

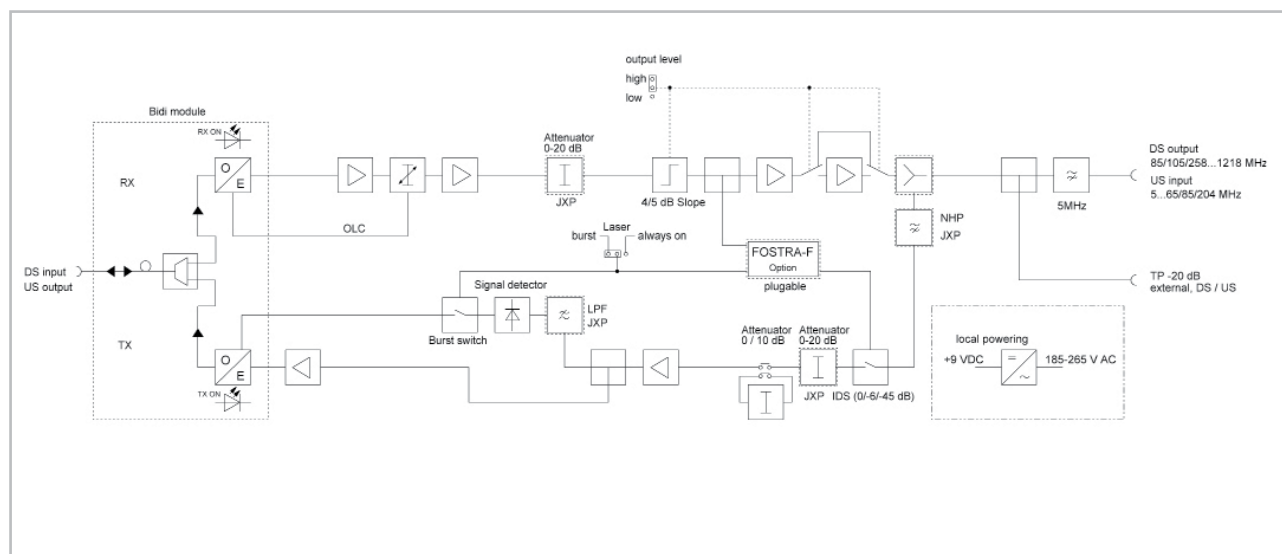
RFoG MICRO NODE

Micronode for RFoG networks, FTTH/FTTB applications

- Extremely low noise optical receiver
- Constant RF output level at wide optical input power range
- OLC function based on optical input power
- Interstage attenuator and slope
- Optical input power indicator and monitoring LED's
- RF input and output test point
- Ultra Low noise DFB- laser with isolator in burst mode operation
- Internal WDM filter US/DS wavelength for RFoG applications
- Upstream available from 1270nm to 1610nm at CWDM grid to avoid OBI
- Remote controllable in DS & US due to FOSTRA-F receiver module



Type	ONH 1200	ONH 12xx BSF-xx / Self- installation Node	ONH 12xx BF-xx	ONH 12xx B1F-xx
Description	Optical Micro-Receiver, 1550nm, 40-1218 MHz, 96 dBμV RF-output level (without return path)	DS: 1550nm US: CWDM 80 dBμV RF-output level	DS: 1550nm US: CWDM 80/96 dBμV RF-output level	DS: 1550nm US: CWDM 99 dBμV HF-output level



Type		ONH 12xx BSF-xx	ONH 12xx BF-xx	ONH 12xx B1F-xx
Applications			FTTH, FTTB, DOCSIS-PON, RFoG	
Compact die-cast housing	mm		153 x 95 x 53 / IP 20, In-door	
Weight	kg		0.7	
Fibre connectors			SC/APC	
RF connectors			F-female	
Mains feeding	V~/W	230 / < 4.6	230 / < 7.3	
Operating temperature	°C		-20...+55, free convection	
Adjustment elements			PAD and Jumper	
Internal WDM (Tx / Rx)	nm		DS / US	
Downstream	Optical wavelength	nm	1540...1565	
	Optical input power	dBm	-8...+1	
	Frequency range	MHz	85...1218	
	Frequency response	dB	± 0.75, max. ± 1	
	Optical level control (OLC)	dBm	-7...+1 (RF-output level ± 1 dB)	
	RF output level	dBµV	80/96 ± 1 (selectable) @ -7...+1 dBm, OMI = 3.5 %, CTB, CSO > 60 dBc	99 ± 1
	C/N	dBc	50 @ -3 dBm, OMI 4%	
	RF level attenuator	dB	0...20 (PAD, 1 dB steps)	
	RF slope	dB	0 / 4 / 5 (switchable by jumper)	
	Test point RF output	dB	-20 (F-female, external)	
	Monitoring optical input	dBm	Green LED on: input -8...+2, flashing when > +2	
Upstream	DFB-laser / optical power	dBm	3	
	Laser operation		Burst Mode (Laser "Delay-Time" ≤ 0,8 µsec) SCTE compliant	
	RF input dynamic range	dBµV	61...91 ("Laser ON"@ Min. input RF-Level 67 dBµV)	
	Frequency range	MHz	5...204	
	OMI per Channel		8% @ 70 dBµV	
Monitoring	RF input level attenuator	dB	0...20 (PAD, 1 dB steps), 0 / 10 dB Jumper Att.	
	HEC 1004 Controller		FSK-TX, 868 MHz	
	FOSTRA F Control module		FSK Receiver RX : 868 MHz	

