

( # " 4 & 9 % 3 0 4 ' 1 ON LN  
. 51 . 10 5 BOTDFJFS

04' 1 9% #

" QQMBUPO

‡ ( &UJFSDFU

‡ %BUB\$FOUFS

' FBV/SFT

‡ \$PNQMBUOXJWJ \*88& DV Y ( # " 4 & ' 3 0 QJDEM  
\*CUFSEDF

‡ \$PNQMBUOXJWJ \*88&1 DL% Y ( " 6 \* \$ . &MDSDEM  
\*CUFSEDF

‡ \$PNQMBUOXJWJ 04' 1. 4" ) 8 3FW 5ZCF ) PVTJCHXJWJ . 10  
\$POCFDUPS

‡ \$PNQMBUOXJWJ \$. \*43FW

‡ \$BTFOQFSEBUDH5FNQFSEV/SF L3 UP L3

‡ 5XP8 JF 4FSEMOUFSBDFXJWJ %HUBM%BHPTJWJ  
. POLPSCH

‡ \$PNQMFTXJWJ &6 %&FDJWF &6

‡ \$NBT - BTFS

### 1 SPEVDU%FTDSQJPO

51 F ( # " 4&9% 04' 10 QJDBM\$BOTDFJWFS. PEVMI JTEFTJHOFE QPS ( # " 4&UJ FSCFUJ SPVHI QVUVQUP LN PVFSTJCHMIN PEF  
 GCFS 4 . ' XJJ . 10 DPOCFUPST 51 JTBOTDFJWFSJTDPN QMBOUXJU N&& DL \*8&& DV 04' 1 . 4" 51 F CVJWJJOEJHJBM  
 EJBHOPTJDTN POLPSCH %% BWPXTBDDFTTUP SFBMJN F PGFSBUJHQBEN FUST \*UITVJBOV QPS ( &UJ FSCFUJ%BUJ\$FOUJ\$#FBLPVU  
 Y ( 9% PS Y ( ' 3" QQMBUPO

### 1 SPEVDU4QFDGDBUJ POT

\* " CTPMUF . BYJN VN 3BUJHT

1 BSN FUS	4ZN CPM	. JO	. BY	6 OJ
4UPSBF 5FN QFSBU/SF	5 <sub>4</sub>			•\$
4VQQM 7PMBHF	7 <sub>SS</sub>			7
3FMBUJF) VN JEJZ OPO DPOEFOTJCH	3)			
%BUB*QQMU7PMBHF %JGFSFOJBM	M <sub>1/2</sub> 7 <sub>2/1</sub> M			7
\$POLSPMOCMU7PMBHF	7.		7 <sub>SS</sub>	7
\$POLSPM VUQVUSV\$FOU	* <sub>0</sub>			N"

\*\* 3FDPN N FOEFE 0 QFSBUJH & QMSPON FOU

1 BSN FUS	4ZN CPM	. JO	5ZQJBM	. BY	6 OJ	/ PUFT
0 QFSBUJH \$BTF 5FN QFSBU/SF	5 <sub>013</sub>				•\$	
1PXF54VQQM 7PMBHF	7 <sub>SS</sub>				7	
*OTUBOUBOFPVT 1FBL \$V\$FOUBU) PU1M/H	* <sub>SS@1</sub>			5#%	N"	
4VTUBOFE 1FBL \$V\$FOUBU) PU1M/H	* <sub>SS@1</sub>			5#%	N"	
. BYJN VN 1PXF5%JTTJQBUPO	1 <sub>%</sub>			5#%	8	
. BYJN VN 1PXF5%JTTJQBUPO - PX 1PXF5 . PEF	1 <sub>%1</sub>				8	
4JHOBWCH 4QFFE QFS- BOF	% <sub>3-</sub>				( #E	
\$POLSPMOCMU7PMBHF) JH	7 <sub>1</sub>	7 <sub>SS</sub>		7 <sub>SS</sub>	7	





