

Selection Guide

SuperNine

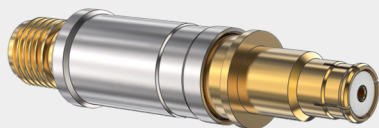
Multi-Port RF Circular Connectors

- Fifteen MIL-STD-1560 layouts for size #8, #12, or #16 RF contacts (sold separately)
- Rugged aluminum or stainless steel shells
- Environmental
- Scoop-proof interface
- EMI spring on plugs
- Snap-in, rear-release contacts

CONSTRUCTION

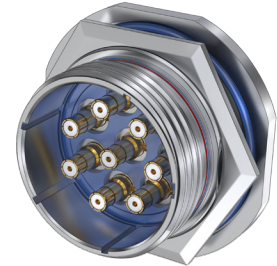
- Shell: aluminum or stainless steel
- Seal/Grommet: fluorosilicone blend
- Ground Spring: copper alloy

G-Link^{RF} Contacts



18 GHz G-Link^{RF} contacts have a BMB-style mating end and a female SMA interface on the back end. Attach a standard SMA plug cable to the G-Link RF contact.

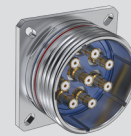
One to 29 contacts, Size 8, 12, or 16. 233-290 connectors have machined aluminum or stainless steel shells and fluorosilicone grommet for environmental protection. Plugs feature a copper alloy ground spring for EMI protection. Fifteen contact layouts available in eight different shell sizes. Supplied without contacts, order #8 BMB, #12 SMPM, or #16 SMPS contacts separately.



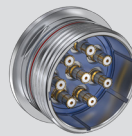
Connector Selection Guide



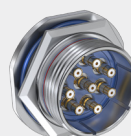
233-290-G6
 Plug, EMI Spring
 (Socket Contacts)
 Page 50



233-290-00
 Wall-Mount Receptacle
 (Pin Contacts)
 Page 50



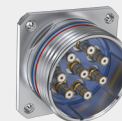
233-290-05
 In-Line Receptacle
 (Pin Contacts)
 Page 51



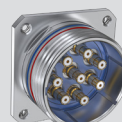
233-290-07
 Jam Nut Receptacle
 (Pin Contacts)
 Page 51



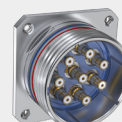
233-290-CS
 Wall Mount Receptacle, Standard
 Clinch Nuts (Pin Contacts)
 Page 52



233-290-CM
 Wall Mount Receptacle, Metric
 Clinch Nuts (Pin Contacts)
 Page 52



233-290-HS
 Wall Mount Receptacle, Standard
 Helicoils (Pin Contacts)
 Page 53



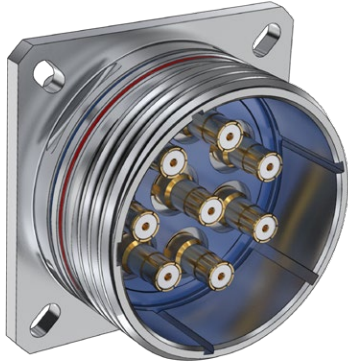
233-290-HM
 Wall Mount Receptacle, Metric
 Helicoils (Pin Contacts)
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SUPERNINE MULTI-PIN RF CONNECTORS

233-290

Plug (Socket Contacts) and Receptacles (Pin Contacts)

SUPERNINE MULTI-PIN RF CONNECTORS



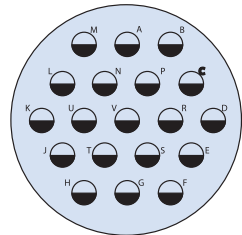
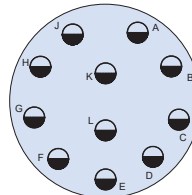
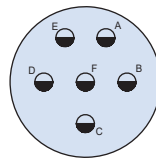
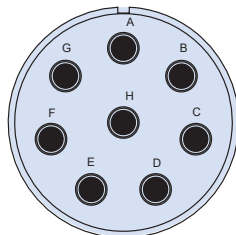
PART NUMBER

