

## MEDIUM FIBRE NODE FOR HFC / FTTx

**A Fibre Node for the modernisation of HFC-networks. Especially suitable for FTTLA in 1.2 GHz HFC-networks and reduction of the coaxial cluster.**

- Compact node with modular return way laser 1x1
- High RF output level and dynamic range, 2 outputs
- Low noise impedance receiver
- Low noise DFB- laser in burst or CW mode operation
- Optical level control (OLC) based on optical input power
- 7-Segment display for various monitoring options and easy control
- Optional remote power
- Internal fibre splice management
- Return way transmitter available in CWDM-grid (1270 - 1610nm)
- Remote controllable in DS & US due to FOSTR-F receiver module



### VERSIONS

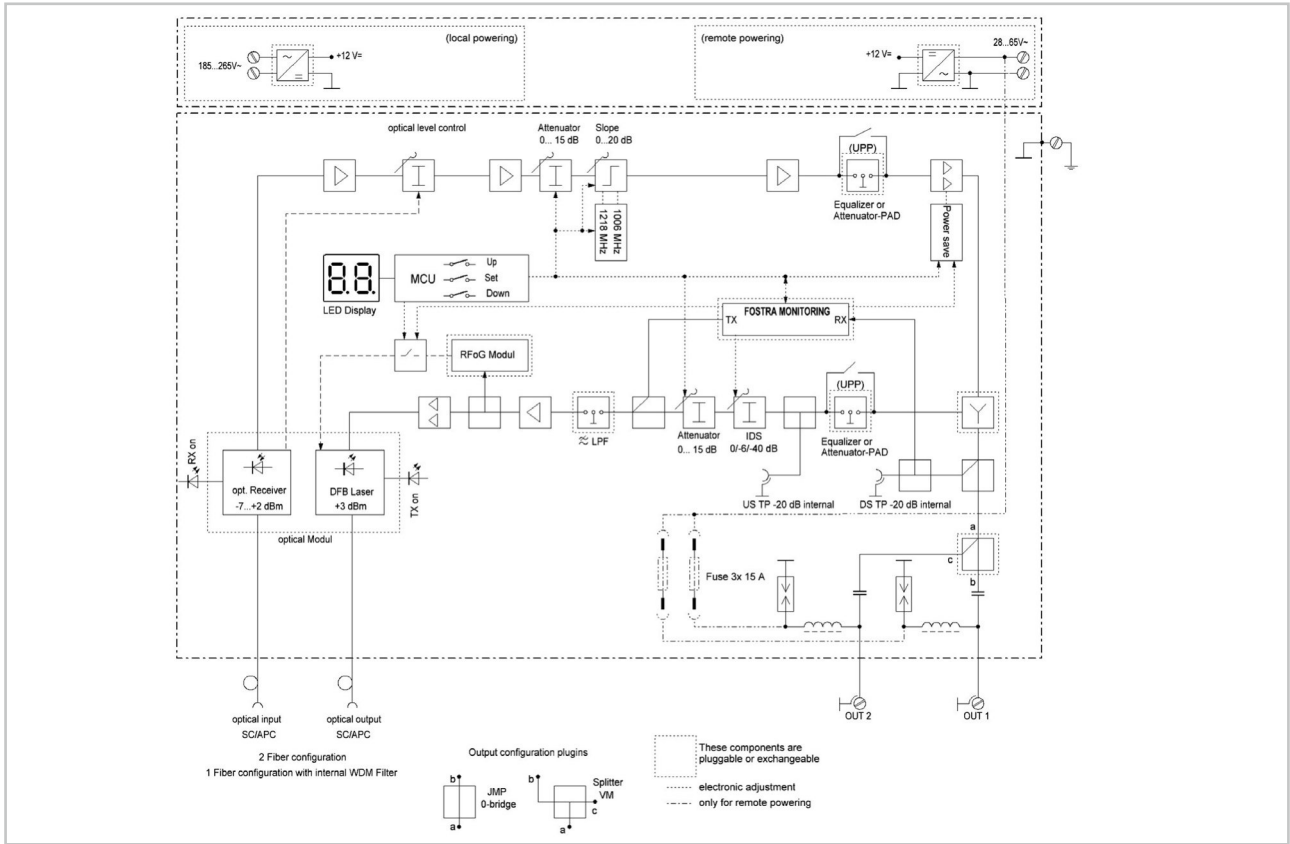
ONC R 12 xx - xx - x - xx - ECO

Powering (V~)	Frequency range (MHz)	US-wavelength	DS-wavelength	Number of fibres	Diplexer (MHz)	Power Consumption
-: Local powering 200-240 V~	12: up to 1218 MHz	all CWDM except of 1530-1570 nm	15: 1550 nm	1: one fibre for US and DS	65: RLK 565-1 (5-65/85)	- : 17 W
R: Remote powering 28-65 V~			10: 1260-1620 nm	2: one fibre for US and one fibre for DS	85: RLK 585-1 (5-85/105)  20: RLK 5200 (5-204/ 258)	ECO: 11 W GN: 21 W

