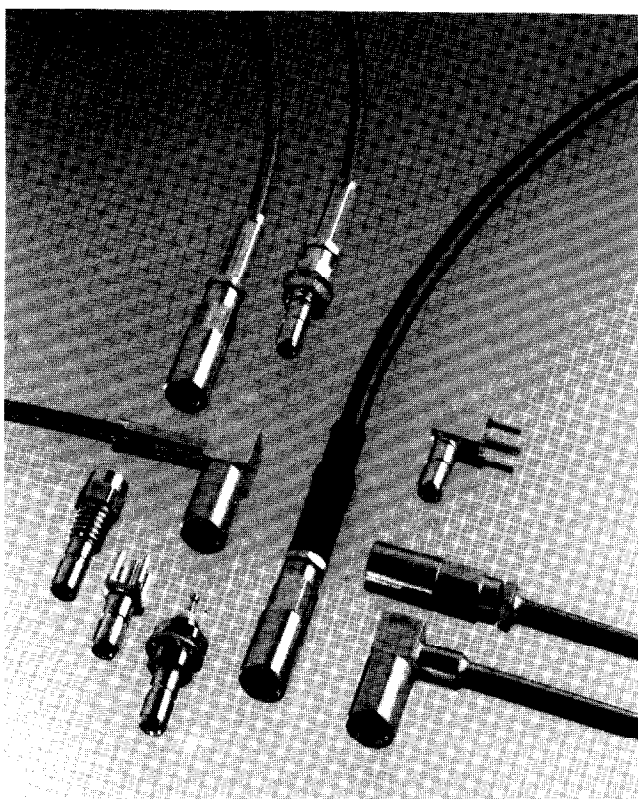


	PAGE
General	5
Characteristics	6
Part numbers index	7
Interface	8
Technical data	9–17



GENERAL

- DC – 4 GHz
- Impedance 50 Ω
- Snap-on coupling
- Microminiature connectors
- Very low weight and volume

APPLICABLE STANDARDS

- MIL STD 348A
- IEC 169-19
- CECC 22170

APPLICATIONS

- Civil and military telecommunications
- Mobile communication systems
- Video equipment

* *In these series :*
plugs have female contacts and
jacks have male contacts.

Please contact us for other models or function that do not appear in this catalog.

SSMB

CHARACTERISTICS

VALUES / REMARKS

GENERAL

- Impedance	50 Ω
- Frequency range	DC - 4 GHz
- Temperature range	- 65 °C to + 165 °C

ELECTRICAL

- Insertion loss in dB	$0.3\sqrt{F(\text{GHz})}$
- RF leakage	- 40 dB mini at 1 GHz
- V.S.W.R. max up to 4 GHz	$1,25 + 0.02 F(\text{GHz})$
- Contact resistance <i>Inner Contact</i>	Initial test $\leq 5 \text{ m}\Omega$ After environment test $\leq 15 \text{ m}\Omega$
- Insulation resistance	1 000 M Ω
- Dielectric withstanding voltage <i>at sea level</i> <i>at 70000 ft</i>	500 Vrms 100 Vrms
- Voltage rating <i>at sea level</i> <i>at 70000 ft</i>	250 Vrms 60 Vrms

MECHANICAL

- Cable retention force : Dia .102 (2.6mm)	Single braid : 50 N - Double braid : 100 N
- Mating endurance	500 mating
- Contact captivation	$\geq 8 \text{ N}$
- Force to engage - Force to disengage	$\leq 27 \text{ N}$ $\geq 8 \text{ N}$

ENVIRONMENTAL

- Vibration	CECC 22170 / 4-6-3 CEI 169-19 / 68-2-6 (10g-10 to 500 Hz)
- Shock	75g - 6ms 1/2 sinus
- Corrosion (salt mist)	MIL STD 202, method 101, condition B (48h)
- High temperature test	CECC 22170 / 4-7-2 CEI 169-19 / 18 (+ 165 °C)
- Low pressure immersion	CECC 22170 / 4-6-9 CEI 169-19 / 16-5-2
- Resistance to contaminating fluids	Tests C15, EN2591 AECMA

MATERIALS

- Body - Inner contacts - Insulator	Brass Beryllium copper PTFE
---	-----------------------------------

FINISH

- Body - Inner contacts	Gold or nickel Gold
----------------------------	------------------------

Items in this catalogue are covered by french and foreign patents and/or patents pending.

