

133-3701-201	3	133-3711-201	4
133-3701-206	3	133-3711-202	4
133-3701-211	3	133-3711-207	4
133-3701-216	3	133-3711-208	4
133-3701-221	3	133-3711-211	4
133-3701-226	3	133-3711-212	4
133-3701-231	4	133-3711-217	4
133-3701-236	4	133-3711-218	4
133-3701-301	5	133-3711-301	5
133-3701-306	5	133-3711-302	5
133-3701-311	5	133-3711-307	5
133-3701-316	5	133-3711-308	5
133-3701-321	5	133-3711-311	6
133-3701-326	5	133-3711-312	6
133-3701-401	7	133-3711-317	6
133-3701-406	7	133-3711-318	6
133-3701-411	7	133-3801-201	3
133-3701-416	7	133-3801-206	3
133-3701-601	7	133-3801-211	3
133-3701-606	7	133-3801-216	3
133-3701-611	7	2-Hole Flange Mount Jack Receptacle - Extended	7
133-3701-616	7	2-Hole Flange Mount Jack Receptacle - Flush	7
133-3701-621	7	End Launch Jack Receptacle - Round Contact	6
133-3701-626	7	Front Mount Bulkhead Jack Receptacle	7
133-3701-801	6	Right Angle Jack Receptacle	5
133-3701-806	6	Right Angle Jack Receptacle - Surface Mount	5, 6
133-3701-811	6	Specifications	2
133-3701-816	6	Straight Jack Receptacle	3
		Straight Jack Receptacle - .100" Layout	4
		Straight Jack Receptacle - Surface Mount	4
		Straight Plug Receptacle	3
		Straight Plug Receptacle - Low Profile	3

MCX - 50 Ohm Connectors

Specifications

ELECTRICAL RATINGS

Impedance: 50 Ohms

Frequency Range: Connectors 0-6 GHz
Dummy loads 0-1 GHz

VSWR: (f = GHz) Straight Cabled Right Angle
 Connectors Cabled Connectors

RG-178 cable 1.17 + .04f 1.07 + .06f

RG-316 and .086 semi-rigid cable ... 1.13 + .04f 1.07 + .04f

Adapters 1.13 + .04f

Uncabled receptacles, Dummy loads N/A

Working Voltage: (Vrms maximum)†

Connectors for Cable Type Sea Level 70K Feet

RG-178 250 65

RG-316, .086 semi-rigid uncabled

uncabled receptacles, adapters 335 85

Dummy loads N/A

Dielectric Withstanding Voltage: (VRMS minimum at sea level)†

Connectors for RG-178 750

Connectors for RG-316, .086 semi-rigid,

uncabled receptacles, adapters 1000

Dummy loads N/A

Corona Level: (Volts minimum at 70,000 feet)†

Connectors for RG-178 190

Connectors for RG-316, .086 semi-rigid

uncabled receptacles, adapters 250

Dummy loads N/A

Insertion Loss: (dB maximum, tested at 1 GHz)

Straight cable connectors and adapters 0.1 dB

Right angle cable connectors 0.2 dB

Uncabled receptacles, dummy loads N/A

Insulation Resistance: 1000 megohms minimum

Contact Resistance: (milliohms maximum)

	Initial	After
--	---------	-------

Center contact (straight cabled connectors, uncabled receptacles and adapters)	5.0	8.0
--	-----	-----

Center contact (right angle cabled connectors)	5.0	15.0
---	-----	------

Outer contact	1.0	1.5
---------------------	-----	-----

Braid to body (gold plated connectors)	1.0	N/A
--	-----	-----

Braid to body (nickel plated connectors)	2.5	N/A
--	-----	-----

RF Leakage: (dB typical tested at 2.5 GHz)

Cable connectors -60 dB typical

Uncabled receptacles and adapters, dummy loads N/A

RF High Potential Withstanding Voltage: (Vrms minimum, tested at 4 and 7 MHz)†

Connectors for RG-178 500

Connectors for RG-316 and adapters 700

.086 semi-rigid 670

Uncabled receptacles 600

Dummy loads N/A

Power Rating (Dummy Load): 0.5 watt @ +25°C, derated to 0.25 watt @ +125°C

MECHANICAL RATINGS

Engagement Design: Compatible with CECC 22220, Series MCX

Engagement Force: 5.6 pounds maximum axial force

Disengagement Force: 3 pounds typical axial force, 1 pound min.

