



40 – 2400 Mhz Frequency Bandwidth TV-TERRESTRIAL & TV-SATELLITE Fiberoptic RF TRANSMITTERS and RECEIVERS

FEATURES

- 0.04 - 2.4 GHz Link RF Bandwidth
- 1310 and 1550 nm wavelength
- DFB Optoisolated LASER
- High Optical Link budget (> 10 dB @ -6 dBm rop)
- Low distortion (CSO, CTB > 60 dB @ -3 dBm rop)
- Low Link Noise (< -118 dB/Hz @ -3 dBm rop)
- Many mechanical options (Box, Eurocard, IP65)
- 220 Vac primary PS (< 3 VA power consumption)
- MTBF > 1 Million hours at Ta = 40 °C
- -20 to +60 °C operating Temp. range

PRODUCT RANGE

Transmitters

Model (1)	Optical Source	N. Opt Outputs
OTX-2181-B/E	DFB LD, >+4 dBm, 1310 nm	1
OTX-2191-B/E	DFB LD, >+2 dBm, 1550 nm	1
OTX-2184-B/E	DFB LD, >+4 dBm, 1310 nm	4
OTX-2194-B/E	DFB LD, >+2 dBm, 1550 nm	4

Receivers

Model	Optical detector	Input Opt Range
ORX-2181-B/E	1310-1550 nm CATV PIN	+1 to -8 dBm

Transceivers (OTX and ORX with the Return Path Rx or Tx included in BOX)

Model (1)	Composition	Ret. path opt. Source
OTR-2185-B/E	OTX-2181 + ret. path Rx	
OTR-2186-B/E	OTX-2191 + ret. path Rx	
OTR-2195-B/E	ORX-2181 + ret. path Tx	FP LD, 1550 nm
OTR-2196-B/E	ORX-2181 + ret. path Tx	FP LD, 1310 nm

Accessories

Model (1)	Description
WM-2100	Wall mount plate
FR-2100	8TE Eurocard Front panel
PS-12	220Vac / (9-12)Vdc Power Cube
PS-24	220Vac / (24-38)Vdc Power Cube
STE-2100	19" 3U 4TE x 16 Subrack

Technical characteristics

Optical

CONNECTORS	FC-APC (2)
RETURN LOSS	> 50 dB
TX-RX LINK POWER BUDGET	> 10 dB

Mechanical

BOX (3)	142x94x31 mm
8TE EUROCARD	100x160x40 mm
4TE EUROCARD	100x160x20 mm

Power supply

TRANSMITTER SECONDARY PS	(9-12)V / 150 mA
RECEIVER SECONDARY PS	(9-12)V / 250 mA
TRANSCEIVER SECONDARY PS	(24-72)V / 5 VA

(1) - Suffix B=Wall Mount Shielded Box, Suffix E=4TE 3U 19" Eurocard

(2) - SC-APC and E2000-APC are special option available.

(3) - IP65 option available



OTX-2181B



ORX-2181B



OTX-2184B



OTR-2195B



OTX-2181B-E



OTR-2184B-E



OTX-2181E ORX-2181E STE-2100, 4TE

RF (Tx-Rx optical Link)

BANDWIDTH	40 -2400 MHz
FREQ. RESPONSE	+/- 1.5 dB
INPUT/OUTPUT CONNECTORS	F
INPUT/OUTPUT IMPEDANCE	75 (Ohm)
INPUT/OUTPUT RETURN LOSS	>13 dB
TX INPUT LEVELS PER CARRIER (1)	
(47-860 MHz)	84 dBuV/Ch
950-2150MHz)	80 dBuV/Ch
LINK GAIN (2)	10 +/- 1,5 dB
C/N	
(47-860) MHz	> 120 dB/Hz (3)
(950-2150) MHz	> 118 dB/Hz (3)
(47-860) MHz	> 117 dB/Hz (4)
(950-2150) MHz	> 115 dB/Hz (4)
CSO, CTO	< 60 dB (5)

(1) - With a total number of 42 carriers.

