321-1829-RX-AO

NetScout® 321-1829 Compatible TAA 40GBase-BX QSFP+ Transceiver (MMF, 832nm to 918nm, 150m, LC, Rx only, DOM)

Features

- SFF-8436 Compliance
- Duplex LC Connector
- Commercial Temperature 0 to 70 Celsius
- Multi-mode Fiber
- Hot Pluggable
- Excellent ESD Protection
- Metal with Lower EMI
- RoHS Compliant and Lead Free

Applications

- 40GBase Ethernet
- Access and Enterprise

Product Description

This NetScout® 321-1829 compatible QSFP+ transceiver provides 40GBase-BX throughput up to 150m over multi-mode fiber (MMF) using a wavelength of 832nm to 918nm via an LC connector. It is guaranteed to be 100% compatible with the equivalent NetScout® transceiver. This easy to install, hot swappable transceiver has been programmed, uniquely serialized and data-traffic and application tested to ensure that it will initialize and perform identically. Digital optical monitoring (DOM) support is also present to allow access to real-time operating parameters. This transceiver is Trade Agreements Act (TAA) compliant. We stand behind the quality of our products and proudly offer a limited lifetime warranty.

AddOn's transceivers are RoHS compliant and lead-free.

TAA refers to the Trade Agreements Act (19 U.S.C. & 2501-2581), which is intended to foster fair and open international trade. TAA requires that the U.S. Government may acquire only "U.S. – made or designated country end products."

Rev. 051823

Absolute Maximum Ratings

Parameter	Symbol	Min.	Typ.	Max.	Unit
Supply Voltage	VccT, R	-0.5		4	V
Storage Temperature	Ts	-40		+85	°C
Case Operating Temperature	Tc	0		+70	°C
Relative Humidity	RH	0		85	%

Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Supply Voltage	VccT, R	+3.13	3.3	+3.47	V	
Supply Current	Icc		0.75	1.0	A	
Power Consumption	PD		2.5	3.5	W	
Control I/O Voltage-High	VIH	2.0		Vcc	V	
Control I/O Voltage-Low	VIL	0		0.7	V	
Inter-Channel Skew	TSK			150	Ps	
RESETL Duration			10		Us	
RESETL De-assert time				100	ms	
Power On Time				100	ms	
Receiver						
Single Ended Output Voltage Tolerance		0.3		4	V	
Rx Output Diff Voltage	Vo		600	800	mV	
Rx Output Rise and Fall Voltage	Tr/Tf			35	ps	1
Total Jitter	TJ			0.7	UI	
Deterministic Jitter	DJ			0.42	UI	

Notes:

1. 20 ~ 80%

Optical Characteristics (TOP = 0 to 70 °C, VCC = 3.0 to 3.6 Volts)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Receiver						
Optical Center Wavelength CH1	λ	882	900	918	nm	
Optical Center Wavelength CH2	λ	832	850	868	nm	
Receiver Sensitivity per Channel	R		-11		dBm	
Maximum Input Power	P_{MAX}	+0.5			dBm	
Receiver Reflectance	R_{rx}			-12	dB	
LOS De-Assert	LOS_D			-14	dBm	
LOS Assert	LOS_A	-30			dBm	
LOS Hysteresis	LOS_H	0.5			dB	

Notes:

1. 12dB Reflection

Electrical Pin-out Details

```
38  GND                    GND    1
37  TX1n                   TX2n   2
36  TX1p                   TX2p   3
35  GND                    GND    4
34  TX3n                   TX4n   5
33  TX3p                   TX4p   6
32  GND                    GND    7
31  LPMode                 ModSelL 8
30  Vcc1                   ResetL  9
29  VccTx                  VccRx  10
28  IntL                   SCL    11
27  ModPrsL                SDA    12
26  GND                    GND    13
25  RX4p                   RX3p   14
24  RX4n                   RX3n   15
23  GND                    GND    16
22  RX2p                   RX1p   17
21  RX2n                   RX1n   18
20  GND                    GND    19
```