7 &MDSDBM\$! BSBDFSTJDT

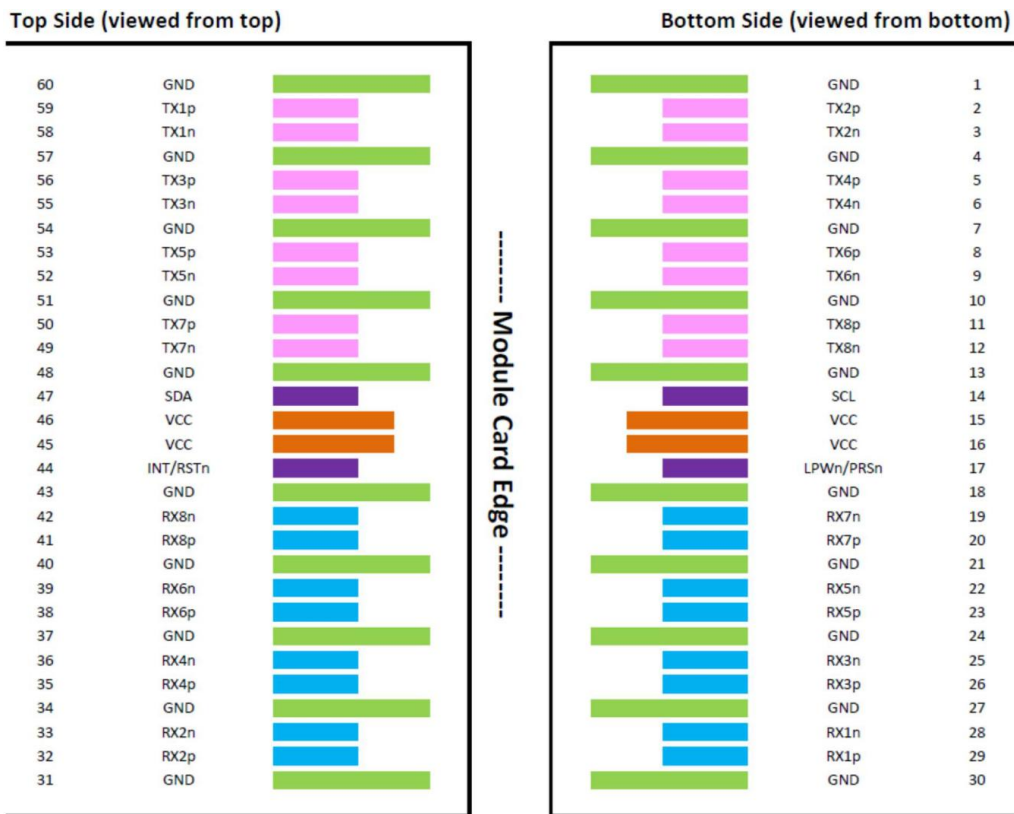
&MDSDBM(QFDJGDBUPO) JH 4QFFE 4JHOBMDPN QMBCUXJU \*&&& DL \$ .

1BSN FUS	4ZN CPM	. JO	5ZQDBM	. BY	6QU
3FDFJWS . PEVMT 0 VUQU 51					
" \$ DPN N PO N PEF PVUQUU7PMBHF 3. 4					N7
%GFSFOJBMQFBL UP QFBL 0 VUQUU7PMBHF 4I PSJ. PEF - PCH. PEF					N7
&ZF) FJI U	&				N7
7FSJDBM&ZF \$MTVSF	7&\$				E#
\$PN N PO N PEF UP %GFSFOJBMN PEF 3FU/SO- PTT	3-%D		DL (		E#
&GFDJWF 3FU/SO- PTT	&3-				E#
%GFSFOJBM\$FSN JOBUPO. JTN BUD					
5SBOTJJO5JNF					QT
\$\$\$ \$PN N PO N PEF 7PMBHF 5PMISBDF					7
5SBOTN JIJS . PEVMT *CQU 51					
%GFSFOJBMQL QL *CQUU7PMBHF 5PMISBDF 51 B					N7
" \$ \$PN N PO N PEF 3. 4 7PMBHF 5PMISBDF 51 B					N7
%GFSFOJBMN PEF UP \$PN N PO N PEF 3FU/SO- PTT	3-DE		DL (		E#
&GFDJWF 3FU/SO- PTT	&3-				E#
%GFSFOJBM\$FSN JOBUPO. JTN BUD					
4JHMT FOEFE 7PMBHF 5PMISBDF 3BOHF					7
\$\$\$ \$PN N PO N PEF 7PMBHF 5PMISBDF					7