Contact Retention: 2.3 pounds min. axial force (captivated contacts)

1 inch-ounce min. torque (uncabled receptacles)

Cable Retention:	Axial Force* (pounds)	Torque (in-oz)
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Connectors for RG-178	10	N/A
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Connectors for RG-316	20	N/A
-----------------------------	----	-----

Connectors for RG-316DS	25	N/A
-------------------------------	----	-----

Connectors for .086 semi-rigid	30	16
--------------------------------------	----	----

* or cable breaking strength whichever is less.

ENVIRONMENTAL RATINGS (Meets or exceed the applicable

paragraph of MIL-C-39012)Durability: 500 cycles minimum

Temperature Range: Connectors - 65°C to + 165°C

Dummy loads - 65°C to + 125°C

Thermal Shock: MIL-STD-202, Method 107, Condition F (N/A dummy loads)

Corrosion: MIL-STD-202, Method 101, Condition B (N/A dummy loads)

Shock: MIL-STD-202, Method 213, Condition B (N/A dummy loads)

Vibration: MIL-STD-202, Method 204, Condition B (N/A dummy loads)

Moisture Resistance: MIL-STD-202, Method 106 (N/A dummy loads)

MATERIAL SPECIFICATIONS

Bodies: Brass per QQ-B-626 or zinc per ASTM B86-71, gold plated** per MIL-G-45204 .00001" min or nickel plated per QQ-N-290 or bright tin plated

Contacts: Male - brass per QQ-B-626, gold plated per MIL-G-45204 .00003" min.

Female - beryllium copper per QQ-C-530, gold plated per MIL-G-45204 .00003" min.

Insulators: PTFE fluorocarbon per ASTM D 1710 and ASTM D 1457

Expansion Caps: Brass per QQ-B-613, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290

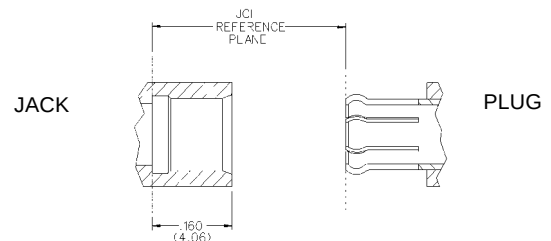
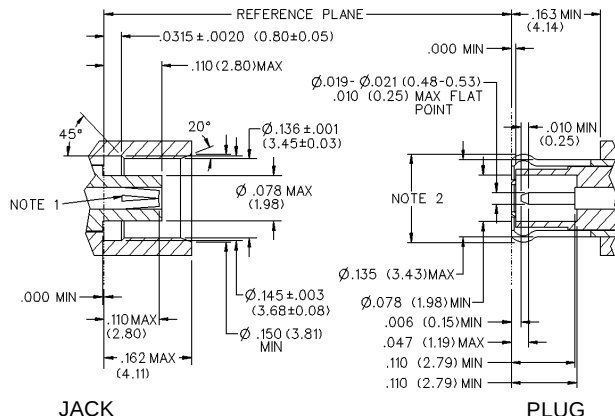
Crimp Sleeves: Copper per WW-T-799, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290

Mounting Hardware: Brass (nuts) per QQ-B-626 or phosphor bronze (lockwashers) QQ-B-750, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290

†Avoid user injury due to misapplication. See safety advisory definitions on page 2.