VERSIONS

ONH 12 xx BxF - xx - xx

SDU 1/2 (single dwelling unit)

Frequency range	US-wavelength	Laser operation, monitoring, RF-output level	DS-wavelength	Diplexer (MHz)
12: up to 1218 MHz	27: 1270 nm	B: burst and continuous-Mode	15: 1550 nm	65: 565-1 (5-65/85)
	29: 1290 nm			85: 585-1 (5-85/105)
	31: 1310 nm			20: 5200 (5-204/258)
	33: 1330 nm	1: 99 dBμV		
	35: 1350 nm	_ : 96 dBμV		
	37: 1370 nm	S: 80 dBμV		
	39: 1390 nm	F: FSK-monitoring prepared		
	41: 1410 nm			
	43: 1430 nm			
	45: 1450 nm			
	47: 1470 nm			
	49: 1490 nm			
	51: 1510 nm			
	53: 1530 nm			
	57: 1570 nm			
	59: 1590 nm			
	61: 1610 nm			

Please use the following item numbers when ordering:

Type	Item No.	Description
ONH 1200	57003016	Optical micro node 96 dBμV, 5-1218 MHz
ONH 1237 BSF-15-20	57003263	1370 in US, 1540-1565 in DS, 230 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONH 1239 BSF-15-20	57003264	1390 in US, 1540-1565 in DS, 230 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONH 1241 BSF-15-20	57003214	1410 in US, 1540-1565 in DS, 230 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONH 1243 BSF-15-20	57003215	1430 in US, 1540-1565 in DS, 230 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONH 1245 BSF-15-20	57003216	1450 in US, 1540-1565 in DS, 230 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONH 1247 BSF-15-20	57003217	1470 in US, 1540-1565 in DS, 230 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONH 1249 BSF-15-20	57003218	1490 in US, 1540-1565 in DS, 230 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONH 1251 BSF-15-20	57003219	1510 in US, 1540-1565 in DS, 230 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONH 1253 BSF-15-20	57003220	1530 in US, 1540-1565 in DS, 230 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONH 1257 BSF-15-20	57003221	1570 in US, 1540-1565 in DS, 230 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONH 1259 BSF-15-20	57003222	1590 in US, 1540-1565 in DS, 230 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONH 1261 BSF-15-20	57003105	1610 in US, 1540-1565 in DS, 230 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONH 1261 BSF-15-65	57003104	1610 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, Fostra-F prepared, 80 dBμV
ONH 1261 BSF-15-85	57003033	1610 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, Fostra-F prepared, 80 dBμV
ONH 1261 BSF-15-65/FOSTRA	57003106	1610 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, incl. Fostra-F module, 80 dBμV
ONH 1261 BSF-15-85/FOSTRA	57003107	1610 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, incl. Fostra-F module, 80 dBμV
ONH 1261 BSF-15-20/FOSTRA	57003108	1610 in US, 1540-1565 in DS, 230 V~, 258-1218 MHz, incl. Fostra-F module, 80 dBμV
ONH 1227 BF-15-85	57002995	1270 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, Fostra-F prepared, 96dBμV
ONH 1229 BF-15-85	57002996	1290 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, Fostra-F prepared, 96dBμV