	233-290	-00	ME	17RF6	N
Base P/N	233-290 SuperNine RF Connector				
Connector Style	<ul style="list-style-type: none"> G6 Plug 00 Wall-Mount Receptacle, Slotted Holes 05 In-Line Receptacle 07 Jam Nut Receptacle CS Wall Mount Receptacle, Std. Clinch Nuts CM Wall Mount Receptacle, Metric Clinch Nuts HS Wall-Mount Receptacle, Std. Helicoil HM Wall-Mount Receptacle, Metric Helicoil 				
Material/ Finish	<ul style="list-style-type: none"> NF Alum/ Cad/O.D. over Electroless Nickel MT Alum/ Nickel-PTFE ME Alum/ Electroless Nickel ZR Alum/ Black Zinc-Nickel ZL SST/ Nickel Plating 				
Size and Layout	See Table 1				
Polarization	A, B, C, D, N				

SuperNine Size 8 RF Contact Arrangements

SuperNine Size 12 RF Contact Arrangements

Mating face of pin connector. Socket numbering is reversed.



Arrangement No.

11RF1

Shell Sz. 11 • 1 contact

25RF8

Shell Sz. 25 • 8 contacts

17RF6

Shell Sz. 17 • 6 contacts

21RF11

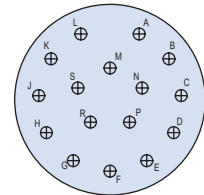
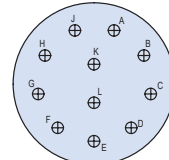
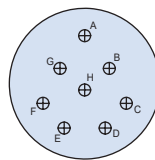
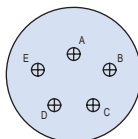
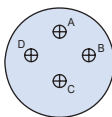
Shell Size 21 • 11 contacts

25RF19

Shell Size 25 • 19 contacts

SuperNine Size 16 RF Contact Arrangements

Mating face of pin connector. Socket numbering is reversed.



Arrangement No.

11RF2

Shell Sz. 11 • 2 contacts

13RF4

Shell Sz. 13 • 4 contacts

15RF5

Shell Sz. 15 • 5 contacts

17RF8

Shell Sz. 17 • 8 contacts

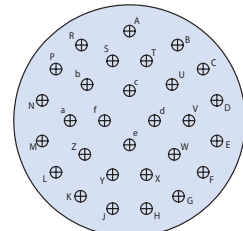
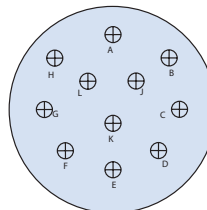
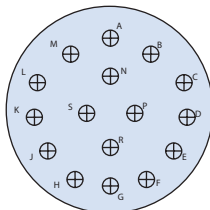
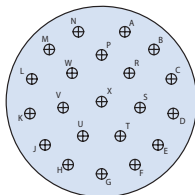
19RF11

Shell Sz. 19 • 11 contacts

21RF16

Shell Size 21 • 16 contacts

Mating face of pin connector. Socket numbering is reversed.



Arrangement No.

23RF21

Shell Size 23 • 21 contacts

23RF97

Shell Size 23 • 16 contacts

23RF99

Shell Size 23 • 11 contacts

25RF29

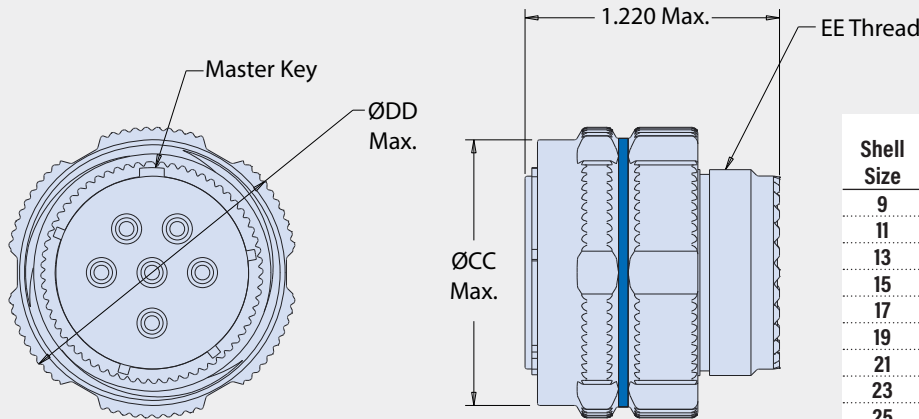
Shell Size 25 • 29 contacts

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Plug (Socket) / Receptacles (Pin)