** All gold plated parts include a .00005" min. nickel underplate barrier layer.

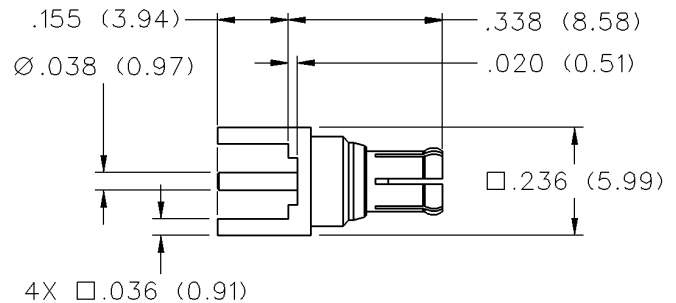
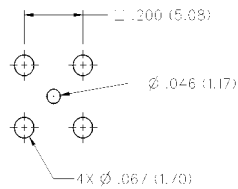
MATING ENGAGEMENT FOR MCX SERIES COMPATIBLE WITH CECC 22220



NOTES

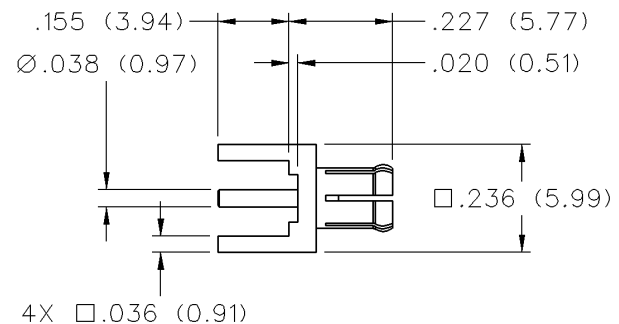
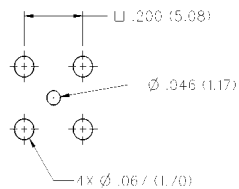
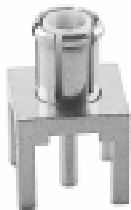
1. ID of contact to meet VSWR mating characteristics and connector durability when mated with a dia. .019-.021 (0.48-0.53) male contact.
2. Must meet the force to engage and disengage when mated with mating part.

Straight Plug Receptacle



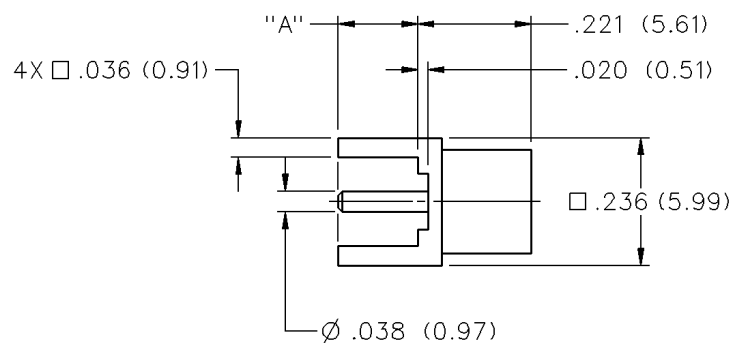
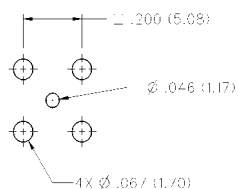
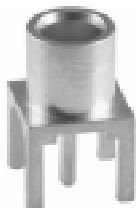
GOLD PLATED	NICKEL PLATED
133-3801-201	133-3801-206

Straight Plug Receptacle - Low Profile



GOLD PLATED	NICKEL PLATED
133-3801-211	133-3801-216

Straight Jack Receptacle



DIMENSION "A"	GOLD PLATED	NICKEL PLATED
.155 (3.94)	133-3701-201	133-3701-206
.110 (2.79)	133-3701-211	133-3701-216
.068 (1.73)	133-3701-221	133-3701-226

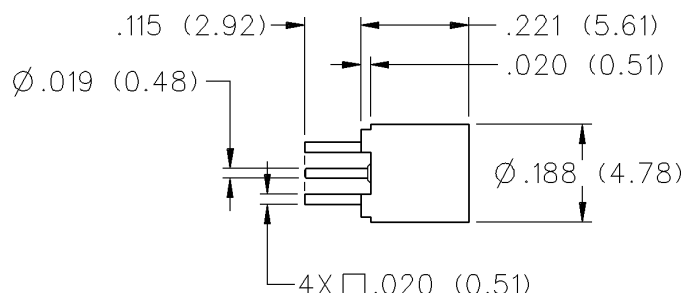
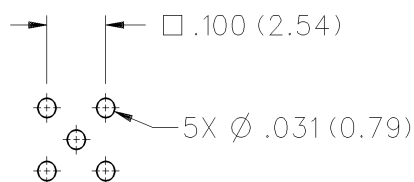
MCX - 50 Ohm Connectors

