

OPTICAL FIBRE TWIST NODE / RECEIVER

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



OFT **xx** - **12xx** - **xx** - **xx**

US wavelength		Frequency range		FOSTRA		
D:	67 dBµV fix	all CWDM except 1530-1570	65:	5-65/85	F:	FOSTRA module integrated
D1:	77 dBµV fix		85:	5-85/105	FT:	FOSTRA tunable module integrated
D2:	80 dBµV fix (only 1 output)		20:	2-204/258		
DT	no OFT form factor					

Typ	OFT D1	OFT D	OFT D RX	OFT DT	OFT G	OFT GC
Item-No.	57003998/ 57004565/ 57004566 / 57004567 57004568	57003336 / 57003570 / 57003923 / 57003924 / 57003922/57004482/ 57004483/57004484	57003573	57004027	57003574	57003575
	DOCSIS 3.1 Interface	DOCSIS 3.1 Interface	RF Overlay (5 ... 1218 MHz)	DOCSIS 3.1 Interface	GPON Interface	GPON Interface
Full Digital load*1	DS / US 77 dBµV fix	DS / US 67 dBµV fix	75 dBµV fix	DS / US 77 dBµV fix	DS / US	DS / US + RF Overlay

*1 Digital: EN 60728-3, 119 CH, 262-1214MHz, flat

Electrical and general data

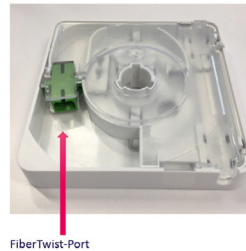
Type	typ.	Remarks
Power supply type	external 12V	
Power cord type	Female	
Power consumption	V / W	11 ... 17, typ. 12 / 4.5
Power indicator	green LED on	
Brightness of diodes	4 levels	
Ambient temperature	°C	-20 ... +55
Output impedance	Ω	75
Safety requirements	acc. EN 60728-11	
EMC conditions	acc. EN 50083-2	
Protective system	IP 20	
Immunity to surge voltages	kV	2
MTBF	h	~ 200000
Conformity	CE	

Mechanical data

Type	typ.	Remarks
Dimensions	mm	110 x 110 x 46
Optical port		1
DC power port		1
RF port		2
		Fibre Twist box
		SC / APC connector
		P/NTK 18-001 2.0 DC JACK
		75 Ohm F-female

Additional Accessory

Type	Item No.
FTU Fibre twist unit for wall mounting	57003555



Downstream Receiver

Type		OFT D OFT D1/D2/T	OFT D RX	Remarks
Optical wavelength	nm	1545-1565		other on request
Integrated WDM filter		yes	no	Bidi module
Equivalent input noise current density (NCD)	pA/√Hz	typ.3		
Responsivity R of photodiode	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 /258 ... 1218	47 ... 1218	fixed diplexer OFT D /D1/D2/DT 12xx
Ripple	dB	typ. +/- 0.5		
Gain tolerance over temperature	dB	max. +/- 1.5		
RF output level (full digital load) *1	dBμV	67 / OFT D1/T/RX: 77/D2:80		
Return loss RF output		≥18 - 1.5/Okt.		Reference 85 - 1218 MHz
DS Signal indications	dB	Diode in the middle : „ V „ (DS) - on/off (green LED)		blink: level to high, on: level ok, off: level to low

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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. +/- 0.3	
Optical output return loss	dB	45	
Laser turn on RF level	dBμV	90	
Return loss RF input	dB	≥ 18	5 - 85 / 204 MHz
OMI per channel		10 % @ 99 dBμV	8 x 256 QAM / 8 MHz
Uplink signal indications		Diode on the right: “^” (US) blink: burst mode (green LED)	

PRODUCT OVERVIEW OPTICAL NODES ACCESSORIES

Type	Item No.	Description
FOSTRA F V2 868.VER	57004089	FSK Receiver RX : 868.3 MHz
FOSTRA F V2.1 Tuneable VER	57003909	FSK Receiver RX : 860 - 890 MHz
FOSTRA F V2.5 Tuneable VER	57004321	FSK Receiver RX : 860 - 890 MHz
RLK 565-1	57002732	Diplexer, 5-65 / 85 - 1218 MHz
RLK 585-1	57002733	Diplexer, 5-85 / 105 - 1218 MHz
RLK 5200	57002776	Diplexer, 5-204 / 258 - 1218 MHz
VM 302	57002092	Splitter, two-way, 4.5 dB
AM 301-10 A	57002093	Tap 10 dB, Tap out
AM 301-10 B	57002117	Tap 10 dB, Line out
LPF 5-65	57002295	Low pass filter 5-65 MHz
LPF 5-85	57002296	Low pass filter 5-85 MHz
HPF 85-1	57002297	High pass filter 85-1218 MHz
HPF 105-1	57002298	High pass filter 105-1218 MHz
PAD 0/1...20	10161523/24...43	Attenuation PAD 0 dB/1 dB...20 dB

Available CWDM wavelengths					
27: 1270 nm	31: 1310 nm	41: 1410 nm	51: 1510 nm	61: 1610 nm	00: only DS (CATV)
29: 1290 nm	33: 1330 nm	43: 1430 nm	53: 1530 nm		
	35: 1350 nm	45: 1450 nm	57: 1570 nm		
	37: 1370 nm	47: 1470 nm	59: 1590 nm		
	39: 1390 nm	49: 1490 nm			