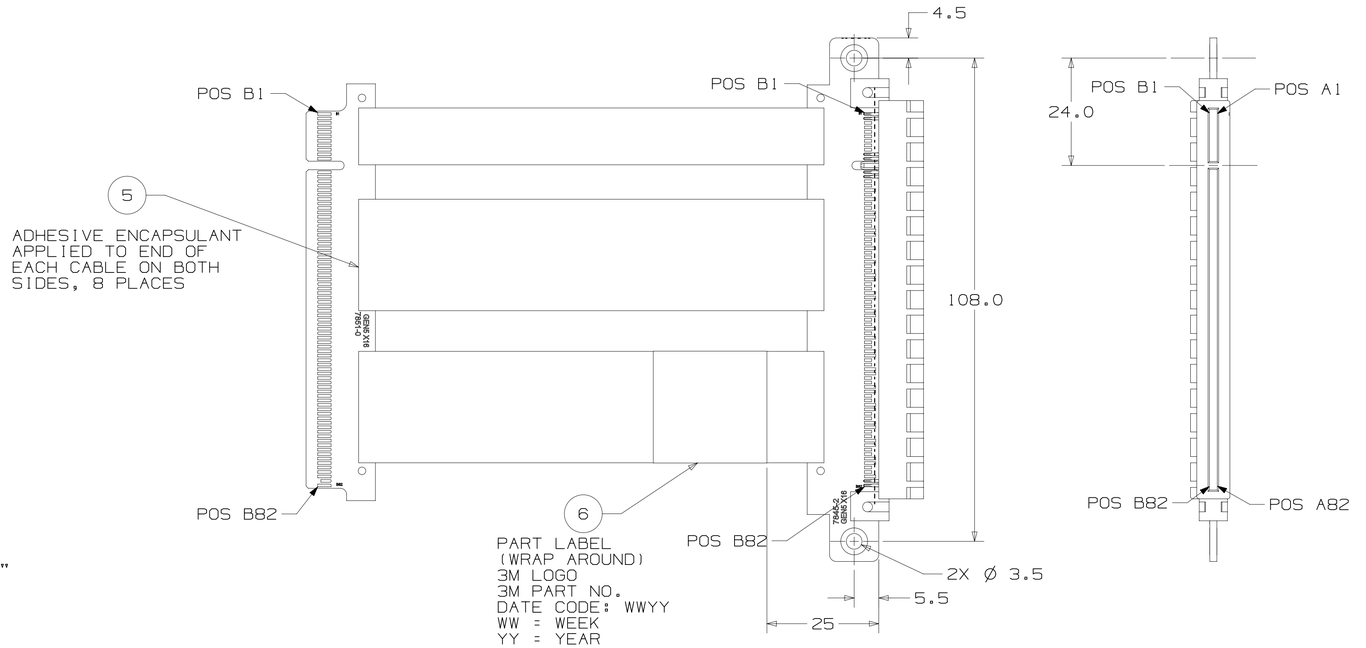
3M™ TWIN AXIAL PCI EXPRESS X16 EXTENDER ASSEMBLIES GEN 4.0, 8KCH SERIES

BILL OF MATERIALS			
	ITEM	DESCRIPTION	QTY
1.0	PBA	PCB ASSY, PADDLECARD, PCIE X16	1
1.1	PCB	PCIE X16 (164 POS) STRADDLEMOUNT 3M P/N: 78-9102-7845-2	1
1.2	CONN	CONNECTOR, PCIE (164 POS) STRADDLEMOUNT X16	1
2.0	PCB	PCIE X16 EXTENDER (164 POS) CARD-EDGE 3M P/N: 78-9102-7851-0	1
3.0	CABLE	RIBBON TWINAX CABLE 3M P/N: SL8802/22-15FN5-00	AS REQUIRED
4.0	CABLE	RIBBON CABLE, 20 POSITION 3M P/N: HF447-20	AS REQUIRED
5.0	STRAIN RELIEF	ADHESIVE	AS REQUIRED
6.0	LABEL	SEE ASSEMBLY PART DETAIL	1

