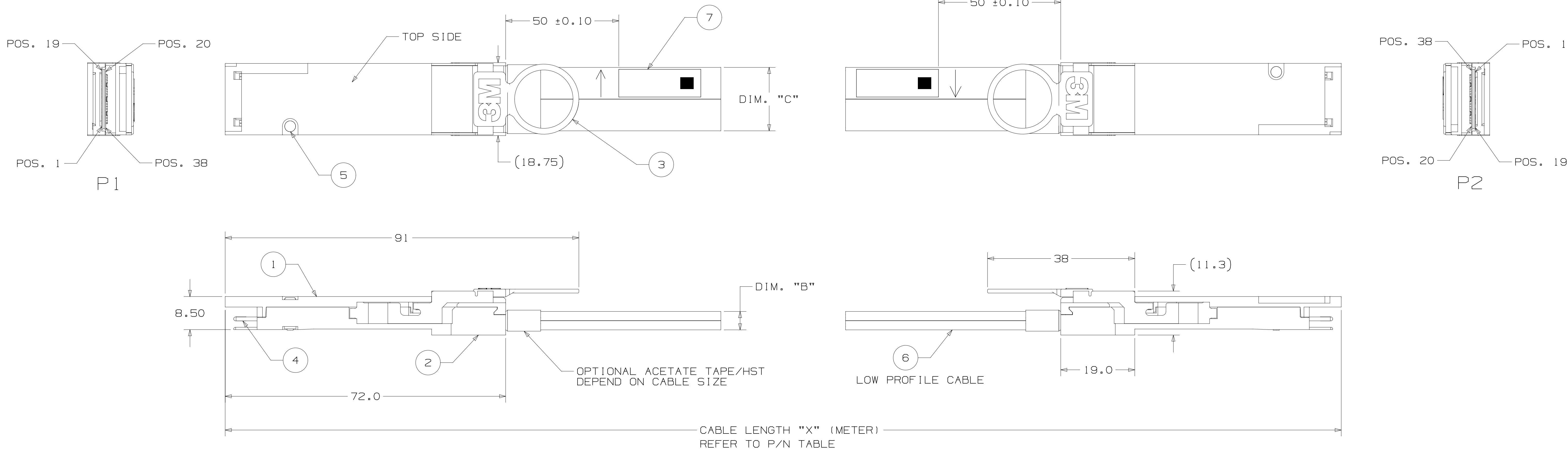


3M™ 100G QSFP28 DIRECT ATTACH COPPER CABLE ASSEMBLIES, 9Q SERIES



WIRING LIST			
P1 END		P2 END	
POS	SIGNAL	POS	SIGNAL
1	GND (TX)	20	GND (RX)
2	TX2n	21	RX2n
3	TX2P	22	RX2p
4	GND (TX)	23	GND (RX)
5	TX4n	24	RX4n
6	TX4P	25	RX4p
7	GND (TX)	26	GND (RX)
13	GND (RX)	32	GND (TX)
14	RX3p	33	TX3p
15	RX3n	34	TX3n
16	GND (RX)	35	GND (TX)
17	RX1p	36	TX1p
18	RX1n	37	TX1n
19	GND (RX)	38	GND (TX)
20	GND (RX)	1	GND (TX)
21	RX2n	2	TX2n
22	RX2p	3	TX2P
23	GND (RX)	4	GND (TX)
24	RX4n	5	TX4n
25	RX4p	6	TX4P
26	GND (RX)	7	GND (TX)
32	GND (TX)	13	GND (RX)
33	TX3p	14	RX3p
34	TX3n	15	RX3n
35	GND (TX)	16	GND (RX)
36	TX1p	17	RX1p
37	TX1n	18	RX1n
38	GND (TX)	19	GND (RX)

LOW SPEED SIGNALS	
P1 & P2	
POS	SIGNAL
8	ModSelL
9	ResetL
10	VccRx
11	SCL
12	SDA
27	ModPrsL
28	IntL
29	VccTx
30	VccI
31	LPMode

