QSFP Loopback Modules

40G / 100G / 200G SYSTEM CONFIGURATION SOLUTION

Amphenol's QSFP 10G / 28G / 56G Loopback Modules are part of our comprehensive QSFP product family which includes copper cables, active optical cables, and connectors.

These QSFP loopbacks are offered as passive electrical with multiple attenuation and thermal consumption levels. QSFP loopbacks are designed to support data speeds up to 200G (4 lanes at 50G).

TARGET MARKETS

FEATURES	BENEFITS
▪ SFF-8665 / SFF-8636, and QSFP28 MSA compliant module	▪ Supports all industry standard ports
▪ The module is composed of a high-frequency Printed Circuit Board (PCB) designed with controlled impedance traces to loopback each of the 4 high speed lanes	▪ Low cost tool to allow individual port testing without using a cable assembly which tests 2 ports and is harder to handle ▪ Enables electrical system de-bug and validation testing
▪ Available with or without thermal loading and with or without attenuation settings	▪ Cost-effective testing devices for host hardware ports
▪ EEPROM per QSFP MSA; customization is available	▪ Enables system communication over I2C bus
▪ Supports custom solutions	▪ Meets customer specific applications and designs
▪ Part of Amphenol's overall QSFP product offerings	▪ Comprehensive QSFP I/O system that includes passive copper, active optical cabling and connector solutions
▪ RoHS compliant	▪ Meets environmental, health and safety requirements

TECHNICAL INFORMATION

MATERIAL

- Nickel plated zinc die cast shells & latching mechanism parts
- Low loss PCB with gold fingers for durability
- Thermoplastic pull tab

ELECTRICAL PERFORMANCE

- Differential Impedance: 100Ω ± 10Ω

MECHANICAL PERFORMANCE

- 40N max. insertion force
- 30N max. withdrawal force
- 90N min. retention
- 500 typical mating cycles with multiple new connectors/cages
- Refer to the QSFP MSA document

ENVIRONMENTAL

- Thermal Shock: EIA 364–32, Condition 1, 25 cycles, –55°C to +85°C
- Service life expectancy to exceed 5 years

PACKAGING

- Loopback ends packaged with dust covers

TARGET MARKETS/APPLICATIONS

Low Latency Communication Systems
Network Interface Cards (NICs)
Routers
Switches

Servers
Networked Storage Systems
High Performance Computing (HPC) Applications
Data Center Networking

PART NUMBERS

Data Rate	Description	Part Numbers
10G / Lane	QSFP Loopback, EEPROM Only, Passive	NDA0D0–0001
10G / Lane	QSFP Loopback, Mode Select, INT to Reset L, 1.5W, 0dB Attenuation, Blue Lanyard, No Eye/Jitter Test	599940001
10G / Lane	QSFP Loopback, Mode Select, 1.5W, 0dB Attenuation, Blue Lanyard, No Eye/Jitter Test	599940002
10G / Lane	QSFP Loopback, Mode Select, 0W, 0dB Attenuation, Blue Lanyard, No Eye/Jitter Test	599940003
10G / Lane	QSFP Loopback, Mode Select, 2.5W, 0dB Attenuation, Blue Lanyard, No Eye/Jitter Test	599940004
10G / Lane	QSFP Loopback, Mode Select, 1.5W, 0dB Attenuation, Black Lanyard, No Eye/Jitter Test	599940005
10G / Lane	QSFP Loopback, Mode Select, 1.5W, 3dB Attenuation, Blue Lanyard, Eye/Jitter Test	599940006
10G / Lane	QSFP Loopback, Mode Select, 2.5W, 3dB Attenuation, Blue Lanyard, Eye/Jitter Test	599940007
10G / Lane	QSFP Loopback, Mode Select, 1.5W, 5dB Attenuation, Blue Lanyard, Eye/Jitter Test	599940008
10G / Lane	QSFP Loopback, Mode Select, 2.5W, 5dB Attenuation, Blue Lanyard, Eye/Jitter Test	599940009
10G / Lane	QSFP Loopback, Mode Select, 1.5W, 6dB Attenuation, Blue Lanyard, Eye/Jitter Test	599940010
10G / Lane	QSFP Loopback, Mode Select, 2.5W, 6dB Attenuation, Blue Lanyard, Eye/Jitter Test	599940011
10G / Lane	QSFP Loopback, Mode Select, 0W, 3dB Attenuation, Blue Lanyard, Eye/Jitter Test	599940012
10G / Lane	QSFP Loopback, Mode Select, 0W, 5dB Attenuation, Blue Lanyard, Eye/Jitter Test	599940013
10G / Lane	QSFP Loopback, Mode Select, 0W, 6dB Attenuation, Blue Lanyard, Eye/Jitter Test	599940014

Disclaimer
Please note that the above information is subject to change without notice.

