

# MINI FIBRE NODE

## Mini Node for HFC and RFoG networks

FTTH / FTTB- Applications

- One fibre design with integrated CWDM filter \*
- Constant output level over a wide range of optical input power
- OLC-function based on optical input power
- ONB T with up to 4 Sub-channels per one CWDM wavelength
- Low-noise CWDM DFB-Laser with Burst and CW-Mode (SCTE compliant)
- Testpoint and monitoring LED for optical input power
- Upstream with diplexer RLK565-1/585-1 selectable
- RF-testpoints for Upstream and Downstream
- Remote controllable in DS & US due to FOSTRA-F receiver module
- Optional remote power
- Available with GPON-Bypass



see ONB T on the image

\* Special type 2-Fibre without CWDM on request



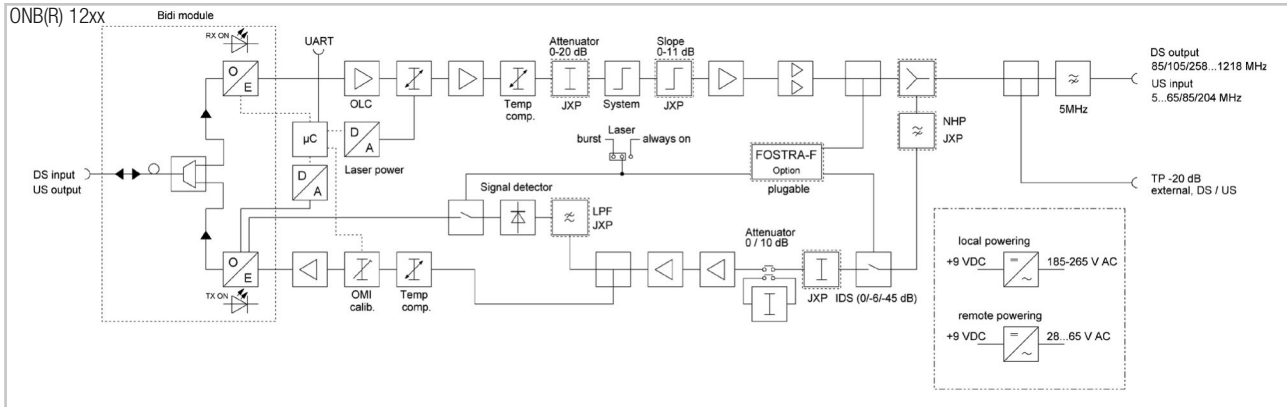
## VERSIONS

ONB R 12xx Bx - xx - x - xx F

MDU 1/2 (multiple dwelling unit)

Powering (V~)	Frequency range (MHz)	US-wavelength	Laser operation, monitoring	DS-wavelength	Number of fibres	Diplexer (MHz)	FOSTRA F
-: Local powering 200-240 V~	12: Up to 1218 MHz	all CWDM except of 1530-1570 nm	B: Burst und Continous mode 1: Output level 110 dBµV 110 dBµV*1 / 107,5 dBµV* T : Tunable wavelength	15: 1550 nm 10: 1270 nm (on request)	1: One fibre for US and DS 2: Each 1fibre for US and DS	65: RLK 565-1 (5-65/85) 85: RLK 585-1 (5-85/105) 20: RLK 5200 (5-204/ 258)	-: F: Integrated FOSTRA F module FT: Integrated FOSTRA F module tunable

Type	ONB (R) 1200	ONB (R) 12xx B1F-X	ONB (R) 12xx T B1F-X
Description	Optical Mini receiver	DS: 1550nm / 1310nm US: CWDM	DS: 1550nm US: CWDM Subchannels
CENELEC*1	85...1218 MHz 110 dBµV RF-Output level	85...1218 MHz 110 dBµV RF-Output level	85...1218 MHz 110 dBµV RF-Output level
Digital*2	105 dBµV RF-Output level	105 dBµV RF-Output level	105 dBµV RF-Output level



