Product Specification

425Gb/s SR8 QSFP-DD 850nm 100m
Optical Transceiver

P/N: 400G-QDD-SR8

Features

- Hot Pluggable QSFP-DD form factor
- Operating data rate 425Gbps
- Single +3.3V power supply
- Single MPO-16 APC connector
- Max power dissipation <10W
- Maximum link length of 70m on OM3
- Maximum link length of 100m on OM4
- 850nm VCSEL laser
- PIN receivers
- Built-in digital diagnostic function
- Commercial temperature range 0°C to 70°C

Compliance

- Compliant with QSFP-DD MSA
- IEEE 802.3cd
- RoHS

Applications

- 400G Ethernet
- Data Center Interconnect
- Transport across data centers
- Switches with QSFP-DD ports

Description

The 400G-QDD-SR8 is a high-performance 400Gbps QSFP-DD optical transceiver designed for modern data centers and cloud networks. Featuring eight independent transmit and receive channels, each operating at 53.125Gbps, it achieves a total data rate of 400Gbps. Optimized for multimode fiber (MMF), the module supports transmission distances up to 100 meters over OM4 MMF using an 850nm VCSEL array. The optical interface utilizes an MTP/MPO-16 connector with guide pins for accurate alignment, while the electrical interface complies with QSFP-DD MSA standards, ensuring seamless integration with existing network equipment.

Operating with a single +3.3V power supply and consuming less than 10W, the 400G-QDD-SR8 is both efficient and reliable. It incorporates advanced features such as an 8-channel CDR retimer, VCSEL driver arrays, and photodiode receiver arrays. The module supports various interconnection configurations, including 400G-400G direct connections, 400G to 2×200G links (using MTP/MPO breakout cables), and 400G to 8×50G links (using MTP/MPO to LC duplex breakout cables). Compliance with IEEE 802.3bs, SFF-8636, SFF-8679, and QSFP-DD MSA standards ensures interoperability across diverse networking environments. Additionally, the module supports digital diagnostic monitoring (DDM), providing real-time insights into operating conditions for enhanced network management.

Product performance Specifications

1. Basic Product Characteristics

Parameter	Symbol	Min	Typ.	Max	Unit
Storage Temperature	T_S	-40	-	+85	°C
Supply Voltage	V_{CC}	-0.5	-	3.6	V
Relative Humidity	RH	5	-	85	%
Operating Case Temperature	T_C	0	-	70	°C
Power Supply Voltage	V_{CC}	3.135	3.3	3.465	V
Power Supply Current	I_{CC}			2730	mA
Power Dissipation	PD	-	-	10	W
Data Rate	DR	-	425	-	Gbps
Transmission Distance(OM3)	-	0.5	-	70	m
Transmission Distance(OM4)	-	0.5	-	100	m

2. Product Optical and Electrical Characteristics

Parameter	Symbol	Min	Typ.	Max	Unit	Note
Operating Case Temperature	Top	0		70	°C	
Power Supply Voltage	V_{CC}	3.135	3.3	3.465	V	
Center Wavelength	λc	840	850	860	nm	
Data Rate, each Lane			53.125		GBd	PAM4
Data Rate Accuracy		-100		100	ppm	
Pre-FEC Bit Error Ratio				$2.4x10^{-4}$		
Post-FEC Bit Error Ratio				$1x10^{-12}$		1
Link Distance with OM4	D	0.5		100	m	2
Supply current	I_{CC}			3.63	A	
Power Consumption				10	W	
Transmitter						
Signaling Rate, each Lane	TP1	53.125 ± 100 ppm			GBd	
Differential pk-pk Input Voltage Tolerance	TP1a	900			mVpp	3
Differential Termination Mismatch	TP1			10	%	
Differential Input Return Loss	TP1	IEEE802.3-2015 Equation(83E-5)			dB	
Differential to Common Mode Input Return Loss	TP1	IEEE 802.3-2015 Equation (83E-6)			dB	
Module Stressed Input Test	TP1a	See IEEE 802.3bs 120E.3.4.1				4
Single-ended Voltage Tolerance Range (Min)	TP1a	-0.4		3.3		
DC Common Mode Input Voltage	TP1	-350		2850	mV	5
Data Rate, each Lane		53.125±100ppm			GBd	
Modulation Format		PAM4				
RMS Spectral Width	Δλrms			0.6	nm	Modulated
Average Launch Power, each Lane	P_{AVG}	-6.5		4	dBm	6
Outer Optical Modulation Amplitude (OMA_{outer}), each Lane	P_{OMA}	-4.0		3	dBm	7
Launch Power in OMA_{outer} minus TDECQ, each Lane		-5.9			dB	

