

OPTICAL REPEATER - MULTIPLE INPUTS SINGLE OUTPUT

O-MISO



O-MISO 4-61-1, 8-61-1, 16-61-1 and 32-61-1 is a DOCSIS 3.1 ready active optical repeater for signal splitting and signal processing for FTTx-Networks.



O-MISO R 4-61-2-6- OA/LC-FP

Powering	Split factor	US-wavelength	Number of fibres	Output	Gain	Amplifier	Connector	Powering-Position
-: local powering VAC: 200 - 240 R: remote powering VDC 28-65	4; 8; 16 or 32	61: 1610 nm 59: 1590 nm 57: 1570 nm 53: 1530 nm 51: 1510 nm 49: 1490 nm 47: 1470 nm 45: 1450 nm 43: 1430 nm 41: 1410 nm	1: 1 fibre for DS and US 2: 1 fibre each for DS / US 3: 2 fibre for DS / 1 fibre for US	3: 3 dBm 6: 6 dBm	-: Standard H: High Gain	-: without OA: integrated	-: SC connectors LC: LC connectors	-: back powered FP: front powered

Type	Item No.	Description
O-MISO 4-61-1-6	57002984	Optical Upstream Repeater 4 x Inputs, 1 x Output
O-MISO 8-61-1-6	57002926	Optical Upstream Repeater 8 x Inputs, 1x Output
O-MISO 16-61-1-6	57002816	Optical Upstream Repeater 16 x Inputs, 1x Output
O-MISO 32-61-1-6	57002927	Optical Upstream Repeater 32 x Inputs, 1x Output
O-MISO 8-59-2-6	57003209	Optical Upstream Repeater 8 x Inputs, 2 fibre system, 1590 nm
O-MISO 8-61-2-6	57003208	Optical Upstream Repeater 8 x Inputs, 2 fibre system, 1610 nm
O-MISO 16-2	57003421	Optical Upstream Repeater 16 x Inputs, 1 x RF Output 2 x DS
O-MISO 32-61-3-6 H	57003262	Optical Upstream Repeater 32 x Inputs, 2 x in DS, 1 x Out DS, high gain

Type		min.	typ.	max.	Remarks
Operating voltage	V AC	200	230	240	Switched mode PSU
Power consumption	W				
O-MISO 4x			4.0	4.5	
O-MISO 8x			4.5	5.0	
O-MISO 16x			5.8	6.3	
O-MISO 32x			8.0	8.5	
Length of power cable	m	1.3	1.5		
Mains plug			EURO		
Protection class			II		
Operating voltage, internal	V DC		9		19" case (1RU)
Indication power ON			LED green		
Operating temperature	°C	-20		+55	
IP class			IP 20		
Dimensions	mm	430 x 300 x 45 or 430 x 230 x 45			
Weight	kg				
Fibre connector			2.5		
RF connectors			SC/APC		
Conformity			CE		

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TECHNICAL DATA - DOWNSTREAM

Downstream

- Transparent for 1550 nm DS signals
- With / without integrated EDFA
- Redundant fibre concept possible with optical MEMS-switch
- Separate xPON output / xPON with RF overlay application

Downstream transparent		min.	typ.	max.	Remarks	
Optical wavelength	nm	1540	1550	1560		
Integrated WDM filter 1550 nm / CWDM			Yes		others on request	
Attenuation						
O-MISO 4x			7.5	8.0		
O-MISO 8x	dB		10.5	11.0		
O-MISO 16x			13.8	14.5		
O-MISO 32x			17.2	18.0		
Optical input power	dBm			22		
Optical input return loss DS	dB	45				
with FOSTRA-F	Optical receiver diode type		PIN			
	Decoupling attenuation	dB	0.3	0.5		
with EDFA	Optical input power range	dBm	0	+3	+6	
	Optical output power (total)	dBm		17.0		Laser Class 1M
	Power consumption	W		2.5	3.0	
with optical MEMS-Switch	Optical wavelength	nm	1240		1640	
	Insertion loss	dB		0.4	0.9	
	Switching time	ms		2	10	

Upstream active combiner		Unit	min.	typ.	max.	Remarks
Input	Optical receiver diode type			PIN		
	Optical input wavelength	nm	1240		1620	without 1530 - 1570
	Optical input power	dBm	-3		+3	HG:-4 to -10
	Optical input return loss US	dB	45			
Output	Optical transmitter diode type			DFB		Laser Class 1
	Optical output wavelength	nm	1605	1610	1615	18 CWDM - λ avail.
	Optical output power	dBm		+6		+3 dBm on request
	Laser turn-on time	nsec		CW		continuous mode
Transmission Characteristic	Frequency range	MHz	12	-	204	for DOCSIS 3.1
	Flatness	dB		± 0.5	± 0.75	
	Level drift between inputs	dB		± 0.75	± 1.0	
	Testpoint for OMI control	dB μ V	75		82	75dB μ V \pm 6% OMI 82dB μ V \pm 15% OMI
	Optical input dynamic range, adjustable with 10 dB Step-Att. (2dB Step)	dB	0		10	-2 dBm -> 0 dB 0 dBm -> 4 dB +3 dBm -> 10 dB
	CINR measurement *) @114 MHz 24 Ch.; QAM 64; 5.56 Msym/s	dB	40.0	>42.0		at: MER EUT > 45.0 dB BER EUT < 1E-9