

DM-338-0 Up to 120 Gbps CXP Loopback

- Compliant with Infiniband Architecture Specification Annex 6
- Hot-pluggable footprint
- Supports Serial ID (write protected)
- Robust Die Cast Housing
- Spring Loaded Pull Tab



Product Overview:

The DM-338-0 is a loopback module in a CXP form factor. The DM-338-0 provides 12 pairs of transmit data channels connected to the corresponding receive channels. These data channels can operate at transmission speeds up to 10Gbps. The DM-338-0 is compliant with the CXP Specification (Infiniband Architecture Annex 6 and SFF-8642).

✓ISO 9001 Certified

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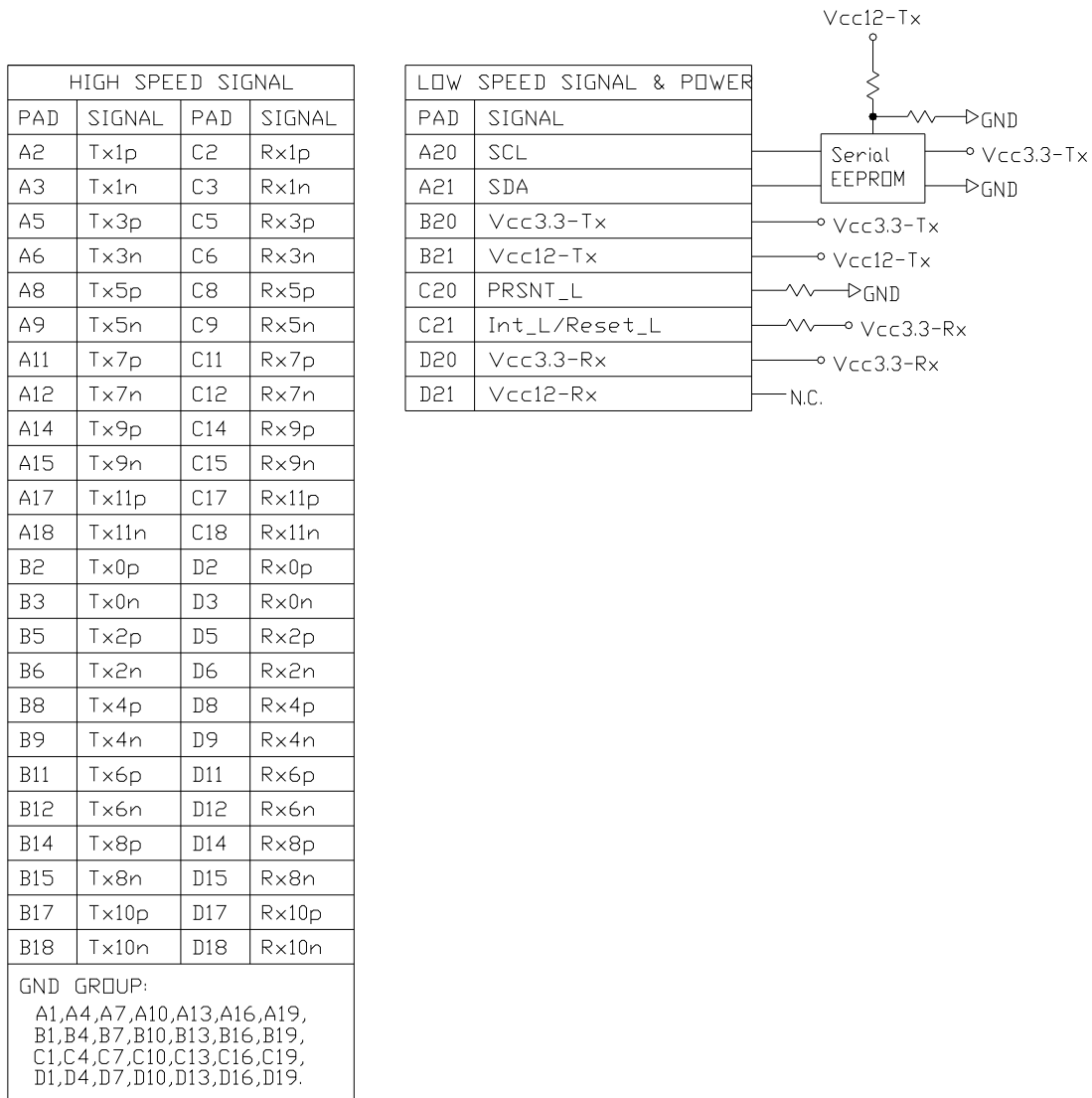
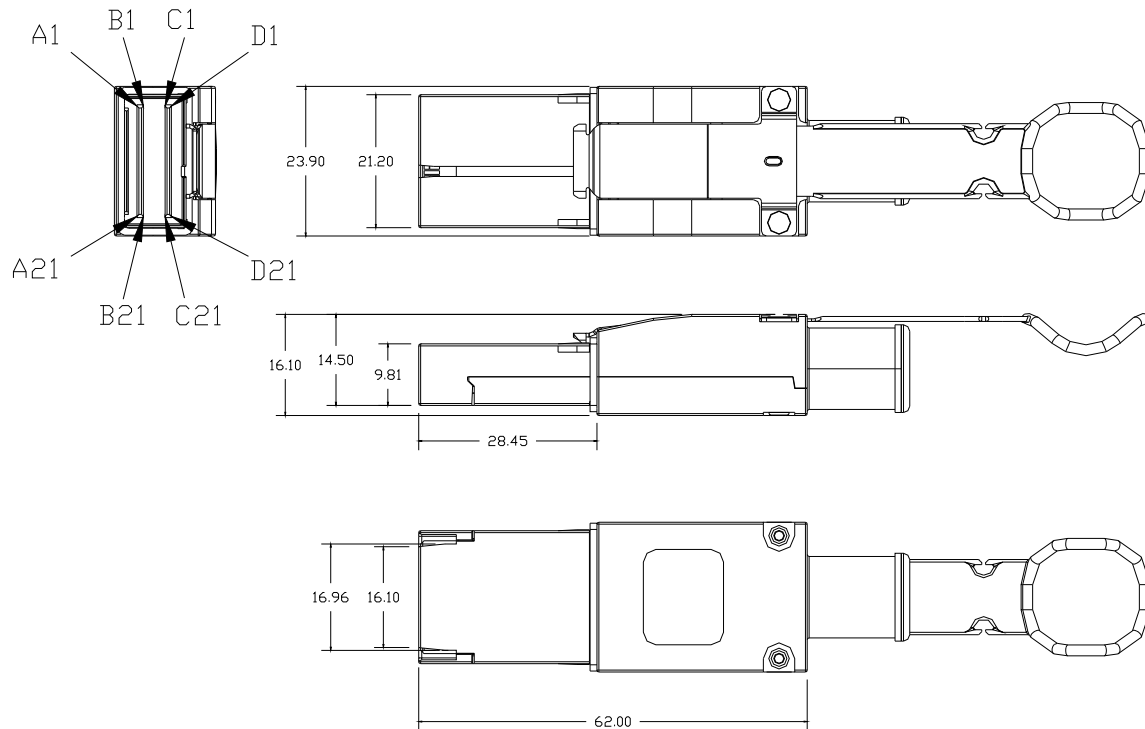