Transmitter and Dispersion Eye Closure for PAM4,each Lane	TDECQ			4.9	dB	
Extinction Ratio	ER	3			dB	
Optical Return Loss Tolerance	TOL	12			dB	
Average Launch Power of OFF Transmitter, each Lane	P_{off}			-30	dBm	
Encircled Flux		≥ 86% at 19 μm				
		≤ 30% at 4.5 μm				
Receiver						
Signaling Rate, each lane	TP4	53.125 ± 100 ppm			GBd	
Differential Peak-to-Peak	TP4			900	mVpp	
Output Voltage						
AC Common Mode Output Voltage, RMS	TP4			17.5	mV	
Differential Termination Mismatch	TP4			10	%	
Differential Output Return Loss	TP4	IEEE 802.3-2015 Equation (83E-2)				
Transition Time, 20% to 80%	TP4	9.5			ps	
Near-end Eye Symmetry Mask Width (ESMW)	TP4		0.265		UI	
Near-end Eye Height,Differential	TP4	70			mV	
Far-end Eye Symmetry Mask Width (ESMW)	TP4		0.2		UI	
Far-end Eye Height,Differential	TP4	30			mV	
Far-end Pre-cursor ISI Ratio	TP4	-4.5		2.5	%	
Common Mode Output Voltage (Vcm)	TP4	-350		2850	mV	5
Data Rate, each Lane		53.125 ± 100 ppm			GBd	
Modulation Format		PAM4				
Damage Threshold, each Lane	THd	5			dBm	8
Average Receive Power, each Lane		-7.9		3	dBm	9
Receive Power (OMA_{outer}), each Lane				3	dBm	
Receiver Sensitivity (OMA_{outer}),each Lane	SEN			-6.5	dBm	10
Stressed Receiver Sensitivity(OMA_{outer}), each Lane	SRS			-3	dBm	11
Receiver Reflectance	RR			-12	dB	

LOS Assert	LOSA	-30			dBm	
LOS De-assert	LOSD			-12	dBm	
LOS Hysteresis	LOSH	0.5			dB	
Stressed Conditions of Stress Receiver Sensitivity Test (Note 12)						
Stressed Eye Closure for PAM4 (SECQ), Lane under Test			4		dB	
OMA_{outer} of each Aggressor Lane			3		dBm	

Note1: EC provided by host system.

Note2: FEC required on host system to support maximum transmission distance.

Note3: With the exception to IEEE 802.3bs 120E.3.1.2 that the pattern is PRBS31Q or scrambled idle.

Note4: Meets BER specified in IEEE 802.3bs 120E.1.1.

Note5: DC common mode voltage generated by the host. Specification includes effects of ground offset voltage.

Note6: Average launch power, each lane (min) is informative and not the principal indicator of signal strength. A transmitter with launch power below this value cannot be compliant; however, a value above this does not ensure compliance.

Note7: Even if the TDECQ<1 dB , the OMAouter (min) must exceed the minimum value specified here.

Note8:The receiver shall be able to tolerate, without damage, continuous exposure to an optical input signal having this average power level.

Note8: Average receive power, each lane (min) is informative and not the principal indicator of signal strength. A received power below this value cannot be compliant; however, a value above this does not ensure compliance.

Note9: Receiver Sensitivity OMAouter, each lane (max) is informative and is defined for a BER of 2.4x10-4.

Note10: Measured with conformance test signal at receiver input for the BER of 2.4x10-4.

Note11: These test conditions are for measuring stressed receiver sensitivity. They are not characteristics of the receiver.