PC Mount

JOHNSON
Components®

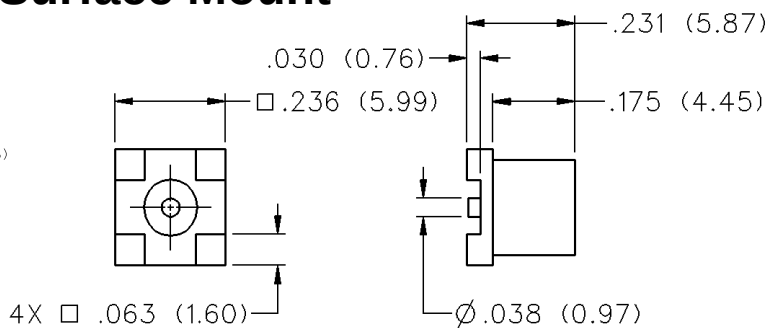
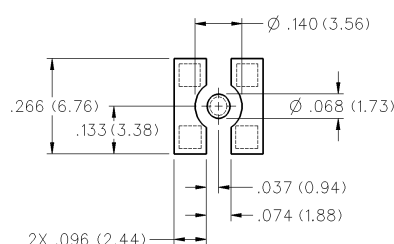
INCHES (MILLIMETERS)
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST

Straight Jack Receptacle - .100" Layout



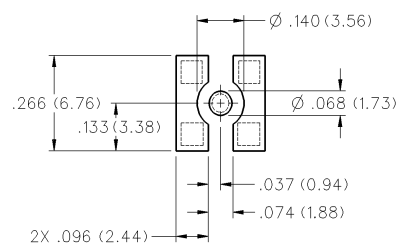
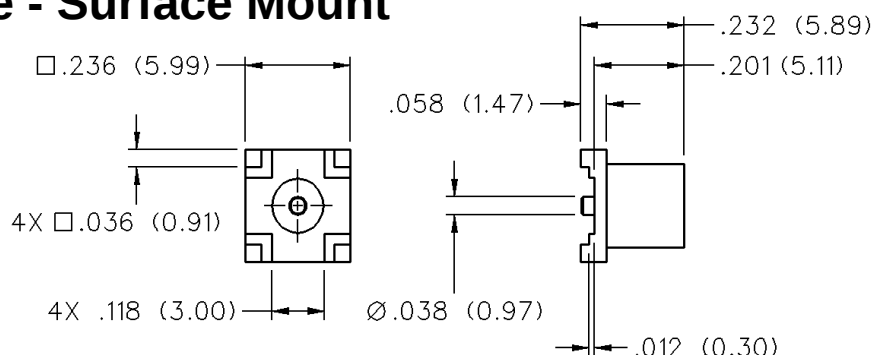
GOLD PLATED	NICKEL PLATED
133-3701-231	133-3701-236

