

OPTICAL REPEATER SEGMENTABLE

MOVE THE LIGHT - NOT THE CABLE



GENERAL FEATURES

- || Multidiode receiver to avoid OBI in US
- || Continuous wave noise cancellation functionality (CW-NC) to maximize signal performance for DOCSIS 3.1
- || Pay as you growth optimised design
- || Max. 2 EDFA to amplify up to 2 DS signals
- || Allows easy bandwidth increase by using segmentation
- || Enable OFDMA signals in US and DS for new and existing customers
- || No need for the complicated Burst mode in fibre nodes
- || Manageable via telnet web GUI and SNMP 3
- || New compact housing for small street cabinets

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- || Remote US segmentation using up to 4 US wavelengths
- || Make your installed nodes OFDMA ready

O-MISO-S INVERTED NODE

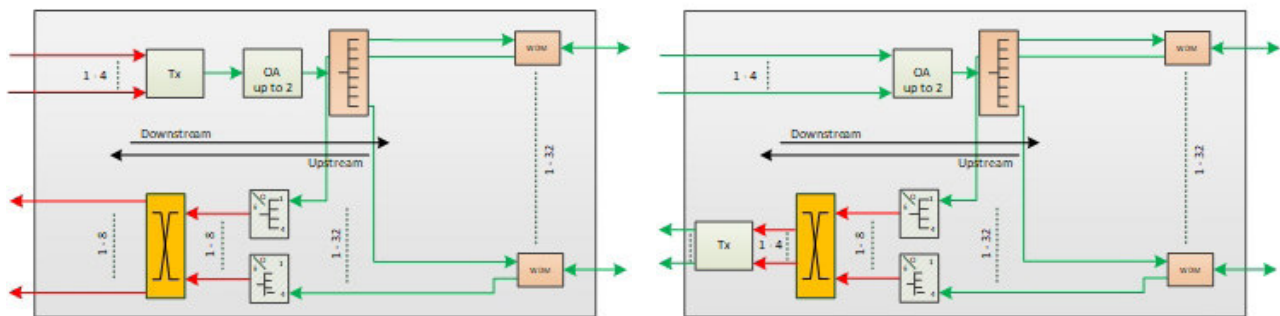
- || Grey optics to realize multiwavelengths architecture in DS
- || Handling of up to 4 DS and 8 US signals provided by 4 R-Phy cores
- || Optimized for R-Phy based FTTB networks

O-MISO-S **xx** - **xx** - **xx** - **xxx** - **xx**

	Number of ports	Number of transmitter	Number of amplifier (EDFA)	Powering position
- : Optical / Optical	32: 32 optical ports to customer	4T: 4 optical transmitter	- : without EDFA	- : Backpowered
IN: Inverted Node	16: 16 optical ports to customer	2T: 2 optical transmitter	10A: 1 EDFA	FP: Frontpowered
		X: XFP-transmitter module	20A: 2 EDFA	

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O-MISO-S INVERTED NODE



ELECTRICAL AND GENERAL DATA

Type		Min.	typ.	Max.	Remarks
Operating voltage	V AC	185	230	265	0 Hz, OR-NG
		28	50	65	50 Hz, OR-NG-R
Length of power cable	m		1.1		
Mains plug			EURO		
Protection class			II		
Operating temperature	°C	-20		+55	+65 on request At 230 V local powering
IP class			IP 20		
Fibre connector			LC / APC		
Conformity			CE		
Dimensions			1 RU with 23 cm depth		