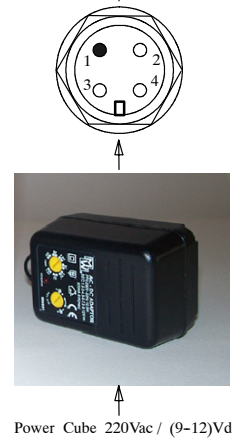
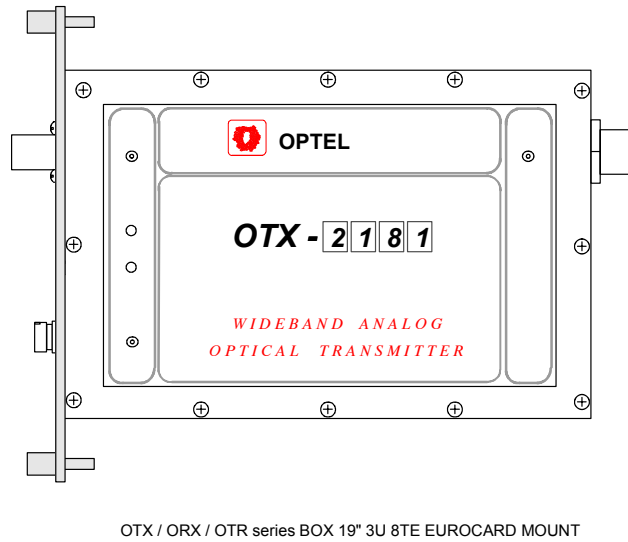
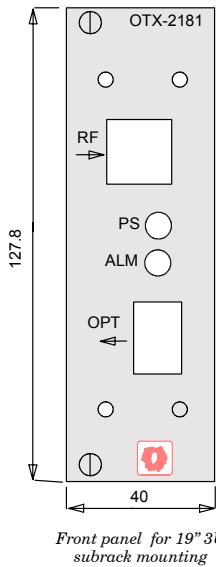
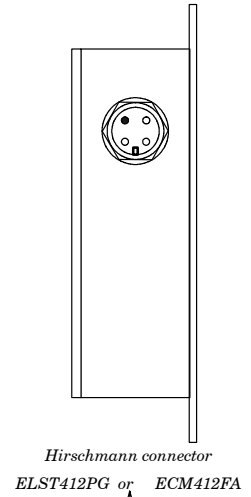
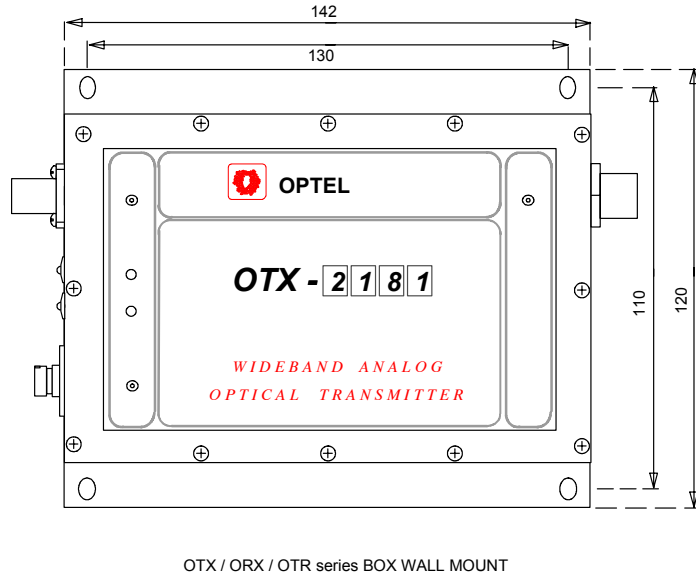
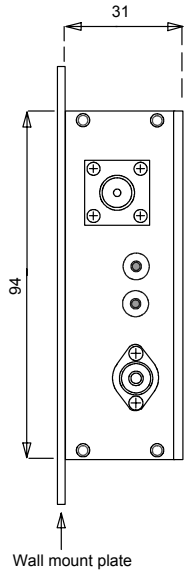
(2) - The RF Link Gain is measured at -3 dBm received optical power.

(3) - Measured at -3 dBm received optical power, with 84 dBuV-per-carrier at the input of the OTX-2181 series Optical Transmitters

(4) - Same as above with -6 dBm received optical power

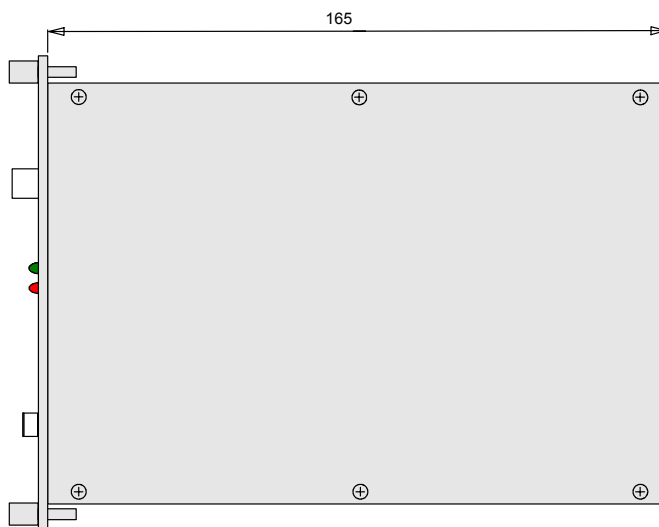
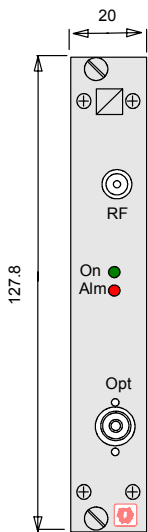
(5) - Measured at -3 dBm received optical power, 42 Channels, (EN-50083-3)

MECHANICAL LAYOUTS



POWER CONNECTOR PIN ASSIGNMENT

PIN 1	GND
PIN 2	+(9-12) V
PIN 3	NC
PIN 4	LD Bias Current Mon



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