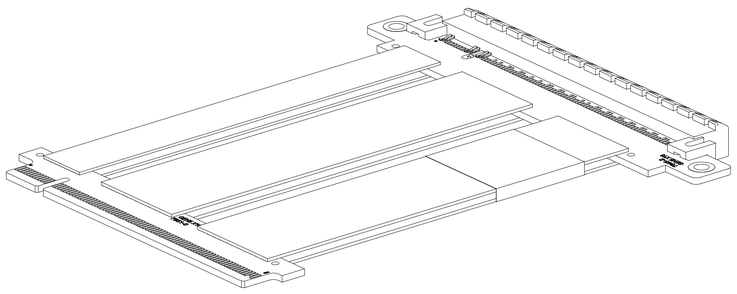


ORDERING INFORMATION

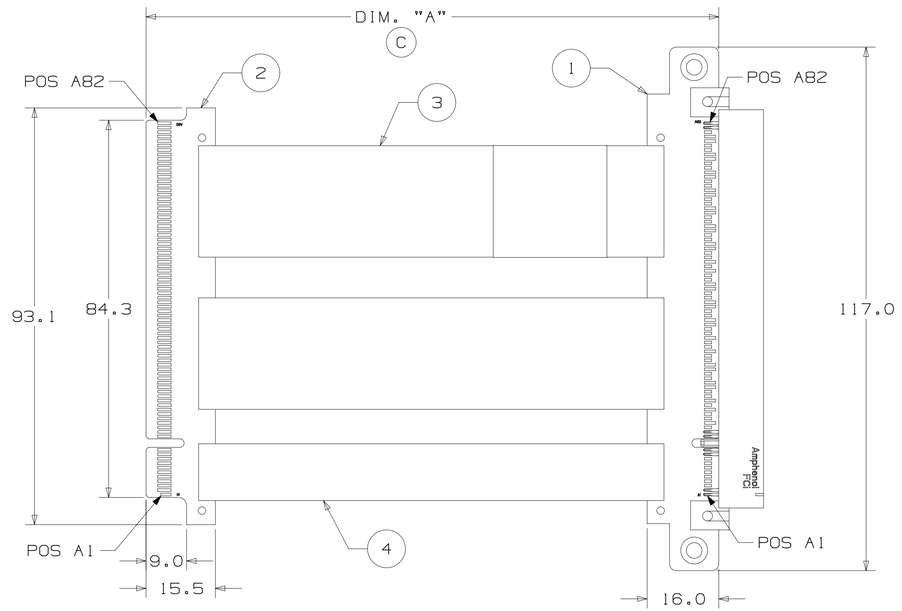
8KCH-0965-XXXX

STANDARD LENGTHS DIM. "A"
0250 = [250 MM]
0500 = [500 MM]

NOTE:
NON-STANDARD LENGTHS AVAILABLE UPON REQUEST.
MAY REQUIRE HIGHER MOQ'S AND LONGER LEAD TIMES.







3M ELECTRONICS MATERIALS SOLUTIONS DIVISION
INTERCONNECT SOLUTIONS
http://www.3m.com/TwinAx

3M IS A TRADEMARK OF 3M COMPANY.
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NOTES