&MIDLSDBM1QFDJGDBUPO- PX 4QFFE \$ POLSPMBOE 4FOTF 4JHOBMT DPN QMBOUX JU 2 4' 1 %% ) 8 3FW

1BSBN FJFS	4ZN CPM	. JO	. BY	6OJ
. PEVMT 0 VUQVU4\$ - BOE 4%"	7 <sub>0</sub>			7
. PEVMT *OQVU4\$- BOE 4%"	7 <sub>1</sub>		7 <sub>SS</sub>	7
	7 <sub>1</sub>	7 <sub>SS</sub>	7 <sub>SS</sub>	7
*OJ PEF 3FTFU BOE . PE4FM	7 <sub>1</sub>			7
	7 <sub>1</sub>		7 <sub>SS</sub>	7
*OJ	7 <sub>0</sub>			7
	7 <sub>0</sub>	7 <sub>SS</sub>	7 <sub>SS</sub>	7

7\* 1SODQMT %BHSBN



' JHVSF o 1DPVUEFGOLJPOTPGO 4' 1 N PEVMT JQVUT PVUQVUT

7\*\* 1\* / %FTDSQJPO

1JO	4ZN CPM	%FTDSQJPO	- PHLD	1JO	4ZN CPM	%FTDSQJPO	- PHLD
	( / %	( SPVCE			( / %	( SPVCE	
59 Q	5SBOTN JJFS%BUB/ PO*OVFSJFE		\$ . - *	39 Q	3FDJWFS%BUB/ PO*OVFSJFE		\$ . - 0
59 O	5SBOTN JJFS%BUB*OVFSJFE		\$ . - *	39 O	3FDJWFS%BUB*OVFSJFE		\$ . - 0
	( / %	( SPVCE			( / %	( SPVCE	
59 Q	5SBOTN JJFS%BUB/ PO*OVFSJFE		\$ . - *	39 Q	3FDJWFS%BUB/ PO*OVFSJFE		\$ . - 0
59 O	5SBOTN JJFS%BUB*OVFSJFE		\$ . - *	39 O	3FDJWFS%BUB*OVFSJFE		\$ . - 0
	( / %	( SPVCE			( / %	( SPVCE	
59 Q	5SBOTN JJFS%BUB/ PO*OVFSJFE		\$ . - *	39 Q	3FDJWFS%BUB/ PO*OVFSJFE		\$ . - 0
59 O	5SBOTN JJFS%BUB*OVFSJFE		\$ . - *	39 O	3FDJWFS%BUB*OVFSJFE		\$ . - 0
	( / %	( SPVCE			( / %	( SPVCE	
59 Q	5SBOTN JJFS%BUB/ PO*OVFSJFE		\$ . - *	39 Q	3FDJWFS%BUB/ PO*OVFSJFE		\$ . - 0
59 O	5SBOTN JJFS%BUB*OVFSJFE		\$ . - *	39 O	3FDJWFS%BUB*OVFSJFE		\$ . - 0
	( / %	( SPVCE			( / %	( SPVCE	
59 Q	5SBOTN JJFS%BUB/ PO*OVFSJFE		\$ . - *	39 Q	3FDJWFS%BUB/ PO*OVFSJFE		\$ . - 0
59 O	5SBOTN JJFS%BUB*OVFSJFE		\$ . - *	39 O	3FDJWFS%BUB*OVFSJFE		\$ . - 0
	( / %	( SPVCE			( / %	( SPVCE	
4\$-	XJF 4FSEMOUFSBDF \$MFL		-7\$. 04 * 0	7/ 5 3450	PEVMA*OVFSJFE/CJ. PEVMA 3FTFU		VMI - FVW
7\$\$	71PXFS			7\$\$	71PXFS		
7\$\$	71PXFS			7\$\$	71PXFS		
-18 O 134 O	-PX 1PXFS. PEF . PEVMA 1STFOL . VMI - FVW			4%"	XJF 4FSEMOUFSBDF %BUB		-7\$. 04 * 0
	( / %	( SPVCE			( / %	( SPVCE	

