

SPACE-GRADE MIL-DTL-38999 TYPE SuperNine® Blind-Mate / ASF Connectors



253-047 / 253-048 High-Speed Plug and Receptacle Series, Adjustable Separation Force · High-Speed data and RF insert arrangements



253-047 / -048
high-speed plug and receptacle series
with adjustable separation force and
misalignment capability

ADAPTER CODE H

"H" adapter code accessories
(D38999 Series III, metric thread)
fit this connector

Glenair recommends the use of 4470-1130
SplayMaster backshells for alignment of
shielded contacts and cables

Modification code 909xx is used to supply
D38999 Series III Type connectors featuring
crimp removable type contacts with high-
speed contact kits. Kits include spares, tools,
and sealing plugs. See example below.

253-045-07ME25-8ANNS -909 C P

Basic Connector Part
Number

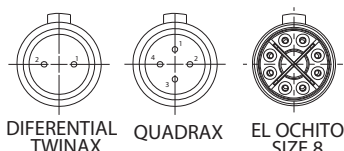
Basic Modification Code
909

Contact Type Symbol
(See Contact Type Table)
C, D, E*, Q, P, T

Contact Gender (Optional)
P = Pin, S = Skt

*For El Ochito see Contact Configuration Table
on following page for appropriate code and
dash number symbol.

**FIGURE 2: CONTACT INNER PIN
ORIENTATION**



HOW TO ORDER								
Sample Part No.	253-047	D0	ME	25-8	A	N	-909	A
Series / Basic Part No.	253 = Blind-mate connector with adjustable assisted separation force -047 = Plug (fixed mount) -048 = Receptacle (float mount)							
Connector Style	-D0 = Panel-mount, round holes							
Material/Finish	MN = Al Alloy, MegaNickel, per D38999 class AA ME = Aluminum, electroless nickel MT = Aluminum, nickel PTFE ZL = CRES, electrodeposited nickel Z1 = CRES, passivated							
Shell Size-Insert Arrangement	Insert Arrangement number per MIL-STD-1560 High-Speed or Combo Contact Arrangement (see table).							
Contact Type	P = Pin, crimp removable S = Socket, crimp removable							
Alternate Polarization (Per L*)	A = 40°, B = 65°, C = 80°, D = 210°, E = 250°, F = 280°, G = 310°, H = 330°, N = 135° (Normal)							
Optional Mod Code	-909** = Supplies connector with contacts							
Adjustment Ring Material	(Available for 253-048 receptacle only) A = Aluminum C = Corrosion-resistant steel							

253-047 High-Speed Plug mates with 253-048 receptacle
Space-grade modification codes may be added directly to the end of any valid part number

CONTACT TYPE					
Sym	Description	Glenair P/N	Wire Type	Grommet Follower	Application Notes
C	Size 16, contact for coax cable, per M39029/76 & /77;	Pin: 852-008-16-424 Skt: 852-009-16-428	RG174, RG316, RG179	N/A	Analog radio frequency or microwave applications
	Size 12, contact for coax cable, per M39029/102 & /103	Pin: 852-004-12-558 Skt: 852-005-12-559	RG174, RG316, RG179	N/A	
	Size 8, contact for coax cable, per M39029/59 & /60	Pin: 852-007-08-367 Skt: 852-006-08-366	M17 /95-RG180	859-042-02	
C1	Size 8, contact for 75 ohm coax cable	Pin: 852-056-01 Skt: 852-057-01	V73263, V75268, V76261	859-042-01	aerospace-grade digital video
D	Size 8, diff. twinax contact for 24 AWG twinax cable	Pin: 853-014-05 Skt: 853-013-05	M17 /176-00002	859-042-01	1553 databus / differential signal
E*	Size 8, El Ochito® contact for 26 AWG	White Pin: 858-003-02 Skt: 858-004-02	963-003-26 963-033-26	687-643-8-2	1G/10G Base-T Ethernet (white)
	Size 8, El Ochito® contact for 24/26-30 AWG Cable	Blue Pin: 858-028-02 Skt: 858-029-02	963-110 & 963-118	687-643-8-2	USB 3.0 (Blue)
	Size 8, El Ochito® contact for 26-30 AWG Cable	Red Pin: 858-030-02 Skt: 858-031-02	963-033-26	687-643-8-2	SATA 3.0 General High Speed (red)
Q	Size 8, contact for 24 AWG Quadrax	Pin: 854-001-02 Skt: 854-002-02	963-020	859-042-02	10/100Base-T ethernet
P	Size 8, power contact for 8 AWG	Pin: 850-014 Skt: 850-013	M22759/11 or equivalent	859-042-03	Power
T	Size 8, triax/ concentric twinax for twinax cable	Pin: 853-003-08-625 Skt: 853-004-08-628	M17 /176-00002	859-042-01	1553 Databus

* See Table II for Contact Positions. See Figure 2 for orientation of inner pins relative to connector main key/keyway.

