

Features

- Compliant with IEEE802.3by (25 Ethernet)
- Backward compatible to SFP+ 10G Ethernet
- Data rates : 25 Gbps
- I/O Connector designed for high speed differential signal
- Connector Compliant with SFP28 MSA
- Low Power Consumption < 0.5W
- Wire AWG : 32/ 30 / 28 / 26
- EEPROM signature can be customized

Applications

- Storage, Switch, & RAID Systems
- High-Performance Computing (HPC)
- Network Interface Cards (NIC's)
- Telecommunication equipment
- Data center and enterprise storage systems

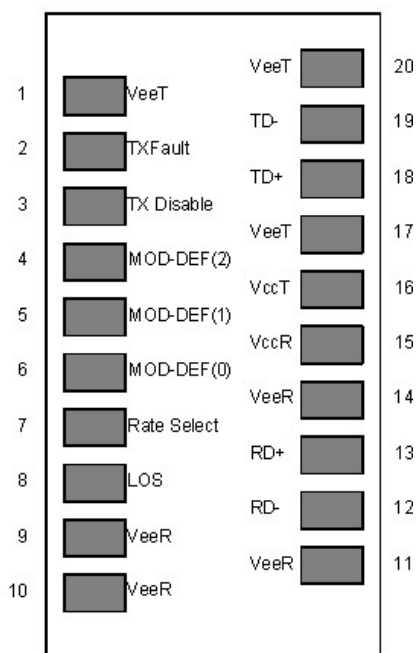
Electrical Characteristics and Recommended Operating Conditions

Parameter	Symbol	Min	Typ.	Max	Units	Notes
Storage Temperature	Tstg	-40		85	°C	
Supply Voltage	Vcc			6.00	V	Vcc-ground
Data DC Voltage	Voffset	3.13		5.25	Vpk	V (Tx+, Tx-, Rx+, Rx-) to ground

Parameter	Symbol	Min	Typ.	Max	Units	Notes
Ambient Operating Temperature	Ta	-40		85	°C	
Supply Voltage	Vcc			6	Vdc	
Baud Rate	BRate	0.1		25G	Gbps	

Mechanical Features

- Back shell
Zinc alloy. Nickel plated over all 100u" Min.
- PCB Contact Configure (SFF-MSA Compliance)



MSA Compliant connector

- PCB Contact Plating
100 u" min. nickel under plate over all
15 u" min. gold over nickel at contact area by electron plating
100u" min tin over nickel at soldering area
- Raw cable
Two pairs of Twin-Ax, high speed cable, 100 ohm, cover with shielded braid 85% Min. PVC material Jacket are available for option.

All materials are RoHS and RoHS6 compliance.

PERFORMANCE AND TEST DESCRIPTION

A	Time domain parameter	Test condition	SPEC		Equipment
1	Diff.impedance	Tr:25ps	100+/-10ohms		N5071C or DSA8300
2	Intra-skew		L*15+20	L:length(m)	
				SPEC:ps	
B	Frequency domain parameter	Test condition	Test spec(dB)	f(GHz)	
1	SDD11/SDD22	Freq:50MHz ~ 20GHz Points:1601 IF: 1KHz	-15+1.5	$0.05 \leq f < 4.1$	N5071C
			$-10.66 + 14 * \log_{10}(f/5.5)$	$4.1 \leq f \leq 19$	
2	SCC11/SCC22	Freq:50MHz ~ 20GHz Points:1601 IF: 1KHz	$\leq -2\text{dB}$	$0.2 \leq f \leq 19$	
3	SDC11/SDC22	Freq:50MHz ~ 20GHz Points:1601 IF: 1KHz	$-16 + 2 * f/3$	$0.05 \leq f \leq 19$	
4	SCD21-SDD21	Freq:50MHz ~ 20GHz Points:1601 IF: 1KHz	$\geq \begin{matrix} 10 & 0.01 \leq f < 12.89 \\ 27 - (29/22)f & 12.89 \leq f < 15.7 \\ 6.3 & 15.7 \leq f \leq 19 \end{matrix}$	$0.01 \leq f \leq 19$	
5	MDNEXT	Freq:50MHz ~ 20GHz Points:1601 IF: 1KHz	$\leq -26\text{dB}@12.89\text{GHz}$	$0.01 \leq f \leq 19$	

Test Items	Specification	Test Method
Thermal shock	5 cycles of a) -10°C for 30 minutes b) +70°C for 30 minutes	EIA-364-32C.Test condition I
Temperature Life	Subject mated Specimens to +70°C for 500 hours	EIA-364-17 method A, Test condition II, Test time condition C.
Humidity and Temperature cycling	Subject unmated specimens to 10 cycles (10 days)	EIA-364-31 Method III,Test condition A
	between 25 and 65oC at 80 to 100% RH	
Mixed Flowing Gas	Subject specimens to environmental Class IIA for 7 days unmated, and 7 days mated.	EIA-364-65, Class IIA