SSMB

PART NUMBERS INDEX

Part Number	Description	Pages
CONNECTORS FOR CABLE TYPE DIA. 2mm/50Ω		
R 203 073	Straight plug (<i>female c.c.</i>)	9-10
R 203 073 070	Straight plug, short ferrule version (<i>female c.c.</i>) (<i>gold finish only</i>)	★
R 203 173	Right angle plug (<i>female c.c.</i>)	11-12
R 203 173 070	Right angle plug, short ferrule version (<i>female c.c.</i>) (<i>gold finish only</i>)	★
R 203 313	Straight bulkhead jack (<i>male c.c.</i>)	13-14
CONNECTORS FOR CABLE TYPE DIA. 2.6mm/50Ω Single braid		
R 203 075	Straight plug (<i>female c.c.</i>)	★
R 203 175	Right angle plug (<i>male c.c.</i>)	★
R 203 315	Straight bulkhead jack (<i>male c.c.</i>)	★
RECEPTACLES		
R 203 426	PCB straight receptacle (<i>male c.c.</i>)	15
R 203 553	Straight bulkhead receptacle (<i>male c.c.</i>)	16
R 203 665	PCB right angle receptacle (<i>male c.c.</i>)	17
BETWEEN SERIES ADAPTERS		
R 191 374	SSMB Plug/SMA male (<i>gold finish only</i>)	★
R 191 376	SSMB Jack/SMA male (<i>gold finish only</i>)	★

Standard versions (R + 6 numbers) have gold plated finish, for nickel plated finish, add 020.

Ex : R 203 073 : gold finish

R 203 073 020 : nickel plated finish

Other versions are existing, please contact us for additional information.

★ Not shown in this catalogue.

CABLE-CONNECTOR SELECTION GUIDE

DIMENSION TABLE FOR APPLICABLE COAXIAL CABLES

The following table gives an indication of coaxial cable dimensions. For further details, refer to standards or cable manufacturer specifications. All dimensions are nominal or specified values

PART NUMBER	IMP Ω	DIAMETER in inchs (mm)				CABLE GROUP	
		CORE		DIELECTRIC	MAX SCREEN		JACKET
		Composition	Nom. Dia.				

MIL - C - 17 - F CABLES

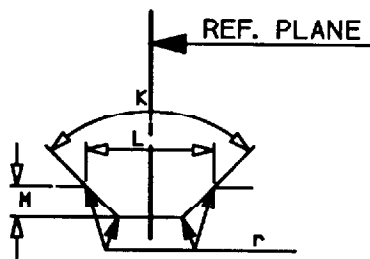
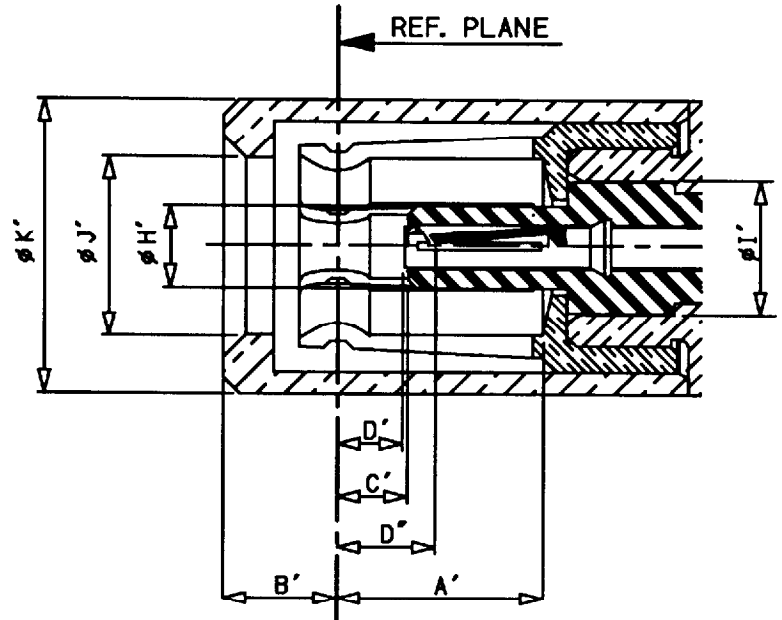
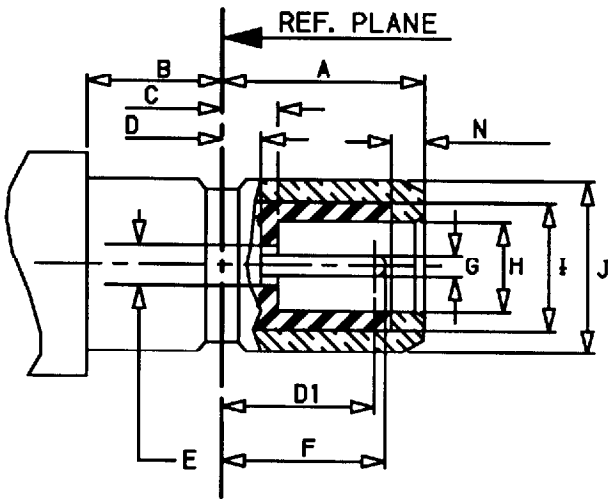
RG 174A/U	50	7 X .006 (0.16)	.019 (0.48)	.060 (1.52)	.088 (2.24) s.B.	.110 (2.79)	.102 (2.6)/50
RG 178B/U	50	7 X .004 (0.10)	.012 (0.30)	.033 (0.84)	.054 (1.37) s.B.	.071 (1.80)	.079 (2)/50
RG 188A/U	50	7 X .007 (0.17)	.020 (0.51)	.060 (1.52)	.081 (2.06) s.B.	.110 (2.79)	.102 (2.6)/50
RG 196A/U	50	7 X .004 (0.10)	.012 (0.30)	.033 (0.84)	.054 (1.37) s.B.	.080 (2.03)	.079 (2)/50

