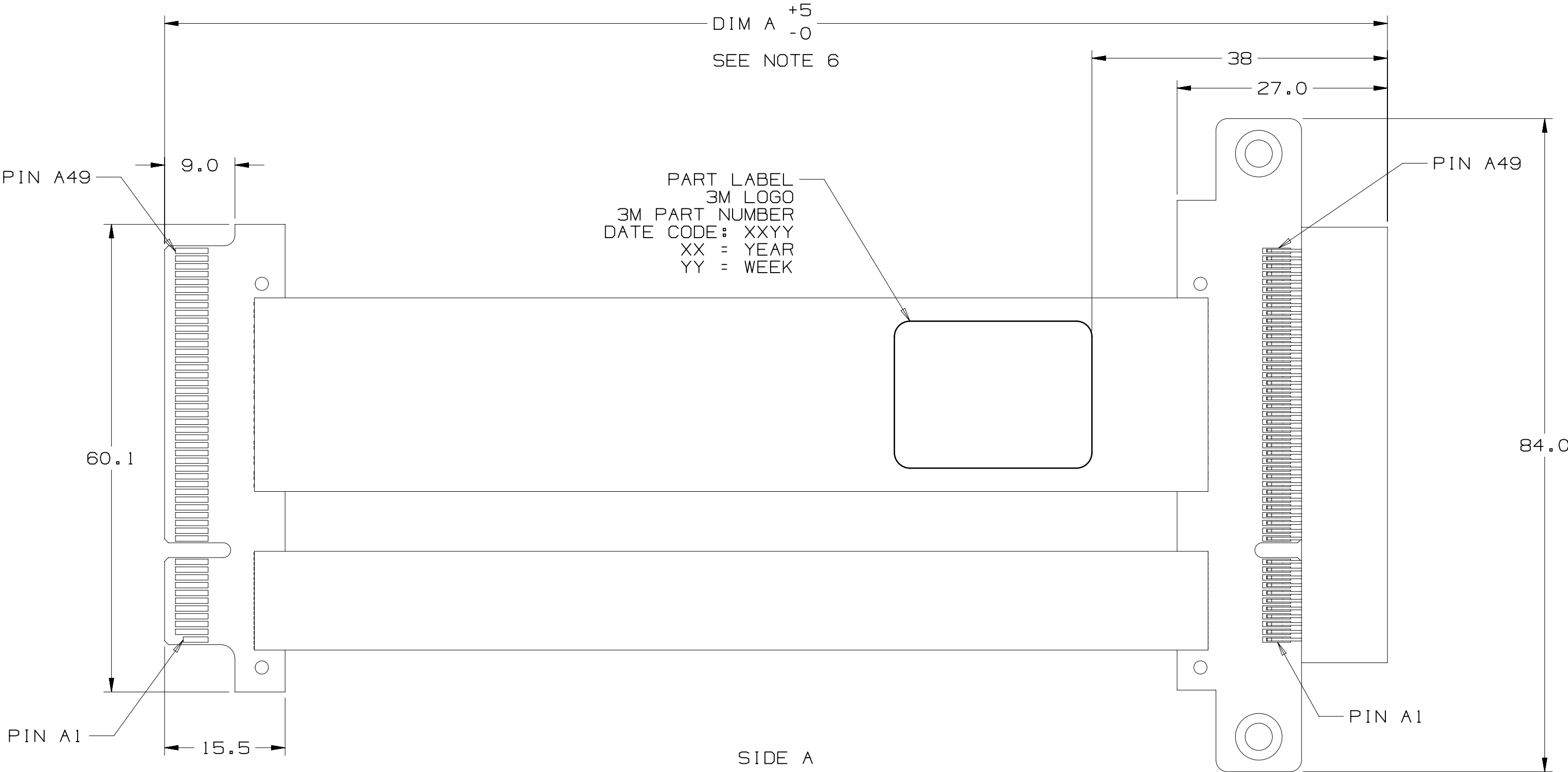
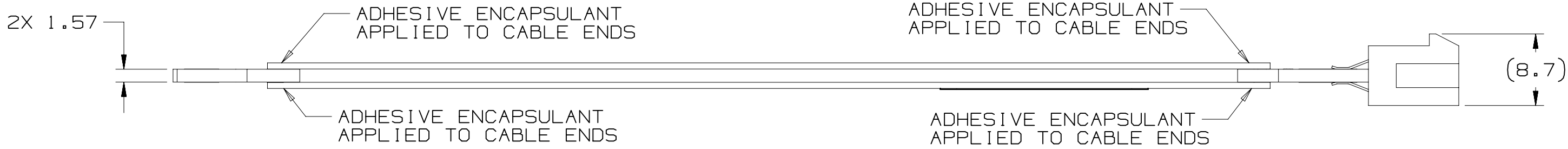
