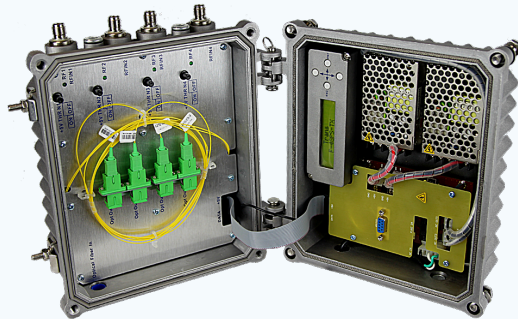


4-CHANNEL GPS OVER FIBER

OUTDOOR TRANSMITTER + 19-INCH RACK RECEIVER

F-4GPS-TX-WE / OUTDOOR TRANSMITTER



NEMA 4 weatherproof enclosure

4 independent RF-to-fiber paths | dual power

4 + 4

RF / optical channels

1310 nm

optical wavelength

F-4GPS-RX-RM / RACK RECEIVER



19-inch, 1U rack-mount enclosure

4 optical inputs to 4 GPS RF outputs | dual power

20 km

configuration-dependent reach

1U

rack receiver chassis

SYSTEM OVERVIEW

Transport up to four independent GPS/GNSS RF antenna signals on four dedicated 9/125 single-mode fibers. Each optical path is reconverted to RF at the rack receiver for connection to timing equipment.

APPLICATIONS

- Cellular timing / base stations / DAS
- Rooftop antennas with long indoor cable runs
- Broadcast timing, laboratories, maritime systems
- Passive optical splitting for multi-operator distribution