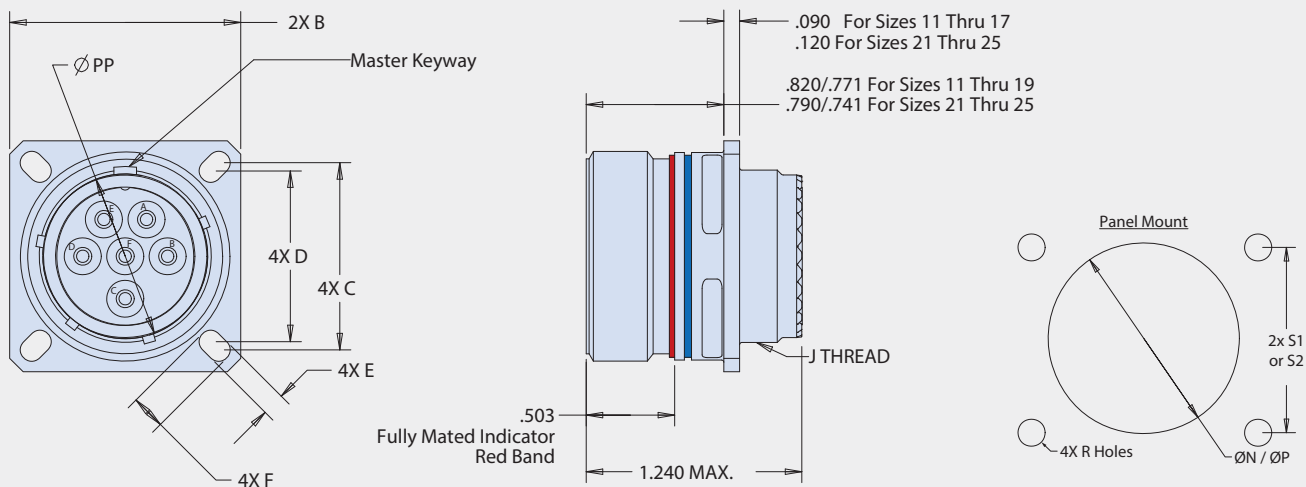
- 233-290-G6 Plug
- 233-290-00 Wall-Mount Receptacle

233-290-G6 PLUG WITH EMI SPRING



Shell Size	ØCC Max		ØDD Max		EE Thread
	in	mm	in	mm	
9	.732	18.59	.858	21.79	M12 X 1.0-6g 0.100R
11	.839	21.31	.984	24.99	M15 X 1.0-6g 0.100R
13	1.008	25.60	1.157	29.39	M18 X 1.0-6g 0.100R
15	1.138	28.91	1.280	32.51	M22 X 1.0-6g 0.100R
17	1.276	32.41	1.406	35.71	M25 X 1.0-6g 0.100R
19	1.382	35.10	1.516	38.51	M28 X 1.0-6g 0.100R
21	1.508	38.30	1.642	41.71	M31 X 1.0-6g 0.100R
23	1.626	41.30	1.768	44.91	M34 X 1.0-6g 0.100R
25	1.752	44.50	1.89	48.01	M37 X 1.0-6g 0.100R

