

INTERFACE DESIGN STANDARD		<i>The PHOENIX Company of Chicago, Inc.</i> 22 GREAT HILL RD., NAUGATUCK, CT 06770 WWW.PHOENIXOFCHICAGO.COM PHONE: (800) 323-9562	REV.	DESCRIPTION	DATE	APPR.
IDS-22J			B	PER ECN 12817	03/28/18	JEM
SHEET 1 OF 2	DATE: 11/14/07		C	PER ECN 13001	06/21/18	JEM
DRAWN: EK	APPROVED: JEM		D	PER ECN 13033	07/23/18	JEM

WARNING - THIS DOCUMENT CONTAINS TECHNICAL DATA WHOSE EXPORT IS RESTRICTED BY THE ARMS EXPORT CONTROL ACT (TITLE 22, U.S.C., SEC 2751, ET. SEQ.) OR THE EXPORT ADMINISTRATION ACT OF 1979, AS AMENDED, TITLE 50, U.S.C., APP 2401 ET SEQ. VIOLATIONS OF THESE EXPORT LAWS ARE SUBJECT TO SEVERE CRIMINAL PENALTIES. DISSEMINATE IN ACCORDANCE WITH PROVISIONS OF DOD DIRECTIVE 5230.25.

22J Series, SMA (Brass), Non-Magnetic Straight Connector

MATERIALS

BODIES

Plug: Non-Magnetic Brass

Receptacle: Non-Magnetic Brass

CONTACTS

Male Contact: Beryllium Copper Per ASTM-B-196

Female Contacts: Beryllium Copper Per ASTM-B-196

INSULATORS

Residual Magnetism < 1.0000mu

PLATING

Gold Per MIL-DTL-45204

Copper Per MIL-C-14550

FINISH (Add Letter To End Of Part Number)

MATING CHARACTERISTICS

OPTIONS

Contacts - .000050 Min. Gold Over Copper

Bodies: .000020 Min. Gold Over Copper

Other Metal Parts: Gold Plated To Meet The Environmental Requirements.

Center Contact Pin And Socket Per MIL-C-39012

Engagement / Disengagement Force: 32 in.-oz. (2 in.-lbs.)
Max. Torque.

Coupling Nut Retention - 960 oz. (60 lbs.)
Min.

ELECTRICAL

Frequency Range: DC To 18 GHz

Voltage Rating Straight: N/A

Voltage Rating Angled: N/A

Insulation Resistance: 5000 Megohms

Insertion Loss: $.03 \times \sqrt{f(\text{GHz})}$

Current Rating: N/A

Impedance: 50 Ohms

Contact Resistance: 2.0 Milliohms Max. Outer Contact To
Cable: 0.5 Milliohms Max.

VSWR: DC - 18.0 GHz: $1.05 + .005 * f(\text{GHz})$

Corona Level @70,000 ft. - 375 Volts Min.

DWV: RG 402 1,500 Volts RMS.

RF Leakage: -90 dB Min.

ENVIRONMENTAL

Operating Temperature: -65°C TO +165°C

Insulation Resistance: N/A

Vibration: MIL-STD-202, Method 204, Test
Condition D

Shock: MIL-STD-202, Method 213, Test
Condition I

Thermal Shock: MIL-STD-202, Method 107, Test
Condition B

Durability: 100 Cycles Per MIL-PRF-39012

Moisture Resistance: MIL-STD-202, Method 106, Omit Step 7B

Corrosion: MIL-STD-202, Method 101, Test
Condition B, 5% Salt Solution

Temperature Cycling: N/A

High Temperature Test: N/A

Salt Spray: N/A

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IDS-22J			B	PER ECN 12817	03/28/18	JEM
SHEET 2 OF 2	DATE: 11/14/07		C	PER ECN 13001	06/21/18	JEM
DRAWN: EK	APPROVED: JEM		D	PER ECN 13033	07/23/18	JEM

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22J Series, SMA (Brass), Non-Magnetic Right Angle Connector

MATERIALS

BODIES

Plug: Non-Magnetic Brass
 Receptacle: Non-Magnetic Brass

CONTACTS

Male Contact: Beryllium Copper Per ASTM-B-196
 Female Contacts: Beryllium Copper Per ASTM-B-196

INSULATORS

Residual Magnetism < 1.0000mu

PLATING

Gold Per MIL-DTL-45204
 Copper Per MIL-C-14550

FINISH (Add Letter To End Of Part Number)

MATING CHARACTERISTICS

OPTIONS

Contacts - .000050 Min. Gold Over Copper

 Bodies: .000020 Min. Gold Over Copper

Center Contact Pin And Socket Per MIL-C-39012

 Engagement / Disengagement Force: 32 in.-oz. (2 in.-lbs.)
 Max. Torque.

 Coupling Nut Retention - 960 oz. (60 lbs.)
 Min.

Other Metal Parts: Gold Plated To Meet The Environmental Requirements.

ELECTRICAL

Frequency Range:	DC To 18 GHz	Contact Resistance:	2.0 Milliohms Max. Outer Contact To Cable: 0.5 Milliohms Max.
Voltage Rating Straight:	N/A	VSWR:	DC - 18.0 GHz: 1.05 + .005*f(GHz)
Voltage Rating Angled:	N/A	Corona Level	@70,000 ft. - 335 Volts Min.
Insulation Resistance:	5000 Megohms	DWV:	RG 405 1,000 Volts RMS.
Insertion Loss:	.03 x $\sqrt{f(\text{GHz})}$	RF Leakage:	-90 dB Min.
Current Rating:	N/A		
Impedance:	50 Ohms		

ENVIRONMENTAL

Operating Temperature:	-65°C TO +165°C	Durability:	100 Cycles Per MIL-PRF-39012
Insulation Resistance:	N/A	Moisture Resistance:	MIL-STD-202, Method 106, Omit Step 7B
Vibration:	MIL-STD-202, Method 204, Test Condition D	Corrosion:	MIL-STD-202, Method 101, Test Condition B, 5% Salt Solution
Shock:	MIL-STD-202, Method 213, Test Condition I	Temperature Cycling:	N/A
Thermal Shock:	MIL-STD-202, Method 107, Test Condition B	High Temperature Test:	N/A
		Salt Spray:	N/A