Recommended Host Board Power Supply Circuit

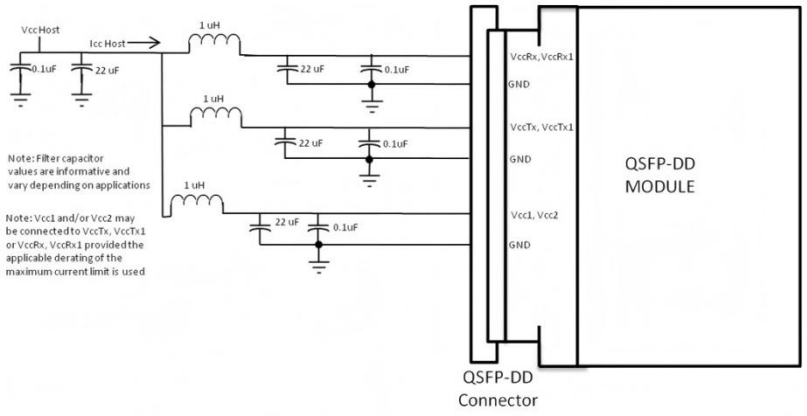


Figure 1: Recommended Host Board Power Supply Circuit

Recommended Interface Circuit

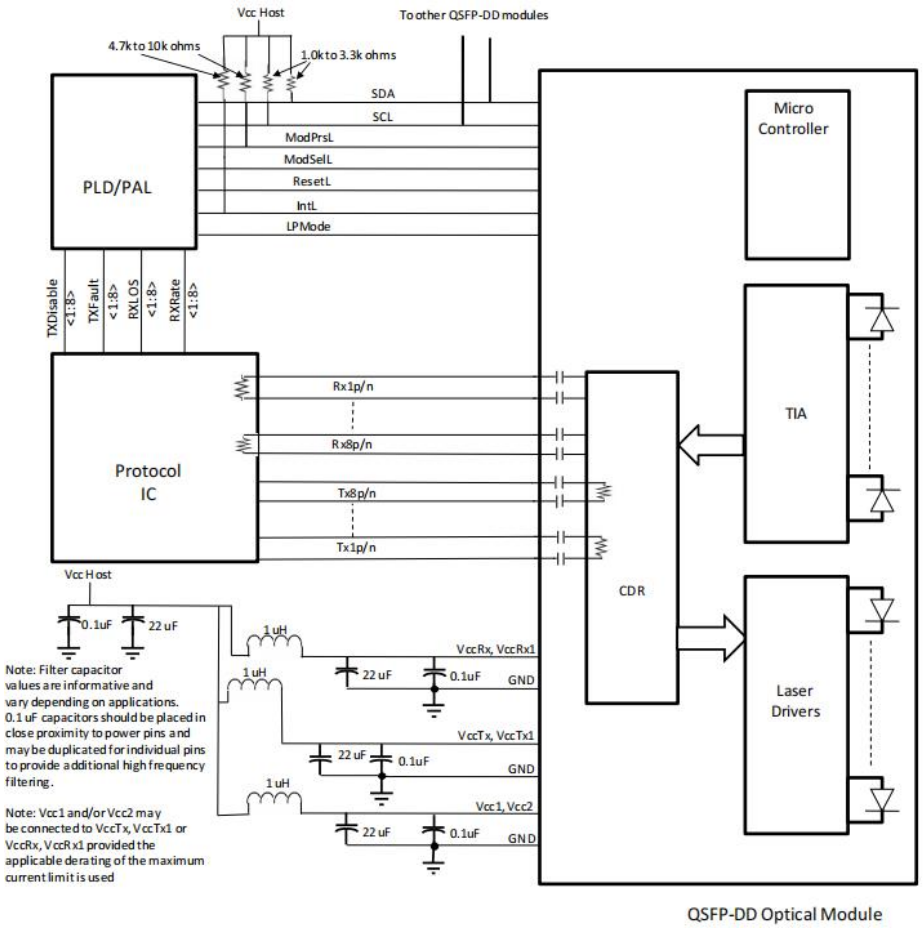


Figure2: Recommended Interface Circuit

Optical Interface

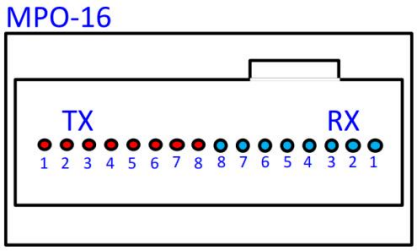


Figure3: Optical Lane Sequence

Pin-out Definition

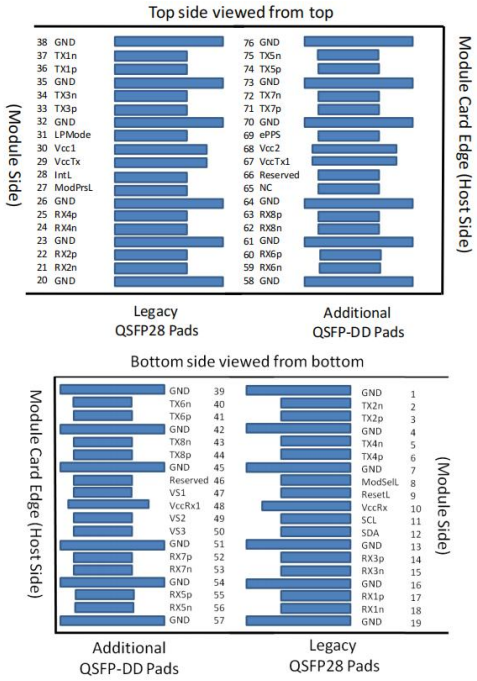


Figure4: Pin view

Pin Function Definitions

Pin	Logic	Symbol	Description	Note
1		GND	Ground	1
2	CML-I	Tx2n	Transmitter Inverted Data Input	
3	CML-I	Tx2p	Transmitter Non-Inverted Data Input	
4		GND	Ground	1
5	CML-I	Tx4n	Transmitter Inverted Data Input	