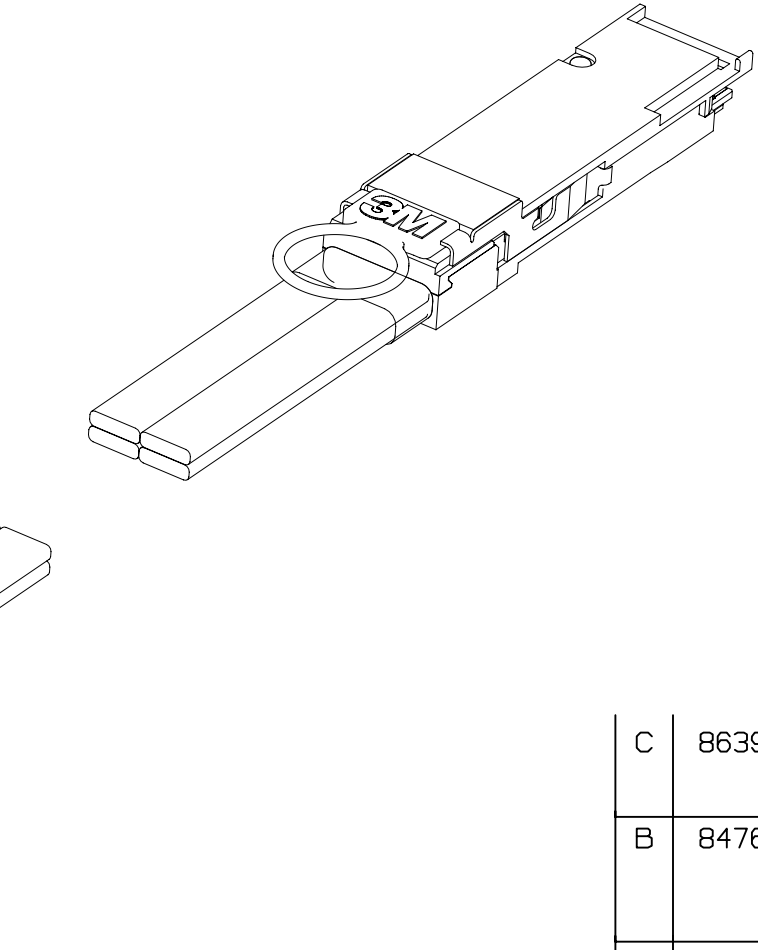
STANDARD PRODUCT LABEL DESCRIPTION
(CUSTOM AVAILABLE UPON REQUEST)

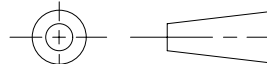
9QXX-114-XX-X.XX
WYYY - SN:XXXXXXXX

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INFORMATION CALL 800-225-5373

7	PRODUCT LABEL	2
6	3M™ LOW PROFILE TWIN AXIAL CABLE	4
5	RIVET	2
4	PADDLE CARD	2
3	LATCH WITH PULL TAB	2
2	BOTTOM SHELL	2
1	UPPER SHELL	2
BALLOON ITEM	DESCRIPTION	QTY



DESIGN REFERENCE		NEXT ASSEMBLY		REV	ECO	ISSUE DATE AND DESCRIPTION		DRFT	CHKD	
ACCESS CODES				REV	YUNLONG	DATE	MAR 02, 2017	MFG E. CHEN	DATE	MAR 02, 2017
				DRFT	YUNLONG	DATE	MAR 02, 2017	APPL S. BANDHU	DATE	MAR 02, 2017
DIVISION		DIVISION CODE		<div>3M Center St. Paul, MN 55144</div>		© 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.				
DO NOT SCALE DRAWING		SCALE $\frac{2}{1}$								
		TOLERANCES EXCEPT AS NOTED		<div>3M</div> <div>TITLE</div> <div>100G QSFP28 DIRECT ATTACH COPPER CABLE ASSEMBLIES, 9Q SERIES</div> <div>CAGE NUMBER D SIZE DRAWING NO. 78-5100-2672-3 REV. C</div> <div>MODEL OSFP28</div> <div>DET. LISTS <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO SHT 1 OF 2</div>						
		INCHES : 0 : .00 : .000 : .0000 :								
THIRD ANGLE PROJECTION		MILLIMETERS 0 : 1 : 0.2 : 0.10 : 0.005								
INTERPRET PER ASME Y14.5 - 2009		MAX SURFACE ROUGHNESS 100 SURFACES								
<input checked="" type="checkbox"/> MARKED ONLY		ANGLES								

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3M™ 100G QSFP28 DIRECT ATTACH COPPER CABLE ASSEMBLIES, 9Q SERIES

NOTES:

1. ORDERING INFORMATION:
9QXX-114-XX-X.XX

ASSEMBLY LENGTH X IN METERS SEE TABLE 1

EEPROM MEMORY MAP
22= IEEE Std 802.3bJ-2014 100GBASE-CR4
XX= CUSTOMIZATION(SEE 3M SALES REP)

AWG
0= 30AWG (only for below and 2 meters)
6= 26AWG (only for 2 meters and above)

CABLE TYPE
J= 30AWG UTJ PVC JACKET WITH SHIELD (UP TO 2 METERS)
N= 30AWG CL2 JACKET WITH SHIELD (UP TO 2 METERS)
H= 26AWG UTJ PVC JACKET WITH SHIELD (2 TO 4.5 METERS)
M= 26 AWG CL2 JACKET WITH SHIELD (2 TO 4.5 METERS)