SFP28 DAC Test Result

Summary Result

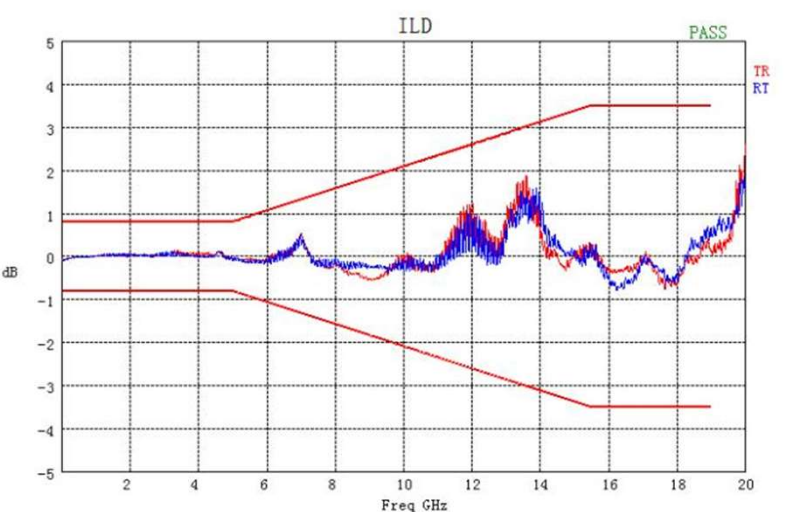
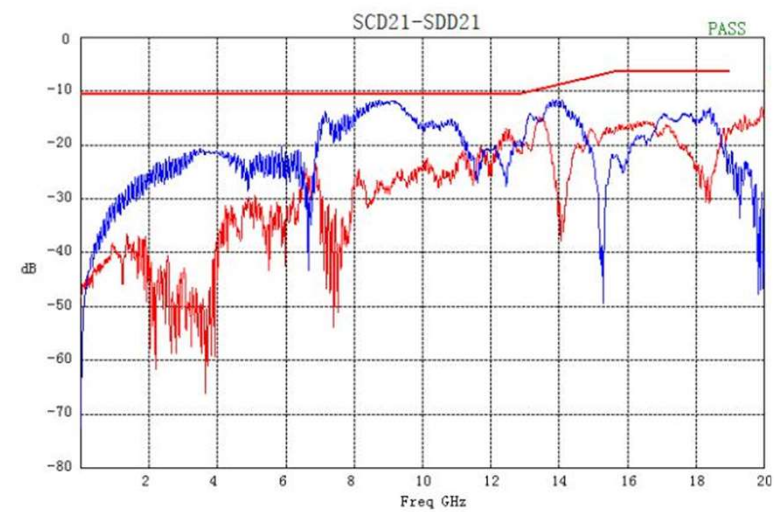
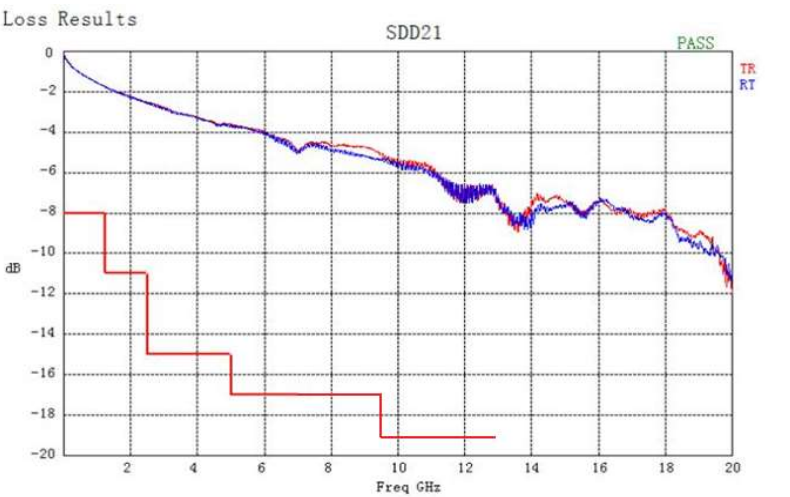
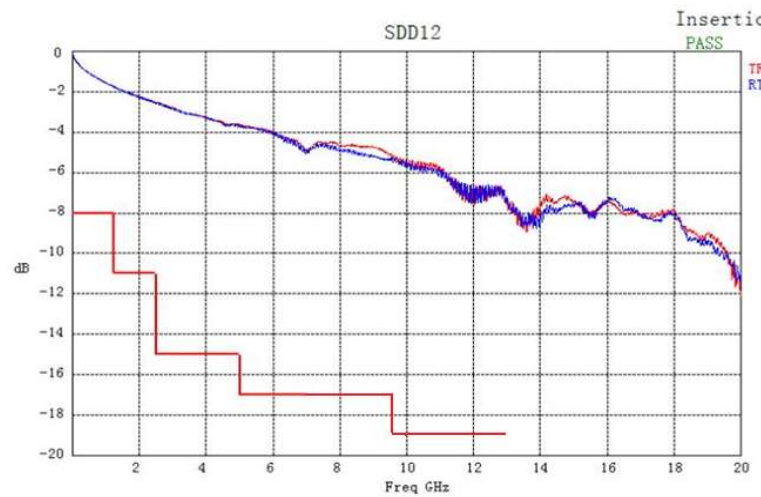
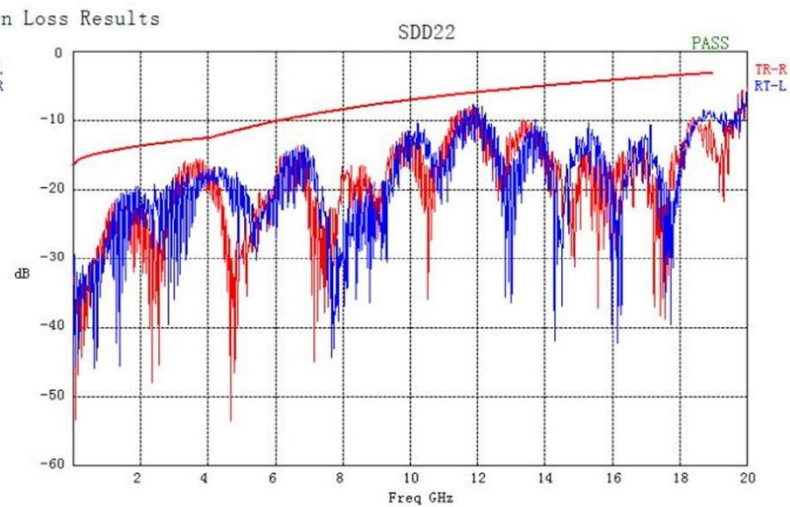
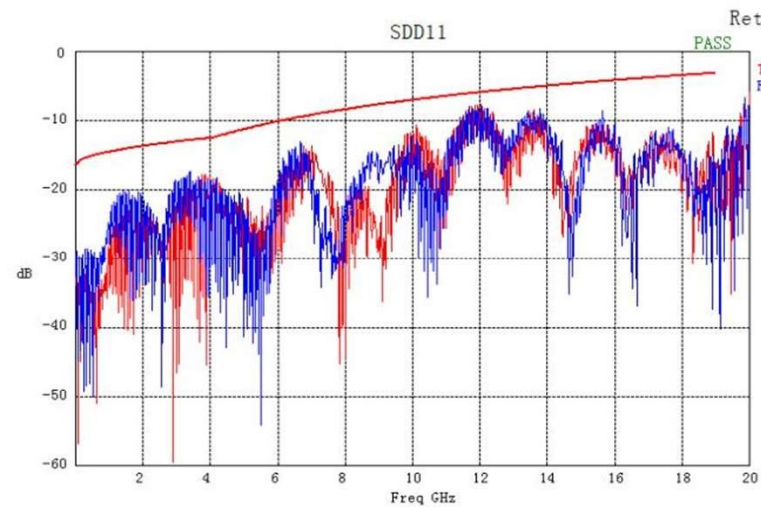
TX---> RX