NF-C 93550 FLEXIBLE CABLES

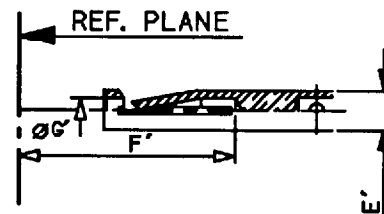
KX 3B	50	7 x .006 (0.16)	.019 (0.48)	.059 (1.50)	.088 (2.23) s.B.	.100 (2.54)	.102 (2.6)/50
KX 21A	50	7 X .004 (0.10)	.012 (0.30)	.034 (0.87)	.054 (1.37) s.B.	.071 (1.80)	.079 (2)/50
KX 22A	50	7 x .007 (0.17)	.020 (0.51)	.059 (1.50)	.081 (2.06) s.B.	.098 (2.50)	.102 (2.6)/50

S.B. : Single Braid

PLUG-JACK INTERFACE



Detail of groove



REP	PLUG	
	MINI	MAXI
A	3.00	3.10
B	2.20	2.50
C	0.61	0.86
D	0.40	0.80
D1	2.16	2.57
E	0.63	0.67
F	2.35	2.75
G	0.36	0.38
H	1.37	1.42
I	2.075	2.125
J	2.64	2.68
K	89°	91°
L	0.64	0.74
M	0.12	0.15
N	0.40	0.50
r	0.03	0.08

REP	JACK	
	MINI	MAXI
A'	3.14	3.21
B'	1.42	1.89
C'	0.90	1.19
D'	0.85	1.19
D''	1.15	1.76
E'	0.63	0.67
F'	2.90	3.63
G'	0.40	0.44
H'	1.27	1.32
I'	2.075	2.125
J'	2.75	2.80
K'	4.55	4.65

