NG-PON2 WM1 Optical Module

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1. Performance

This document proposes the specifications of WM1 module which is used in NG-PON2 application. OptiWorks had applied its free-space thin film technical to make the module with lowest insertion loss and widest passband.

Parameters		Value	Unit
Channel Spacing		100GHz	nm
ITU Channel Wavelengths (nm)		Upstream: 1532.68/1533.47/1534.25/1535.04 Downstream: 1596.34/1597.18/1598.04/1598.89	nm
Channel Passband (0.5dB)		0.14	nm
Max Insertion Loss *		≤ 2.0	dB
Ripple in Passband		≤ 0.40	
Isolation	Adjacent channel	≥ 32	dB
	Non-adjacent channels	≥ 45	dB
Isolation from GPON/XGS-PON (1260nm – 1500nm, when connect with CEx module)		≥ 30	
Isolation from PtP (1603nm – 1625nm, when connect with CEx module)		≥ 30	
Polarization Dependent Loss		≤ 0.3	dB
PMD		≤ 0.1	ps
Return Loss		≥ 50	dB
Directivity		≥ 50	dB
Operating Temperature		-5 ~ +70	°C
Storage Temperature		-40 ~ +85	°C
Dimension		Standard 1RU LGX box	mm
Fiber		250um Corning ClearCurve Fiber,	

*Insertion loss include connector loss, one pair of connector loss is 0.25dB.

Band to isolate	Port to measure isolation at				
	GPON	RF Video	TWDM PON	PtP PON	XGPON
GPON (1290 - 1330 nm)	n/a				
TWDM-PON (1524-1539 nm)			n/a		
PtP -PON (1610-1625 nm)				n/a	
XG-PON (1260-1280 nm)					n/a

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2. Package Information (reference only)

3. RoHS appliance. GR-1209-Core, GR-1221-Core Generic Requirement and test standard.

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