Straight Jack Receptacle - Surface Mount



GOLD PLATED	TIN PLATED	PACKAGING
133-3711-201	133-3711-207	STOCK
133-3711-202	133-3711-208	TAPE AND REEL 750 pcs/reel

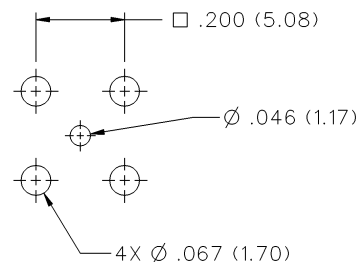
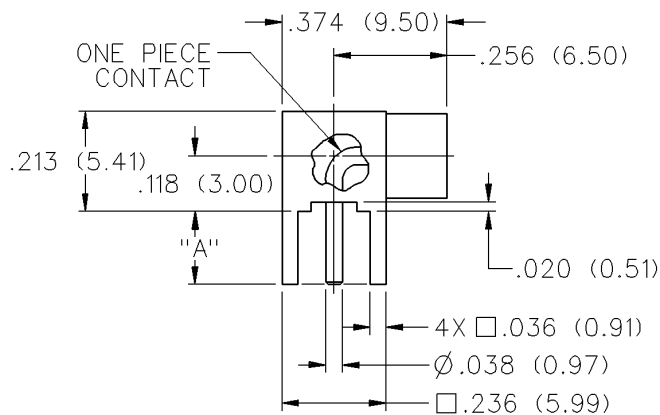
Straight Jack Receptacle - Surface Mount



GOLD PLATED	TIN PLATED	PACKAGING
133-3711-211	133-3711-217	STOCK
133-3711-212	133-3711-218	TAPE AND REEL 750 pcs/reel

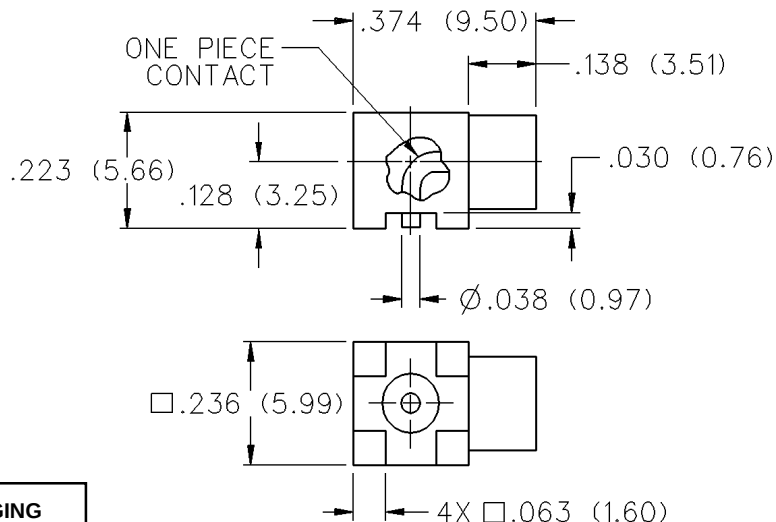
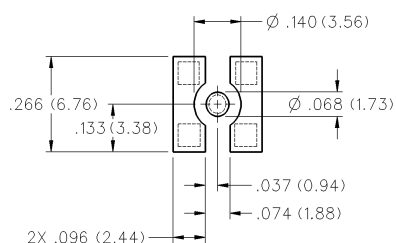
Tape and Reel .472 (12.0) component pitch X .630 (16.0) wide.

Right Angle Jack Receptacle



"A"	GOLD PLATED	NICKEL PLATED
.155 (3.94)	133-3701-301	133-3701-306
.110 (2.79)	133-3701-311	133-3701-316
.068 (1.73)	133-3701-321	133-3701-326

Right Angle Jack Receptacle - Surface Mount



GOLD PLATED	TIN PLATED	PACKAGING
133-3711-301	133-3711-307	STOCK
133-3711-302	133-3711-308	TAPE AND REEL 750 pcs/reel

Tape and Reel .472 (12.0) component pitch X .945 (24.0) wide.