Dimensions in mm



RADIAL
Coaxial connectors

TECHNICAL DATA

R 203 073

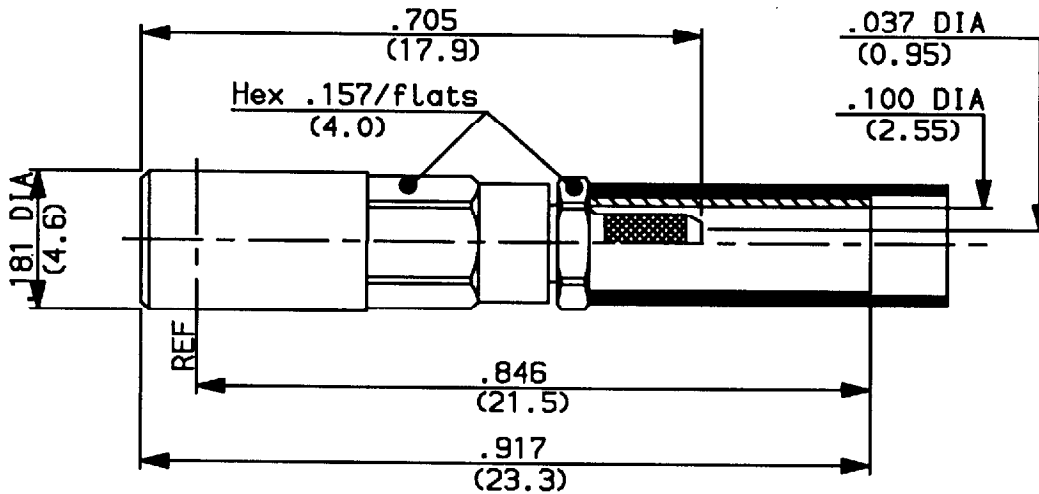
Issue : 9211

Page

STRAIGHT PLUG
CRIMP/SOLDER TYPE CABLE 2/50

SERIES: SSMB 1

2



CHARACTERISTICS

NOMINAL IMPEDANCE	50 Ω
FREQUENCY RANGE	0-4 GHz
TEMPERATURE RATING	-65/+165 °C
VSWR	1.33 Max
RF INSERTION LOSS	0.30 /F dB Max
VOLTAGE RATING	250 V _{rms} Max
DIELECTRIC WITHSTANDING VOLTAGE	500 V _{rms} min
INSULATION RESISTANCE	1000 M Ω min
HERMETIC SEAL	NA cc/s Atm. cm ³ /s
LEAKAGE (pressurized only)	NA psi MPa

STANDARDISATION

MIL STD 348A
CEI 169-19
CECC 22170

CABLE RETENTION

9.9 Lb min
45 N

CENTER CONTACT RETENTION

Axial force - mating end 2.0 Lb min
8.9 N
Axial force - opposite end 2.0 Lb min
8.9 N
Torque (Min) NA
Inch. oz
cm. N

RECOMMENDED TORQUES

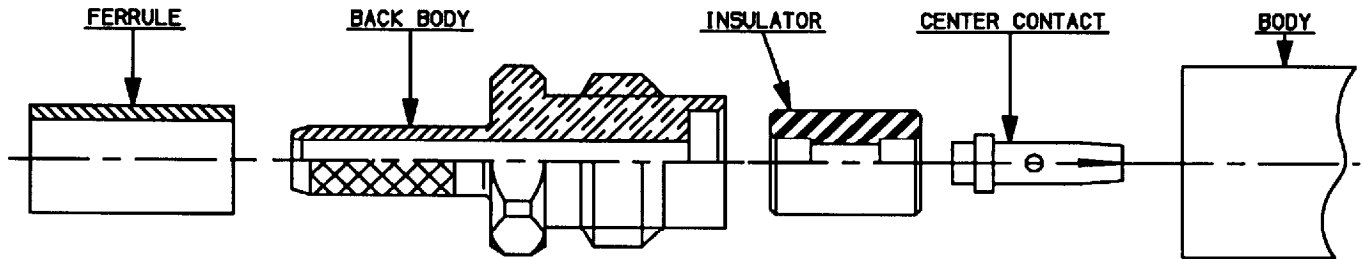
Mating NA
Inch. Lb
cm. N
Panel nut NA
Inch. Lb
cm. N
Clamp nut NA
Inch. Lb
cm. N

CONSTRUCTION

CONNECTOR PARTS	MATERIALS	FINISH
BODY	BRASS	20 μ I GOLD
OUTER CONTACT	BERYLLIUM COPPER	20 μ I GOLD
CENTER CONTACT	BERYLLIUM COPPER	50 μ I GOLD
INSULATORS	PTFE	-
BACK BODY	BRASS	20 μ I GOLD
FERRULE	BRASS	8 μ I GOLD
HEATSHRINK SLEEVE	POLYOLEFINE	-
-	-	-
-	-	-

