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Optical nodes

# COMPACT OPTICAL NODE OX3

OX3 is a compact 1.2 GHz optical node for deep -single- fiber networks. It uses a WDM to separate the down- from the CWDM upstream wavelengths. The downstream has Optical Level Control (OLC) and a high RF output amplifier stage. The power consumption is nevertheless low. The optical receiver/transmitter is integrated on the motherboard. Different split options are possible with the OX3K kit. The OX3R can be remotely powered either via a dedicated F-connector at the side, or via an unused RF Out port. This allows the use of the existing coaxial network for remote powering when migrating to a fiber network. The node can also be used for remote powering of the network connected to the RF Out ports. The OX3 includes an FSK slot for optional remote control of the ingress switches.

# **0X3** features

- Built-in WDM, 2 wavelengths for single fiber
- Burst and continuous operational mode
- Downstream 1550 nm and 1310 nm models available
- Upstream CWDM fixed on board

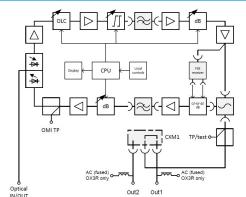
- 1 (CMX1) or 2 outputs (CMX4)
- 1218 MHz down- and 204 MHz upstream
- Diplexer/filter kit to define the split
- Push buttons and LED indication for adjustements



## **DISTRIBUTION NODE / OX3**

TECHNICAL SPECIFICATIONS: OPTICAL (1)			
Optical return loss	40.0 dB	WDM wavelength downstream	1550 nm
WDM insertion loss	0.7 dB	WDM wavelength upstream (2)	12701610 nm
TECHNICAL SPECIFICATIONS: DOWNSTREAM (1)			
Receiving wavelength (2)	1550 (S1), 1310 (S2) or 1310+1550 (S3) nm	Flatness	± 1.0 dB
Optical receiving power	-80 dBm	Interstage attenuator	018 dB, 1 dB step
OLC range	-5/-6/-7/-80 dBm adjustable	Interstage slope	015 dB, 1 dB step
Frequency range (3)	85/105/2581218 MHz	Umax (112 QAM channels, 9 dB sloped)	106 dBμV
Return loss	18 dB @ 40 MHz -1.5 dB/oct.	Test point	20 dB
TECHNICAL SPECIFICATIONS: UPSTREAM (1)			
Output wavelength CWDM (2)	CWDM	Return loss	16 dB
Optical output power	+3 dBm	Adjustable attenuator	018 dB, 1 dB step
Frequency range	565/85/204 MHz	RF input level	6885 dBμV
GENERAL SPECIFICATIONS (1)			
Supply Voltage	OX3L: 180255 VAC OX3R: 3090 VAC	Optical connector	SC/APC8
Power Consumption	Typical 16.5 W without FSK receiver	Test point connectors	F-female
Remote current (OX3R)	7A	EMC compatibility	EN 60728-2
Class of enclosure	IP 50	Safety	EN 60728-11
Dimensions (h x w x h)	220 x 210 x 80 mm	ESD	4 kV

- (1) Typical values. Please contact us for detailed conditions.
  (2) Check availability and possibilities before ordering. Minimum order quantities applicable.
- (3) Set by diplexer and filters kit OX3Kxxx. Other frequencies and applications on request.



## **IMAGERY (OX3R)**



OX3vxxx-yyS1

Single fiber compact node, 1550 nm downstream window OX3L: 230VAC cable at the side, no fuse holders at the outputs OX3R: 65VAC with F-female adapter at the side, no fuses - upstream bandwidth "xxx" (65/85/204 MHz, set by OX3Kxxx diplexer/filter kit) - upstream CWDM transmitter wavelength 1yy0 nm (integrated on motherboard) - 1 output (CXM1 output module) with F-female adapter

Similar as S1 but with 1310 nm downstream window OX3vxxx-yyS2

Similar as S1 but with both 1310 and 1550 nm downstream windows (ask for availability) OX3vxxx-yyS3

FSK module for optional RIS (Remote Ingress Switching) in combination with headed RIS controller HDM155. Carrier CXT001

frequency typically 253 MHz.

CXT002 Manual RIS controller for on-site setting the OX3 ingress attenuators in case HDM155 control is not available.



## **TELESTE CORPORATION**

www.teleste.com

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