1. DIMENSIONS ARE IN MILLIMETERS.
2. 3M TWIN AXIAL CABLE DESCRIPTION:
   30 AWG, SILVER PLATED SIGNAL WIRE
   IMPEDANCE: 85 ±5 OHM
   OVERALL RIBBON WIDTH: 24.90 MM
   OVERALL RIBBON THICKNESS: 0.75 MM
3. REGULATORY INFORMATION:
   VISIT 3M.com/regs OR CONTACT YOUR 3M REPRESENTATIVE TO FIND THE RoHS COMPLIANCE STATUS OF THE 3M PART YOU ARE INTERESTED IN.
6. THIS CABLE CONSTRUCTION HAS A THIN ALUMINUM LAYER AT EACH EDGE. USER SHOULD EVALUATE ITS USE IN THEIR APPLICATION AND, IF NECESSARY, INSULATING TAPE MAY BE APPLIED TO COVER THE ALUMINUM LAYER, AS USER DEEMS APPROPRIATE.
7. PRODUCT SPECIFICATION: PS-0390.
8. FLAMMABILITY RATING
   -TWINAX/AUX RIBBONS: UL94 HB HORIZONTAL FLAME TEST FOR INTERNAL WIRING
   -PCBS: UL94V-0
9. PADDLECARD PLATING:
   30μ" MIN. GOLD PLATING
   50μ" MIN. NICKEL UNDERPLATING.
10. UNLESS OTHERWISE NOTED, REFERENCES TO INDUSTRY SPECIFICATIONS ARE INTENDED TO INDICATE SUBSTANTIAL COMPLIANCE TO THE MATERIAL ELEMENTS OF THE SPECIFICATION. SUCH REFERENCES SHOULD NOT BE CONSTRUED AS A GUARANTEE OF COMPLIANCE TO ALL REQUIREMENTS IN A GIVEN SPECIFICATION.
11. CLOTH TAPE WRAPPED AROUND CABLE RIBBONS AT BACK OF EACH CONNECTOR. ALSO, UP TO TWO ADDITIONAL TAPE PIECES WILL BE WRAPPED AROUND THE TWO CABLE RIBBONS SPACED EQUIDISTANT FROM THE CONNECTOR ENDS AND EACH OTHER, DEPENDING ONASS'Y LENGTH (L):
    L <=0.2M: NO ADDITIONAL TAPE
    0.2M < L <= 0.6M: 1 TAPE WRAP
    0.6M < L <= 1.0M: 2 TAPE WRAP
12. LENGTH TOLERANCE:
    ±5MM FOR LENGTHS LESS THAN 0.5M.
    ±8MM FOR LENGTHS 0.5 TO 1.0 METER.
13. (X) DENOTES ITEM FIND NUMBER IN TABLE 1: BILL OF MATERIALS.
14. (C) DENOTES CRITICAL DIMENSION.

REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
A	0106397	AUG 15,2022 WORK REQUEST 13204 PRODUCTION RELEASE	LDS	MML

DESIGN REFERENCE | NEXT ASSEMBLY | ACCESS CODES

DRFT	L SCHMIDT	DATE SEP 01,2020	MFG / DATE
CHKD	M LETTANG	DATE AUG 15,2022	APPVL / DATE

DIVISION: EMSD

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TOLERANCES EXCEPT AS NOTED
INCHES: .0 ±; .00 ±; .000 ±; .0000 ±
THIRD ANGLE PROJECTION
INTERPRET PER ASME Y14.5 - 2018
MILLIMETERS: 0 ±1; .0 ±.5; .00 ±.05; .000 ±.005
MAX SURFACE ROUGHNESS 125 SURFACES ☐ MARKED ONLY
ANGLES ±

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TITLE: 8KCH-0965-XXXX CABLE ASSY, X16 GEN 4.0 STRADDLEMOUNT, PCIE

CAGE NUMBER | SIZE D | DRAWING NO. 78-5100-2716-8 | REV. A

MODEL | DET. LISTS ☐ YES ☒ NO | SHT 1 OF 2

78-5100-2716-8 (DATA NO LONGER)