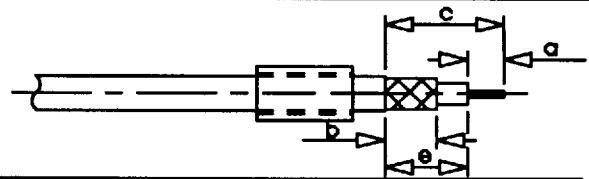


STRAIGHT PLUG
CRIMP/SOLDER TYPE CABLE 2/50



①

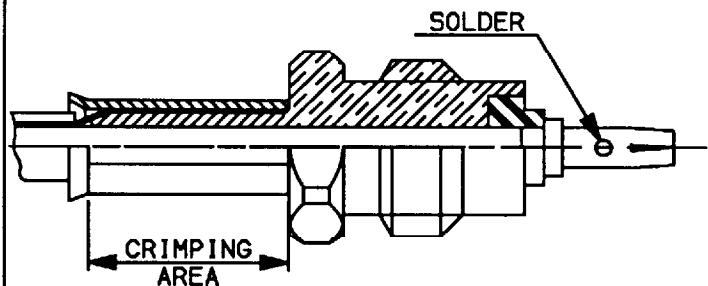
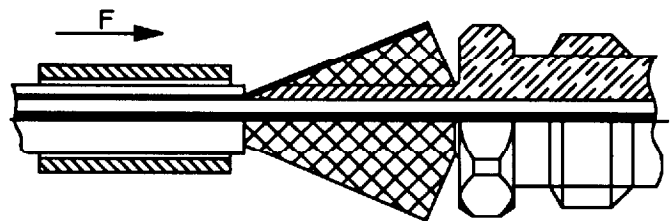
- 1-1 Slide the ferrule onto the cable .
- 1-2 Strip the cable .
-
-



Stripping	a	b	c	d	e
Inch	.138	.157	.492	-	.335
mm	3.5	4	12.5	-	8.5

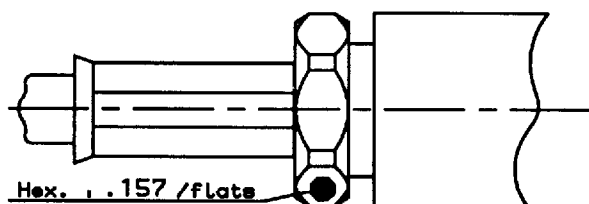
②

- 2-1 Fan the braid .
- 2-2 Slide the back body between dielectric and braid .
- 2-3 Slide the insulator into the back body .
- 2-4 Slide on the centre contact until it bottoms against insulator .
- 2-5 Solder the center contact .
- 2-6 Clean soldering area .
- 2-7 Slide ferrule over the braid (in direction F)
- 2-8 Crimp ferrule with crimping tool R 282 235 003 (Hex. $\pm .105$) or tool M22520/5-01 + Dies M22520/5-03



③

- 3-1 Screw sub-assembly into the connector body .
- Recommended coupling torque
3.15 in.lb





RADIALL
Coaxial connectors

TECHNICAL DATA

R 203 173

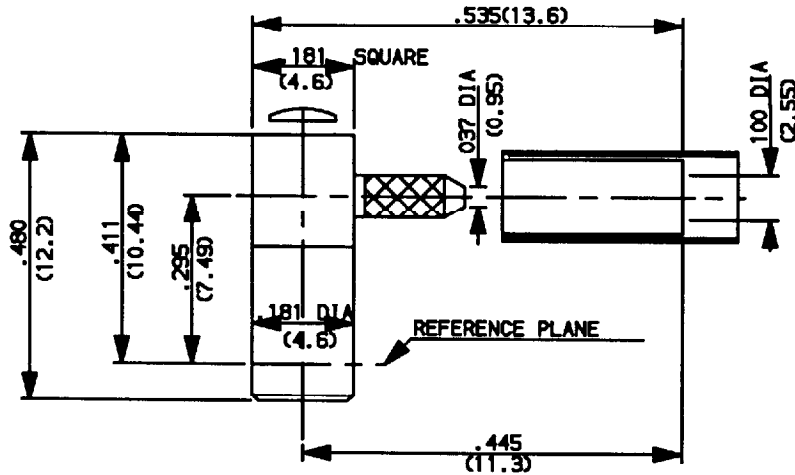
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RIGHT ANGLE PLUG
CRIMP/SOLDER TYPE CABLE 2/50

SERIES: SSMB 1

/ 2



CHARACTERISTICS

NOMINAL IMPEDANCE	50 Ω
FREQUENCY RANGE	0-4 GHz
TEMPERATURE RATING	-65/+165 °C
VSWR	1.37 Max
RF INSERTION LOSS	0.30 /F dB Maxi
VOLTAGE RATING	250 Vrms Maxi
DIELECTRIC WITHSTANDING VOLTAGE	500 Vrms mini
INSULATION RESISTANCE	1000 M Ω mini
HERMETIC SEAL	NA - cc/s - Atm.cm ³ /s
LEAKAGE (pressurized only)	NA - psi - MPa