2. REFER TO TABLE 1 FOR CABLE LENGTH, WIDTH, THICKNESS AND WIRE AWG

3. PCB PINOUT DESIGNED TO SFF8436 SPECIFICATION

4. CABLE ASSEMBLY DESIGNED TO SFF 8661 & IEEE 802.3bJ SPECIFICATION

5. JACKET FOR CABLE TYPE J AND H: PVC, COLOR: BLACK
JACKET FOR CABLE TYPE N AND M: HALOGEN-FREE* CL2, COLOR: BLACK
METAL SHELL: NICKEL PLATED ZINC ALLOY
PULL TAB: HALOGEN-FREE* THERMOPLASTIC, COLOR: BLACK
PCB FOR CABLE TYPE J AND H: HALOGENATED FLAME RETARDENT
PCB FOR CABLE TYPE N AND M: HALOGEN-FREE* FLAME RETARDENT
ASSEMBLIES WITH CABLE TYPE N AND M ARE FULLY HALOGEN-FREE*

6. 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 CONTRUED AS A GUARANTEE OF COMPLIANCE TO ALL REQUIREMENTS IN A GIVEN SPECIFICATION.

7. PRODUCT SPECIFICATION REFER TO 3M DOCUMENT: 78-5102-0262-1

8. CABLE RETURN LOSS PERFORMANCE IS VALID FOR CABLE ASSEMBLIES OF A MINIMUM OF 1.00 METER IN LENGTH. CABLE ASSEMBLIES LESS THAN 1.00 METER IN LENGTH MAY NOT ACHIEVE THE RETURN LOSS PERFORMANCE IN IEEE802.3bJ. CABLE RETURN LOSS PERFORMANCE IS SUBJECT TO CHANGE WITH DIFFERENT CABLE ASSEMBLY LENGTHS. END USER WILL NEED TO DETERMINE WHETHER THIS PRODUCT IS SUITABLE FOR THEIR INTENDED APPLICATION.

9. FOR CUSTOM LENGTHS CONTACT A 3M SALES REPRESENTATIVE

10 * HOLGEN-FREE IS DEFINED AS BOTH (1) NO HALOGEN COMPOUNDS ARE INTENTIONALLY ADDED TO THE PRODUCT OR USED IN THE MANUFACTURING PROCESS FOR THE PRODUCT, AND (2) ANY IMPURITIES PRESENT ARE LESS THAN 900 PPM BROMINE, LESS THAN 900 PPM CHLORINE, AND/OR LESS THAN 1500 PPM TOTAL BROMINE AND CHLORINE.

TABLE 1

ORDERING INFORMATION	ASSY LENGTH="X" (m)	CABLE SIZE	LENGTH TOLERANCE (mm)	B NOMINAL (mm)	C NOMINAL (mm)		
9QJ0-114-22-0.50	0.50	30AWG	+10/-0	(2.8)	(15.0)		
9QJ0-114-22-1.00	1.00	30AWG	+50/-0				
9QJ0-114-22-2.00	2.00	30AWG					
9QH6-114-22-2.00	2.00	26AWG	(3.8)	(16.0)			
9QH6-114-22-3.00	3.00	26AWG					
9QH6-114-22-4.00	4.00	26AWG	+50/0	(3.5)	(17.8)		
9QN0-114-22-1.00	1.00	30AWG CL2					
9QM6-114-22-3.00	3.00	26AWG CL2		(6.0)	(18.5)		

Regulatory: For regulatory information about this product, visit 3M.com/regs or contact your 3M representative.

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C	86392	SEP 26,2019	JNC	DLD
B	84769	JUL 17,2019	JNC	DLD
A	74404	JUN 22,2017	YL	YL
REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
YUNLONG		MAR 02,2017 E. CHEN		MAR 02,2017
YUNLONG		MAR 02,2017 S. BANDHU		MAR 02,2017
DIVISION		DIVISION CODE		
		EMSD		
DO NOT SCALE DRAWING	SCALE 2/1	TOLERANCES EXCEPT AS NOTED		
THIRD ANGLE PROJECTION		INCHES		
		MILLIMETERS		
INTERPRET PER ASME Y14.5 - 2009		0 ±.1		
MAX SURFACE ROUGHNESS		0.0 ±.02		
SURFACES		0.00 ±0.10		
MARKED ONLY		0.00 ±0.005		
		ANGLES		

3M

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TITLE
100G QSFP28 DIRECT ATTACH COPPER CABLE ASSEMBLIES, 9Q SERIES

CAGE SIZE DRAWING NO. REV.
NUMBER D 78-5100-2672-3 C

MODEL QSF28 DET LISTS YES NO SHT 2 OF 2

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Imaged: Central Standard Time 9/26/2019 -- UTC

Offset (hrs) 6

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