6	CML-I	Tx4p	Transmitter Non-Inverted Data Input	
7		GND	Ground	1
8	LVTTL-I	ModSelL	Module Select	
9	LVTTL-I	ResetL	Module Reset	
10		Vcc Rx	+3.3V Power Supply Receiver	2
11	LVCMOS-I/O	SCL	2-wire serial interface clock	
12	LVCMOS-I/O	SDA	2-wire serial interface data	
13		GND	Ground	1
14	CML-O	Rx3p	Receiver Non-Inverted Data Output	
15	CML-O	Rx3n	Receiver Inverted Data Output	
16		GND	Ground	1
17	CML-O	Rx1p	Receiver Non-Inverted Data Output	
18	CML-O	Rx1n	Receiver Inverted Data Output	
19		GND	Ground	1
20		GND	Ground	1
21	CML-O	Rx2n	Receiver Inverted Data Output	
22	CML-O	Rx2p	Receiver Non-Inverted Data Output	
23		GND	Ground	1
24	CML-O	Rx4n	Receiver Inverted Data Output	
25	CML-O	Rx4p	Receiver Non-Inverted Data Output	
26		GND	Ground	1
27	LVTTL-O	ModPrsL	Module Present	
28	LVTTL-O	IntL/RxLOSL	Interrupt. Optionally configurable as RxLOSL via the management interface (SFF-8636)	
29		VccTx	+3.3V Power supply transmitter	2
30		Vcc1	+3.3V Power supply	2
31	LVTTL-I	InitMode	Initialization mode; In legacy QSFP applications, the InitMode pad is called LPMODE	
32		GND	Ground	1
33	CML-I	Tx3p	Transmitter Non-Inverted Data Input	
34	CML-I	Tx3n	Transmitter Inverted Data Input	
35		GND	Ground	1
36	CML-I	Tx1p	Transmitter Non-Inverted Data Input	
37	CML-I	Tx1n	Transmitter Inverted Data Input	
38		GND	Ground	1
39		GND	Ground	1
40	CML-I	Tx6n	Transmitter Inverted Data Input	
41	CML-I	Tx6p	Transmitter Non-Inverted Data Input	
42		GND	Ground	1
43	CML-I	Tx8n	Transmitter Inverted Data Input	
44	CML-I	Tx8p	Transmitter Non-Inverted Data Input	
45		GND	Ground	1

46		Reserved	For future use	3
47		VS1	Module Vendor Specific 1	3
48		VccRx1	3.3V Power Supply	2
49		VS2	Module Vendor Specific 2	3
50		VS3	Module Vendor Specific 3	3
51		GND	Ground	1
52	CML-O	Rx7p	Receiver Non-Inverted Data Output	
53	CML-O	Rx7n	Receiver Inverted Data Output	
54		GND	Ground	1
55	CML-O	Rx5p	Receiver Non-Inverted Data Output	
56	CML-O	Rx5n	Receiver Inverted Data Output	
57		GND	Ground	1
58		GND	Ground	1
59	CML-O	Rx6n	Receiver Inverted Data Output	
60	CML-O	Rx6p	Receiver Non-Inverted Data Output	
61		GND	Ground	1
62	CML-O	Rx8n	Receiver Inverted Data Output	
63	CML-O	Rx8p	Receiver Non-Inverted Data Output	
64		GND	Ground	1
65		NC	No Connect	3
66		Reserved	For future Use	3
67		VccTx1	3.3V Power Supply	2
68		Vcc2	3.3V Power Supply	2
69		Reserved	For future Use	3
70		GND	Ground	1
71	CML-I	Tx7p	Transmitter Non-Inverted Data Input	
72	CML-I	Tx7n	Transmitter Inverted Data Input	
73		GND	Ground	1
74	CML-I	Tx5p	Transmitter Non-Inverted Data Input	
75	CML-I	Tx5n	Transmitter Inverted Data Input	
76		GND	Ground	1

Note1: QSFP-DD uses common ground (GND)for all signals and supply (power). All are common within the QSFP-DD module and all module voltages are referenced to this potential unless otherwise noted. Connect these directly to the host board signal common ground plane.

Note2: VccRx, VccRx1, Vcc1, Vcc2, VccTx and VccTx1 shall be applied concurrently. Requirements defined for the host side of the Host Card Edge Connector are listed in Table 6. VccRx, VccRx1, Vcc1, Vcc2, VccTx and VccTx1 may be internally connected within the module in any combination. The connector Vcc pins are each rated for a maximum current of 1000 mA.

Note3: All Vendor Specific, Reserved and No Connect pins may be terminated with 50 ohms to ground on the host. Pad 65 (No Connect) shall be left unconnected within the module. Vendor specific and Reserved pads shall have an impedance to GND that is greater than 10 Kohms and less than 100 pF.