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EL OCHITO PROTOCOLS		
WHITE	BLUE	RED
10GBASE-T	USB 3.0	Multi Gigabit 100 ohm protocols HDMI, SATA, DisplayPort

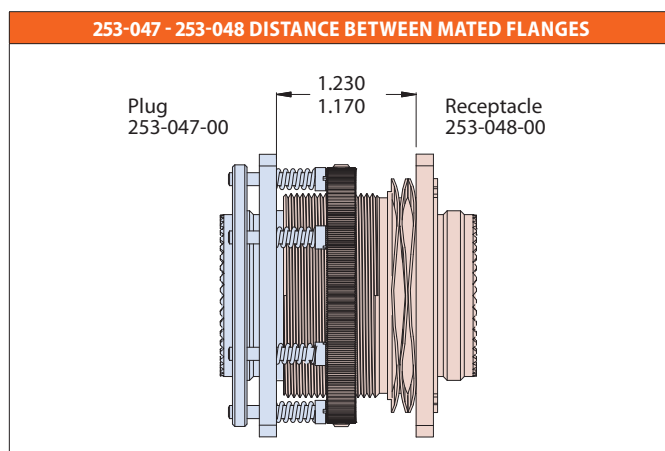


Example Code E7



Example Code E5

COMPATIBLE SPEEDLINE HIGH-SPEED CABLE		
Part No.	High-Speed Protocol	El Ochito contact type
963-066-24	Ethernet	El Ochito White
963-066-26	Ethernet	El Ochito White
963-089-24	SpaceWire	El Ochito White
963-089-26	SpaceWire	El Ochito White
963-077-26	High-speed USB	El Ochito Blue
963-127-3	HDMI, DisplayPort, DVI	El Ochito Red
963-072-24	SATA / eSATA	El Ochito Red



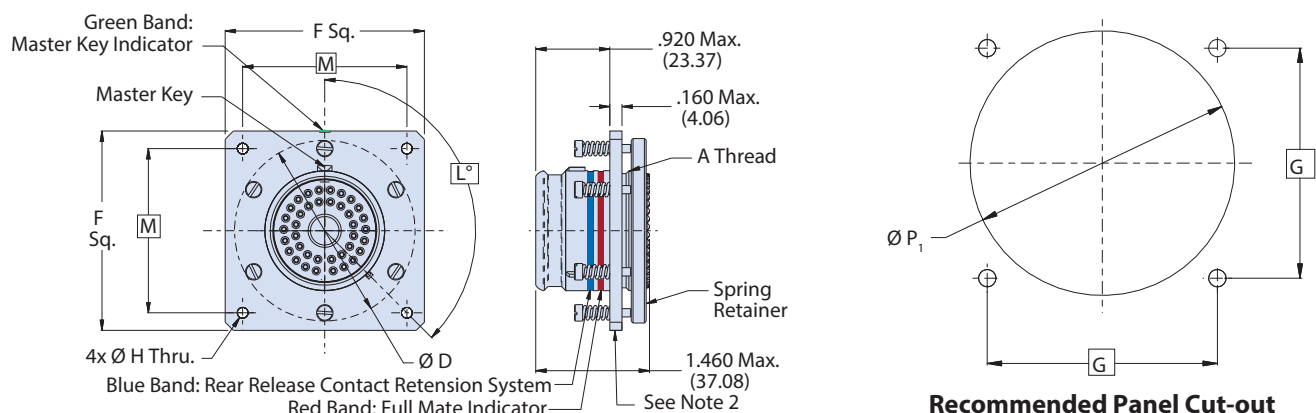
EL OCHITO CONTACT CONFIGURATION								
SYM	CAVITY A	CAVITY B	CAVITY C	CAVITY D	CAVITY E	CAVITY F	CAVITY G	CAVITY H
E	W	W	W	W	W	W	W	W
E2	B	W	W	W	W	W	W	W
E3	R	W	W	W	W	W	W	W
E4	B	B	W	W	W	W	W	W
E5	R	B	W	W	W	W	W	W
E6	R	R	W	W	W	W	W	W
E7	B	B	B	W	W	W	W	W
E8	R	B	B	W	W	W	W	W
E9	R	R	B	W	W	W	W	W
E10	R	R	R	W	W	W	W	W
E11	B	B	B	B	W	W	W	W
E12	R	B	B	B	W	W	W	W
E13	R	R	B	B	W	W	W	W
E14	R	R	R	B	W	W	W	W
E15	R	R	R	R	W	W	W	W
E16	B	B	B	B	B	W	W	W
E17	R	B	B	B	B	W	W	W
E18	R	R	B	B	B	W	W	W
E19	R	R	R	B	B	W	W	W
E20	R	R	R	R	B	W	W	W
E21	R	R	R	R	R	W	W	W
E22	B	B	B	B	B	B	W	W
E23	R	B	B	B	B	B	W	W
E24	R	R	B	B	B	B	W	W
E25	R	R	R	B	B	B	W	W
E26	R	R	R	R	B	B	W	W
E27	R	R	R	R	R	B	W	W
E28	R	R	R	R	R	R	W	W
E29	B	B	B	B	B	B	B	W
E30	R	B	B	B	B	B	B	W
E31	R	R	B	B	B	B	B	W
E32	R	R	R	B	B	B	B	W
E33	R	R	R	R	B	B	B	W
E34	R	R	R	R	R	B	B	W
E35	R	R	R	R	R	R	B	W
E36	R	R	R	R	R	R	R	W
E37	B	B	B	B	B	B	B	B
E38	R	B	B	B	B	B	B	B
E39	R	R	B	B	B	B	B	B
E40	R	R	R	B	B	B	B	B
E41	R	R	R	R	B	B	B	B
E42	R	R	R	R	R	B	B	B
E43	R	R	R	R	R	R	B	B
E44	R	R	R	R	R	R	R	B
E45	R	R	R	R	R	R	R	R