Type	Item No.	Description
ONH 1231 BF-15-85	57002997	1310 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, Fostra-F prepared, 96dBμV
ONH 1233 BF-15-85	57002998	1330 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, Fostra-F prepared, 96dBμV
ONH 1235 BF-15-85	57002999	1350 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, Fostra-F prepared, 96dBμV
ONH 1237 BF-15-85	57003000	1370 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, Fostra-F prepared, 96dBμV
ONH 1239 BF-15-85	57003001	1390 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, Fostra-F prepared, 96dBμV
ONH 1241 BF-15-85	57003002	1410 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, Fostra-F prepared, 96dBμV
ONH 1243 BF-15-85	57003003	1430 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, Fostra-F prepared, 96dBμV
ONH 1245 BF-15-85	57003004	1450 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, Fostra-F prepared, 96dBμV
ONH 1247 BF-15-85	57003005	1470 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, Fostra-F prepared, 96dBμV
ONH 1249 BF-15-85	57003006	1490 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, Fostra-F prepared, 96dBμV
ONH 1251 BF-15-85	57003007	1510 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, Fostra-F prepared, 96dBμV
ONH 1253 BF-15-85	57003008	1530 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, Fostra-F prepared, 96dBμV
ONH 1257 BF-15-85	57003009	1570 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, Fostra-F prepared, 96dBμV
ONH 1259 BF-15-85	57003010	1590 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, Fostra-F prepared, 96dBμV
ONH 1261 BF-15-85	57003011	1610 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, Fostra-F prepared, 96dBμV
ONH 1261 BF-15-65	57003109	1610 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, Fostra-F prepared, 96dBμV
ONH 1261 BF-15-20	57003110	1610 in US, 1540-1565 in DS, 230 V~, 258-1218 MHz, Fostra-F prepared, 96dBμV
ONH 1261 BF-15-65/FOSTRA	57003111	1610 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, incl. Fostra-F module, 96dBμV
ONH 1261 BF-15-85/FOSTRA	57003112	1610 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, incl. Fostra-F module, 96dBμV
ONH 1261 BF-15-20/FOSTRA	57003113	1610 in US, 1540-1565 in DS, 230 V~, 258-1218 MHz, incl. Fostra-F module, 96dBμV
ONH 1227 B1F-15-65/FOSTRA	57003061	1270 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, incl. Fostra-F module, 99dBμV
ONH 1229 B1F-15-65/FOSTRA	57003062	1290 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, incl. Fostra-F module, 99dBμV
ONH 1231 B1F-15-65/FOSTRA	57003063	1310 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, incl. Fostra-F module, 99dBμV
ONH 1233 B1F-15-65/FOSTRA	57003064	1330 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, incl. Fostra-F module, 99dBμV
ONH 1235 B1F-15-65/FOSTRA	57003065	1350 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, incl. Fostra-F module, 99dBμV
ONH 1237 B1F-15-65/FOSTRA	57003066	1370 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, incl. Fostra-F module, 99dBμV
ONH 1239 B1F-15-65/FOSTRA	57003067	1390 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, incl. Fostra-F module, 99dBμV
ONH 1241 B1F-15-65/FOSTRA	57003068	1410 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, incl. Fostra-F module, 99dBμV
ONH 1243 B1F-15-65/FOSTRA	57003069	1430 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, incl. Fostra-F module, 99dBμV
ONH 1245 B1F-15-65/FOSTRA	57003070	1450 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, incl. Fostra-F module, 99dBμV
ONH 1247 B1F-15-65/FOSTRA	57003071	1470 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, incl. Fostra-F module, 99dBμV
ONH 1249 B1F-15-65/FOSTRA	57003072	1490 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, incl. Fostra-F module, 99 dBμV
ONH 1251 B1F-15-65/FOSTRA	57003073	1510 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, incl. Fostra-F module, 99 dBμV
ONH 1253 B1F-15-65/FOSTRA	57003074	1530 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, incl. Fostra-F module, 99 dBμV
ONH 1257 B1F-15-65/FOSTRA	57003075	1570 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, incl. Fostra-F module, 99 dBμV
ONH 1259 B1F-15-65/FOSTRA	57003076	1590 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, incl. Fostra-F module, 99 dBμV
ONH 1261 B1F-15-65/FOSTRA	57003077	1610 in US, 1540-1565 in DS, 230 V~, 85-1218 MHz, incl. Fostra-F module, 99 dBμV
ONH 1261 B1F-15-85/FOSTRA	57003155	1610 in US, 1540-1565 in DS, 230 V~, 105-1218 MHz, incl. Fostra-F module, 99 dBμV
ONH 1261 B1F-15-20/FOSTRA	57003156	1610 in US, 1540-1565 in DS, 230 V~, 258-1218 MHz, incl. Fostra-F module, 99 dBμV
ONHR 1237 BSF-15-20	57003265	1370 in US, 1540-1565 in DS, 28-65 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONHR 1239 BSF-15-20	57003266	1390 in US, 1540-1565 in DS, 28-65 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONHR 1241 BSF-15-20	57003248	1410 in US, 1540-1565 in DS, 28-65 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONHR 1243 BSF-15-20	57003249	1430 in US, 1540-1565 in DS, 28-65 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONHR 1245 BSF-15-20	57003250	1450 in US, 1540-1565 in DS, 28-65 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONHR 1247 BSF-15-20	57003251	1470 in US, 1540-1565 in DS, 28-65 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONHR 1249 BSF-15-20	57003252	1490 in US, 1540-1565 in DS, 28-65 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONHR 1251 BSF-15-20	57003253	1510 in US, 1540-1565 in DS, 28-65 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONHR 1253 BSF-15-20	57003254	1530 in US, 1540-1565 in DS, 28-65 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONHR 1257 BSF-15-20	57003255	1570 in US, 1540-1565 in DS, 28-65 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONHR 1259 BSF-15-20	57003256	1590 in US, 1540-1565 in DS, 28-65 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV
ONHR 1261 BSF-15-20	57003257	1610 in US, 1540-1565 in DS, 28-65 V~, 258-1218 MHz, Fostra-F prepared, 80 dBμV