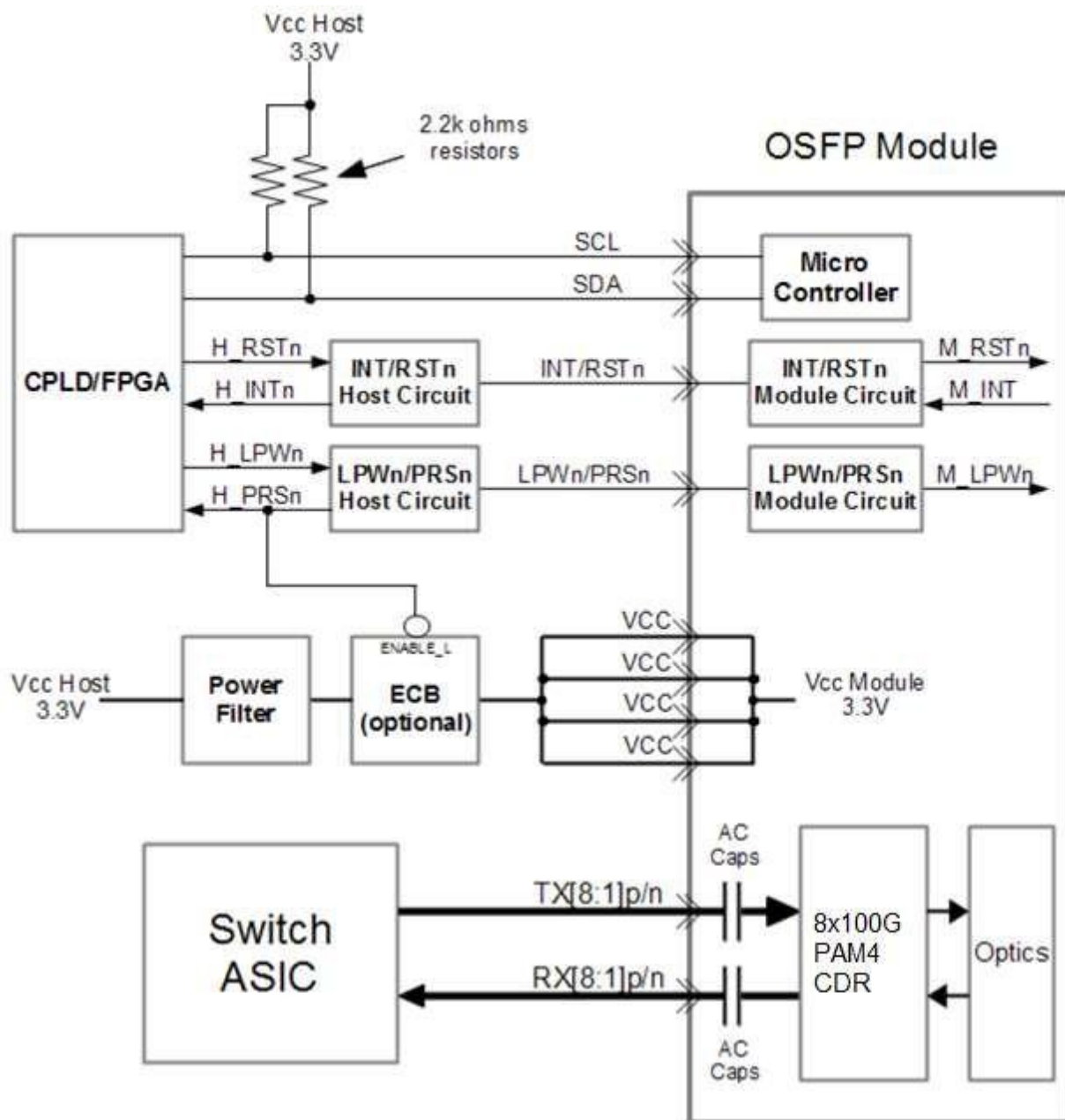
1JO	4ZN CPM	%FTDSQJPO	- PHJD	1JO	4ZN CPM	%FTDSQJPO	- PHJD
	39 O	3FDFJWFS%BLB*OVFSJFE	\$. - 0		59 O	5SBOTN JIIFS%BLB*OVFSJFE	\$. - *
	39 Q	3FDFJWFS%BLB/ PO*OVFSJFE	\$. - 0		59 Q	5SBOTN JIIFS%BLB/ PO*OVFSJFE	\$. - *
	( / %	( SPVCE			( / %	( SPVCE	
	39 O	3FDFJWFS%BLB*OVFSJFE	\$. - 0		59 O	5SBOTN JIIFS%BLB*OVFSJFE	\$. - *
	39 Q	3FDFJWFS%BLB/ PO*OVFSJFE	\$. - 0		59 Q	5SBOTN JIIFS%BLB/ PO*OVFSJFE	\$. - *
	( / %	( SPVCE			( / %	( SPVCE	
	39 O	3FDFJWFS%BLB*OVFSJFE	\$. - 0		59 O	5SBOTN JIIFS%BLB*OVFSJFE	\$. - *
	39 Q	3FDFJWFS%BLB/ PO*OVFSJFE	\$. - 0		59 Q	5SBOTN JIIFS%BLB/ PO*OVFSJFE	\$. - *
	( / %	( SPVCE			( / %	( SPVCE	