233-290-00 WALL-MOUNT RECEPTACLE WITH SLOTTED HOLES



Shell Size	A Thread -1P-.3L-TS-2A	B Sq	C Bsc	D Bsc	PP	E	F	J Thread X 1.0-6g 0.100R	ØN Min. (back panel mount)	ØP Min. (front panel mount)	S1 Bsc. (back panel mount)	S2 Bsc. (front panel mount)	ØR Holes
9	.6250	.949 (24.10)	.719 (18.26)	.594 (15.09)	.447 (11.35)		.224 (5.69)	M12	.656 (16.66)	.516 (13.12)	.719 (18.26)	.594 (15.09)	
		.925 (23.50)			.441 (11.20)		.208 (5.28)						
11	.7500	1.043 (26.49)	.812 (20.62)	.719 (18.26)	.575 (14.60)		.202 (5.13)	M15	.796 (20.22)	.625 (15.88)	.812 (20.62)	.719 (18.26)	
		1.019 (25.88)			.569 (14.45)		.186 (4.72)						
13	.8750	1.138 (28.91)	.906 (23.01)	.812 (20.62)	.687 (17.45)		.186 (4.72)	M18	.922 (23.42)	.750 (19.05)	.906 (23.01)	.812 (20.62)	
		1.092 (27.74)			.681 (17.30)								
15	1.0000	1.232 (31.29)	.969 (24.61)	.906 (23.01)	.812 (20.62)	.136 (3.45)	.181 (4.60)	M22	1.047 (26.59)	.906 (23.01)	.969 (24.61)	.906 (23.01)	133 (3.38)
		1.208 (30.68)			.804 (20.42)		.165 (4.19)						
17	1.1875	1.323 (33.60)	1.062 (26.97)	.969 (24.61)	.937 (23.80)			M25	1.219 (30.96)	1.016 (25.81)	1.062 (26.97)	.969 (24.61)	123 (3.12)
		1.299 (32.99)			.930 (23.62)								
19	1.2500	1.449 (36.80)	1.156 (29.36)	1.062 (26.97)	1.042 (26.47)		.202 (5.13)	M28	1.297 (32.94)	1.141 (28.98)	1.156 (29.36)	1.062 (26.97)	
		1.425 (36.20)			1.036 (26.31)								
21	1.3750	1.575 (40.00)	1.250 (31.75)	1.156 (29.36)	1.167 (29.64)			M31	1.422 (36.12)	1.266 (32.16)	1.250 (31.75)	1.156 (29.36)	
		1.551 (39.40)			1.161 (29.49)								
23	1.5000	1.701 (43.21)	1.375 (34.92)	1.250 (31.75)	1.292 (32.82)	.162 (4.11)	.250 (6.35)	M34	1.547 (39.29)	1.375 (34.93)	1.375 (34.92)	1.250 (31.75)	159 (4.04)
		1.677 (42.60)			1.286 (32.66)		.234 (5.94)						
25	1.6250	1.823 (46.30)	1.500 (38.10)	1.375 (34.92)	1.417 (35.99)	.146 (3.71)		M37	1.672 (42.47)	1.484 (37.69)	1.500 (38.10)	1.375 (34.92)	149 (3.78)
		1.799 (45.69)			1.411 (35.84)								

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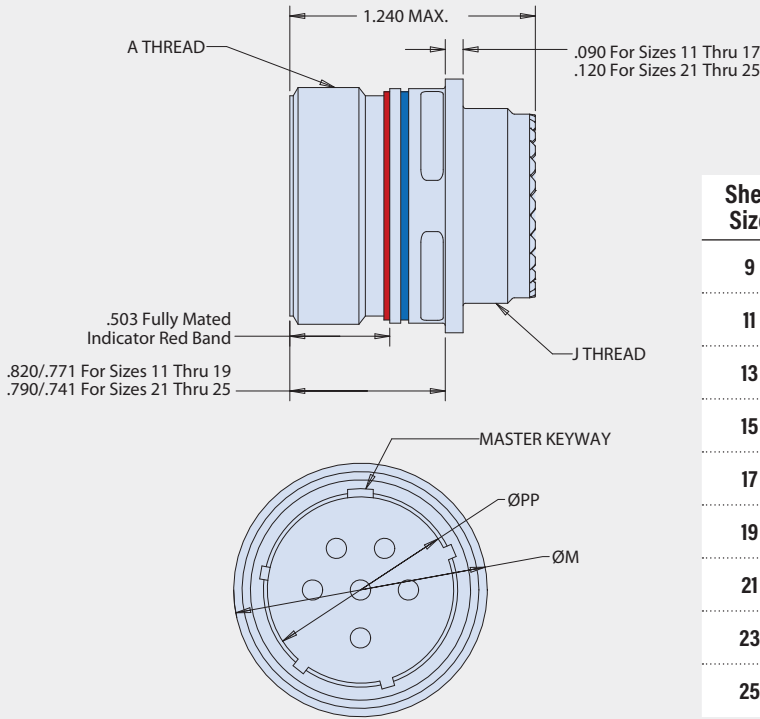
Receptacle Connectors (Pin Contacts)