Image: Central Standard Time 8/15/2022 -- UTC Offset (hrs) 6

3M™ TWIN AXIAL PCI EXPRESS X16 EXTENDER ASSEMBLIES GEN 4.0, 8KCH SERIES

Edgecard pin #	Side B Description	Name	CEM pin #
B01	+12 volt power	+12v	B01
B02	+12 volt power	+12v	B02
B03	+12 volt power	+12v	B03
B04	Ground	GND	B04
B05	SMBus clock	SMCLK	B05
B06	SMBus data	SMDAT	B06
B07	Ground	GND	B07
B08	+3.3 volt power	+3.3v	B08
B09	+TRST#	JTAG1	B09
B10	3.3v auxiliary power	3.3Vaux	B10
B11	Link Reactivation	WAKE#	B11
	Mechanical Key		
B12	Clock Request Signal	CLKREQ#	B12
B13	Ground	GND	B13
B14	Transmitter Lane 0, Differential pair	PETp(0)	B14
B15		PETn(0)	B15
B16	Ground	GND	B16
B17	Presence detect	PRSNT2#	B17
B18	Ground	GND	B18
B19	Transmitter Lane 1, Differential pair	PETp(1)	B19
B20		PETn(1)	B20
B21	Ground	GND	B21
B22	Ground	GND	B22
B23	Transmitter Lane 2, Differential pair	PETp(2)	B23
B24		PETn(2)	B24
B25	Ground	GND	B25
B26	Ground	GND	B26
B27	Transmitter Lane 3, Differential pair	PETp(3)	B27
B28		PETn(3)	B28
B29	Ground	GND	B29
B30	Emergency Pwr Reduct	PWRBRK#	B30
B31	Presence detect	PRSNT2#	B31
B32	Ground	GND	B32
B33	Transmitter Lane 4, Differential pair	PETp(4)	B33
B34		PETn(4)	B34
B35	Ground	GND	B35
B36	Ground	GND	B36
B37	Transmitter Lane 5, Differential pair	PETp(5)	B37
B38		PETn(5)	B38
B39	Ground	GND	B39
B40	Ground	GND	B40
B41	Transmitter Lane 6, Differential pair	PETp(6)	B41
B42		PETn(6)	B42
B43	Ground	GND	B43
B44	Ground	GND	B44
B45	Transmitter Lane 7, Differential pair	PETp(7)	B45
B46		PETn(7)	B46
B47	Ground	GND	B47
B48	Presence detect	PRSNT2#	B48
B49	Ground	GND	B49
B50	Transmitter Lane 8, Differential pair	PETp(8)	B50
B51		PETn(8)	B51
B52	Ground	GND	B52
B53	Ground	GND	B53
B54	Transmitter Lane 9, Differential pair	PETp(9)	B54
B55		PETn(9)	B55
B56	Ground	GND	B56
B57	Ground	GND	B57
B58	Transmitter Lane 10, Differential pair	PETp(10)	B58
B59		PETn(10)	B59
B60	Ground	GND	B60
B61	Ground	GND	B61
B62	Transmitter Lane 11, Differential pair	PETp(11)	B62
B63		PETn(11)	B63
B64	Ground	GND	B64
B65	Ground	GND	B65
B66	Transmitter Lane 12, Differential pair	PETp(12)	B66
B67		PETn(12)	B67
B68	Ground	GND	B68
B69	Ground	GND	B69
B70	Transmitter Lane 13, Differential pair	PETp(13)	B70
B71		PETn(13)	B71
B72	Ground	GND	B72
B73	Ground	GND	B73
B74	Transmitter Lane 14, Differential pair	PETp(14)	B74
B75		PETn(14)	B75
B76	Ground	GND	B76
B77	Ground	GND	B77
B78	Transmitter Lane 15, Differential pair	PETp(15)	B78
B79		PETn(15)	B79
B80	Ground	GND	B80
B81	Hot plug present detect	PRSNT2#	B81
B82	Presence detect	RSVD#2	B82