7\*\*\* %JHUBM%BHOPTJJD' VODJJPOT

1BSN FJFS	3BOHF	" DDVSDZ	6OUJ	\$BMCBSUJPO
5FN QFSBUVSF	-	±	•\$	*OFSOBM
7PNVBF	-7\$\$		7	*OFSOBM
5Y#JBT\$VSSFCU FBD - BOF	-		N"	*OFSOBM
5Y0VQMU1PXFBS FBD - BOF	-	±	E#	*OFSOBM
3Y3FDFJWF1PXFBS FBD - BOF	-	±	E#	*OFSOBM

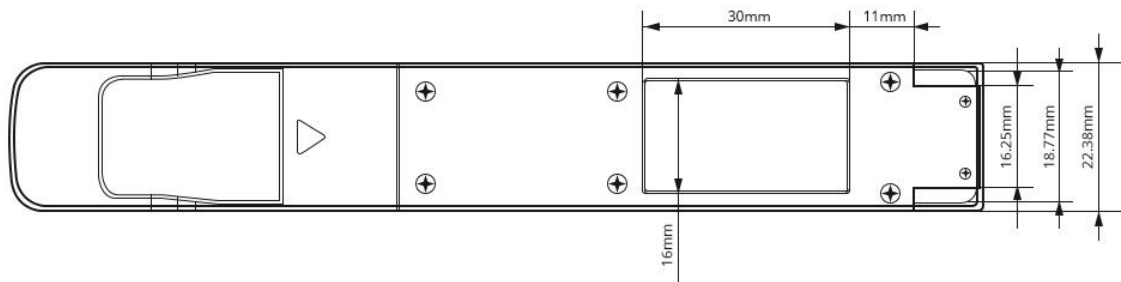
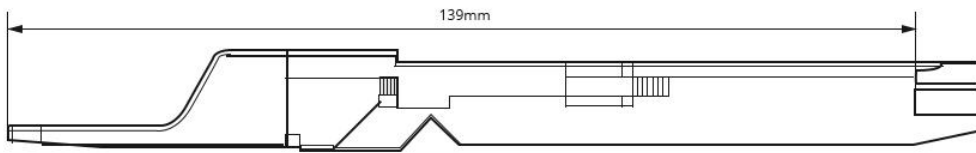
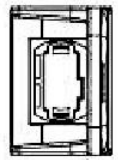
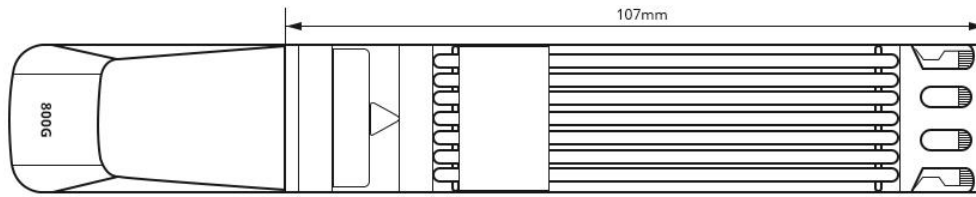
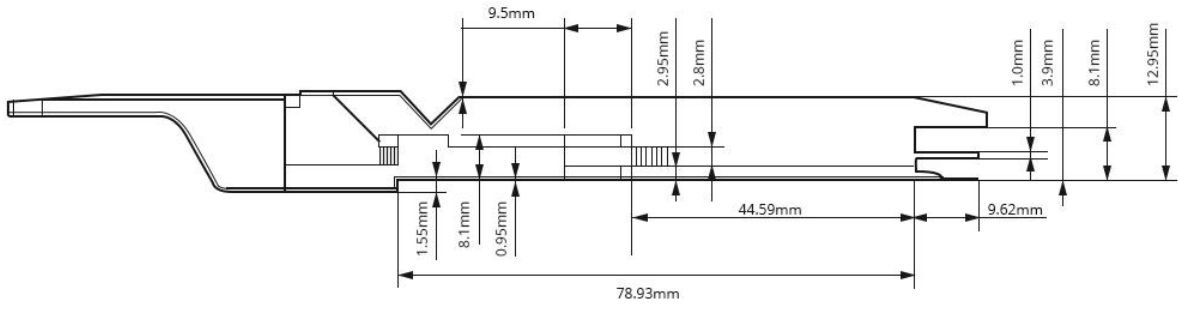


