

Data Sheet

Rev 01.1220

40Gbps AOC Tester

iBERT 10000



Description

The iBERT 10000 - 40Gbps AOC Tester is a 40Gbps Bit Error Rate Tester (BERT) with modularized interface which includes QSFP+ cage, SFP+ cage, or SMA type connector. There are 8 transmitters and 8 receivers to accomplish full duplex 40Gbps bidirectional data link. Each transmitter and receiver provide 10Gbps data link. Compliant with 40G Ethernet standards, the QSFP+ port follows QSFP+ MSA. User interface can individually monitor bit error rate, error count and timer via USB cable with PC. The serial ID and Digital Diagnostics Monitor for QSFP+ or SFP+ transceiver can also be monitored in the user interface.

Features

- 19" rackmount size
- No need for warming up
- Standard USB for connecting with PC. OS needs Windows XP or above and Microsoft .NET Framework 4.
- QSFP+, SFP+, or SMA interface module
- Friendly Graphic User Interface (GUI)

Applications

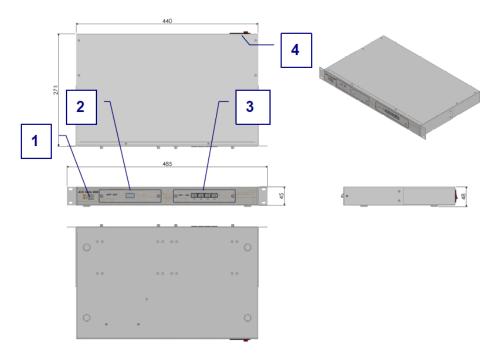
- 40 Gbps AOC/DAC Qualification
- 40 Gbps QSFP+ to 4 x SFP+ AOC/DAC Qualification
- 40 Gbps QSFP+ Qualification

Specifications

Main Frame						
Slots	2 universal slots for installing modules					
Operating Temperature	0°C~ 50°C					
Storage Temperature	-10°C ~ 70°C					
Data Rate	10.3125Gbps x 4					
Power Supply	100-240VAC					
Weight	2.0kg					
Dimensions (WxDxH)	485mm x 271mm x 48mm					

Slot Boards				
QSFP+ Module	1 standard QSFP+			
SFP+ Module	4 standard SFP+			
TX SMA Module	4 pairs TX electrical			
RX SMA Module	4 pairs RX electrical			

Elements and Operating Instructions



- 1. <u>USB (B Type)</u>: USB port. Connect to host via a standard USB cable
- 2. <u>Slot L</u>: Slot for installing QSFP+/SFP+/SMA interface module
- 3. <u>Slot R</u>: Slot for installing QSFP+/SFP+/SMA interface module
- 4. <u>Power Input</u>: AC power input

Graphical User Interface (GUI)