QSFP Loopback Modules

Data Rate	Description	Part Numbers
10G / Lane	QSFP Loopback, Mode Select, 3.5W, 0dB Attenuation, Blue Lanyard, No Eye/Jitter Test	599940015
10G / Lane	QSFP Loopback, Mode Select, 3.5W, 3dB Attenuation, Blue Lanyard, Eye/Jitter Test	599940016
10G / Lane	QSFP Loopback, Mode Select, 3.5W, 5dB Attenuation, Blue Lanyard, Eye/Jitter Test	599940017
10G / Lane	QSFP Loopback, Mode Select, 3.5W, 6dB Attenuation, Blue Lanyard, Eye/Jitter Test	599940018
28G / Lane	QSFP Loopback, EEPROM Only, Passive	NLAABB-0001
28G / Lane	QSFP Loopback, Mode Select, INT to Reset L, 1.5W, 0dB Attenuation, Green Lanyard, No Eye/Jitter Test	630510001
28G / Lane	QSFP Loopback, Mode Select, 1.5W, 0dB Attenuation, Green Lanyard, No Eye/Jitter Test	630510002
28G / Lane	QSFP Loopback, Mode Select, 0W, 0dB Attenuation, Green Lanyard, No Eye/Jitter Test	630510003
28G / Lane	QSFP Loopback, Mode Select, 2.5W, 0dB Attenuation, Green Lanyard, No Eye/Jitter Test	630510004
28G / Lane	QSFP Loopback, Mode Select, 1.5W, 0dB Attenuation, Green Lanyard, No Eye/Jitter Test	630510005
28G / Lane	QSFP Loopback, Mode Select, 1.5W, 3dB Attenuation, Green Lanyard, Eye/Jitter Test	630510006
28G / Lane	QSFP Loopback, Mode Select, 2.5W, 3dB Attenuation, Green Lanyard, Eye/Jitter Test	630510007
28G / Lane	QSFP Loopback, Mode Select, 1.5W, 5dB Attenuation, Green Lanyard, Eye/Jitter Test	630510008
28G / Lane	QSFP Loopback, Mode Select, 2.5W, 5dB Attenuation, Green Lanyard, Eye/Jitter Test	630510009
28G / Lane	QSFP Loopback, Mode Select, 1.5W, 6dB Attenuation, Green Lanyard, Eye/Jitter Test	630510010
28G / Lane	QSFP Loopback, Mode Select, 2.5W, 6dB Attenuation, Green Lanyard, Eye/Jitter Test	630510011
28G / Lane	QSFP Loopback, Mode Select, 0W, 3dB Attenuation, Green Lanyard, Eye/Jitter Test	630510012
28G / Lane	QSFP Loopback, Mode Select, 0W, 5dB Attenuation, Green Lanyard, Eye/Jitter Test	630510013
28G / Lane	QSFP Loopback, Mode Select, 0W, 6dB Attenuation, Green Lanyard, Eye/Jitter Test	630510014
28G / Lane	QSFP Loopback, Mode Select, 3.5W, 0dB Attenuation, Green Lanyard, No Eye/Jitter Test	630510015
28G / Lane	QSFP Loopback, Mode Select, 3.5W, 3dB Attenuation, Green Lanyard, Eye/Jitter Test	630510016
28G / Lane	QSFP Loopback, Mode Select, 3.5W, 5dB Attenuation, Green Lanyard, Eye/Jitter Test	630510017
28G / Lane	QSFP Loopback, Mode Select, 3.5W, 6dB Attenuation, Green Lanyard, Eye/Jitter Test	630510018
28G / Lane	QSFP Loopback, Mode Select, 1.5W, 0dB Attenuation, White Lanyard, No Eye/Jitter Test	630510019
28G / Lane	QSFP Loopback, Mode Select, INT to Reset L, 3.5W, 5dB Attenuation, Green Lanyard, Eye/Jitter Test	630510020
28G / Lane	QSFP Loopback, Mode Select, INT to Reset L, 8W, 5dB Attenuation, Green Lanyard, Eye/Jitter Test	630510021
28G / Lane	QSFP Loopback, Mode Select, 5W, 0dB Attenuation, Green Lanyard, No Eye/Jitter Test	630510022
28G / Lane	QSFP Loopback, Mode Select, 3.5W, 0dB Attenuation, Green Lanyard, No Eye/Jitter Test	630510023
28G / Lane	QSFP Loopback, Mode Select, 5W, 5dB Attenuation, Green Lanyard, Eye/Jitter Test	630510024
56G / Lane	QSFP Loopback, EEPROM Only, Passive	NLAAMB-0001

*Active Thermal to be designed to customer defined specifications

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