STANDARDISATION

MIL STD 348A
CEI 169-19
CECC 22170

CABLE RETENTION

9.9 Lb mini
45 N

CENTER CONTACT RETENTION

Axial force - mating end 2.0 Lb mini
8.9 N
Axial force - opposite end 2.0 Lb mini
8.9 N
Torque (Min) NA
Inch.oz
cm.N

RECOMMENDED TORQUES

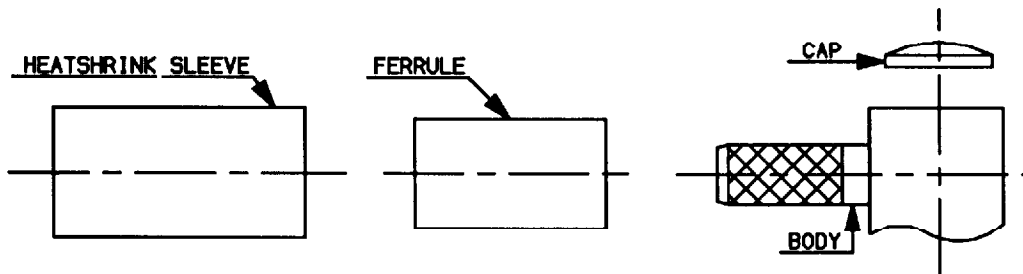
Mating NA
Inch. Lb
cm.N
Panel nut NA
Inch. Lb
cm.N
Clamp nut NA
Inch. Lb
cm.N

CONSTRUCTION

CONNECTOR PARTS	MATERIALS	FINISH
BODY	BRASS	20 μ I GOLD
OUTER CONTACT	BERYLLIUM COPPER	20 μ I GOLD
CENTER CONTACT	BERYLLIUM COPPER	50 μ I GOLD
INSULATORS	PTFE	-
FERRULE	BRASS	8 μ I GOLD
HEATSHRINK SLEEVE	POLYOLEFINE	-
-	-	-
-	-	-
-	-	-

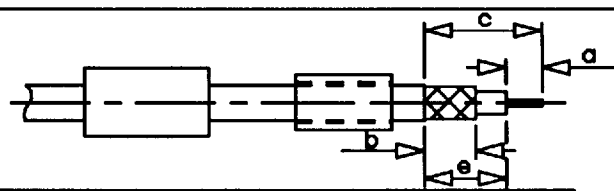


RIGHT ANGLE PLUG
CRIMP/SOLDER TYPE CABLE 2/50



①

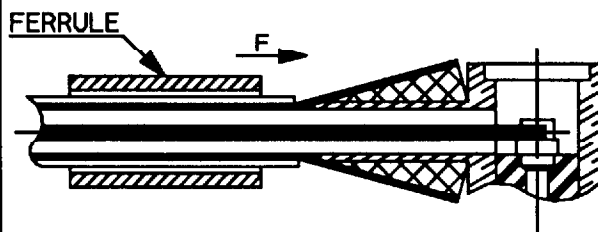
- 1-1 Slide onto the cable the ferrule and the heatshrink sleeve .
- 1-2 Strip the cable .



Stripping	a	b	c	d	e
Inch	.079	.177	.295	-	.217
mm	2	4.5	7.5	-	5.5

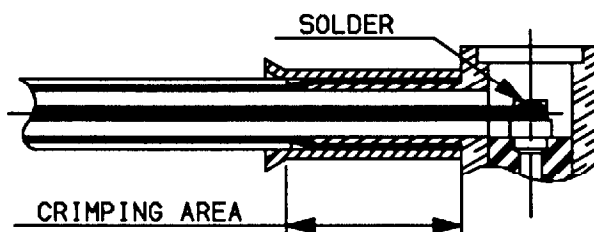
②

- 2-1 Fan the braid .
- 2-2 Push connector body under the braid .
- 2-3 Slide the ferrule on the braid (In direction F)



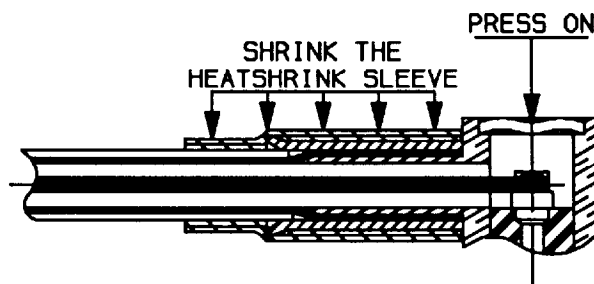
③

- 3-1 Crimp the ferrule with crimping tool R 282 211 000 (Hex. 2.67) or crimping tool M22520/5-01 + dies M22520/5-03
- 3-2 Solder inner conductor .