Figure 1: Wiring Diagram



Material RoHS Compliant:

1. Connector: CXP (SFF-8642)
 - (1) P.C.B: FR4, 4 LAYERS
 - (2) LATCH: STAINLESS STEEL
 - (3) BACKSHELL: ZINC DIE CASTING HOOD/NICKEL PLATING
 - (4) PULL TAB: NYLON UL94V-0, COLOR: BLACK.

Figure 2: Mechanical Dimensions of Module

Bottom side			Top Side		
I/O #	Name	Contact Length	Contact Length	Name	I/O #
Receiver – Top Card					
C1	GND			GND	D1
C2	Rx1p			Rx0p	D2
C3	Rx1n			Rx0n	D3
C4	GND			GND	D4
C5	Rx3p			Rx2p	D5
C6	Rx3n			Rx2n	D6
C7	GND			GND	D7
C8	Rx5p			Rx4p	D8
C9	Rx5n			Rx4n	D9
C10	GND			GND	D10
C11	Rx7p			Rx6p	D11
C12	Rx7n			Rx6n	D12
C13	GND			GND	D13
C14	Rx9p			Rx8p	D14
C15	Rx9n			Rx8n	D15
C16	GND			GND	D16
C17	Rx11p			Rx10p	D17
C18	Rx11n			Rx10n	D18
C19	GND			GND	D19
C20	PRSNT_L			Vcc3.3-Rx	D20
C21	Int_L/Reset_L			Vcc12-Rx	D21
Transmitter – Bottom Card					
A1	GND			GND	B1
A2	Tx1p			Tx0p	B2
A3	Tx1n			Tx0n	B3
A4	GND			GND	B4
A5	Tx3p			Tx2p	B5
A6	Tx3n			Tx2n	B6
A7	GND			GND	B7
A8	Tx5p			Tx4p	B8
A9	Tx5n			Tx4n	B9
A10	GND			GND	B10
A11	Tx7p			Tx6p	B11
A12	Tx7n			Tx6n	B12
A13	GND			GND	B13
A14	Tx9p			Tx8p	B14
A15	Tx9n			Tx8n	B15
A16	GND			GND	B16
A17	Tx11p			Tx10p	B17
A18	Tx11n			Tx10n	B18
A19	GND			GND	B19
A20	SCL			Vcc3.3-Tx	B20
A21	SDA			Vcc12-Tx	B21

Figure 3: Contact Assignments for CXP Interface

Serial Identification

The module identification is located in the EEPROM, which is accessed over the 2-wire serial management interface. The address of the EEPROM is 0xA0 (1010000X). The following table shows the EEPROM memory map and the actual data.