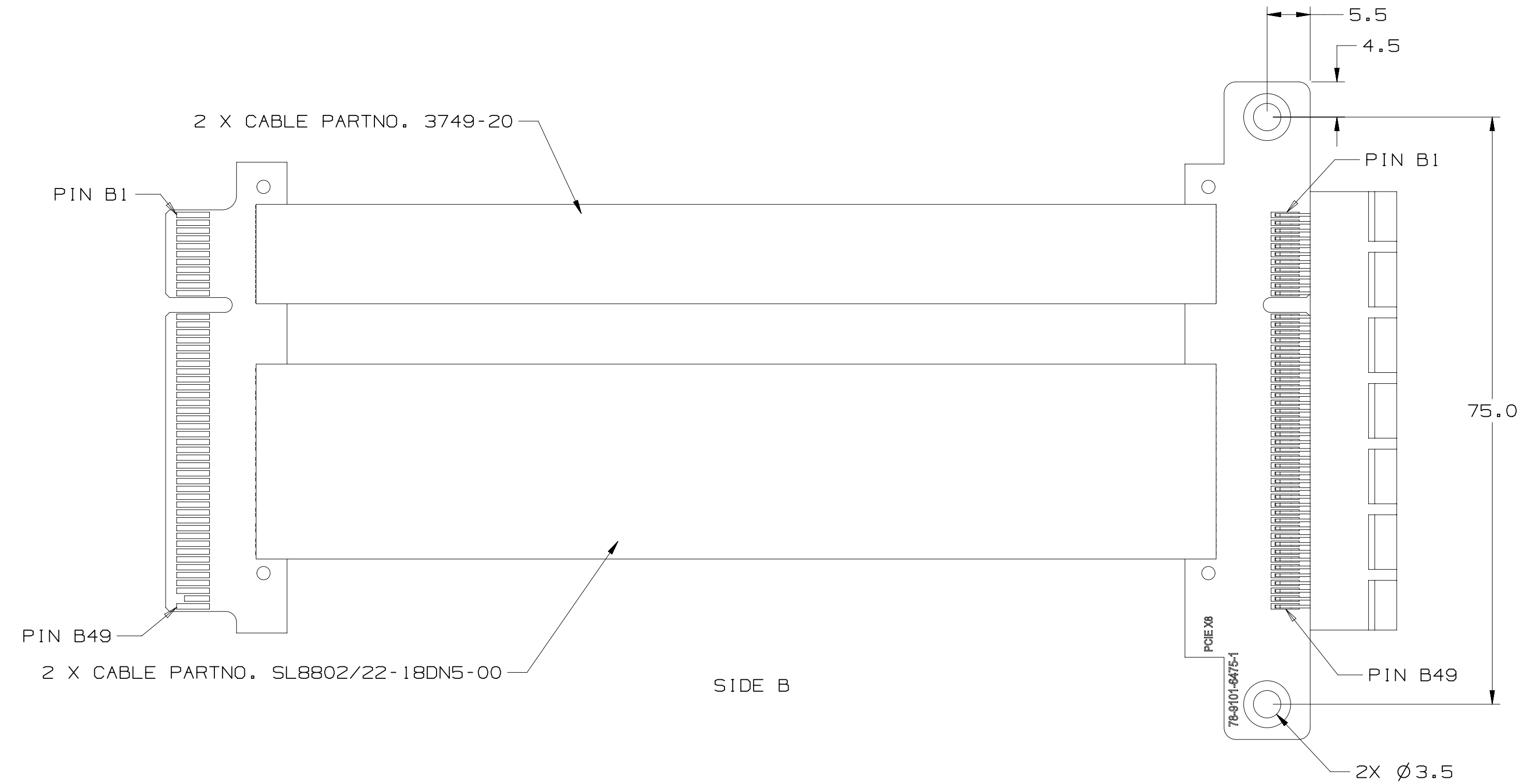