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TECHNICAL DATA

Type		Min.	typ.	Max.	Remarks
Upstream					
Optical input wavelength	nm	1600	1610	1620	1260-1620 on request
Optical input power	dBm	-7		+3	
Optical input return loss US	dB	45			
Optical receiver diode type			PIN		integrated CWDM-MUX
Optical output wavelength (4x Tx)	nm		1610, 1470, 1510, 1450		
Segmentation			4-1; 4-2; 4-4		
Optical output power per Tx	dBm	2.5	3	3.5	-20...+55 °C
Optical power over temperature	dB		± 0.3	± 0.5	Continuous mode
Laser turn-on time			CW		
Frequency range	MHz	12	-	204	
Flatness	dB		± 0.5	± 1.0	for 8 or 16 outputs
Responsivity variance of MDR	dB		± 0.5	± 1.25 ± 1.50	for 32 outputs
OMI over temperature	dB		± 1.0	± 1.25	-20 ... +55 °C
OMI – transparency in / output	dB		± 1.0	± 1.25	

Type		Min.	typ.	Max.	Remarks
Downstream					
Optical input wavelength	nm	1539	1550	1565	Extended version
Integrated WDM filter			Yes		
Total attenuation					
	1-8	10.5		11.0	
	1-16	13.5		14.0	
	1-32	17.0		17.5	
Optical DC ripple DS	dB		± 0.5	± 0.75	
Optical input power	dBm			22	
Optical input return loss DS	dB		45		
With EDFA					
Optical input power range	dBm	0	+3	+6	
Optical output power EDFA	dBm		17		
Output power per output					
	1-8	6.0	6.5	10.0 *)	*) with two EDFA modules
	1-16	3.0	3.5	7.0 *)	
	1-32	-0.5	0.0	3.0 *)	
Mains power			2.5	3.0	with one EDFA module
	W		5.0	6.0	with two EDFA modules

O-MISO-S INVERTED NODE ELECTRICAL-OPTICAL NETWORKS

Type		Min.	typ.	Max.	Remarks
Upstream					
Optical input wavelength	nm	1600	1610	1620	1260-1620 on request
Optical input power	dBm	-7		+3	
Optical input return loss US	dB	45			
Optical receiver diode type MDR			PIN		
Number of electrical US outputs		1		8	
Segmentation			8-1; 8-2; 8-4; 8-8		
Electrical output level per output	dB μ V	79	80	81	@8% OMI per channel
Frequency range	MHz	12	-	204	
Flatness	dB		± 0.5	± 1.0	
Responsivity variance of MDR	dB		± 0.5	± 1.25 ± 1.50	for 8, or 16 outputs for 32 outputs
Electrical US loss	dB	0		10	0.1 dB steps

Type		Min.	typ.	Max.	Remarks
Downstream					
Optical input wavelength	nm	1552	1550	1555	Others on request
Integrated WDM filter			Yes		
Optical DS ripple	dB		± 0.5	± 0.75	
Electrical input level per input	dB μ V	69	70	71	@2.0% OMI per channel
Number of Tx in DS		1		4	
Optical output power per Tx	dBm	8,5	9	9,5	
Optical output power per port with 32 ports					
without EDFA, 4x Tx and 4x 1:8 splitted	dBm	-2	-1,5	-1	
with 1 EDFA, 1x Tx and 1x 1:32 splitted	dBm	-1	0	1	
with 2 EDFA, 2x Tx and 2x 1:16 splitted	dBm	2	3	4	
With EDFA					
Optical output power EDFA	dBm		17,0		
Mains power	W		2,5 5,0	3,0 6,0	with one EDFA module with two EDFA modules
Electrical DS loss	dB	0		20	
Frequency range	MHz	54		1218	
Flatness	dB		± 0.6	± 0.8	

Type	Item-No.	Description
OMIS-S 32-2T-10A-FP	57004528	Optical Repeater segmentable, 32 In / 2 Out, 19" 1HE, LC/APC
OMIS-S 32-4T-10A	57004623	Optical Repeater segmentable, 32 In DS/ 4 Out US
OMIS-S 32-4T-20A-FP	57004302	Optical Repeater segmentable , 2 In DS/ 4 Out US, 1 HE
OMIS-S IN-32-4T-FP	57004540	Optical Repeater segmentable Inverted Node, 32 In / 4xDS, 8xUS, 19" 1HE, LC/APC