Type	ONB 12xx B1F		ONB 12xx T B1F	
Applications	HFC, FTTC, DOCSIS-PON, RFoG			
Compact die-cast housing	cm	188 x 85 x 50 / IP 20, In-door	207 x 150 x 80 / IP53	
Weight	kg	0.9	1.8	
Fibre connectors	SC / APC: 1 pcs (with internal WDM), 2 pcs (without internal WDM)			
RF connectors	F-female			
Mains feeding	V~/W	200...240 (50-60 Hz) / 10,4	200...240 (50-60 Hz) / 11,5	
Operating temperature	°C	-20...+55 Free convection		
Adjustment elements	PAD and Jumper			
Internal WDM (Tx / Rx)	DS / US			
Downstream	Optical wavelength	nm	1540...1565	
	Optical input power	dBm	-8...+2	
	Frequency range	MHz	85...1218 (modular)	
	Frequency response	dB	± 0.75, max. ± 1	
	Optical level control (OLC)	dBm	-7...+1 (RF-output level ± 1 dB)	
	RF output level (CENELEC) *1	dBµV	110	
	RF output level (digital) *2	dBµV	105	
	C/N	dBc	50 @ -3 dBm, OMI 4%	
	RF level attenuator	dB	0...11 (PAD)	
	RF slope	dB	0...20 (PAD, 1 dB steps)	
Test point RF output	-20 (F-female, external)			
Monitoring optical input	dBm	Green LED on: input -8...+2, flashing when > +2		
Upstream	DFB Laser / optical power	dBm	+3 *3	
	Laser operation	Burst Mode, Laser „Delay-Time“ < 1 µSec		
	Wavelength	CWDM	1450, 1470, 1510, 1610	
	Number of Sub-channels	0	4	
	RF input dynamic range	dBµV	61...91 („Laser ON“ @ 67 dBµV)	
	Frequency range	MHz	15...204	
OMI per Channel	8% @ 70 dBµV			
RF input level attenuator	dB	0...20 (PAD, 1 dB steps), 0 / 10 dB Jumper Attn.		
Monitoring opt. output	Green LED on: Output power available			
Monitoring	HEC Controller	FSK-TX		
	FOSTRA F Control module	FSK Receiver		

\*1 CENELEC : CTB,CSO > 60 dB

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

\*3 ONB12xx B1F also with +6 dBm on request

## VERSIONS

Please use the following item numbers when ordering:

Type	Item No.	Description
ONB 1200	57003154	Optical Mini-Node 1260...1620 nm, 47...1218 MHz, -8...+2dBm
ONB 1227 B1F-15-20	57003925	1270 in US, 1545-1565 in DS, 230 V~, 15-204 MHz, FOISTRA-F prepared
ONB 1231 B1F-15-85	57003038	1310 in US, 1545-1565 in DS, 230 V~, 105-1218 MHz, FOISTRA-F prepared
ONB 1241 B1F-15-20	57003932	1410 in US, 1545-1565 in DS, 230 V~, 15-204 MHz, FOISTRA-F prepared
ONB 1247 B1F-15-20	57003935	1470 in US, 1545-1565 in DS, 230 V~, 15-204 MHz, FOISTRA-F prepared
ONB 1253 B1F-15-65 FT	57003690	1530 in US, 1545-1565 in DS, 230 V~, 15-65 MHz, incl. FOISTRA-F Tunable module
ONB 1257 B1F-15-85	57003050	1570 in US, 1545-1565 in DS, 230 V~, 105-1218 MHz, FOISTRA-F prepared
ONB 1259 B1F-15-85	57003051	1590 in US, 1545-1565 in DS, 230 V~, 105-1218 MHz, FOISTRA-F prepared
ONB 1261 B1F-15-65/FOISTRA	57003151	1610 in US, 1545-1565 in DS, 230 V~, 85-1218 MHz, inkl. FOISTRA-F Modul
ONB 1261 T B1F-15-20	57004543	1610 in US, 1545-1565 in DS, 28-65 V~, 15-204 MHz, FOISTRA-F prepared
ONB 1261 T B1F-15-65	57004191	1610 in US, 1545-1565 in DS, 28-65 V~, 15-65 MHz, FOISTRA-F prepared
ONBR 1200	57004215	Optical Mini-Node 1260...1620 nm, 85...1218 MHz, -8...+2dBm
ONBR 1237 B1F-15-85	57004334	1370 in US, 1545-1565 in DS, 230 V~, 15-85 MHz, FOISTRA-F prepared
ONBR 1243 B1F-15-85	57004047	1430 in US, 1545-1565 in DS, 230 V~, 15-85 MHz, FOISTRA-F prepared
ONBR 1245 T B1F-15-85	57004017	1450 in US, 1545-1565 in DS, 28-65V~, 15-85 MHz, FOISTRA-F prepared
ONBR 1247 T B1F-15-85	57004018	1470 in US, 1545-1565 in DS, 28-65V~, 15-85 MHz, FOISTRA-F prepared
ONBR 1251 B1F-15-85	57004051	1510 in US, 1545-1565 in DS, 230 V~, 15-85 MHz, FOISTRA-F prepared
ONBR 1251 T B1F-15-85	57004019	1510 in US, 1545-1565 in DS, 28-65V~, 15-85 MHz, FOISTRA-F prepared
ONBR 1259 B1F-15-85	57004052	1590 in US, 1545-1565 in DS, 230V~, 15-85 MHz, FOISTRA-F prepared
ONBR 1261 T B1F-15-85	57003965	1610 in US, 1545-1565 in DS, 28-65V~, 15-85 MHz, FOISTRA-F prepared

## 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			