- 233-290-05 In-Line Receptacle
- 233-290-07 Jam-Nut Receptacle

SUPERNINE MULTI-PIN RF CONNECTORS

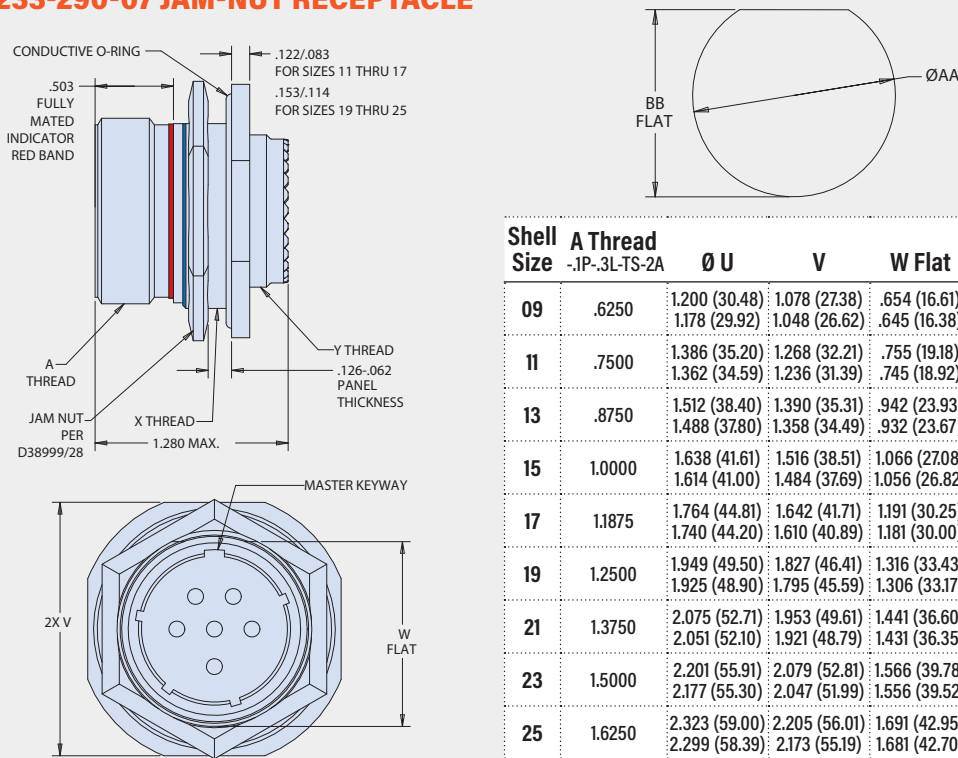
SUPERNINE MULTI-PIN RF CONNECTORS

233-290-05 IN-LINE RECEPTACLE



Shell Size	A Thread -1P-.3L-TS-2A	PP	J Thread X 1.0-6g 0.100R	L Thread	ØM Max
9	.6250	.447 (11.35) .441 (11.20)	M12		.858 (21.79)
11	.7500	.575 (14.60) .569 (14.45)	M15		.984 (24.99)
13	.8750	.687 (17.45) .681 (17.30)	M18		1.157 (29.39)
15	1.0000	.812 (20.62) .804 (20.42)	M22	.112-40 UNC	1.280 (32.51)
17	1.1875	.937 (23.80) .930 (23.62)	M25		1.406 (35.71)
19	1.2500	1.042 (26.47) 1.036 (26.31)	M28		1.516 (38.51)
21	1.3750	1.167 (29.64) 1.161 (29.49)	M31		1.642 (41.71)
23	1.5000	1.292 (32.82) 1.286 (32.66)	M34	.138-32 UNC	1.768 (44.91)
25	1.6250	1.417 (35.99) 1.411 (35.84)	M37		1.890 (48.01)