3M™ TWIN AXIAL CABLE ASSEMBLY
FOR PCIe X8 EXTENDER CARD APPLICATIONS



BILL OF MATERIALS			
	ITEM	DESCRIPTION	QTY
1.0	PBA	PCB ASSY, PADDLECARD, PCIe X8	1
1.1	PCB	PCIe X8 (98 POS) STRADDLEMOUNT 3M P/N: 78-9101-6475-1	1
1.2	CONN	CONNECTOR, PCIe 98 POSITION, FEMALE SOCKET	1
2.0	PCB	PCIe X8 EXTENDER (98 POS) CARD-EDGE 3M P/N: 78-9101-6470-2	1
3.0	CABLE	RIBBON TWIN AX CABLE 3M P/N: SL8802/22-18DN5-00	2
4.0	CABLE	RIBBON CABLE, 20 POSITION 3M P/N: 3749-20	2
5.0	STRAIN RELIEF	ADHESIVE	AS REQUIRED

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- NOTES
- 1 DIMENSIONS ARE IN MILLIMETERS.
 - 2 3M™ RIBBON TWINAX DESCRIPTION:
30 AWG, SILVER PLATED SIGNAL WIRE
IMPEDANCE: 85 ±5 OHM
OVERALL RIBBON WIDTH: 24.90 MM
OVERALL RIBBON THICKNESS: 0.75 MM
 - 3 ROHS COMPLIANT. SEE REGULATORY
INFORMATION APPENDIX IN "ROHS
COMPLIANCE" SECTION AT
WWW.3MCONNECTORS.COM
(E1 & C1 APPLY)
 - 4 THIS CABLE CONSTRUCTION
HAS A THIN ALUMINUM INNER LAYER
EXPOSED AT EACH EDGE. USERS
SHOULD ASSESS WHETHER THE EXPOSED
EDGE PRESENTS A SHORTING RISK IN
THEIR SPECIFIC APPLICATION.
INSULATING TAPE MAY BE APPLIED
AT THE CABLE ASSEMBLY LEVEL, AS
NEEDED, TO COVER THE EXPOSED
EDGE IN RISK AREAS.
 - 5 APPLICABLE SPECIFICATIONS:
PRODUCT SPECIFICATION NUMBER:
TWIN AX CABLE: PS-0106
CABLE ASSEMBLY: PS-0137
 - 6 ORDER BY APPLICABLE 3M PART NUMBER:
8KH2-0723-XXXX

XXXX = DIM 'A' IN MILLIMETERS
(1000 = 1 METER)

STANDARD LENGTH (DIM 'A')
8KH2-0723-0250 (250 MM)
8KH2-0723-0500 (500 MM)

NON-STANDARD LENGTHS AVAILABLE
UPON SPECIAL REQUEST. MAY REQUIRE
HIGHER MOOS AND LONGER LEAD TIMES.
150 MM MINIMUM LENGTH.
 - 7 FLAMMABILITY RATING:
TWIN AX CABLE: UL94 HB
PCBS: UL94V-0
ADHESIVE STRAIN RELIEF: UL94 HB,
(TBV)
 - 8 PADDLECARD FINGER GOLD THICKNESS:
0.76 µm [30 µ"] MIN ELECTROLYTIC
HARD GOLD OVER 1.27 µm [50 µ"]
MIN ELECTROLYTIC NICKEL.

DESIGN REFERENCE		NEXT ASSEMBLY		REV		ISSUE DATE AND DESCRIPTION		DRFT		CHKD	
XREF		XREF		L SCHMIDT		MAR 08,2012		MFG		DATE	
DIVISION		DIVISION CODE		T SUNIGA		APR 23,2019		APPRV		DATE	
DO NOT SCALE DRAWING		SCALE 2 1		TOLERANCES EXCEPT AS NOTED		INCHES 0 ±.1		MILLIMETERS 0 ±.1		THIRD ANGLE PROJECTION	
INTERPRET PER ASME Y14.5 - 2009		MAX SURFACE ROUGHNESS 125 ✓		ALL SURFACES MARKED ONLY		ANGLES ±1°		CAGE NUMBER D		SIZE 78-5100-2511-3	
TITLE 8KH2-0723-XXXX, CABLE ASSY, PCIe X8 BY PCIe X8 EXTENDER		CAGE NUMBER D		DRAWING NO. 78-5100-2511-3		REV. E		MODEL		SHT 1 OF 3	