			IBERT TO	000 Ver1.5							IDEN	T 10000 Ver1.5				
OMPORT	RATE CONTRO Data Rate	L	Patten					COM PORT RATE Data Re	CONTROL	Patten						
OM8	- 10G Ethernet	~	PRBS31 v LIM	к	EXIT			COM8 - 10G E	thernet	· PRBS	31 ~	LINK	EXIT			
					EAH			DISCONNECT								<u>.</u>
ISCONNEC	<u>.</u>					iBE	RT [®] 10000								BERT	1000
ERT Test	Digital Diag	ostics	Serial ID Mo	mory Ma	LD		VER 1.5		l Diagnos	stics Seri	al ID	Memory M	ар			VER 1
eft . OS	FP+ Module		1					Left - QSFP+ Mo	dule							
RX1		RX2		RX3		RX4				L_Warning		Cu	rrent		H_Warning	H Alarm
Synchronizza	LOS	Synchron	LOS	Synchron	LOS	Synchro	LOS	Temp(C);	-10.00	-5.00			5.63		75.00	80.00
Seror Rate	0.00000E-11	Error Rate	0.00000E-11	Error Rate	0.00000E-11	Error Rate	0.00000E-11	i initiation	-10.00	-0.00					10.00	00.00
Total Boor	0	Total Brior	0	Total Boor	0	Total Boox		Voltage(V):	2.90	3.00		3	.37		3.60	3.70
LOCUL BALOK		LODE HADOR		LOOM HAVON		Forsi Livies	0				CH1	CH2	CH3	CH4		
Finite	00:00:04	Timtr	00:00:04	Timtr	00:00:04	Timetr	00:00:04	TX Bias(mA):	2.00	3.00	7.80	7.80	7.59	7.59	10.00	11.00
TX1		TX2	-	тхз	-	TX4	-									
TX1 DIS	Easter FAULT	TX2 DIS	Easter FAULT	210 DIS	Eashie FAULT	TH4 DIS	Easter FAULT	RX Power(dBm):	-13.00	-12.00	0.39	-0.80	-0.64	-0.64	2.50	3.00
kight - Q	SFP+ Module															
RXI	LOS	RX2	105	RX3	105	RX4	LOS	Right - QSFP+ M	odule							
Syachronizz	5 105	Syachron	LOS	Syachoo	LUS	Synchro	1013 LOOS		L_Alarm	L Warning		Cu	rrent		H Warning	H Alarm
Stror Rate	0.00000E-11	Error Rate	0.00000E-11	Error Rate	0.00000E-11	Error Rate	0.00000E-11	Temp(C):	-10.00	-5.00			2.00		75.00	80.00
Total Berter	0	Total Heror	0	Total Heror	0	Total Herox	0	i inip(e).	10100	0.00					10100	00100
								Voltage(V):	2.90	3.00		3	.38		3.60	3.70
Fines	00:00:04	Timer	00:00:04	Timtr	00:00:04	Timor	00:00:04				CH1	CH2	CH3	CH4		
TX1 DXS	17.45. INSTRUM	TX2 TX2 DIS		TX3 TK3 DIS	-	TX4 TX4 DIS	Easter FAULT	TX Bias(mA):	2.00	3.00	6.76	6.76	6.76	6.76	10.00	11.00
	Cance PAULI	TAZ DIS	EAULT	143 DIS	PAULT	1.54 DIS	PAULI									
			STOP	RES	BET			RX Power(dBm):	-13.00	-12.00	0.05	0.20	-0.35	-0.55	2.50	3.00
			Tes	ting				1								

BERT Page:

- 1. <u>COM PORT</u>: The COM port number of the Tester. The number is defined in host hardware manager. This COM port number MUST be selected correctly.
- 2. <u>RATE CONTROL</u>: Transmitter/Receiver data rate standards selection.
- 3. LINK: Link with the tester. It shows PASS for correct setting of hardware connection and shows FAIL otherwise.
- 4. <u>EXIT</u>: Exit this program. It changes to START after click.
- 5. <u>Disconnect</u>: Disconnect and release the COM port link.
- 6. START: Start for the bit error rate test. It changes to STOP after click.
- 7. <u>STOP</u>: Stop for the bit error rate test.
- 8. <u>RESET</u>: Reset the bit error counts and rates.
- 9. BERT Mode: Free run is for untimed testing; timer run is for limited time testing.

Digital Diagnostics Page:

This page shows the Digital Diagnostics data from transceivers. It complies with SFF-8472 for SFP+ and SFF-8436 for QSFP. Not support for SMA modules.

Serial ID Page:

This page shows the Serial ID from transceivers. It complies with SFF-8472 for SFP+ and SFF-8436 for QSFP. Not support for SMA modules.

Maintenance

Like any other type of electronic equipment, this QSFP checker should be kept away from water, high humidity, dust, electricity, and environments of extreme temperatures. Do not drop this tool on any hard surface. Internal modification of any of the SFP checker components can cause a malfunction and will invalidate the manufacturer's warranty.

Warranty

The manufacturer warrants this product to be free of defects in workmanship and materials for a period of 10 months after purchase. This warranty is solely limited to the repair or replacement of the original parts. All other costs are the sole responsibility of the owner. This warranty does not cover any defects, damage, or deterioration due to misuse, alteration, or negligence.

Ordering Information

Part Number	Description
iBERT 10000 (S201313009999)	iBERT 10000 40G AOC Checker Main Frame
S201313-3	1-QSFP+ slot board
S201313-2	4-SFP+ slot board
S201313-4T	4-TX SMA slot board
S201313-4R	4-RX SMA slot board

Note: Specifications are subject to change without notice.



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