Data Address	Field Size	Field Name	Field Description	Field Value	Value Description
Tx Lower Page (1010 000x)					
0-6	7	Tx Status:	0xA8 presence, Flat/Paging memory presence, Interrupt, Data not Ready, Loss of Signal, Fault, Summary of Alarms	00,00,0C,00,00,00,00	
7-18	12	Latched Tx Alarms	Loss of Signal, Fault, Per-channel Alarms (Power or Current high/low), Device alarms (temp, Vcc3.3 or Vcc12)	00,00,00,00,00,00,00,00,00,00,00,00,00	
19-21	3	Reserved - 3B	Reserved - Module Alarms	00,00,00	RESERVED
22-29	8	Module Monitors	Temp, Voltage	00,00,00,00,00,00,00,00	
30-37	8	Reserved – 8B	Reserved – Module Monitors	00,00,00,00,00,00,00,00	RESERVED
38-39	2	Elapsed Operating Time	Elapsed (Power-on) Operating Time	00,00	
40	1	Tx Module application select	Format to be determined as other applications besides InfiniBand arise	00	
41	1	Tx Rate Select	Rate / Application Select	00	
42	1	High-Power Mode	0: Device or cable may not draw more than 6 Watts of power. 1: Device or cable may draw more than 6.0 W, up to limit denoted in Upper Page 00, Byte 148(94h)	00	
43-50	8	Reserved – 8B	Reserved – Module Control	00,00,00,00,00,00,00,00	RESERVED
51	1	Reset	Writing 1 return all registers on Tx pages (non-volatile RW, if present in vendor-specific area) to factory default values. Reads 0 after operation.	00	
52-67	16	Tx Channel Control	Disables, Squelch, Polarity Flip, Margin, Equalization control	00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00	
68-94	27	Reserved – 27B	Reserved – Per-Channel Control	00,00	RESERVED
95-106	12	Alarms	Channel (LOS, Fault), Channel Internal (Power or Current high/low) and Module (Temp, Voltage)	00,00,00,00,00,00,00,00,00,00,00,00,00	
107-109	3	Reserved – 3B	Reserved – Masks for Module Alarms	00,00,00	RESERVED
110-118	9	Vendor-Specific Area	Vendor-Specific Area - Read/Write	00,00,00,00,00,00,00,00,00	
119-126	8	Password	Password	00,00,00,00,00,00,00,00	NA
127	1	Upper Page Select Byte	Upper Page Select Byte (00h or 01h)	00	



Data Address	Field Size	Field Name	Field Description	Field Value	Value Description
Upper Page 00h (1010 000x)					
128	1	Reserved – Type Identifier	Reserved for SFF-style Type Identifier code for CXP - probably either 0Eh or 0Fh, TBD	00	
129	1	Power Class	Power Class, Tx, and Rx CDR Presence	00	
130-144	15	Device Description	Cable & Connector, Power supplies, Max Case Temp, Min/Max Signal Rate, Laser wavelength or copper attenuation, and supported functions	30,88,46,19,6E,00,00,00,00,00,00,00,00,00,00	
145	1	Rx Control		00	
146	1	Control	FEC, PEC, JTAG, AC-JTAG, BIST, TEC, Sleep, CDR	00	
147	1	Device Technology	Device Technology	A0	
148	1	Max Power Utilization	Maximum power utilization	00	
149	1	12x to 3-4x	Coded 1 for 12x to 3-4x Cable, else, for regular cable without fanout, coded 0	00	
150-151	2	Reserved	Reserved	00,00	
152-167	16	Vendor Name	Vendor name in ASCII	4D,65,74,68,6F,64,65,20,45,6C,65,63,2E,20,20,20	Methode Elec. (ASCII)
168-170	3	Vendor OUI	Vendor OUI (IEEE ID): Organization-Unique Identifier	00,17,05	Methode OUI
171-186	16	Vendor Part Number	Vendor Part Number in ASCII	44,4D,2D,33,33,38,2D,30,20,20,20,20,20,20,20,20	DM-338-0 (ASCII)
187-188	2	Vendor Revision Number	Vendor Revision Number in ASCII	2D,20	Rev -
189-204	16	Vendor Serial Number	Vendor Serial Number (ASCII): Varies by unit	VARIABLES	(ASCII)
205-212	8	Vendor Date Code	Vendor Date Code YYYYMMDD (ASCII): Spaces (20h) for unused characters	VARIABLES	YYYYMMDD (ASCII)
213-222	10	Lot Code	Customer-Specific Code or Vendor-Specific lot code (ASCII). 10B. All spaces (20h) if unused	VARIABLES	
223	1	Checksum	Checksum of addresses 128 through 222 inclusive: 8 low-order bits of sum	VARIABLES	
224-255	32	Vendor Specific	Vendor Specific Read-Only Registers	All 00's	