④

- 4-1 Place the cap .
- 4-2 Press cap flush or slightly below surface of body assembly .
- 4-3 Slide sleeve over ferrule and heatshrink in place .





RADIALL
Coaxial connectors

TECHNICAL DATA

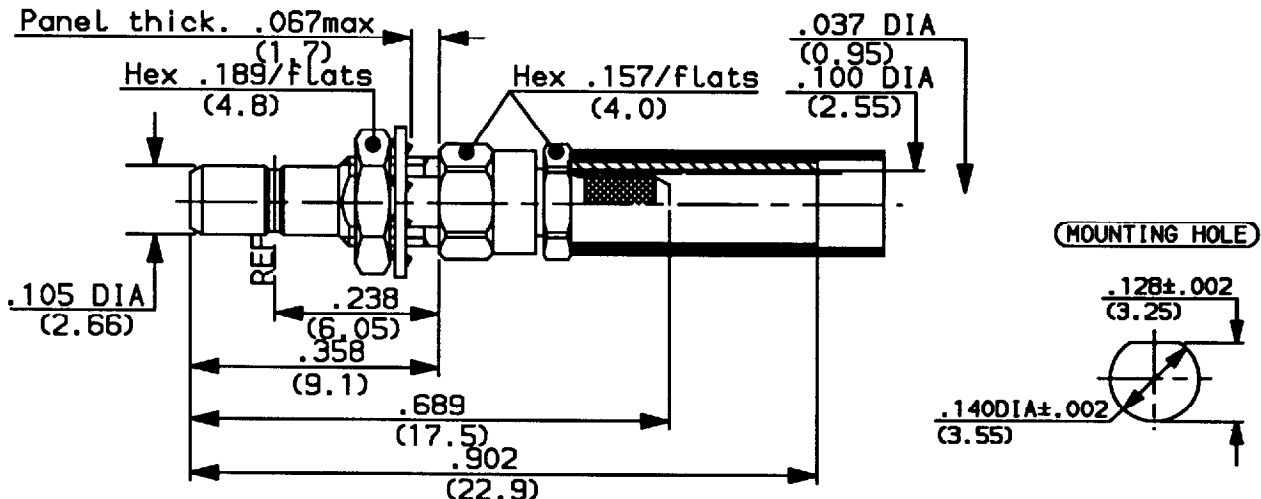
R 203 313

Issue : 9211

Page

STRAIGHT BULKHEAD JACK
CRIMP TYPE CABLE 2/50

SERIES: SSMB 1 / 2



CHARACTERISTICS

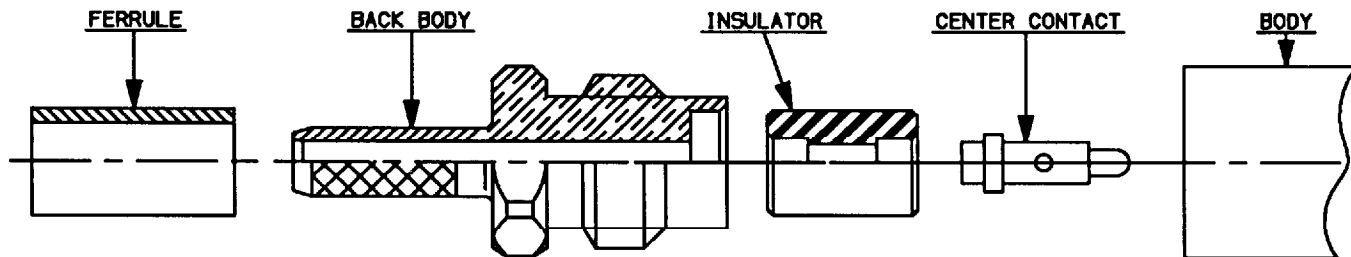
NOMINAL IMPEDANCE	50 Ω	STANDARDISATION	MIL STD 348A
FREQUENCY RANGE	0-4 GHz		CEI 169-19
TEMPERATURE RATING	-65/+165 °C		CECC 22170
VSWR	1.33 Max		-
RF INSERTION LOSS	0.30 /F dB MaxI	CABLE RETENTION	9.9 lb mini 45 N
VOLTAGE RATING	250 V _{rms} MaxI	CENTER CONTACT RETENTION	
DIELECTRIC WITHSTANDING VOLTAGE	500 V _{rms} mini	Axial force - mating end	2.0 lb mini 8.9 N
INSULATION RESISTANCE	1000 M Ω mini	Axial force - opposite end	2.0 lb mini 8.9 N
HERMETIC SEAL	NA cc/s - Atm.cm ³ /s	Torque (Min)	NA - Inch.oz cm.N
LEAKAGE (pressurized only)	NA - psi - MPa	RECOMMENDED TORQUES	
-		Mating	NA - Inch. Lb cm.N
-		Panel nut	2.2125 25 Inch. Lb cm.N
-		Clamp nut	NA - Inch. Lb cm.N

