



GPS / GNSS Solutions

Redundant GPS / GNSS Time Distribution System

Foxcom's unique optical redundant GNSS Time Distribution System (TDS) ensures failsafe synchronization in data centers by transmitting fully redundant GPS/GNSS signals. By deploying Foxcom's optical GPS/GNSS link, networks of data centers at multiple locations can be accurately synchronized.



Features

- GPS / GNSS distribution over a single fiber
- Auto-switchover for antenna backup
- Phase free reference signal
- Up to 2 Km of fiber

Advantages

- Failsafe synchronization
- Electromagnetically isolated
- Customizable
- Robust solution with redundancy that reduces downtime

Benefits

- Maximum uptime
- Fewer rooftop antennas
- Minimal phase noise and jitter
- Lightning safe

GPS/ GNSS Solution

Product Description

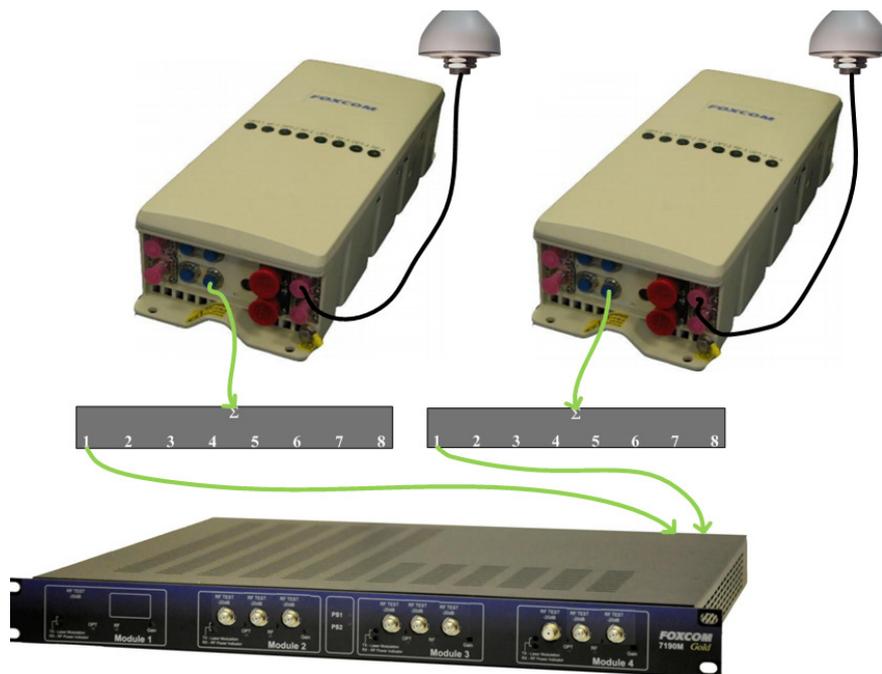
Foxcom's redundant GPS / GNSS TDS is the next step in failsafe global navigation satellite signal transmission providing maximum uptime to data centers.

The system provides an electromagnetically isolated solution to receive navigation satellite signals and transfer them indoors to multiple receiver units via 2Km of easy-to-deploy optical fiber. By using optical fiber for signal distribution, fewer antennas will be required on the roof for coverage of each data center.

The system supports up to 16 redundant GNSS receivers while maintaining signal integrity and sensitivity performance.

Foxcom's unique GNSS distribution system can identify an RF signal drop caused by sky obstructions or a failed antenna and toggle to the backup channel creating a true failsafe redundant path.

The system is composed of dual outdoor optical transmitters, an indoor optical splitter and an indoor redundant optical receiver and is equipped with dual hot-swappable power supply units and eight GNSS RF outputs.