Edgecard pin #	Side A Description	Name	CEM pin #
A01	Presence detect	PRSNT#1	A01
A02	+12 volt power	+12v	A02
A03	+12 volt power	+12v	A03
A04	Ground	GND	A04
A05	TCK	JTAG2	A05
A06	TDI	JTAG3	A06
A07	TDO	JTAG4	A07
A08	TMS	JTAG5	A08
A09	+3.3 volt power	+3.3v	A09
A10	+3.3 volt power	+3.3v	A10
A11	Fundamental reset	PERST#	A11
	Mechanical Key		
A12	Ground	GND	A12
A13	Reference Clock, Differential pair	REFCLK+	A13
A14		REFCLK-	A14
A15	Ground	GND	A15
A16	Receiver Lane 0, Differential pair	PERp(0)	A16
A17		PERn(0)	A17
A18	Ground	GND	A18
A19	Manufacturer Test Mode	MFG	A19
A20	Ground	GND	A20
A21	Receiver Lane 1, Differential pair	PERp(1)	A21
A22		PERn(1)	A22
A23	Ground	GND	A23
A24	Ground	GND	A24
A25	Receiver Lane 2, Differential pair	PERp(2)	A25
A26		PERn(2)	A26
A27	Ground	GND	A27
A28	Ground	GND	A28
A29	Receiver Lane 3, Differential pair	PERp(3)	A29
A30		PERn(3)	A30
A31	Ground	GND	A31
A32	Reserved	RSVD	A32
A33	Reserved	RSVD	A33
A34	Ground	GND	A34
A35	Receiver Lane 4, Differential pair	PERp(4)	A35
A36		PERn(4)	A36
A37	Ground	GND	A37
A38	Ground	GND	A38
A39	Receiver Lane 5, Differential pair	PERp(5)	A39
A40		PERn(5)	A40
A41	Ground	GND	A41
A42	Ground	GND	A42
A43	Receiver Lane 6, Differential pair	PERp(6)	A43
A44		PERn(6)	A44
A45	Ground	GND	A45
A46	Ground	GND	A46
A47	Receiver Lane 7, Differential pair	PERp(7)	A47
A48		PERn(7)	A48
A49	Ground	GND	A49
A50	Reserved	RSVD	A50
A51	Ground	GND	A51
A52	Receiver Lane 8, Differential pair	PERp(8)	A52
A53		PERn(8)	A53
A54	Ground	GND	A54
A55	Ground	GND	A55
A56	Receiver Lane 9, Differential pair	PERp(9)	A56
A57		PERn(9)	A57
A58	Ground	GND	A58
A59	Ground	GND	A59
A60	Receiver Lane 10, Differential pair	PERp(10)	A60
A61		PERn(10)	A61
A62	Ground	GND	A62
A63	Ground	GND	A63
A64	Receiver Lane 11, Differential pair	PERp(11)	A64
A65		PERn(11)	A65
A66	Ground	GND	A66
A67	Ground	GND	A67
A68	Receiver Lane 12, Differential pair	PERp(12)	A68
A69		PERn(12)	A69
A70	Ground	GND	A70
A71	Ground	GND	A71
A72	Receiver Lane 13, Differential pair	PERp(13)	A72
A73		PERn(13)	A73
A74	Ground	GND	A74
A75	Ground	GND	A75
A76	Receiver Lane 14, Differential pair	PERp(14)	A76
A77		PERn(14)	A77
A78	Ground	GND	A78
A79	Ground	GND	A79
A80	Receiver Lane 15, Differential pair	PERp(15)	A80
A81		PERn(15)	A81
A82	Ground	GND	A82

ALL GROUNDS ARE TIED TOGETHER IN PCBS

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REV	ECO	ISSUE DATE AND DESCRIPTION		DRFT	CHKD
A	0106397	AUG 15,2022 WORK REQUEST 13204 PRODUCTION RELEASE		LDS	MML

DESIGN REFERENCE | NEXT ASSEMBLY | ACCESS CODES

DRFT L SCHMIDT — DATE SEP 01,2020 — MFG — DATE
CHKD M LETTANG — DATE AUG 15,2022 — APPVL — DATE

DIVISION | DIVISION CODE EMSD

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TOLERANCES EXCEPT AS NOTED
INCHES
.0 ±
.00 ±
.000 ±
.0000 ±
MILLIMETERS
0 ±1
.0 ±.5
.00 ±.05
.000 ±.005
ANGLES ±

THIRD ANGLE PROJECTION
INTERPRET PER ASME Y14.5 - 2018
MAX SURFACE ROUGHNESS
☐ ALL SURFACES
☐ MARKED ONLY

TITLE
8KCH-0965-XXXX CABLE ASSY, X16 GEN 4.0 STRADDLEMOUNT, PCIE

CAGE NUMBER | SIZE D | DRAWING NO. 78-5100-2716-8 | REV. A
MODEL
DET. LISTS ☐ YES ☒ NO | SHT 2 OF 2

78-5100-2716-8 (DRAWING NUMBER) A (REVISION)

Imaged: Central Standard Time 8/15/2022 -- UTC Offset (hrs) 6