Type		Value(dB)	Freq(GHz)	Spec	ΔValue	Results	Fail@(GHz)
SDD11	MAX	-7.647	12.03	SFP28	1.738	PASS	
SDD22	MAX	-7.584	11.86	SFP28	1.588	PASS	
SDD12	MIN	-7.577	12.03	SFP28	14.903	PASS	
SDD21	MIN	-7.554	12.03	SFP28	14.926	PASS	
ILD	MAX	1.888	13.59	SFP28	1.121	PASS	
SCD21-SDD21	MIN	-14.805	13.4	SFP28	5.052	PASS	
SCD11	MIN	-16.071	15.4	SFP28	4.653	PASS	
SCD22	MAX	-16.27	18.24	SFP28	5.513	PASS	
SCC11	MAX	-2.5	5.84	SFP28	0.5	PASS	
SCC22	MAX	-2.553	5.75	SFP28	0.553	PASS	

RX---> TX

Type		Value(dB)	Freq(GHz)	Spec	ΔValue	Results	Fail@(GHz)
SDD11	MAX	-7.926	12.05	SFP28	2.027	PASS	
SDD22	MAX	-7.671	11.87	SFP28	1.68	PASS	
SDD12	MAX	-7.503	11.96	SFP28	14.977	PASS	
SDD21	MIN	-7.509	11.96	SFP28	14.971	PASS	
ILD	MAX	1.593	13.88	SFP28	1.49	PASS	
SCD21-SDD21	MAX	-11.593	14.09	SFP28	2.872	PASS	
SCD11	MAX	-13.243	15.28	SFP28	1.797	PASS	
SCD22	MAX	-18.224	15.92	SFP28	6.927	PASS	
SCC11	MIN	-2.547	4.84	SFP28	0.547	PASS	
SCC22	MIN	-2.508	5.76	SFP28	0.508	PASS	

SFP28 DAC Test Result



SFP28 DAC Test Result