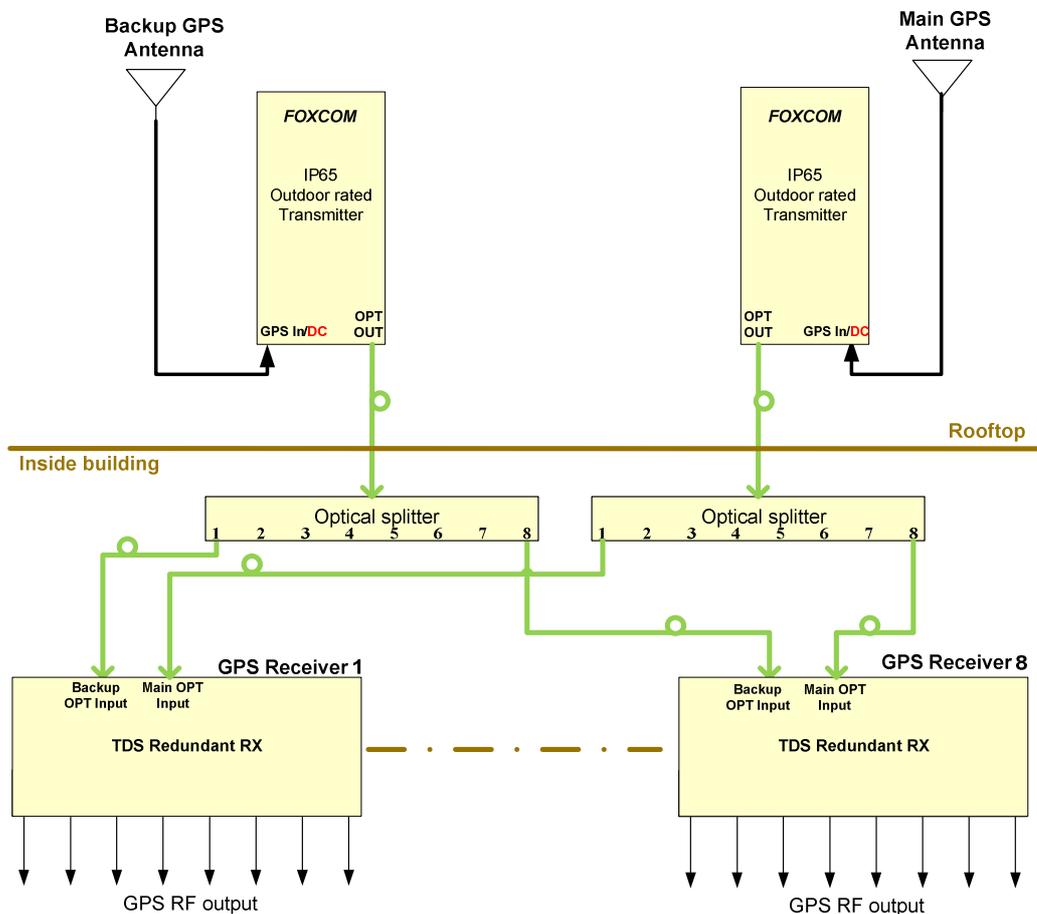
GPS/ GNSS Solution

System Specifications

System Specification	
Satellite support	GPS L1, Galileo E1, GLONASS G1 (call for more options)
Operating frequency band	1.5 to 1.65GHz bandpass filtered
Number of GPS antenna supported	2 (main and backup)
GPS powering	3.3VDC/5VDC (selectable)
System reception sensitivity	Not affected by the TDS system
Max optical redundant receiver supported	Up to 8 (call for more options)
ODU Specification	
Modules installed	GPS high sensitivity filtered optical transmitter
Laser type	1310nm/1550/CWDM
LNA powering	3, 5 or 12VDC factory preset
Case type	Pole/Wall mount IP65 rating
Powering	110-220VAC (optional DC powering)
Redundant Receiver Specification	
Monitored parameters	GPS RF signal level, Optical signal Level
GPS signal output	8
GPS RF connector	SMA
Front panel indication	Active GPS Channel, GPS signal status, Optical status, PS1, PS2
Case type	19" 1RU
Powering	110-220VAC / dual hot-swappable PS

GPS/ GNSS Solution

System Schematic



Ordering Information

Model Number	Description
TDS-GPS-00-FC-NT-01-00-OD4-TX	GNSS distribution outdoor transmitter housed in Foxcom 4005 ODU enclosure, single optical FC-APC output port, N-Type GPS IN RF connector with 3.3VDC LNA powering. Internal 100-220V 50/60Hz AC to DC high reliability power supply.
FPS-SPL-01-FC-08-1RU	19" 1RU optical splitter.
TDS-RGP-04-FC-SM-08-01-RX	Redundant GNSS optical receiver. Housed in a 7190M Foxcom 1RU enclosure, dual FC-APC optical input ports, 8 GNSS SMA type RF signal output. Equipped with dual hot-swappable 100-220V 50/60Hz AC to DC high reliability power supply units.