233-290-07 JAM-NUT RECEPTACLE



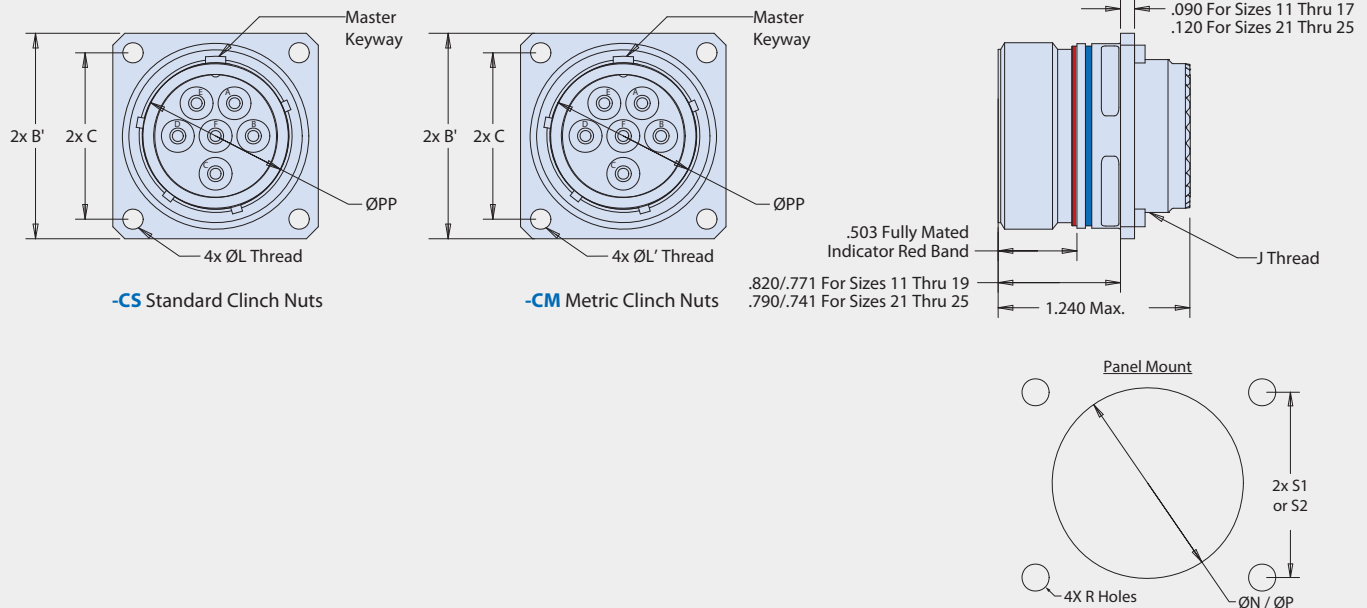
Shell Size	A Thread -1P-.3L-TS-2A	Ø U	V	W Flat	X Thread X 1.0-6g 0.100R	Y Thread X 1.0-6g 0.100R	ØAA	BB Flat
09	.6250	1.200 (30.48)	1.078 (27.38)	.654 (16.61)	M17	M12	.703	.661 (16.79)
		1.178 (29.92)	1.048 (26.62)	.645 (16.38)				.693
11	.7500	1.386 (35.20)	1.268 (32.21)	.755 (19.18)	M20	M15	.835	.771 (19.58)
		1.362 (34.59)	1.236 (31.39)	.745 (18.92)				.825
13	.8750	1.512 (38.40)	1.390 (35.31)	.942 (23.93)	M25	M18	1.020	.955 (24.26)
		1.488 (37.80)	1.358 (34.49)	.932 (23.67)				1.010
15	1.0000	1.638 (41.61)	1.516 (38.51)	1.066 (27.08)	M28	M22	1.145	1.085 (27.56)
		1.614 (41.00)	1.484 (37.69)	1.056 (26.82)				1.135
17	1.1875	1.764 (44.81)	1.642 (41.71)	1.191 (30.25)	M32	M25	1.270	1.210 (30.73)
		1.740 (44.20)	1.610 (40.89)	1.181 (30.00)				1.260
19	1.2500	1.949 (49.50)	1.827 (46.41)	1.316 (33.43)	M35	M28	1.395	1.335 (33.91)
		1.925 (48.90)	1.795 (45.59)	1.306 (33.17)				1.385
21	1.3750	2.075 (52.71)	1.953 (49.61)	1.441 (36.60)	M38	M31	1.520	1.460 (37.08)
		2.051 (52.10)	1.921 (48.79)	1.431 (36.35)				1.510
23	1.5000	2.201 (55.91)	2.079 (52.81)	1.566 (39.78)	M41	M34	1.645	1.585 (40.26)
		2.177 (55.30)	2.047 (51.99)	1.556 (39.52)				1.635
25	1.6250	2.323 (59.00)	2.205 (56.01)	1.691 (42.95)	M44	M37	1.770	1.710 (43.43)
		2.299 (58.39)	2.173 (55.19)	1.681 (42.70)				1.760

233-290

Receptacle Connectors (Pin Contacts)

- 233-290-CS Wall-Mount, Std. Clinch Nuts
- 233-290-CM Wall-Mount, Metric Clinch Nuts

