INTERFACE DESIGN STANDARD	
IDS-10J-STRAIGHT	
SHEET 1 OF 1	DATE: 8/24/06
DRAWN: EK	APPROVED: JEM

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REV.	DESCRIPTION	DATE	APPR.
C	PER ECN 12823	04/02/18	JEM
D	PER ECN 13001	6/21/18	JEM
E	PER ECN 13033	7/23/18	JEM
F	PER ECN 14215	11/26/24	DW

Description: 10J Series, SMC, Non-Magnetic Straight Connector

MATERIALS

BODIES

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

CONTACTS

Male Contact: Non-Magnetic Brass Or Beryllium Copper Per ASTM B196
Female Contact: Beryllium Copper Per ASTM B196

Residual Magnetism < 1.0000 mu

INSULATORS

Virgin Teflon (PTFE) Per ASTM D1710

PLATING

Gold Per MIL-DTL-45204 (Electro Deposited)
Copper Per SAE AMS 2418 (Electro Deposited)

FINISH (Ending Letter of Part Number)

Bodies:	.000020" Min. Gold Over Copper
Contacts:	.000030" Min. Gold Over Copper
Other Metal Parts:	Gold Plated To Meet The Environmental Requirements

MATING CHARACTERISTICS

Center Contacts:	40 oz. (2.5 lbs.) Max. Insertion 1 oz. (0.063 lbs.) Min. Withdrawal Per MIL-C-39012
Engagement/ Disengagement Force:	16 in.-oz. (1 lbs.) Max. Torque
Mating Torque:	35-50 in.-oz. (2.188-3.125 in.-lbs.) Coupling Nut Proof Torque: 100 in.-oz. (6.25 in.-lbs.) 560 oz. Coupling Nut Retention Force: 560 oz. (35 lbs.) Min.

ELECTRICAL

Frequency Range:	DC To 10 GHz
Voltage Rating Straight:	335 VRMS
Insulation Resistance:	1000 Megohms Min.
Insertion Loss:	0.3dB Max. 1.5 (GHz)
Impedance:	50 Ohms
Contact Resistance:	6.0 Milliohms

VSWR:	RG-178 Or Equivalent 1.30 + .04*f (GHz) RG-316 Or Equivalent 1.25 + .04*f (GHz)
DWV:	RG-178 Or Equivalent 500 VRMS RG-316 Or Equivalent 700 VRMS
Corona Level:	70,000 ft.- 185 Volts (RG-178), 250 Volts (RG-316)
RF Leakage:	-55 dB Min. @ 2-3 GHz
RF High Potential:	Solder Pot 600 VRMS RG-178 Or Equivalent 500 VRMS RG-316 Or Equivalent 700 VRMS

ENVIRONMENTAL

Operating Temperature:	-65°C To +165°C
Vibration:	MIL-STD-202, Method 204, Test Condition D
Shock:	MIL-STD-202, Method 213, Test Condition A
Thermal Shock:	MIL-STD-202, Method 107, Test Condition C
Durability:	500 Cycles
Corrosion:	MIL-STD-202, Method 101, Test Condition B
Moisture Resistance:	MIL-STD-202, Method 106

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