

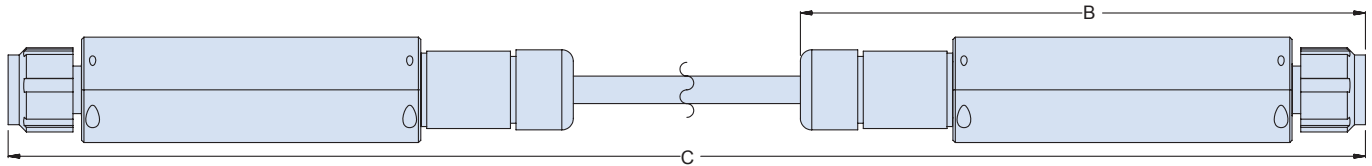
050-104 10/100/1000BASE-T to 1000BASE-SX/LX Active Cable



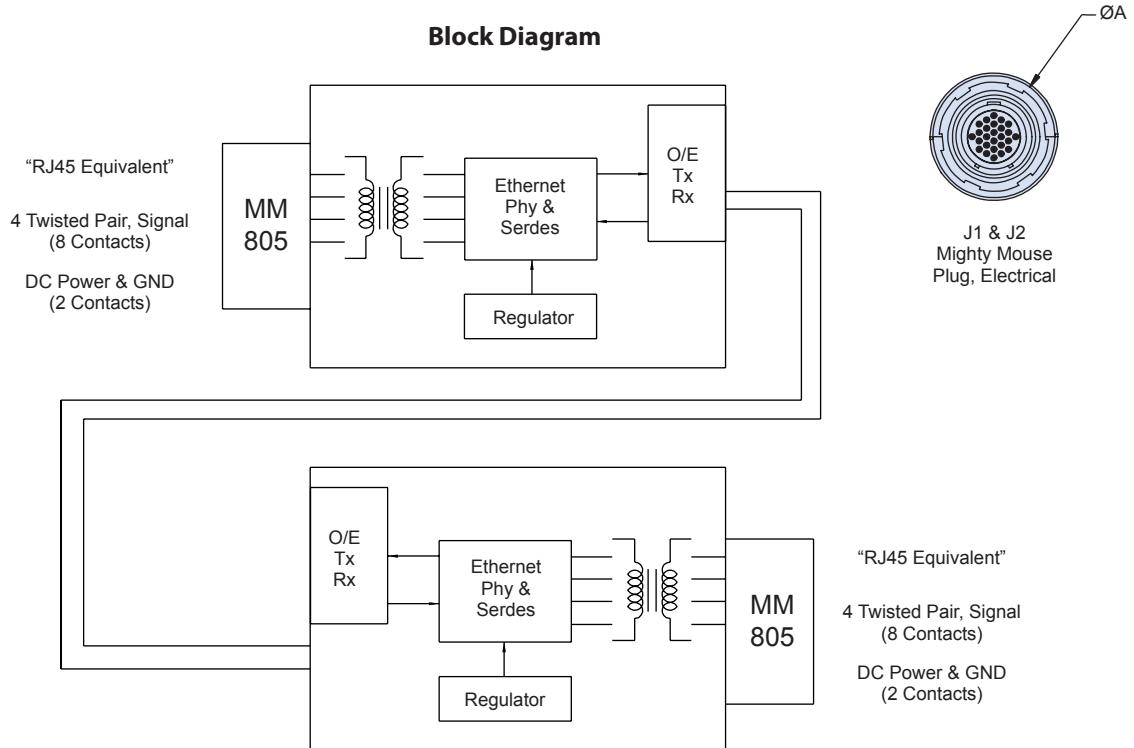
Table I: Signal Protocol		
Code	Name	Medium
SX	1000BASE-SX	Multimode Fiber 1m – 550m
LX	1000BASE-LX	Singlemode Fiber, 100m – 2km

Table IV: Dimensions			
Dash No.	A Max	B Max	C Max
-01	1.750 (44.45)	6.500 (165.10)	1m – 2km ± .5m

Table II: Material And Finish		
SYM	Material	Finish Description
M	Aluminum	Electroless Nickel
MT		Nickel - PTFE
NF		Cadmium, Olive Drab
ZN		Zinc-Nickel, Olive Drab
ZNU		Zinc-Nickel, Black



Block Diagram



Material and Finish

Connectors and Enclosures: See Table II

Assembly Notes

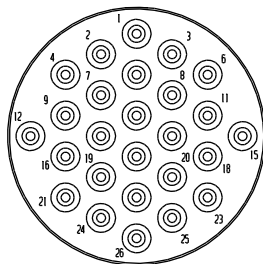
Interface connectors are designed to mate with any QPL manufacturer’s MIL-DTL-38999 plug having the same insert arrangement and polarization; opposite contact gender. Mating connector and pin information contained in Table III

All connector cavities without defined contacts to be populated with appropriate sealing plug. MS27488 Type sealing plugs are recommended.