233-290 WALL-MOUNT RECEPTACLE WITH -CS STANDARD OR -CM METRIC CLINCH NUTS



Shell Size	A Thread -1P-.3L- TS-2A	B'	C Bsc	PP	J Thread	L Thread	L' Thread	ØN Min. (back panel mount)	ØP Min. (front panel mount)	S1 Bsc. (back panel mount)	S2 Bsc. (front panel mount)	ØR Holes
9	.6250	1.039 (26.39) .999 (25.37)	.719 (18.26)	.447 (11.35) .441 (11.20)	M12 X 1.0-6g 0.100R	.112-40 UNC	M3X 0.5	.656 (16.66)	.516 (13.12)	.719 (18.26)	.594 (15.09)	.133 (3.38) .123 (3.12)
11	.7500	1.132 (28.75) 1.092 (27.74)	.812 (20.62)	.575 (14.60) .569 (14.45)	M15 X 1.0-6g 0.100R			.796 (20.22)	.625 (15.88)	.812 (20.62)	.719 (18.26)	
13	.8750	1.226 (31.14) 1.186 (30.12)	.906 (23.01)	.687 (17.45) .681 (17.30)	M18 X 1.0-6g 0.100R			.922 (23.42)	.750 (19.05)	.906 (23.01)	.812 (20.62)	
15	1.0000	1.289 (32.74) 1.249 (31.72)	.969 (24.61)	.812 (20.62) .804 (20.42)	M22 X 1.0-6g 0.100R			1.047 (26.59)	.906 (23.01)	.969 (24.61)	.906 (23.01)	
17	1.1875	1.382 (35.10) 1.342 (34.09)	1.062 (26.97)	.937 (23.80) .930 (23.62)	M25 X 1.0-6g 0.100R			1.219 (30.96)	1.016 (25.81)	1.062 (26.97)	.969 (24.61)	
19	1.2500	1.476 (37.49) 1.436 (36.47)	1.156 (29.36)	1.042 (26.47) 1.036 (26.31)	M28 X 1.0-6g 0.100R			1.297 (32.94)	1.141 (28.98)	1.156 (29.36)	1.062 (26.97)	
21	1.3750	1.582 (40.18) 1.542 (39.17)	1.250 (31.75)	1.167 (29.64) 1.161 (29.49)	M31 X 1.0-6g 0.100R			1.422 (36.12)	1.266 (32.16)	1.250 (31.75)	1.156 (29.36)	
23	1.5000	1.739 (44.17) 1.699 (43.15)	1.375 (34.92)	1.292 (32.82) 1.286 (32.66)	M34 X 1.0-6g 0.100R	.138-32 UNC	M4X 0.7	1.547 (39.29)	1.375 (34.93)	1.375 (34.92)	1.250 (31.75)	.159 (4.04) .149 (3.78)
25	1.6250	1.884 (47.85) 1.824 (46.33)	1.500 (38.10)	1.417 (35.99) 1.411 (35.84)	M37 X 1.0-6g 0.100R			1.672 (42.47)	1.484 (37.69)	1.500 (38.10)	1.375 (34.92)	

