



GPON OLT
APD

3mm
APC

CID

APD

1490nm DFB
MAC

1490nm DFB
class-1

SD

SD

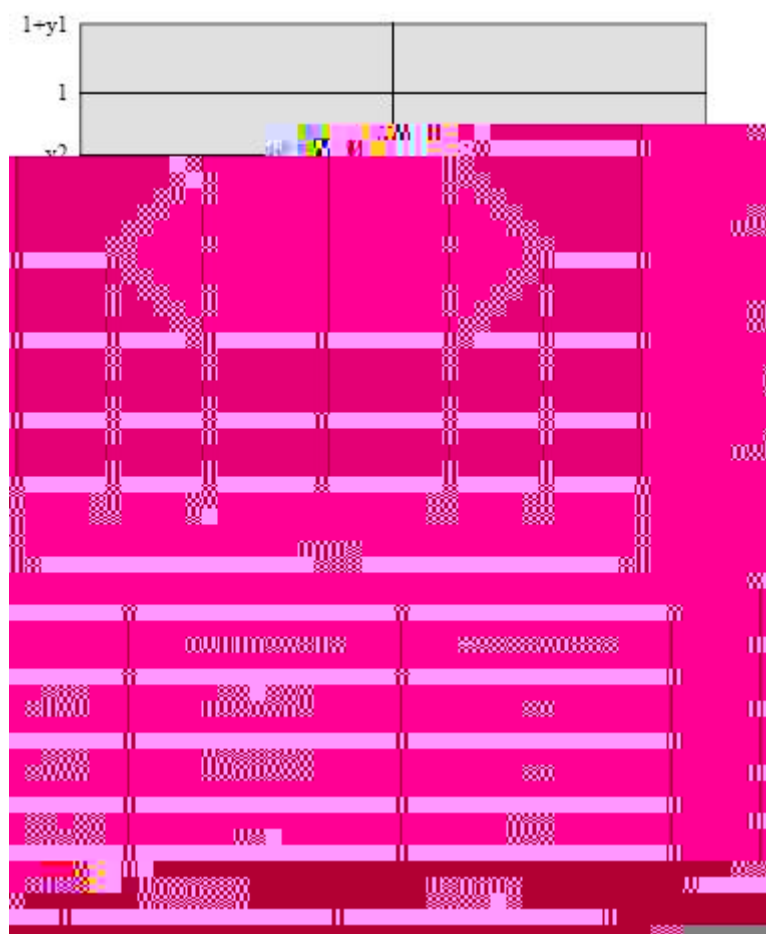
ONU

DDM

DDM
WDM

1310nm

Electrical Characteristics						
Operating Voltage	V_{op}	V	3.135	3.3	3.465	
Supply Current	I_{cc}	mA	ï	ï	450	
LVPECL differential Data Input Swing		mV	200	ï	1600	Note1
LVPECL differential Data Output Swing		mV	400	-	1600	Note10
Differential Data input impedance		q	ï	100	ï	Note1
Input Signal Level(LVTTL H)		V	2.0	ï	V_{cc}	
Input Signal Level(LVTTL L)		V	0	ï	0.8	
Output Signal Level(LVTTL H)		V	2.4	ï	V_{cc}	
Output Signal Level(LVTTL L)		V	0	ï	0.4	
Optical Transmitter Characteristics						
Data Rate		Mbps	ï	2488.32	ï	
Center Wavelength Range	λ_c	nm	1480	1490	1500	DFB-LD
Spectral Width(@-20Db)	$\Delta\lambda$	nm	ï	ï	1	
Side Mode Suppression Ratio	SMSR	dB	30	ï	ï	
Launch Optical Power(EOL)	PEOL	dBm	+1.5	ï	+5	Note2
Off level light		dBm		ï	-39	Note3
Extinction Ratio	EX	dB	8.2	ï	ï	Note4
Total Jitter	J_{total}	UI	ï	ï	0.2	
Rise/Fall time(20 80)	Tr/Tf	Ps	ï	ï	250	Note5
Optical Return Loss Tolerance		dB	ï	ï	15	
Maximum reflectance		dB	ï	ï	-12	$\lambda=1.49\mu m$
Eye Diagram	Compliant with ITU-T G.984.2					Note4 Note6



Signal Detect

Burst optical power conversion holding time	Holding Time	ns	350			Figure 2
Burst optical power conversion time		us			500	result can be read out since rising edge of the trigger pulse