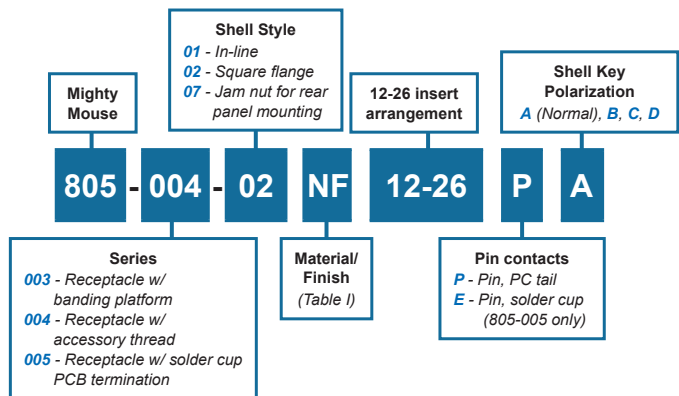
CONNECTOR CONFIGURATIONS

Table III: 050-104-SX/LX10 Connector Pin Out Definitions					
J1/J2 - Data Connector				Mating Connector for J1/J2	
Contact P/N: N/A				Contact P/N: N/A	
Pin	Name	Description	Equivalent RJ45 Pin # (for reference only)	Pin	Name
1	NC	No Connect	N/A	1	NC
2	NC	No Connect	N/A	2	NC
3	NC	No Connect	N/A	3	NC
4	NC	No Connect	N/A	4	NC
5	GND	Ground	N/A	5	GND
6	NC	No Connect	N/A	6	NC
7	NC	No Connect	N/A	7	NC
8	NC	No Connect	N/A	8	NC
9	NC	No Connect	N/A	9	NC
10	GND	Ground	N/A	10	GND
11	Vin	28V	N/A	11	Vin
12	NC	No Connect	N/A	12	NC
13	GND	Ground	N/A	13	GND
14	GND	Ground		14	GND
15	Vin	28V		15	Vin
16	MDA-	Data A (-)	2	16	MDA-
17	GND	Ground		17	GND
18	MDD+	Data D(+)	7	18	MDD+
19	MDB-	Data B (-)	6	19	MDD-
20	MDC+	Data C (+)	4	20	MDC+
21	MDA+	Data A(+)	1	21	MDA+
22	GND	Ground	N/A	22	GND
23	MDD-	Data D (-)	8	23	MDD-
24	MDB+	Data B (+)	3	24	MDB+
25	MDC-	Data C (-)	5	25	MDC-
26	GND	Ground		26	GND



J2
 Mighty Mouse
 Plug, Electrical

J2 Mating Connector P/N Development



050-104
10/100/1000BASE-T to 1000BASE-SX/LX
Active Cable



RATINGS AND SPECIFICATIONS

Absolute Maximum Rating					
Parameter	Symbol	Min	Typ	Max	Unit
Storage Temperature	T_s	-55		+100	°C
Operating Voltage	V_{cc}	-0.4		+40	V

Operating Conditions					
Parameter	Symbol	Min	Typ	Max	Unit
Operating Temperature	T_{op}	-40		+85	°C
Supply Voltages	V_{cc}	5	12	36	V

Copper Link Distances		
Protocol	Cable Type	Distance
Ethernet (IEEE 802.3, 10BASE-T) Fast Ethernet (IEEE 802.3.u, 1000BASE-T) Gigabit Ethernet (IEEE 802.3ab, 1000BASE-T)	TIA/EIA-568-B Cat 5E	100 Meters

Power Supply Current @ 85 C Max. Operating Condition			
Parameter	Symbol	Max	Unit
Supply Voltage			
5 V	I_{cc}	630	mA
12 V		230	
24 V		110	
28 V		95	

Military Specification Compliance			
Feature	Standard	Condition	Notes
Mechanical Shock	MIL-STD-810F	40g	6-9ms
Mechanical Vibration	MIL-STD-810F	30g RMS	18ms
ESD	MIL-STD-883	Class II	2200v
Mating Durability	MIL-STD-38999/20	500 Cycles	<0.5 db change
Flame Resistance	MIL-STD-1344	Method 1012	30 Seconds
Damp Heat	MIL-STD-1344	10 Cycles	24 Hours