3M 3749-20 Cable	
Wire #	Pin Attachment #
01	Ground Layer
02	B01 - B02
03	B01 - B02
04	B01 - B02
05	B01 - B02
06	B01 - B02
07	B01 - B02
08	Ground Layer
09	B05
10	B06
11	Ground Layer
12	B08
13	B08
14	B09
15	B10
16	B10
17	Ground Layer
18	B11
19	Ground Layer
20	B12

3M SL8802 Cable	
Wire #	Pin Attachment #
GND	Ground Layer
pr_01	B14
pr_01	B15
pr_02	B17
pr_02	Ground Layer
pr_03	B19
pr_03	B20
pr_04	B23
pr_04	B24
GND	Ground Layer
pr_05	B27
pr_05	B28
pr_06	B30
pr_06	B31
pr_07	B33
pr_07	B34
GND	Ground Layer
pr_08	B37
pr_08	B38
pr_09	B41
pr_09	B42
pr_10	B45
pr_10	B46
pr_11	B48
pr_11	Ground Layer
GND	Ground Layer

PCI-Express X8 Pin-Out			
Pin #	Side B Description	Side A Description	Pin #
B01	+12 volt power	Hot plug presence detect	A01
B02	+12 volt power	+12 volt power	A02
B03	+12 volt power	+12 volt power	A03
B04	Ground	Ground	A04
B05	SMBus clock	TCK	A05
B06	SMBus data	TDI	A06
B07	Ground	TD0	A07
B08	+3.3 volt power	TMS	A08
B09	+TRST#	+3.3 volt power	A09
B10	3.3v volt power	+3.3 volt power	A10
B11	Link Reactivation	Power Good	A11
Mechanical Key			
B12	Reserved	Ground	A12
B13	Ground	Reference Clock	A13
B14	Transmitter Lane 0,	Differential pair	A14
B15	Differential pair	Ground	A15
B16	Ground	Receiver Lane 0,	A16
B17	Hotplug detect	Differential pair	A17
B18	Ground	Ground	A18
B19	Transmitter Lane 1,	Reserved	A19
B20	Differential pair	Ground	A20
B21	Ground	Receiver Lane 1,	A21
B22	Ground	Differential pair	A22
B23	Transmitter Lane 2,	Ground	A23
B24	Differential pair	Ground	A24
B25	Ground	Receiver Lane 2,	A25
B26	Ground	Differential pair	A26
B27	Transmitter Lane 3,	Ground	A27
B28	Differential pair	Ground	A28
B29	Ground	Receiver Lane 3,	A29
B30	Reserved	Differential pair	A30
B31	Hot plug detect	Ground	A31
B32	Ground	Reserved	A32
B33	Transmitter Lane 4,	Reserved	A33
B34	Differential pair	Ground	A34
B35	Ground	Receiver Lane 4,	A35
B36	Ground	Differential pair	A36
B37	Transmitter Lane 5,	Ground	A37
B38	Differential pair	Ground	A38
B39	Ground	Receiver Lane 5,	A39
B40	Ground	Differential pair	A40
B41	Transmitter Lane 6,	Ground	A41
B42	Differential pair	Ground	A42
B43	Ground	Receiver Lane 6,	A43
B44	Ground	Differential pair	A44
B45	Transmitter Lane 7,	Ground	A45
B46	Differential pair	Ground	A46
B47	Ground	Receiver Lane 7,	A47
B48	Hot plug detect	Differential pair	A48
B49	Ground	Ground	A49

3M 3749-20 Cable	
Pin Attachment #	Wire #
Ground Layer	01
A01	02
Ground Layer	03
A02 - A03	04
A02 - A03	05
A02 - A03	06
A02 - A03	07
Ground Layer	08
A05	09
A06	10
A07	11
A08	12
Ground Layer	13
A09 - A10	14
A09 - A10	15
A09 - A10	16
A09 - A10	17
Ground Layer	18
Ground Layer	19
A11	20