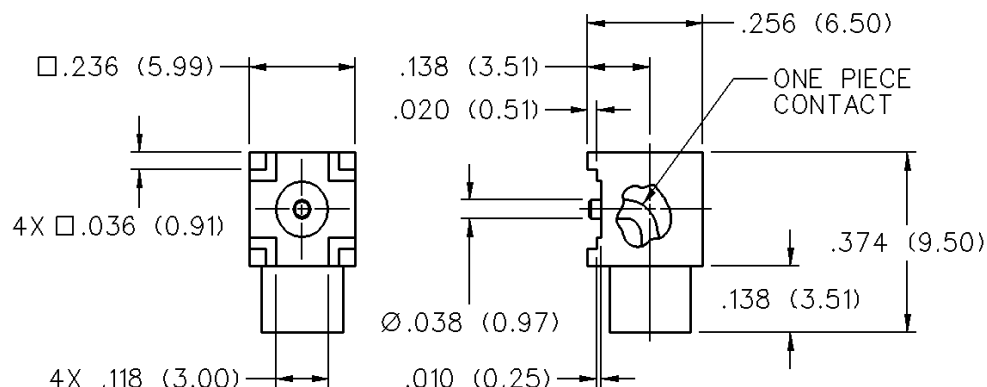
MCX - 50 Ohm Connectors

PC Mount

JOHNSON
Components®

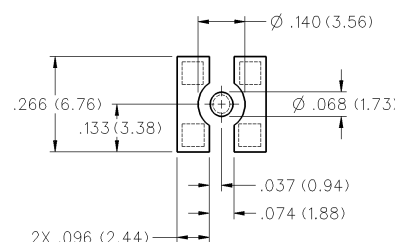
INCHES (MILLIMETERS)
CUSTOMER DRAWINGS AVAILABLE UPON REQUEST

Right Angle Jack Receptacle - Surface Mount

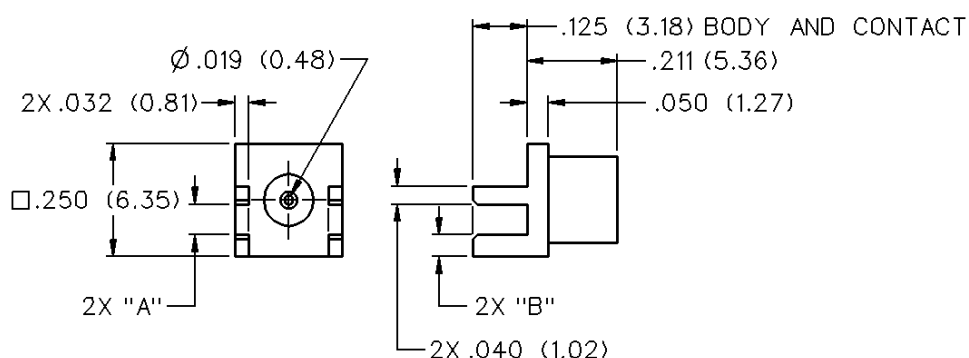
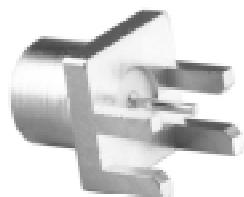


GOLD PLATED	TIN PLATED	PACKAGING
133-3711-311	133-3711-317	STOCK
133-3711-312	133-3711-318	TAPE AND REEL 750 pcs/reel

Tape and Reel .472 (12.0) component pitch X .945 (24.0) wide.



End Launch Jack Receptacle - Round Contact



BOARD THICKNESS	GOLD PLATED	NICKEL PLATED	"A"	"B"
.062 (1.57)	133-3701-801	133-3701-806	.068 (1.73)	.048 (1.22)
.042 (1.07)	133-3701-811	133-3701-816	.048 (1.22)	.068 (1.73)

Front Mount Bulkhead Jack Receptacle

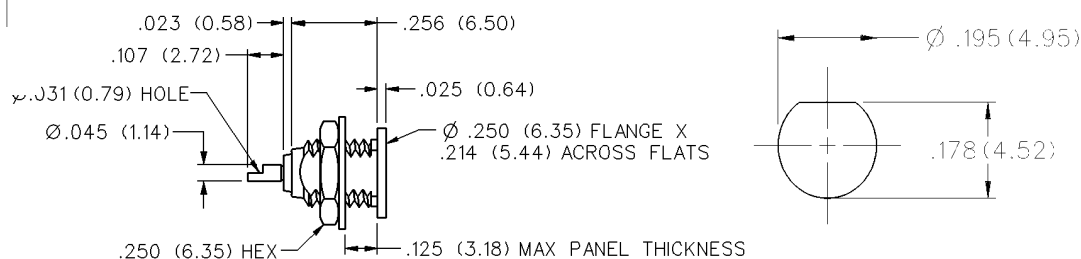


Figure 1



GOLD PLATED	NICKEL PLATED	MOUNTING STYLE	FIG.
133-3701-401	133-3701-406	D Flat Threaded	1
133-3701-411	133-3701-416	Press Fit Knurl	2