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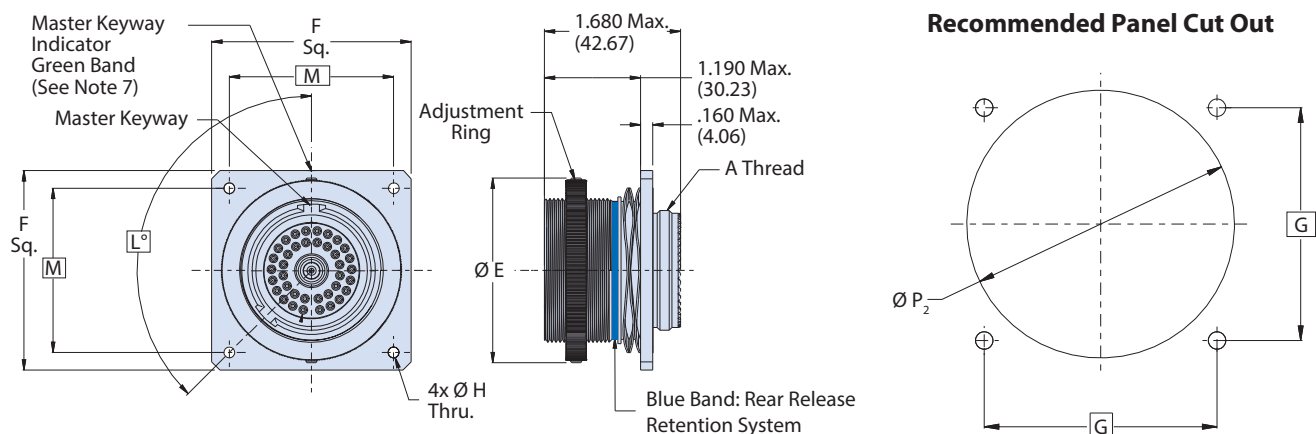


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253-047-D0 FIXED PANEL-MOUNT PLUG WITH SPRING ASSIST (ZERO SEPARATION FORCE)