Type	ONC (R) 12xx F ECO	ONC (R)1200	ONC (R) 12xx F	ONC (R) 12xx F GN
Description	DS: selectable US: CWDM 85...1218 MHz RF-output level	Optical receiver 85...1218 MHz  RF-output level	DS: selectable US: CWDM 85...1218 MHz RF-output level	DS: selectable US: CWDM 85...1218 MHz RF-output level
CENELEC*1	111 dBµV	114 dBµV	114 dBµV	117 dBµV
Digital*2	107 dBµV	109 dBµV	109dBµV	113 dBµV

\*1 CENELEC : CTB,CSO > 60 dB

\*2 Digital: EN 60728-3,119 CH, 262-1214MHz, flat



Type		ONC ECO	ONC(R) 1200, ONC (R) 12xx F	ONC GN	
Applications		HFC, FTTC/FTTLA			
Compact die-cast housing	mm	225 x 195 x 95 / IP 65, out-door			
Fibre connectors (internal)		SC/APC (internal fibre slice management)			
Connectors		PG 11-RF output , PG 13.5 (optical fibre feed-through)			
Mains feeding	V~	200...240 ( 50-60 Hz)			
Mains feeding	W	11	17	21	
Remote feeding	V~	28...65			
Operating temperature	°C	-20...+55			
OLC	dBm	-7...+1 (RF ouput ±1dB)			
Adjustment elements	dB	0...15 (electronically adjustable in 1dB steps, 7-segm.display+micro)			
Return laser module		various available (3,6dBm DFB)			
RF outputs		1 or 2 (with 2-way splitter or tab module 10 or 20 dB)			
Downstream	Optical wavelength	nm	1260 ...1620		
	Optical input power	dBm	-8...+2		
	RF return loss	dB	≥ 20 -1.75/Okt. (65 - 1218 MHz) ≥ 20 -2/Okt. (85 - 1218 MHz) ≥ 20 -3/Okt. (204-1218 MHz) min 12 @ 1218 MHz		
	Frequency range	MHz	85...1218 MHz		
	Frequency response	dB	± 0.7 max. ±1		
	RF output level				
	(CENELEC) *1	dBµV	110	114	117
	(digital) *2	dBµV	107	109	113
	C/N	dBc	50 @ -3 dBm, OMI 4%		
	RF slope	dB	0...15 dB (electronically adjustable in 1dB steps)		
	RF level adjustment	dB	0...15 dB (electronically adjustable in 1dB steps)		
	RF test point	dB	-20 (internal)		
	Monitoring optical input	dBm	green LED on: input -8...+2, flashing when > +2		
	Optical input power		7-segment display, power meter function		
Upstream	Laser wavelength	nm	1270 - 1610		
	Optical Power	dBm	3		
	Optical return loss	dB	60		
	Frequency range	MHz	5...65 / 85 / 204 (Diplexer RLK 565-1 / 585-1 / 5200)		
	RF input level (CWDM)	dBµV	65, OMI 8% @ 0 dB attn		
	RF input level attenuator	dB	0...15 (electronically adjustable in 1 dB steps)		
RF test point	dB	-20 (internal)			

\*1 CENELEC : CTB,CSO > 60 dB

\*2 Digital: EN 60728-3,119 CH, 262-1214MHz, flat

Please use the following item numbers when ordering:

Type	Item No.	Description
ONC 1200	57002895	Optical compact receiver, 5-1200 MHz, 230 V~
ONC 1231 F-15-1-65	57003236	1310 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, 1 fibre, FOISTRA-F vorbereitet
ONC 1255 F-10-1-65	57003950	1550 in US, 1260-1620 in DS, 230 V~, 85-1218 MHz, 1 fibre, FOISTRA-F prepared
ONC 1261 F-10-1-85	57003941	1610 in US, 1260-1620 in DS, 230 V~, 105-1218 MHz, 1 fibre, FOISTRA-F prepared
ONC 1231 F-10-2-65	57003242	1310 in US, 1260-1620 in DS, 230 V~, 85-1218 MHz, 2 fibres, FOISTRA-F prepared
ONC 1259 F-10-2-85	57004571	1590 in US, 1260-1620 in DS, 230 V~, 105-1218 MHz, 2 fibres, FOISTRA-F prepared
ONC 1261 F-10-2-20	57003174	1610 in US, 1260-1620 in DS, 230 V~, 105-1218 MHz, 2 fibres, FOISTRA-F prepared
ONC 1261 F-10-2-65	57003172	1610 in US, 1260-1620 in DS, 230 V~, 85-1218 MHz, 2 fibres, FOISTRA-F prepared
ONC 1261 F-10-2-85	57003173	1610 in US, 1260-1620 in DS, 230 V~, 105-1218 MHz, 2 fibres, FOISTRA-F prepared
ONCR 1200	57002896	Optischer Kompaktrezeiver, 5-1200 MHz, 28-65 V~
ONCR 1227 F 15-1-85	57002897	1270 in US, 1540-1565 in DS, 28-65 V~, 105-1218 MHz, 1 fibre, FOISTRA-F prepared
ONCR 1239 F-15-1-85	57002903	1390 in US, 1540-1565 in DS, 28-65 V~, 105-1218 MHz, 1 fibre, FOISTRA-F prepared
ONCR 1261 F-15-1-20	57004195	1610 in US, 1540-1565 in DS, 28-65 V~, 285-1218 MHz, 1 fibre, FOISTRA-F prepared
ONCR 1231 F-10-2-20	57004083	1310 in US, 1540-1565 in DS, 28-65 V~, 258-1218 MHz, 2 fibres, FOISTRA-F prepared
ONCR 1241 F-10-2-85	57003969	1410 in US, 1540-1565 in DS, 28-65 V~, 105-1218 MHz, 2 fibres, FOISTRA-F prepared
ONCR 1245 GN-10-2-10FT	57004633	1450 in US, 1540-1565 in DS, 28-65 V~, 126-1218 MHz, 2 fibres, incl. FOISTRA-F Tunable module
ONCR 1249 GN-10-2-10FT	57004635	1490 in US, 1540-1565 in DS, 28-65 V~, 126-1218 MHz, 2 fibres, incl. FOISTRA-F Tunable module
ONCR 1251 F-10-2-20	57004084	1510 in US, 1540-1565 in DS, 28-65 V~, 285-1218 MHz, 2 fibres, FOISTRA-F prepared
ONCR 1251 GN-10-2-10FT	57004636	1510 in US, 1540-1565 in DS, 28-65 V~, 126-1218 MHz, 2 fibres, incl. FOISTRA-F Tunable module
ONCR 1253 F-10-2-20	57004085	1530 in US, 1540-1565 in DS, 28-65 V~, 285-1218 MHz, 2 fibres, FOISTRA-F prepared
ONCR 1253 GN-10-2-10FT	57004637	1530 in US, 1540-1565 in DS, 28-65 V~, 126-1218 MHz, 2 fibres, incl. FOISTRA-F Tunable module
ONCR 1255 F-10-2-20	57004086	1550 in US, 1540-1565 in DS, 28-65 V~, 285-1218 MHz, 2 fibres, FOISTRA-F prepared
ONCR 1257 F-10-2-20	57004087	1570 in US, 1540-1565 in DS, 28-65 V~, 285-1218 MHz, 2 fibres, FOISTRA-F prepared
ONCR 1257 GN-10-2-10FT	57004638	1570 in US, 1540-1565 in DS, 28-65 V~, 126-1218 MHz, 2 fibres, incl. FOISTRA-F Tunable module
ONCR 1261 10-2-10-6FT	57004647	1610 in US, 1540-1565 in DS, 28-65 V~, 126-1218 MHz, 2 fibres, incl. FOISTRA-F Tunable module
ONCR 1261 F-10-1-85ECO	57004315	1610 in US, 1540-1565 in DS, 28-65 V~, 105-1218 MHz, 1 fibre, FOISTRA-F prepared, ECO Mode
ONCR 1261 F-15-1-65-ECO	57003171	1610 in US, 1540-1565 in DS, 28-65 V~, 85-1218 MHz, 1 fibre, FOISTRA-F prepared, ECO Mode
ONCR 1261 F-15-1-65-ECO	57004197	1610 in US, 1540-1565 in DS, 28-65 V~, 85-1218 MHz, 1 fibre, FOISTRA-F prepared, ECO Mode
ONCR 1261 F-15-1-85ECO	57004223	1610 in US, 1540-1565 in DS, 28-65 V~, 105-1218 MHz, 1 fibre, FOISTRA-F prepared, ECO Mode
ONCR 1261 F-10-2-85-ECO	57004217	1610 in US, 1260-1620 in DS, 28-65 V~, 105-1218 MHz, 2 fibres, FOISTRA-F prepared, ECO Mode

## 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			