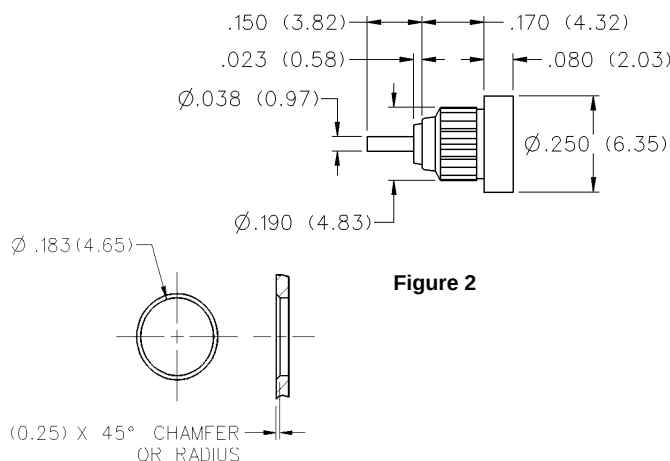
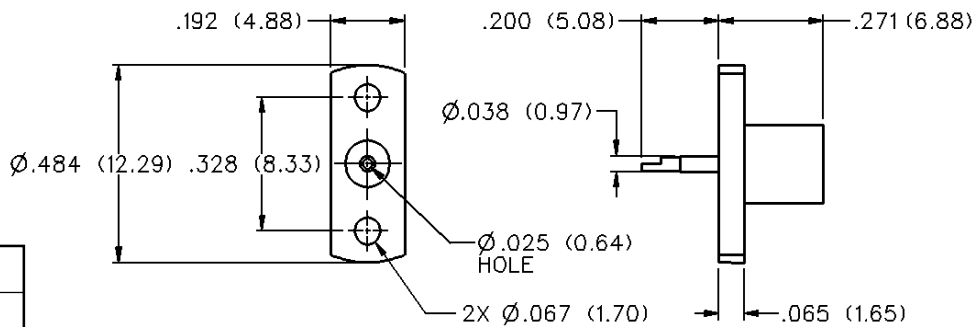


Figure 2

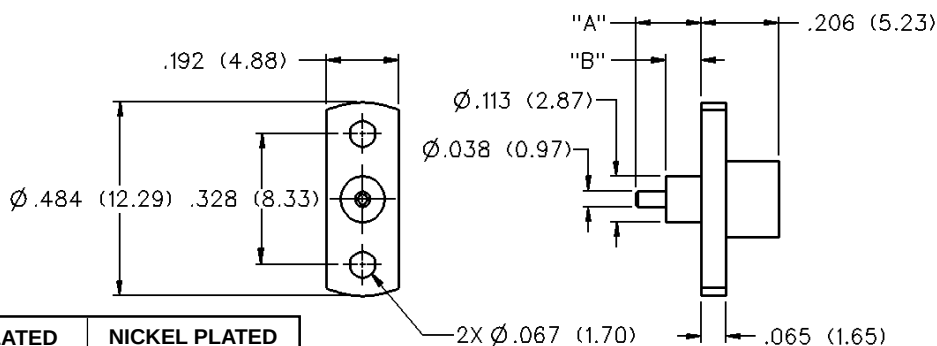
2-Hole Flange Mount Jack Receptacle - Flush Dielectric



GOLD PLATED	NICKEL PLATED
133-3701-601	133-3701-606



2-Hole Flange Mount Jack Receptacle - Extended Dielectric



"A"	"B"	GOLD PLATED	NICKEL PLATED
.170 (4.32)	.092 (2.34)	133-3701-611	133-3701-616
.300 (7.62)	.200 (5.08)	133-3701-621	133-3701-626