

TeleThon 3G

Multichannel Wavelength Manager and 3G/HD/SD-SDI Transport



Lightweight, easy-to-deploy fiber connectivity solutions.

TeleThon 3G from Grass Valley, a Belden Brand, is the single optical and electrical multiplexer that simplifies all your cabling needs. It accepts electrical digital signals (via BNC), ranging from 19.4 Mb/s up to 3 Gb/s uncompressed 3G-SDI and optical signals of up to 3 Gb/s each, and multiplexes them for transmission in either or both directions. Up to 16 optical signals can be accommodated on one fiber, significantly increasing fiber capacity. The coarse wavelength division multiplexing (CWDM) capability of the TeleThon 3G system simplifies and multiplies the effectiveness of fiber optic cables, reducing operator costs and improving overall signal transmission capacity.

Huge savings

TeleThon 3G is our latest tool to reduce the cost and complexity of moving large numbers of wideband signals through fixed or mobile infrastructures. With each fiber strand capable of moving up to 48 Gb/s of data, fewer fibers are used, resulting in less expensive cable and connector costs, and lower overall life cycle costs for broadcasters.

TeleThon 3G system is a compact 1 RU unit ideal for HD studio infrastructures, sports and field production, HDTV distribution on corporate and educational campus, and other facilities requiring reliable, efficient delivery of HD and other signals.

New life to old gear

The true value of the TeleThon 3G system comes from its ability to accept an optical signal and re-transmit it on a CWDM wavelength. By doing this, your optical signal is being amplified and repeated. The TeleThon 3G gives you a fresh optical budget and extends the usable life of older single wavelength fiber products. Now all of your existing fiber products are CWDM ready.

Simplify complex configurations

Since the TeleThon 3G accepts the optical output of virtually any digital transmitter and turns it into a specific CWDM wavelength, there is no need for “wavelength specific” devices in your system. This represents a huge savings not only in the costs of the spares but in the overall complexity of managing the individual wavelengths.

When you add the power and convenience of the TelePort 3G to the high density signal transport of the Python 3G, you end up with an ideal solution for handling your ever changing production requirements. Whether you need it in the studio or out on your mobile unit, the TeleThon 3G will fit seamlessly into your existing fiber inventory and dramatically increase your signal transport capabilities.

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KEY FEATURES

TelePort 3G side

- Turns any single wavelength optical signal into CWDM
- Mux up to 8 optical signals on one fiber
- Up to 3 Gb/s on each optical channel
- Optically repeats signals — extending range

Python 3G side

- Up to 8 channels per 1 RU
- Wide range of digital formats
- 19.4 Mb/s to 3 Gb/s transport
- Compatible with digital TV standards SMPTE 292M, 259M and 424M
- Handles DVB/ASI signals
- Immune to pathological data errors
- Equalizes coax up to 3 Gb/s

System

- Economical, low profile packaging
- Front panel monitoring of optics and signals
- Redundant power inputs
- Option for optical redundancy
- Wide optical budget
- Low system jitter
- Low power consumption
- High reliability, durable design

SPECIFICATIONS

Video

Transmission method: Digital

Input level: 800 mV p-p

I/O impedance: 75Ω

Return loss:

>15 db, 5 MHz to 1.5 GHz

>10 dB, 1.5 GHz to 3 GHz

Coaxial input equalization:

Maximum rate: 3 Gb/s

Equalization at 3 Gb/s 300m (984 ft.) of Belden 1694A

Bit-error rate at -22 dBm Rx optical power: 10-12

Jitter (120m/393 ft. 3 Gb/s): <0.2 UI

Electro-Optical

Operating wavelength: 1310 nm or 1550 nm optical window

Link margin: Up to 22 dB

Transmitter output power options: 0 dBm

Receiver sensitivity: -22 dBm / -20 at 3 Gb/s

Optical source: Laser diode

Optical detector: PIN

Fiber type: Single-mode

Mechanical/Environmental

Dimensions (W x H x D): 444.5 x 44.45 x 190.5 mm (17.5 x 1.75 x 7.5 in.)

Weight, each end: 2.27 kg (5 lbs.)

Connectors:

Electrical: BNC

Optical: ST

Input voltage: 12-24 VDC

Power consumption: <15W

Indicators: Power on, SDI data presence, optical power

Temperature range: -20° to 55° C (-4° to 131° F)

Humidity range: 0 to 95% non-condensing

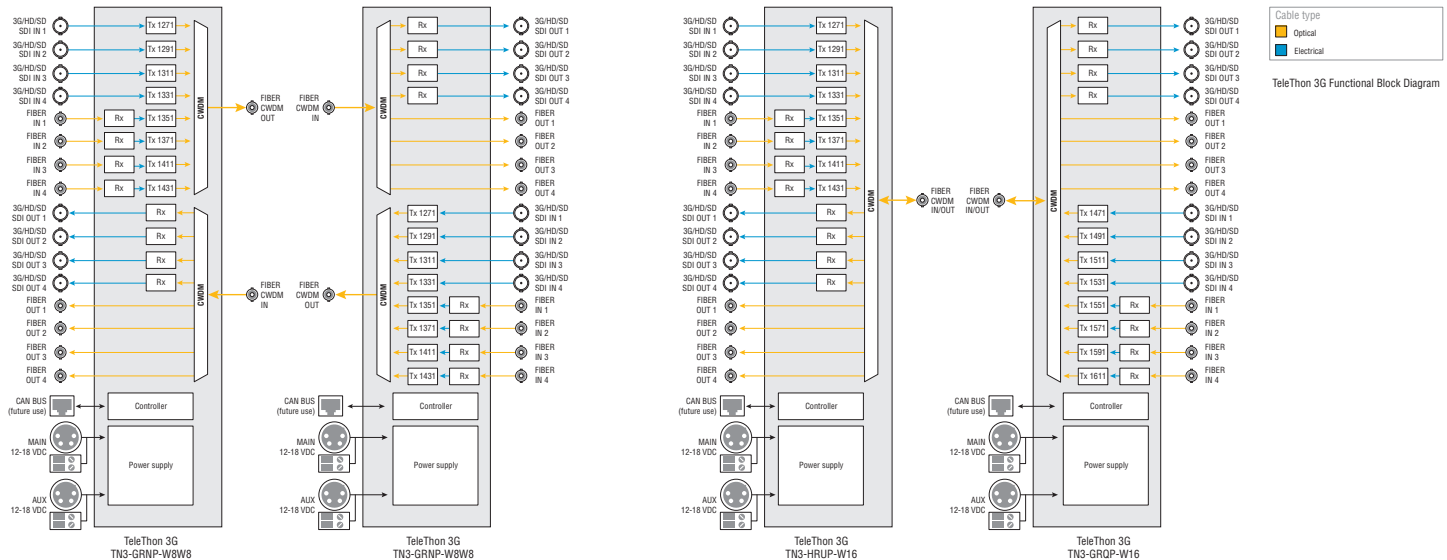
ORDERING

TN3-GRNP-W8W8

4x4 HD + 4x4 optical, 2 fibers

ADAP-AC-04

12V power supply, XLR-4F connector



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