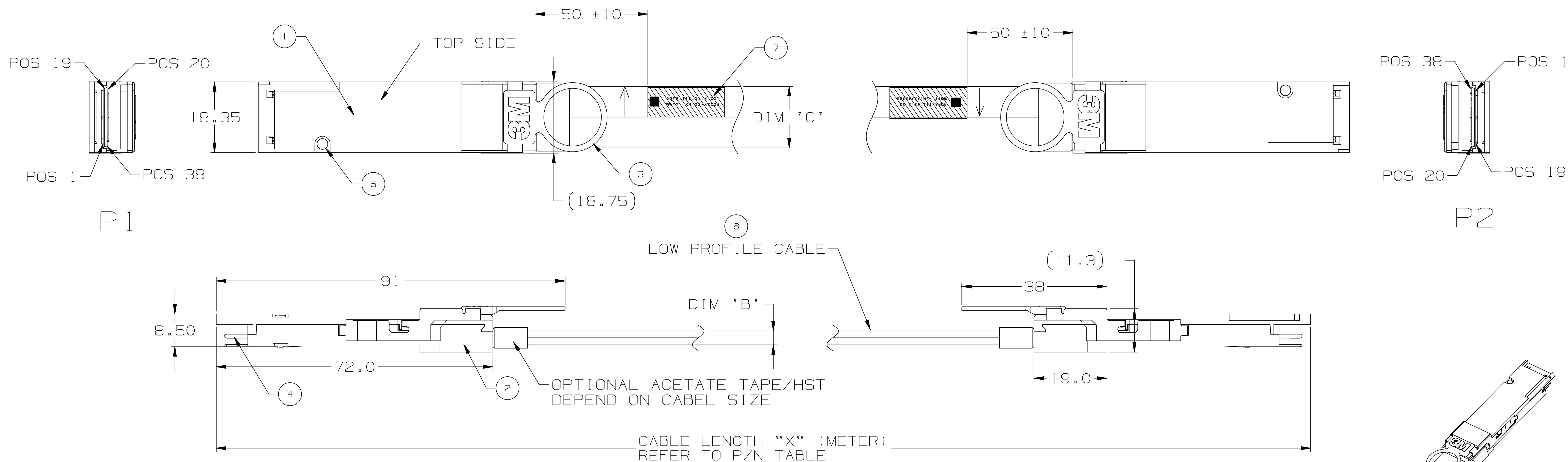
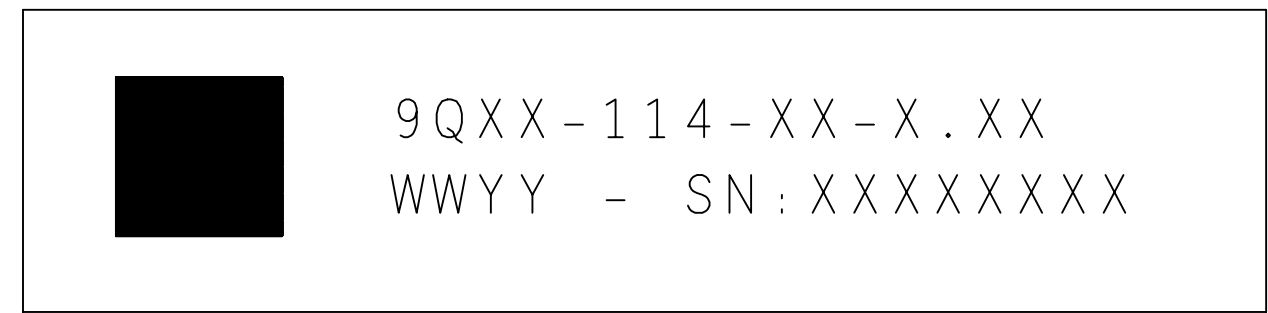


3M™ 100G QSFP28 Direct Attach Copper Cable Assemblies, 90 Series



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	ModSeIL
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)

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BALLOON ITEM	DESCRIPTION	QTY
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

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DIVISION EMSD		DIVISION CODE		DRFT YunLong DATE MAR 02,2017 ECO E CHEN DATE MAR 02,2017 DRFT YunLong DATE MAR 02,2017 ECO S BANDHU DATE MAR 02,2017		
DO NOT SCALE DRAWING THIRD ANGLE PROJECTION INTERPRET PER ASME Y14.5 - 2009 MAX SURFACE ROUGHNESS ALL SURFACES MARKED ONLY		SCALE 2/1 TOLERANCES EXCEPT AS NOTED INCHES .00 ± .000 ± .0000 ± MILLIMETERS 0 ±.1 .00 ±.10 .000 ±.005 ANGLES ±0.5°	TITLE 3M™ 100G QSFP28 Direct Attach Copper Cable Assemblies, 90 Series CAGE NUMBER D78-5100-2672-3 MODEL QSFP28			
		REV B 84769 JUL 17, 2019 A 74404 JUN 22, 2017 NEW RELEASE		JNC DD YL YL DATE MAR 02, 2017 DATE MAR 02, 2017		

REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
B	84769	JUL 17, 2019 ADDED CL2 CABLE OPTIONS	JNC	DD
A	74404	JUN 22, 2017 NEW RELEASE	YL	YL

REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
B	84769	JUL 17, 2019 ADDED CL2 CABLE OPTIONS	JNC	DD
A	74404	JUN 22, 2017 NEW RELEASE	YL	YL

78-5100-2672-3  
DRAWING NUMBER

A

3M™ 100G QSFP28 Direct Attach Copper Cable Assemblies, 9Q Series

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			
9QN0-114-22-1.00	1.00	30AWG CL2	+50/0	(3.5)	(17.8)
9QM6-114-22-3.00	3.00	26AWG CL2		(6.0)	(18.5)

NOTES:

1. ORDERING INFORMATION:

9QXX-114-XX-X.XX

ASSEMBLY LENGTH X IN METERS SEE TABLE 1

EEPROM MEMORY MAP

22= IEEE Std 802.3b<sub>J</sub>-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)

- REFER TO TABLE 1 FOR CABLE LENGTH, WIDTH, THICKNESS AND WIRE AWG
- PCB PINOUT DESIGNED TO SFF8436 SPECIFICATION
- CABLE ASSEMBLY DESIGNED TO SFF 8661 & IEEE 802.3b<sub>J</sub> SPECIFICATION
- JACKET DETAIL: BLACK COLOR PVC, OTHER COLOR OPTION CONTACT 3M SALES REP.
- 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.
- PRODUCT SPECIFICATION REFER TO 3M DOCUMENT: 78-5102-0262-1
- 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 IEEE802.3b<sub>J</sub>. 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.
- FOR CUSTOM LENGTHS CONTACT A 3M SALES REPRESENTATIVE

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

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DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
TOLERANCES EXCEPT AS NOTED INCHES .00 ± .000 ± .0000 ± MILLIMETERS 0 ±.1 .0 ±.2 .00 ±.10 .000 ±.005 ANGLES ±0.5°		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.				
DO NOT SCALE DRAWING SCALE 2/1 THIRD ANGLE PROJECTION INTERPRET PER ASME Y14.5 - 2009 MAX SURFACE ROUGHNESS ALL SURFACES MARKED ONLY		TITLE 3M™ 100G QSFP28 Direct Attach Copper Cable Assemblies, 9Q Series CAGE NUMBER DRAWING NO. 78-5100-2672-3 MODEL QSFP28 REV. B DET YES NO SHT 2 OF 2				

78-5100-2672-3  
DRAWING NUMBER