253-048-D0 FLOATING PANEL-MOUNT RECEPTACLE WITH ADJUSTABLE SEPARATION FORCE



DIMENSIONS FOR 253-047 AND 253-048

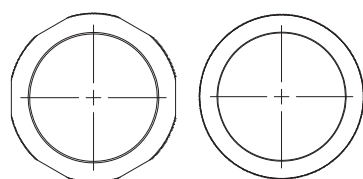
Shell Size	F Flange ±.010 (±.25)	M Square	Ø H ±.005 (±.13)	Ø D, Max.	Ø E Max.	A Thread	Ø P ₁ ±.005 (±.13)	Ø P ₂ ±.005 (±.13)	G Square
9	1.430(36.32)	1.150 (29.21)	.128(3.25)	1.250(31.75)	1.300 (33.02)	M12 X 1.0-6g-0.100R	1.300(33.02)	1.330 (33.78)	1.150 (29.21)
11	1.555(39.50)	1.200(30.48)	.128(3.25)	1.375(34.93)	1.425 (36.20)	M15 X 1.0-6g-0.100R	1.425(36.20)	1.455 (36.96)	1.200 (30.48)
13	1.680(42.67)	1.250(31.75)	.128(3.25)	1.500(38.10)	1.550 (39.37)	M18 X 1.0-6g-0.100R	1.550(39.37)	1.580 (40.13)	1.250 (31.75)
15	1.805(45.85)	1.375(34.93)	.128(3.25)	1.625(41.28)	1.675 (42.55)	M22 X 1.0-6g-0.100R	1.675(42.55)	1.705 (43.31)	1.375 (34.92)
17	1.930(49.02)	1.500(38.10)	.128(3.25)	1.750(44.45)	1.800 (45.72)	M25 X 1.0-6g-0.100R	1.800(45.72)	1.830 (46.48)	1.500 (38.10)
19	2.055(52.20)	1.625(41.28)	.128(3.25)	1.875(47.63)	1.925 (48.90)	M28 X 1.0-6g-0.100R	1.925(48.90)	1.955 (49.66)	1.625 (41.28)
21	2.180(55.37)	1.750(44.45)	.128(3.25)	2.000(50.80)	2.050 (52.07)	M31 X 1.0-6g-0.100R	2.050(52.07)	2.080 (52.83)	1.750 (44.45)
23	2.305(58.55)	1.875(47.63)	.154(3.91)	2.125(53.98)	2.175 (55.25)	M34 X 1.0-6g-0.100R	2.175(55.25)	2.205 (56.01)	1.875 (47.63)
25	2.430(61.72)	2.000(50.80)	.150(3.81)	2.250(57.15)	2.300 (58.42)	M37 X 1.0-6g-0.100R	2.300(58.42)	2.330 (59.18)	2.000 (50.80)

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ADJUSTMENT RING GEOMETRY AND MATERIAL OPTIONS



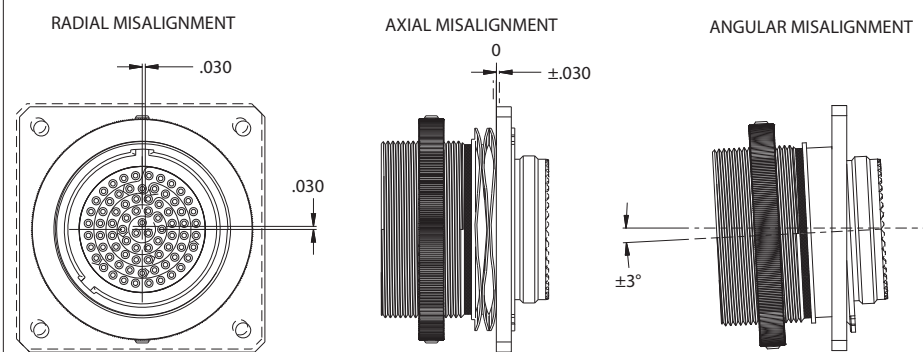
Corrosion Resistant
(With Wrench Flats)

Al Alloy

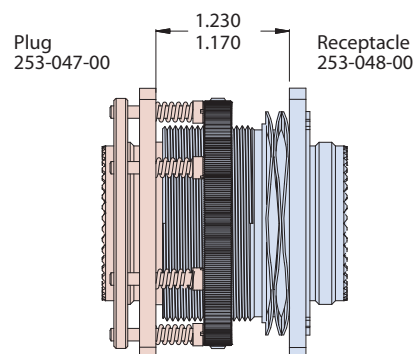
NOTES:

- 253-047 mates with 253-048 fixed series.
- Contact factory for PC tail versions
- Material/finish
 - Shell (016 and 017), ring (017), retainer ring (016): see P/N development, finish
 - Wave spring (017), springs and spring retainer (016): CRES/passivated
 - Insulators: high-grade rigid dielectric/N.A.
 - Seals: fluorosilicone blend/N.A.

253-048 MISALIGNMENT CAPABILITIES



253-047 - 253-048 DISTANCE BETWEEN MATED FLANGES



CONTACT ARRANGEMENTS

Contact Type	Number of Contacts							Shell Size - Ins. Arr.
	#23	#22D	#20	#16	#12	#10	#8	
High-Speed Contact Arrangements							1	9G5
							1	11-1
							2	17-75
							4	19-4
							4	21-75
							5	23-5
							6	23-6
Combo High-Speed Contact Arrangements							8	25-8
	14							13-14
		38		2				17-2
					2		2	17-22
		8						17-60
		10	1	4				19-17
			16				1	19A-17
		14						19-18
		97						25-7
		36						25-17
			10	13	4		3	25-20
			16		5		4	25-26
		22	3	11	2		3	25-41
			40	4			2	25-46