Monitoring Specification

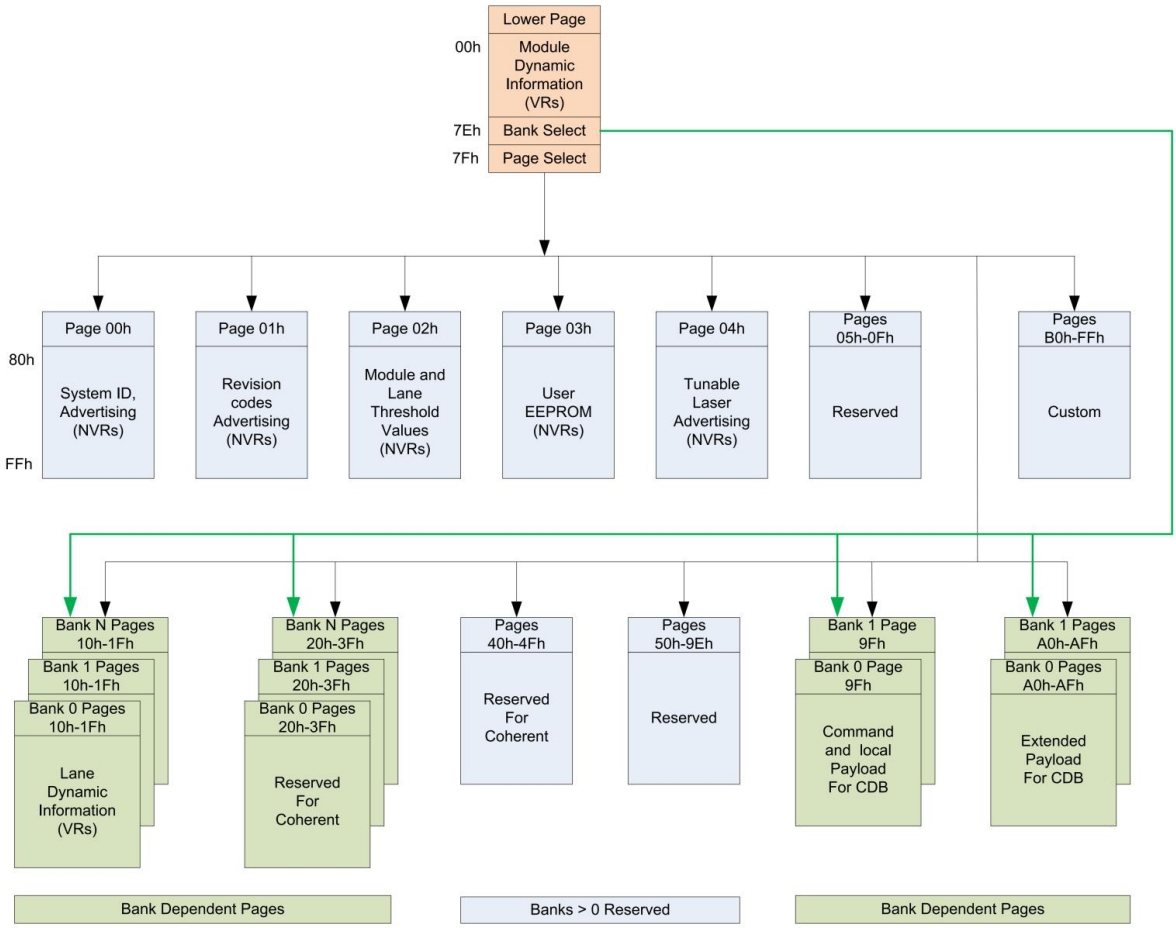


Figure5: Memory map

Memory map Table

Byte	Unit	Name	Description
Lower Page 00h			
0	1	Identifier	Identifier - Type of Serial Module - See SFF-8024.
1	1	Revision Compliance	Identifier – CMIS revision; the upper nibble is the whole number part and the lower nibble is the decimal part. Example: 01h indicates version 0.1, 21h indicates version 2.1.
2-3	2	ID and Status Area	Flat mem indication, CLEI present indicator, Maximum TWI speed, Current state of Module, Current state of the Interrupt signal.
4-7	4	Lane Flag Summary	Flag summary of all lane flags on pages 10h-1Fh.

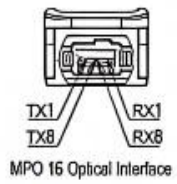
8-13	6	Module-Level Flags	All flags that are not lane or data path specific.
14-25	12	Module-Level Monitors	Monitors that are not lane or data path specific.
26-30	5	Module Global Controls	Controls applicable to the module as a whole
31-36	6	Module-Level Flag Masks	Masking bits for the Module-Level flags
37-38	2	CDB Status Area	Status of most recent CDB command
39-40	2	Module Firmware Version	Module Firmware Version.
41-63	23	Reserved Area	Reserved for future standardization
64-82	19	Custom Area	Vendor or module type specific use
83-84	2	Inactive Firmware Version	Version Number of Inactive Firmware. Values of 00h indicates module supports only a single image.
85-117	33	Application Advertising	Combinations of host and media interfaces that are supported by module data path(s)
118-125	8	Password Entry and Change	Password Entry and Change
126	1	Bank Select Byte	Bank address of currently visible Page
127	1	Page Select Byte	Page address of currently visible Page
Upper Page 00h			
128	1	Identifier	Identifier - Type of Serial Module - See SFF-8024.
129-144	16	Vendor name	Vendor name (ASCII)
145-147	2	Vendor OUI	Vendor IEEE company ID
148-163	16	Vendor PN	Part number provided by vendor (ASCII)
164-165	8	Vendor rev	Revision level for part number provided by vendor (ASCII)
166-181	10	Vendor SN	Vendor Serial Number (ASCII)
182-183	2	Date code year	ASCII code, two low order digits of year (00=2000)
184-185	2	Date code month	ASCII code digits of month (01=Jan through 12=Dec)
186-187	2	Date code day of month	ASCII code day of month (01-31)
188-189	2	Lot code	ASCII code, custom lot code, may be blank
190-199	10	CLEI code	Common Language Equipment Identification code
200-201	2	Module power characteristics	Module power characteristics
202	1	Cable assembly length	Cable assembly length
203	1	Media Connector Type	Media Connector Type
204	1	5 GHz attenuation	Passive copper cable attenuation at 5 GHz in 1 dB increments
205	1	7 GHz attenuation	Passive copper cable attenuation at 7 GHz in 1 dB increments
206	1	12.9 GHz attenuation	Passive copper cable attenuation at 12.9 GHz in 1 dB increments
207	1	25.8 GHz attenuation	Passive copper cable attenuation at 25.8 GHz in 1 dB increments
208-209	2	Reserved	Reserved
210-211	2	Cable Assembly Lane Information	Cable Assembly Lane Information
212	1	Media Interface Technology	Media Interface Technology
213-220	8	Reserved	Reserved