Card Edge

Top Side
Viewed from Top

Bottom Side
Viewed from Bottom
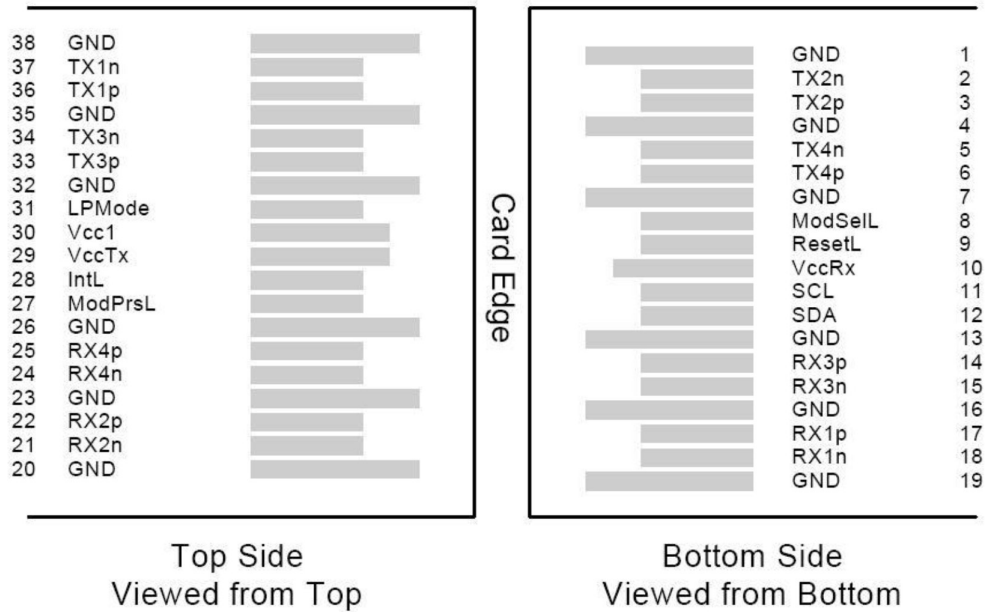
Pin Descriptions

| Pin	Logic	Symbol	Name/Descriptions	Ref.
1		GND	Module Ground	1
2	CML-I	Tx2-	Transmitter inverted data input	
3	CML-I	Tx2+	Transmitter non-inverteddata input	
4		GND	Module Ground	1
5	CML-I	Tx4-	Transmitter inverted data input	
6	CML-I	Tx4+	Transmitter non-inverteddata input	
7		GND	Module Ground	1
8	LVTTL-I	MODSEIL	Module Select	2
9	LVTTL-I	ResetL	Module Reset	2
10		VCCRx	+3.3v Receiver Power Supply	
11	LVCMOS-I	SCL	2-wire Serial interface clock	2
12	LVCMOS-I/O	SDA	2-wire Serial interface data	2
13		GND	Module Ground	1
14	CML-O	RX3+	Receiver non-inverteddata output	
15	CML-O	RX3-	Receiver inverteddta output	
16		GND	Module Ground	1
17	CML-O	RX1+	Receiver non-inverteddata output	
18	CML-O	RX1-	Receiver inverteddata output	
19		GND	Module Ground	1
20		GND	Module Ground	1
21	CML-O	RX2-	Receiver inverteddata output	
22	CML-O	RX2+	Receiver non-inverteddata output	
23		GND	Module Ground	1
24	CML-O	RX4-	Receiver inverteddata output	
25	CML-O	RX4+	Receiver non-inverteddata output	
26		GND	Module Ground	1
27	LVTTL-O	ModPrsL	Module Present, internal pulled downto GND	
28	LVTTL-O	IntL	Interrupt output, should be pulled up on host board	2
29		VCCTx	+3.3v Transmitter Power Supply	
30		VCC1	+3.3v Power Supply	
31	LVTTL-I	LPMode	Low Power Mode	2
32		GND	Module Ground	1
33	CML-I	Tx3+	Transmitter non-inverteddata input	
34	CML-I	Tx3-	Transmitter inverted data input	
35		GND	Module Ground	1
36	CML-I	Tx1+	Transmitter non-inverteddata input	
37	CML-I	Tx1-	Transmitter inverted data input	
38		GND	Module Ground	1

Notes:
1. GND is the symbol for single and supply(power) common for QSFP modules, All are common within the QSFP module and all module voltages are referenced to this potential otherwise noted. Connect these directly to the host board signal common ground plane. Laser output disabled on TDIS >2.0V or open, enabled on TDIS <0.8V.
2. VccRx, Vcc1 and VccTx are the receiver and transmitter power suppliers and shall be applied concurrently.

