GPS / GNSS Solutions

# Redundant GPS / GNSS Time Distribution System

Global 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 down-time

## Benefits

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

## Product Description

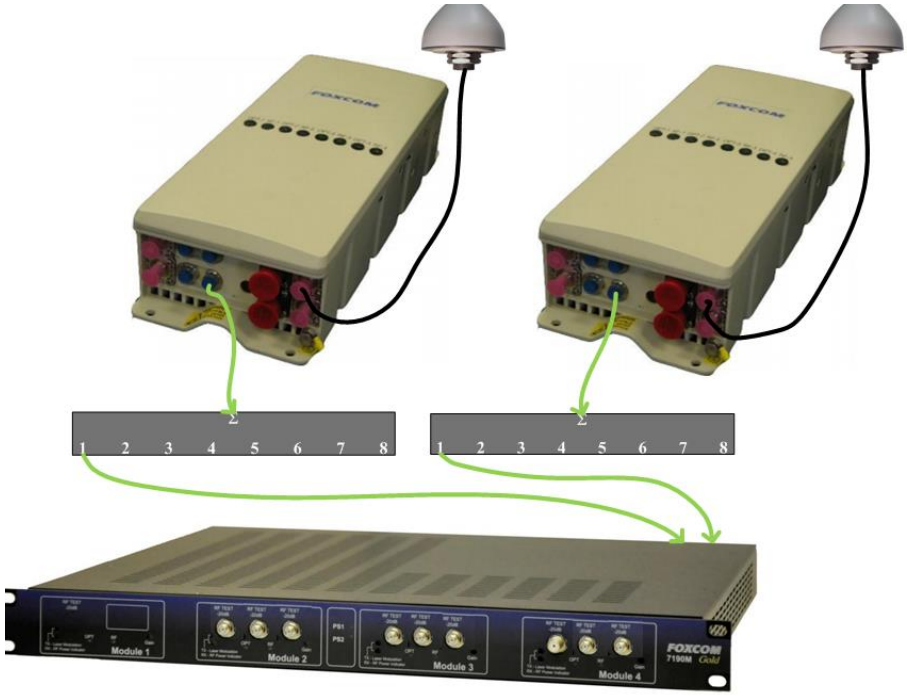
Global Foxcom's redundant GPS / GNSS TDS is the next step in failsafe global navigation satellite signal transmission providing maximum uptime to data centers.

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.

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## 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 |

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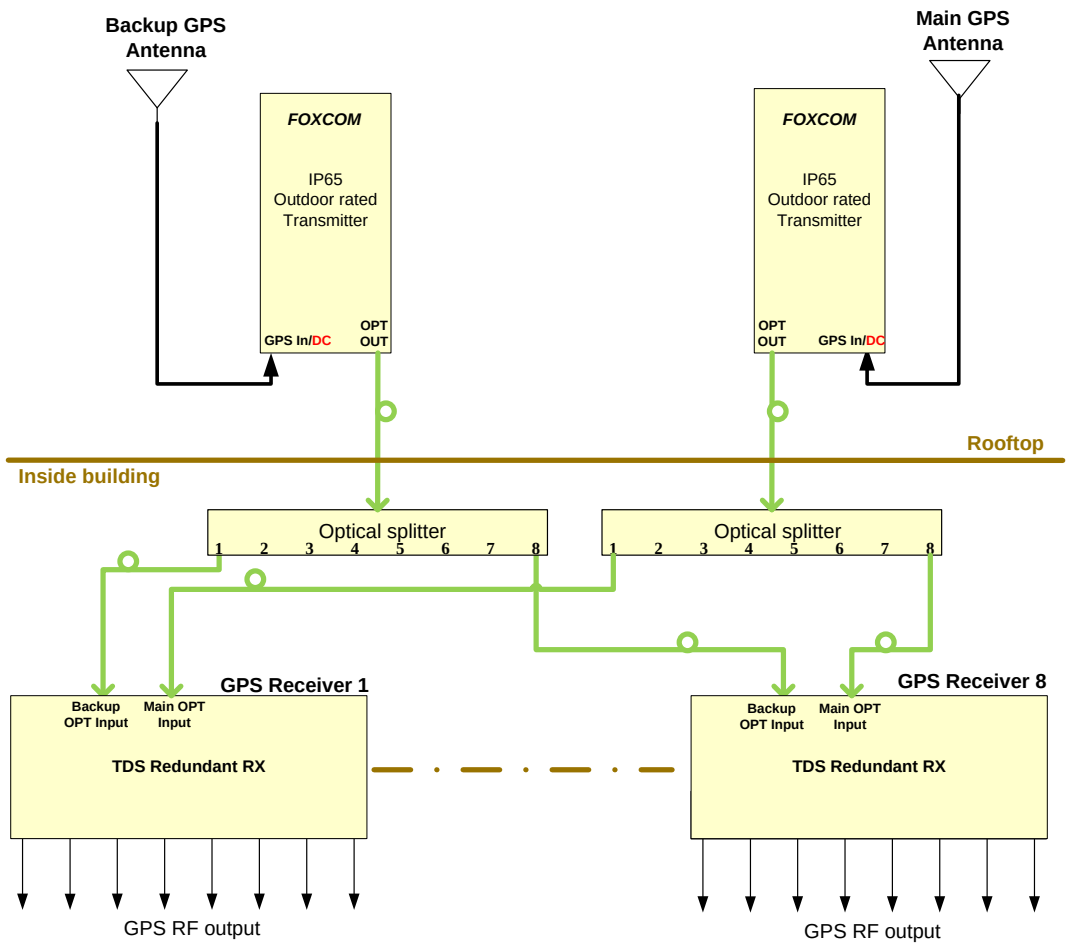
## System Schematic




## 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. |

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