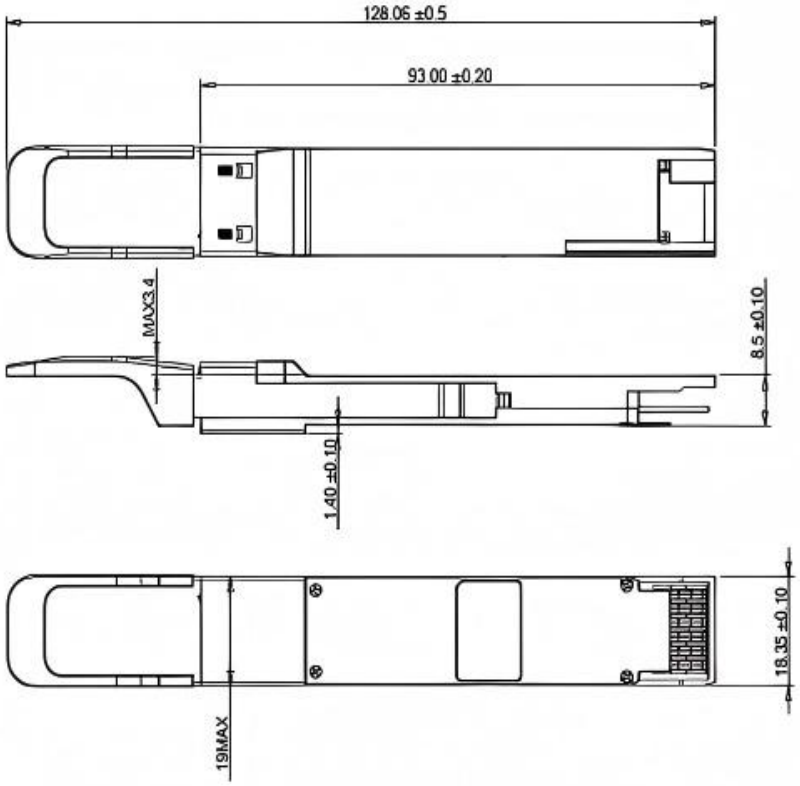
221	1	Custom	Custom
222	1	Checksum	Includes bytes 128-221
223-255	33	Custom Info NV	Custom Info NV
Page 01h (Optional)			
128	1	Inactive Module firmware major revision	Numeric representation of inactive module firmware major revision
129	1	Inactive Module firmware minor revision	Inactive Module firmware minor revision
130	1	Module hardware major revision	Module hardware major revision
131	1	Module hardware minor revision	Module hardware minor revision
132	1	Length (SMF)	Bits7-6 Length multiplier(SMF),Bits 5-0 Base Length (SMF)
133	1	Length (OM5)	Link length supported for OM5 fiber, units of 2 m (2 to 510 m)
134	1	Length (OM4)	Link length supported for OM4 fiber, units of 2 m (2 to 510 m)
135	1	Length (OM3)	Link length supported for EBW 50/125 μm fiber (OM3), units of 2m (2 to 510 m)
136	1	Length (OM2)	Link length supported for 50/125 μm fiber (OM2), units of 1m (1 to 255 m)
137	1	Reserved	Reserved
138-139	2	Nominal Wavelength	Nominal Wavelength
140-141	2	Wavelength Tolerance	Wavelength Tolerance
142-144	3	Implemented Memory Pages and Durations advertising	Implemented Memory Pages and Durations advertising
145-154	10	Module Characteristics advertising	Module Characteristics advertising
155-156	2	Implemented Controls advertising	Implemented Controls advertising
157-158	2	Implemented Flags advertising	Implemented Flags advertising
159-160	2	Implemented Monitors advertising	Implemented Monitors advertising
161-162	2	Implemented Signal Integrity Controls advertising	Implemented Signal Integrity Controls advertising
163-166	4	CDB support advertising	CDB support advertising
167-168	2	Additional Durations advertising	Additional Durations advertising
169-175	7	Reserved	Reserved
176-190	15	Module Media Lane advertising	Coded 1 if the Application is allowed to begin on a given media lane. Bits 0-7 correspond to Host Lanes 1-8. In multi-lane Applications each instance of an Application shall use contiguous media lane numbers. If multiple instances of a single Application are allowed each starting point is identified. If multiple instances are advertised, all instance must be supported concurrently.
191-222	32	Custom	Custom