\*9 3FDPN N FCEFE 04' 1) PTU#PBSE 4D FN BUD



' JVSF o3FDPN N FCEFE 04' 1) PTU#PBSE 4D FN BUD

9 . FD BQDBM% BHSBN



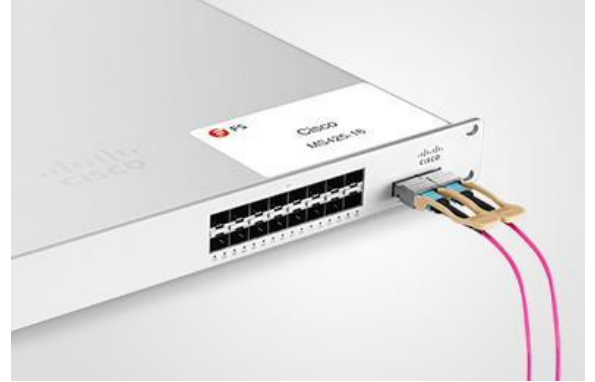
### 5FTU\$FOUFS

\* \$PN QBUJCMUZ5FTUJCH

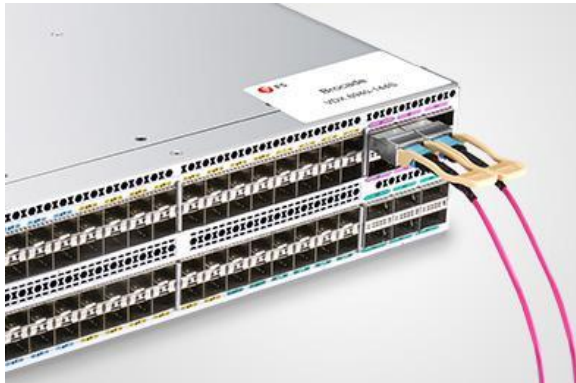
&BDI GCFSPQJIDMUBOTDFJWFSI BT CFFOUFTUFE JOI PTUEFWDF POTUJF JO' 4 " TTVSFE 1SPHSN UP FOTVSF G/WIDPN QBUJCMUZ X.UJ PVVFS VFOEPOST