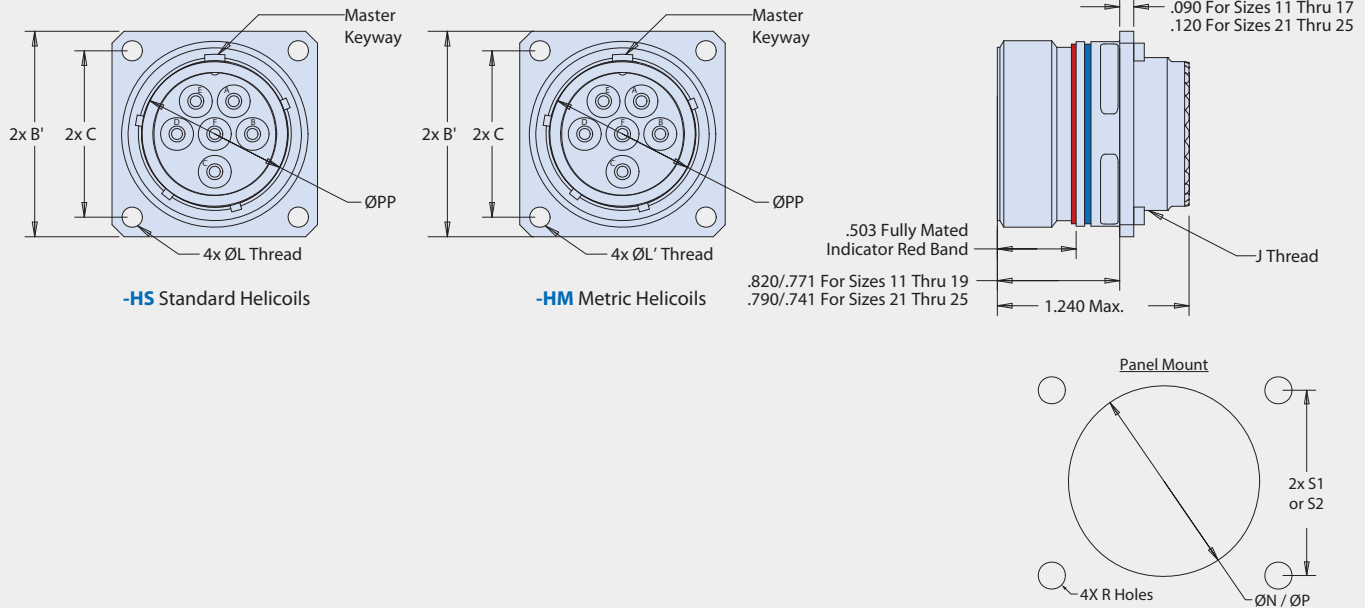
SUPERNINE MULTI-PIN RF CONNECTORS

SUPERNINE MULTI-PIN RF CONNECTORS

233-290
 Receptacle Connectors (Pin Contacts)

- 233-290-HS Wall-Mount, Std. Helicoils
- 233-290-HM Wall-Mount, Metric Helicoils

233-290 WALL-MOUNT RECEPTACLE WITH -HS STANDARD HELICOILS OR -HM METRIC HELICOILS



Shell Size	A Thread -1P-.3L- TS-2A	B'	C Bsc	PP	J Thread	L Thread	L' Thread	ØN Min. (back panel mount)	ØP Min. (front panel mount)	S1 Bsc. (back panel mount)	S2 Bsc. (front panel mount)	ØR Holes
9	.6250	1.039 (26.39) .999 (25.37)	.719 (18.26)	.447 (11.35) .441 (11.20)	M12 X 1.0-6g 0.100R			.656 (16.66)	.516 (13.12)	.719 (18.26)	.594 (15.09)	
11	.7500	1.132 (28.75) 1.092 (27.74)	.812 (20.62)	.575 (14.60) .569 (14.45)	M15 X 1.0-6g 0.100R			.796 (20.22)	.625 (15.88)	.812 (20.62)	.719 (18.26)	
13	.8750	1.226 (31.14) 1.186 (30.12)	.906 (23.01)	.687 (17.45) .681 (17.30)	M18 X 1.0-6g 0.100R			.922 (23.42)	.750 (19.05)	.906 (23.01)	.812 (20.62)	
15	1.0000	1.289 (32.74) 1.249 (31.72)	.969 (24.61)	.812 (20.62) .804 (20.42)	M22 X 1.0-6g 0.100R	.112-40 UNC	M3X 0.5	1.047 (26.59)	.906 (23.01)	.969 (24.61)	.906 (23.01)	.133 (3.38) .123 (3.12)
17	1.1875	1.382 (35.10) 1.342 (34.09)	1.062 (26.97)	.937 (23.80) .930 (23.62)	M25 X 1.0-6g 0.100R			1.219 (30.96)	1.016 (25.81)	1.062 (26.97)	.969 (24.61)	
19	1.2500	1.476 (37.49) 1.436 (36.47)	1.156 (29.36)	1.042 (26.47) 1.036 (26.31)	M28 X 1.0-6g 0.100R			1.297 (32.94)	1.141 (28.98)	1.156 (29.36)	1.062 (26.97)	
21	1.3750	1.582 (40.18) 1.542 (39.17)	1.250 (31.75)	1.167 (29.64) 1.161 (29.49)	M31 X 1.0-6g 0.100R			1.422 (36.12)	1.266 (32.16)	1.250 (31.75)	1.156 (29.36)	
23	1.5000	1.739 (44.17) 1.699 (43.15)	1.375 (34.92)	1.292 (32.82) 1.286 (32.66)	M34 X 1.0-6g 0.100R	.138-32 UNC	M4X 0.7	1.547 (39.29)	1.375 (34.93)	1.375 (34.92)	1.250 (31.75)	.159 (4.04) .149 (3.78)
25	1.6250	1.884 (47.85) 1.824 (46.33)	1.500 (38.10)	1.417 (35.99) 1.411 (35.84)	M37 X 1.0-6g 0.100R			1.672 (42.47)	1.484 (37.69)	1.500 (38.10)	1.375 (34.92)	

SUPERNINE MULTI-PIN RF CONNECTORS