3M SL8802 Cable	
Pin Attachment #	Wire #
Ground Layer	GND
A13	pr_01
A14	pr_01
A16	pr_02
A17	pr_02
Ground Layer	pr_03
A19	pr_03
A21	pr_04
A22	pr_04
Ground Layer	GND
A25	pr_05
A26	pr_05
A29	pr_06
A30	pr_06
A32	pr_07
A33	pr_07
Ground Layer	GND
A35	pr_08
A36	pr_08
A39	pr_09
A40	pr_09
A43	pr_10
A44	pr_10
A47	pr_11
A48	pr_11
Ground Layer	GND

THIS IS A FEED THROUGH ASSEMBLY. THE PIN ASSIGNMENTS REMAIN THE SAME ON BOTH ENDS.

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E	84237	APR 23,2019 REVISED PART LABEL	LDS	TS
D	77066	DEC 20,2017 ADDED URL AND TRADEMARK NOTES SH1, ZONE A8; ADDED SH3, WARRANTY INFO NOTES; ADDED NOTE TO CLARIFY PINOUTS, SH2, ZONE A5	AD	LS
C	42467	AUG 06,2012 REVISED NOTE 6	LDS	TS
B	40306	JUN 18,2012 REVISED X8 PCB SHAPE; REVISED VIEW ORIENTATION; REVISED NOTE ORIENTATION	LDS	TS
A		MAR 08,2012	ARM	TS

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
CODES	CODES	DRP L SCHMIDT	DATE MAR 08,2012	MFG DATE		
DIVISION	DIVISION CODE	CHKD T SUNIGA	DATE APR 23,2019	APPRVL DATE		
DO NOT SCALE DRAWING	SCALE 1 1	TOLERANCES EXCEPT AS NOTED	3M Center St. Paul, MN 55144 © 3M COPYRIGHT 2019 This document and the information it contains are 3M property and may not be reproduced or further distributed without 3M permission, or used or disclosed other than for 3M authorized purposes. All rights reserved.			
THIRD ANGLE PROJECTION	INTERPRET PER ASME Y14.5 - 2009	MILLIMETERS 0 ±.1 .0 ±.05 .002 ±.005 2000 ±	TITLE 8KH2-0723-XXXX, CABLE ASSY, PCIE X8 BY PCIE X8 EXTENDER			
MAX SURFACE ROUGHNESS 125 / ☐ ALL SURFACES ☒ MARKED ONLY	ANGLES ±1°	CAGE NUMBER D 78-5100-2511-3	SIZE E	DRAWING NO. 78-5100-2511-3	REV. E	MODEL
				DET LISTS	YES ☐ NO ☐	SHT 2 OF 3

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www.3M.com/interconnect

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DESIGN REFERENCE		NEXT ASSEMBLY		REV	ECO	ISSUE DATE AND DESCRIPTION		DRFT	CHKD		
ACCESS CODES				DRFT	L	DATE	MFG	DATE			
						08 MAR 2012					
				CHKD	T	DATE	APPVL	DATE			
						23 APR					
DIVISION		DIVISION CODE		3M 3M Center St. Paul, MN 55144			© 3M COPYRIGHT 2019 This document and the information it contains are 3M property and may not be reproduced or further distributed without the 3M permission, or used or disclosed other than for 3M authorized purposes. All rights reserved.				
DO NOT SCALE DRAWING		SCALE 1 1								TOLERANCES EXCEPT AS NOTED	
										INCHES ±.00 ±.005 ±.0000	
THIRD ANGLE PROJECTION		INTERPRET PER ASME Y14.5 - 2009		MILLIMETERS 0 ±1 0 ±.5 0 ±.05 0.000 ±1.005		TITLE 8KH2-0723-XXXX, CABLE ASSY, PCIE X8 BY PCIE X8 EXTENDER					
MAX SURFACE ROUGHNESS 125 √ ☐ ALL SURFACES ☒ MARKED ONLY				ANGLES ±1.0°		CAGE NUMBER D 78-5100-2511-3		REV. E			
				MODEL		DET. LISTS YES ☐ NO ☒ SHT 3 OF 3					

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