

OPTICAL FIBRE TWIST NODE / RECEIVER

- Self-installation fibre node / receiver
- One base unit
- Various interfaces available (DOCSIS / GPON)



Type	OFT D 1261 15-85 / 20	OFT D RX	OFT G	OFT GC
Item-No.	57003336 / 57003570	57003573	57003574	57003575
	DOCSIS 3.1 Interface DS / US	DOCSIS 3.1 Interface DS only	GPON Interface DS / US	GPON Interface DS / US + RF Overlay

Electrical and general data

Type		typ.	Remarks
Input power	V	11 ... 18, typ. 12	
Power supply type		external 12V / 12 W (1A)	
Power cord type		F-male	
Power port		2	Internal splitter
Power consumption	W	4.5	
Internal supply voltage	V	9	
DC current output of power supply	mA	420	@ 9V Laser on/off
Power indicator		green LED on	
Dim switching of diodes		4 levels	
Ambient temperature	°C	-20 ... +55	
Output impedance	Ω	75	
Safety requirements		acc. EN 60728-11:2010	
EMC conditions, radiated power	dBpW	acc EN 50083-2: 2012 < 20	30-1000 MHz
Immunity	dBpV/m	> 125	
Protective system		IP 20	
Overvoltage protection	kV	2	EN60728-3: 2010
Protection class		II	
MTBF	h	~ 200000	Acc. Telcordia SR-322
Conformity		CE	

Mechanical data

Type		typ.	Remarks
Dimensions	mm	110 x 110 x 46	Fibre twist box
Optical port		1	SC / APC connector
DC power port		1	P/N TK 18-001 2.0 DC JACK

Additional Accessory

Type	Item No.
FTU Fibre Twist Unit for wall mounting	57003555



FiberTwist-Port

Downstream Receiver

Type		OFT D 1261 15-85/20	OFT D RX	Remarks
Optical wavelength	nm	1545-1560		other on request
Integrated WDM filter		yes	no	Bidi module
Equivalent input noise current density (NCD)	pA/√Hz	5		
Responsivity R of photo diode	A/W	0.95		
Optical input power range	dBm	-8 ... 2		green LED on: within this range
Optical input return loss	dB	45		
Optical RX diode		PIN		
Optical level control (OLC)	dBm	-7 ... 1		
Frequency range	MHz	105 ... 1218 or 204 ... 1218	47 ... 1218	fixed diplexer OFT D 1261
Ripple	dB	max. +/- 1		
Gain tolerance over temperature	dB	max. +/- 1.5		
Max. operating level, flat	dBμV	76-77		EN60728-3-1, N=119 with splitter at 2 RF connectors
U _{max(N)} (BER ≤ 10 ⁻⁹)				
Return loss RF output	dB	≥18 - 1.5/0kt.		Reference 85 - 1218 MHz
Group delay for RLK585-1 Diplexer	ns/4.43 MHz	50		105-120.75 MHz
		10		120.75-1218 MHz
Group delay for RLK5200 Diplexer	ns/4.43 MHz	50		258-296.7 MHz
		10		296.7-1218 MHz
DS Signal indications		Diode in the middle : Icon „v „ (DS) - on/off (green LED) blink: level to high, on: level ok, off: level to low		red LED: disconnected by FOISTRA

Upstream Transmitter

Type		typ.	Remarks
Laser wavelength	nm	1610, 1470, 1450, 1410	
Optical power	dBm	3	
Laser type		Isolated DFB	
Relative Intensity Noise (RIN)	dB/Hz	< -160	
Laser turn-on time	nsec.	450	acc. IEC 60728-14
Laser rise time	nsec.	300	acc. IEC 60728-14
Laser turn-off delay time	nsec.	600	acc. IEC 60728-14
Frequency range	MHz	5 ... 85 /204	depending on fixed diplexer
Ripple	dB	max. +/- 0.75	
Optical output return loss	dB	45	
Laser turn on RF level	dBμV	90	
Return loss RF input	dB	≥ 18	10 - 85 / 204 MHz
Group delay for RLK585-1 Diplexer	ns/2 MHz	50	5-10 MHz
		10	10-61.75 MHz
		20	61.75-65 MHz
Group delay for RLK5200 Diplexer	ns/2 MHz	50	5-10 MHz
		10	10-80.75 MHz
		20	80.75-85 MHz
OMI per channel			
8 x 256 QAM / 8 MHz		8%	Input level per ch 95 dBμV
24 x 256 QAM / 8 MHz		6%	
Uplink signal indications		Diode on the right: Icon “^” (US) blink: burst mode (green LED)	
		red LED: Ingress, Laser diode defect	