Recommended Circuit
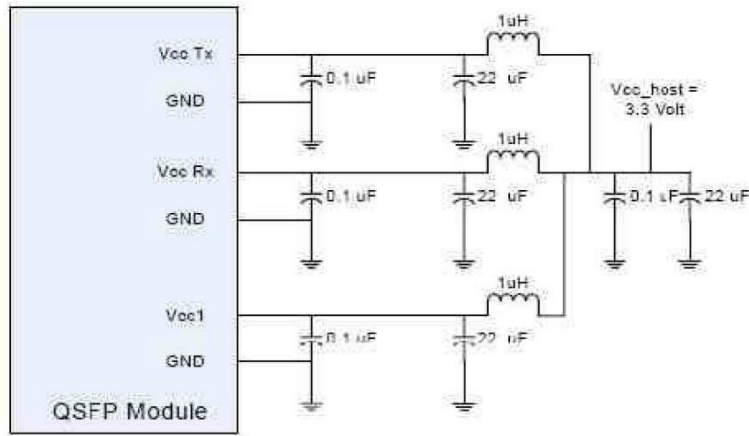
Mechanical Specifications
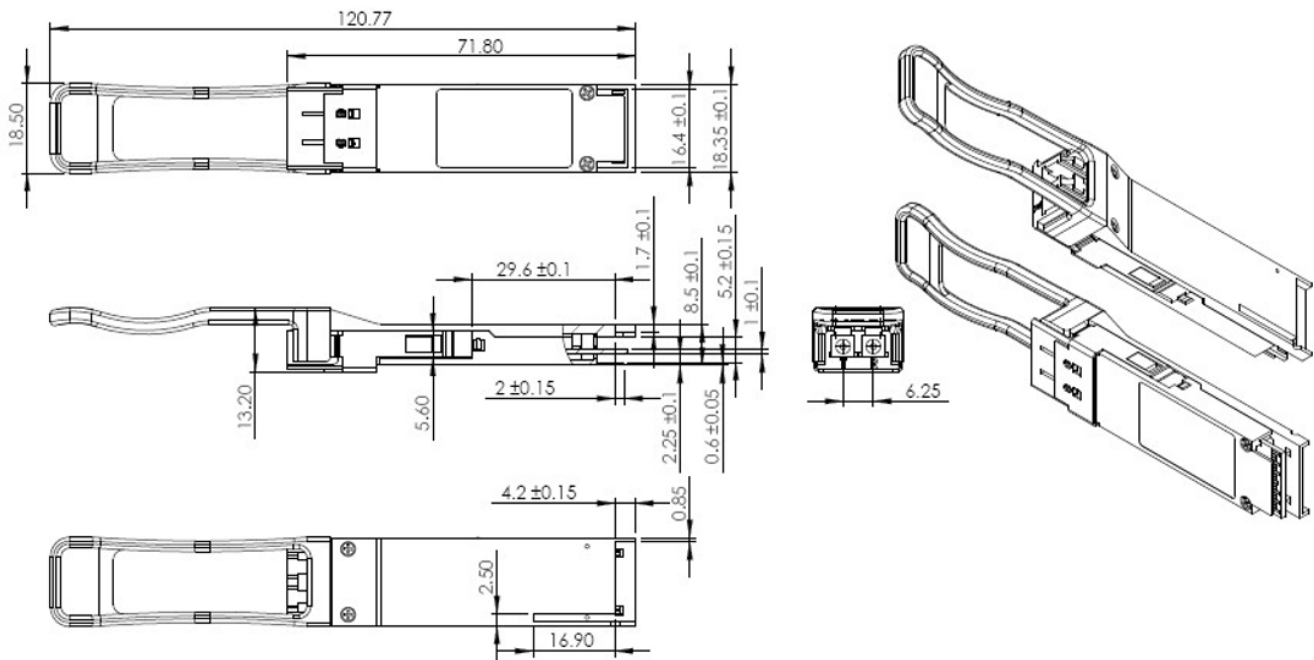
About AddOn Networks

In 1999, AddOn Networks entered the market with a single product. Our founders fulfilled a severe shortage for compatible, cost-effective optical transceivers that compete at the same performance levels as leading OEM manufacturers. Adhering to the idea of redefining service and product quality not previously had in the fiber optic networking industry, AddOn invested resources in solution design, production, fulfillment, and global support.

Combining one of the most extensive and stringent testing processes in the industry, an exceptional free tech support center, and a consistent roll-out of innovative technologies, AddOn has continually set industry standards of quality and reliability throughout its history.

Reliability is the cornerstone of any optical fiber network and is in engrained in AddOn's DNA. It has played a key role in nurturing the long-term relationships developed over the years with customers. AddOn remains committed to exceeding industry standards with certifications from ranging from NEBS Level 3 to ISO 9001:2005 with every new development while maintaining the signature reliability of its products.

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