223-250	28	Extended Module Host-Media Interface Advertising options	Extended Module Host-Media Interface Advertising options
251-254	4	Reserved	Reserved
255	1	Checksum	Checksum
Page 02h (Optional)			
128-129	2	Temperature monitor high alarm	Thresholds for internally measured temperature monitor: signed 2's complement in 1/256 degree Celsius increments
130-131	2	Temperature monitor low alarm	
132-133	2	Temperature monitor high warning	
134-135	2	Temperature monitor low warning	
136-137	2	Supply 3.3-volt monitor high alarm	Thresholds for internally measured 3.3 volt input supply voltage: in 100 µV increments
138-139	2	Supply 3.3-volt monitor low alarm	
140-141	2	Supply 3.3-volt monitor high warning	
142-143	2	Supply 3.3-volt monitor low warning	
144-145	2	Aux 1 monitor high alarm	Thresholds for TEC Current or Reserved monitor TEC Current: signed 2's complement in 100/32767% increments of maximum TEC current +32767 is max TEC current (100%) – Max Heating -32767 is min TEC current (100%) – Max Cooling
146-147	2	Aux 1 monitor low alarm	
148-149	2	Aux 1 monitor high warning	
150-151	2	Aux 1 monitor low warning	
152-153	2	Aux 2 monitor high alarm	Thresholds for TEC Current or Laser Temperature monitor TEC Current: signed 2's complement in 100/32767%increments of maximum TEC current +32767 is max TEC current (100%) – Max Heating -32767 is min TEC current (100%) – Max Cooling Laser Temperature: signed 2's complement in 1/256 degree Celsius increments
154-155	2	Aux 2 monitor low alarm	
156-157	2	Aux 2 monitor high warning	
158-159	2	Aux 2 monitor low warning	
160-161	2	Aux 3 monitor high alarm	Thresholds for Laser Temperature or additional supply voltage monitorLaser Temperature: signed 2's complement in 1/256 degree Celsius increments NOTE: Laser Temp can be below 0 if uncooled or in Tx Disable.Additional supply voltage monitor: in 100 µV increments
162-163	2	Aux 3 monitor low alarm	
164-165	2	Aux 3 monitor high warning	
166-167	2	Aux 3 monitor low warning	
168-169	2	Custom monitor high alarm	Custom monitor: signed or unsigned 16 bit value
170-171	2	Custom monitor low alarm	
172-173	2	Custom monitor high warning	
174-175	2	Custom monitor low warning	
176-177	2	Tx optical power high alarm	Threshold for Tx optical power monitor: unsigned integer in 0.1 uW increments, yielding a total measurement range of 0 to 6.5535 mW
178-179	2	Tx optical power low alarm	

180-181	2	Tx optical power high warning	(~-40 to +8.2 dBm)See section 8.8.3 for monitor details including accuracy
182-183	2	Tx optical power low warning	
184-185	2	Tx bias current high alarm	Threshold for Tx bias monitor: unsigned integer in 2 uA increments, times the multiplier from Table 8-33. See section 8.8.3 for monitor details including accuracy
186-187	2	Tx bias current low alarm	
188-189	2	Tx bias current high warning	
190-191	2	Tx bias current low warning	
192-193	2	Rx optical power high alarm	Threshold for Rx optical power monitor: unsigned integer in 0.1 uW increments, yielding a total measurement range of 0 to 6.5535 mW (~-40 to +8.2 dBm) See section 8.8.3 for accuracy.
194-195	2	Rx bias current low alarm	
196-197	2	Rx bias current high warning	
198-199	2	Rx bias current low warning	
200-229	30	Reserved	Reserved
230-254	25	Custom	Custom
255	1	Checksum	Covers bytes 128-254

