area coverage, multi RF base station, Private Mobile Radio (PMR) system. SOLAR system components communicate with each other via a user supplied IP Network.

- Full duplex network interfaces.
- Provides a method of installing a Simulcast PMR system over a TCP/IP ethernet network.
- Facilitates the synchronization of input to Base Station transmitters, automatically compensating for link delay.
- Incorporates a voter that automatically selects the best Base Station receiver.
- Requires no regular adjustment or maintenance after commissioning.
- Synchronising signal derived from highly accurate GPS receiver.
- 8 control and 8 monitor I/O's to facilitate remote supervision of the local environment.
- Supervision features enable the user to remotely monitor the quality of service being delivered.
- RSSI Voting is standard (DC Ramp or a set of tones).
- Capacity of up to 32 Base Stations per network.
- System status is available via a PC running software supplied.
- A Traffic Manager contains a voter process which uses information from the Base Station receiver in the selection process.



## Synchronised Simultaneous Broadcast over IP Networks



## SPECIFICATIONS

### SOLAR

Audio I/O to/from Console and Base Station	DB9 Socket	4 wire full duplex -30dBm to 0dBm 300Hz to 3.2kHz +/-0.5dB flatness across band
Synchronisation	+/-5µSec	
LAN - WAN	RJ45	TCP/IP VoIP ethernet. The link should be capable of operating at least at 1Mbit/sec.
Environment Status I/O	DB37	A group of 8 digital I/O's at Station Interfaces supervised via the Base Interface.
Base Station Facilities Connector	DB25	Interface to Base Station.
Supervision PC	DB9 Plug RS232 PC running Windows application software	Windows supervision software is supplied with the product, giving status of GPS Rx/Ae (module/type dependent) and Station status.
Power Input	10V DC to 24V DC	10 watts @12V DC
GPS Connection	DB15	The Solar unit powers the GPS Rx
Dimensions	Network Interface: Traffic Manager:	1RU (H) x 305mm (D) 2RU (H) x 305mm (D)
Temperature	0°C to 50°C	

### MODEL 4062 GPS ANTENNA RX

An aerial and serial interface all in one self-contained unit. A 12 channel receiver module provides 1PPS stream along with NMEA format time, position and status data via two duplex serial interfaces. There is no need for RF in the interconnecting cable.

GPS 1PPS	1PPS delivered to the Solar	via RS422/485 or TTL.
Cold Start	<4min	
Power	5W	
Dimensions	190mm (H) x 140mm (ø)	



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