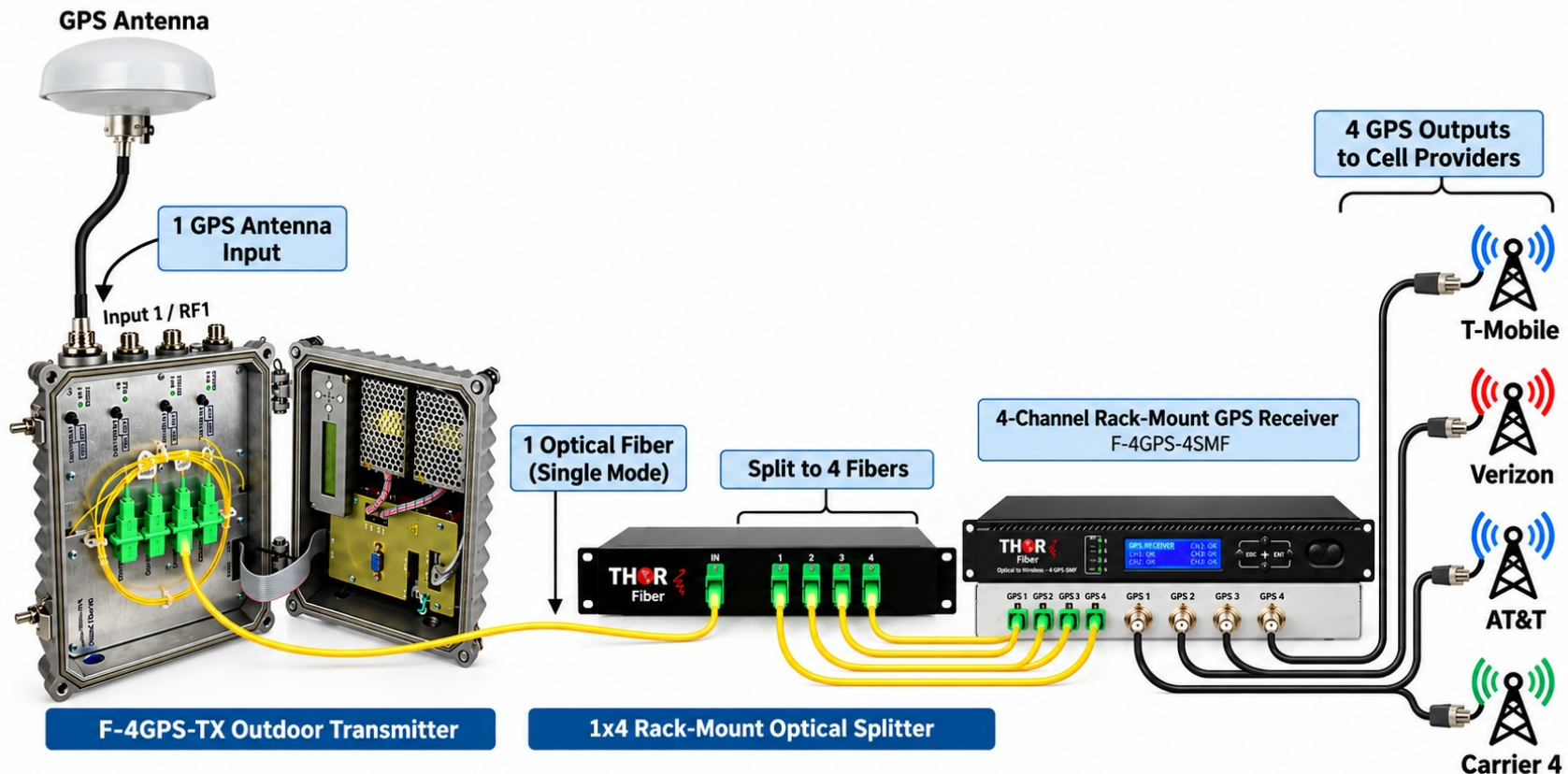


OPTICAL CONNECTION REQUIREMENT

Use SC/APC angled-polish connectors at the equipment interface to minimize back-reflections. If the installed plant terminates in SC, ST, or FC/PC, use the correctly specified PC-to-SC/APC conversion jumper.

ONE GPS ANTENNA / ONE SMF / 1×4 OPTICAL SPLIT / FOUR GPS RF OUTPUTS

The single TX optical output feeds a passive 1×4 splitter. Each splitter output is patched to its own optical input on the rack-mount receiver; each receiver RF output is then connected by coax to a separate carrier timing input.



ENGINEERING NOTE

1×4 split adds optical loss; verify receiver input power after splitter, connectors, and full fiber distance.



4-CHANNEL GPS OVER FIBER

REVISED TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS / REVISED TABLE

Models: F-4GPS-TX-WE + F-4GPS-RX-RM

GENERAL SPECIFICATIONS

System	4-channel GPS over fiber
Transmitter model	F-4GPS-TX-WE
Receiver model	F-4GPS-RX-RM
Independent GPS channels	4
Transmitter enclosure	NEMA 4, outdoor weatherproof
Receiver enclosure	19-inch rack mount
Monitoring	LCD with RF and optical level meters
Power supply	Dual redundant power supplies

RF TRANSMITTER SPECIFICATIONS

RF input channels	4 independent inputs
RF input connector	4 × TNC, 50 ohm
RF input impedance	50 ohm
RF frequency range	1000–1700 MHz
Amplitude flatness	1.5 dB typical
RF input return loss	15 dB typical
Input VSWR	2.0:1 maximum
1 dB compression point	–25 dBm

OPTICAL TRANSMITTER SPECIFICATIONS

Optical outputs	4 independent outputs
Optical connector	SC/APC
Standard wavelength	1310 nm
Standard optical output	1 mW minimum
Optical laser power	1 mW
Fiber type	Single-mode, 9/125 µm
Transmission distance	Up to 20 km, depending on configuration

OPTICAL RECEIVER SPECIFICATIONS

Receiver model	F-4GPS-RX-RM
Optical wavelength	Matched to transmitter
Optical input range	–13 to 0 dBm
RF frequency range	1000–1700 MHz
RF output connector	F-type, or by request
Typical RF link loss	15 dB
Optional receiver	F-4GPS-RX-RM-OU (optical cascade output)

ELECTRICAL & ENVIRONMENTAL

AC input	110–240 VAC
DC input	24–48 VDC (optional configuration)
Power consumption	50 W ±10%
Operating temperature	–30°C to +60°C (datasheet)
Storage temperature	–40°C to +85°C
Rack-mount dimensions	482 × 268 × 44 mm
Listed equipment weight	3.5 kg

INSTALLATION & PUBLICATION NOTES

SC/APC termination at Thor units is essential to control optical reflections. For FC/PC, SC/PC or ST/PC fiber plants, specify suitable conversion jumpers; never directly mate APC to PC ferrules.

The single-fiber/1×4-split application requires an optical power budget. Values in this revision follow the updated specification table supplied for publication; confirm custom connector, PSU and environmental variants before release.