Mechanical Dimension

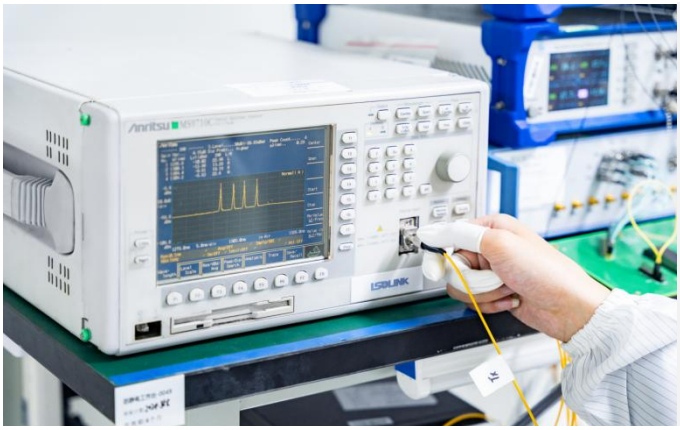




Test Center

1. Performance Testing

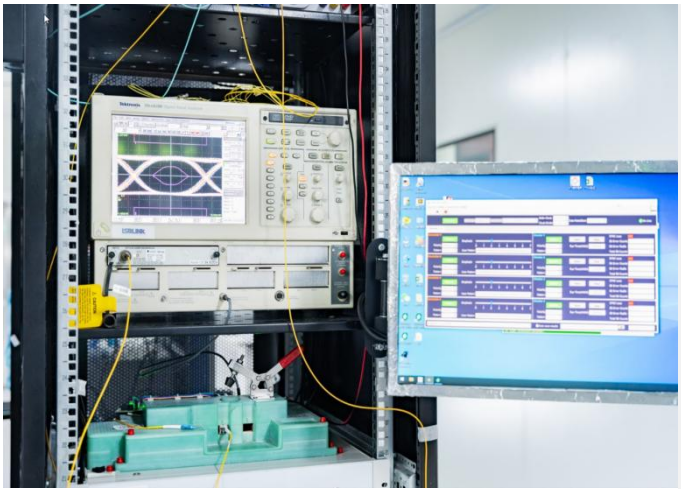
Every fiber optic transceiver is thoroughly tested by the LSOLINK Assurance Program, which is equipped with the world's most advanced analytical equipment to ensure that our transceivers meet the industry's international public protocol standards while still functioning flawlessly in your facility.



Optical Spectrum Inspection

Using the industry's leading optical spectrum analyser to check in real time that the parameters of the optical transceiver's laser comply with industry standards.

- **Peak:** Peak wavelength and peak level
- **2nd Peak:** Side-mode wavelength and level
- **Mean WI:** Center wavelength
- **Total Power:** Total power of spectrum
- **SMSR:** Side-Mode Suppression Ratio



Optical Signal Quality Inspection

Using highly efficient sampling oscilloscopes and BERT testers, equipped with an automated test platform to accurately test the signal quality of the transceiver, test records are kept for up to 5 years to ensure the traceability of each transceiver.

- **Eye Mask Margin(NRZ)**
- **TDECQ(PAM4):**transmitter dispersion eye closure
- **OMA:** Optical modulation amplitude
- **BER:** Bit error rate
- **ER:** Extinction Ratio

Flow Pressure Test

Using multi-protocol network traffic analyser with various brands of switches to test the transceiver's ability to transmit at full speed.

- **Bandwidth:** Actual transceiver bandwidth on the port
- **Packet Loss**
- **Packet Errors:**CRC Errors/PCS Errors/Symbol Errors
- **LinkDown Counts**
- **latency**

Aboveis part of our test bed network equipment. For more information, Please click download for optical transceiver performance test report.

2. Quality Control

We adopt advanced quality management solutions. Each transceiver is self-inspected, including:20x microscope inspection, 200x microscope inspection, and QC process inspection.

visual inspection

Microscopic inspection: 20X

Microscopic inspection: 200X

Reliability Verification

Optical endface inspection

OQC Inspection

Order Information

Part Number	Description
400G-QDD-VR4	400GBASE-VR4 QSFP-DD 400G 850nm 50m DOM MTP/MPO-12 APC MMF Transceiver Module
400G-QDD-SR8	400GBASE-SR8 QSFP-DD 400G 850nm 100m DOM MTP/MPO-16 APC MMF Transceiver Module
400G-QDD-SR4	400GBASE-SR4 QSFP-DD 400G 850nm 100m DOM MTP/MPO-12 APC MMF Transceiver Module
400G-QDD-FR4	400GBASE-FR4 QSFP-DD 400G 1310nm 2km DOM LC SMF Transceiver Module
400G-QDD-DR4	400GBASE-DR4 QSFP-DD 400G 1310nm 500m DOM MTP/MPO-12 APC SMF Transceiver Module
400G-QDD-DR4+	400GBASE-XDR4 QSFP-DD 1310nm 2km DOM MTP/MPO-12 APC SMF Optical Transceiver Module
400G-QDD-LR4	400GBASE-LR4 QSFP-DD 400G 1310nm 10km DOM LC SMF Transceiver Module
400G-QDD-ER4	400GBASE-ER4 QSFP-DD 400G 1310nm 40km DOM LC SMF Transceiver Module
800G-QDD-DR8+	800GBASE-DR8+ QSFP-DD 800G 1310nm 2km DOM MTP/MPO-16 APC SMF Transceiver Module

Further Information

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Disclaimer

1. We are committed to continuous product improvement and feature upgrades, and the contents con t ained in this manual are subject to change without notice.
2. Nothing herein should be construed as constituting an additional warranty.
3. LSOLINK assumes no responsibility for the use or reliability of equipment or software not provided by LSOLINK.