\$JTCP \$BUBZTU\$ : \$



\$JTCP . 4



#SPDEF 7% 4



%FM& \$ / FUKPSLJCH; 0/



' PSDI UN 4 5

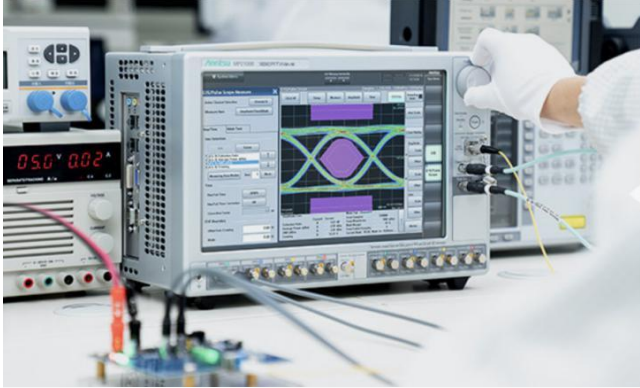


) 6" 8 & 4 - ) \* 4

" CPVIF JT GBSJPGV SUFTUCFE OFUK PSL FRVJQN FOU' PSN PSF JOGPN BUJPO QVIBTF DMJL UJ F 5FTU#FE 1% \*UX JWCDF VGEBUFE JOSFEMUN F BT XF FYGBOE PVSQPSJPNP

## \*\* 1 FSCPSN BODF 5FTUJCH

&BD GCFSPLQJDBMSBOTDFJWFSI BT OFFOGVMZUFTUFE JO' 4" TTVSFE 1SPHSBN FRVJQQFE XJU XPSMFTN PTUBEVIBODFE BOBVMJDBM  
FRVJQN FCUUP FOTVSF UI BUPVLSBOTDFJWFSIXPSL GFSDFUWZ POZPVSEFVDF



### 1. TX/RX Signal Quality Testing

Equipped with the all-in-one tester integrated 4ch BERT & sampling oscilloscope, and variable optical attenuator to ensure the input and output signal quality.

- Eye Pattern Measurements: jitter, Mask Margin, etc
- Average Output Power
- OMA
- Extinction Ratio
- Receiver Sensitivity
- BER Curve

### 2. Reliability and Stability Testing

Subject the transceivers to dramatic changes in temperature on the thermal shock chamber to ensure reliability and stability of the transceivers.

- Commercial: 0 °C to 70 °C
- Extended: -5 °C to 85 °C
- Industrial: -40 °C to 85 °C



### 3. Transfer Rate and Protocol Testing

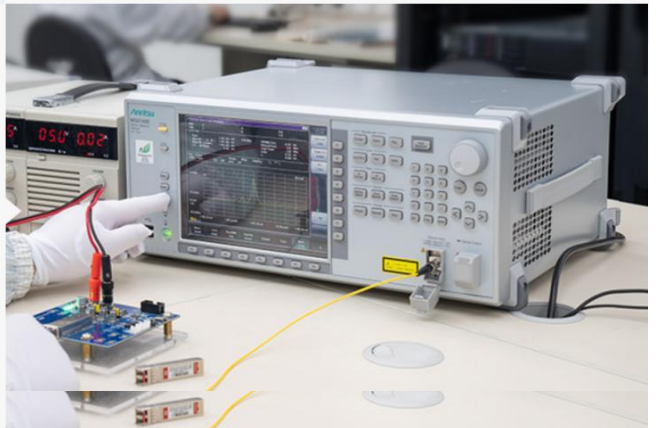
Test the actual transfer data rate and the transmission ability under different protocols with Network Master Pro.

- Ethernet
- Fibre Channel
- SDH/SONET
- CPRI

### 4. Optical Spectrum Evaluation

Evaluate various important parameters with the Optical Spectrum Analyzer to meet the industry standards.

- Center Wavelength, Level
- OSNR
- SMSR
- Spectrum Width



0 SEFS\*OPSN BUPO

1BSJ/ VN CFS		%FTDSQJPO	
04' 1	% 3 #	( # " 4 & % 3 04' 11" .	CN N % 0 . . 51 . 10 4. ' 0 QJDNM\$BOTDFJFS
04' 1	' 3 "	( # " 4 & ' 3 04' 11" .	CN LN % 0 . -\$ 4. ' 0 QJDNM\$BOTDFJFS
2% %	' 3 \$	( # " 4 & ' 3 24' 1 % % 1" .	CN LN % 0 . % / EN \$ 44. ' 0 QJDNM\$BOTDFJFS
04' 1	9% 3 #	( # " 4 & 9% 3 04' 11" .	CN LN % 0 . . 51 . 10 4. ' 0 QJDNM\$BOTDFJFS



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