CONSTRUCTION

CONNECTOR PARTS	MATERIALS	FINISH
BODY	BRASS	20 μ I GOLD
OUTER CONTACT	BRASS	20 μ I GOLD
CENTER CONTACT	BERYLLIUM COPPER	50 μ I GOLD
INSULATORS	PTFE	-
BACK BODY	BRASS	20 μ I GOLD
FERRULE	BRASS	8 μ I GOLD
HEATSHRINK SLEEVE	POLYOLEFINE	-
-	-	-

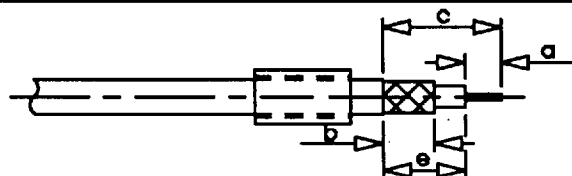


STRAIGHT BULKHEAD JACK
CRIMP TYPE CABLE 2/50



①

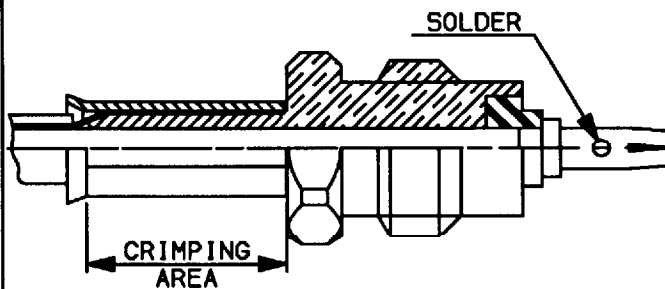
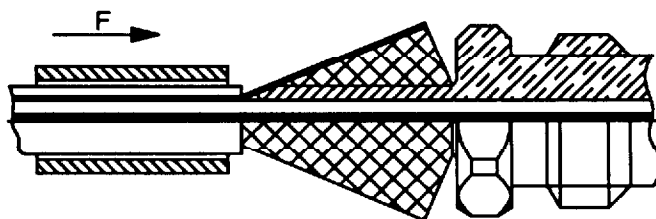
- 1-1 Slide the ferrule onto the cable .
- 1-2 Strip the cable .



Stripping	a	b	c	d	e
Inch	.138	.157	.492	-	.335
mm	3.5	4	12.5	-	8.5

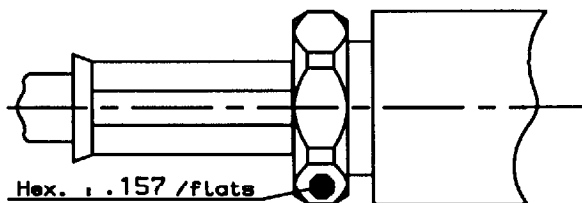
②

- 2-1 Fan the braid .
- 2-2 Slide the back body between dielectric and braid .
- 2-3 Slide the insulator into the back body .
- 2-4 Slide on the centre contact until it bottoms against insulator .
- 2-5 Solder the center contact .
- 2-6 Clean soldering area .
- 2-7 Slide ferrule over the braid (in direction F)
- 2-8 Crimp ferrule with crimping tool R 282 235 003 (Hex. $\pm .105$) or tool M22520/5-01 + Dies M22520/5-03



③

- 3-1 Screw sub-assembly into the connector body .
Recommended coupling torque
3.15 in. lb





RADIALL
Coaxial connectors

TECHNICAL DATA

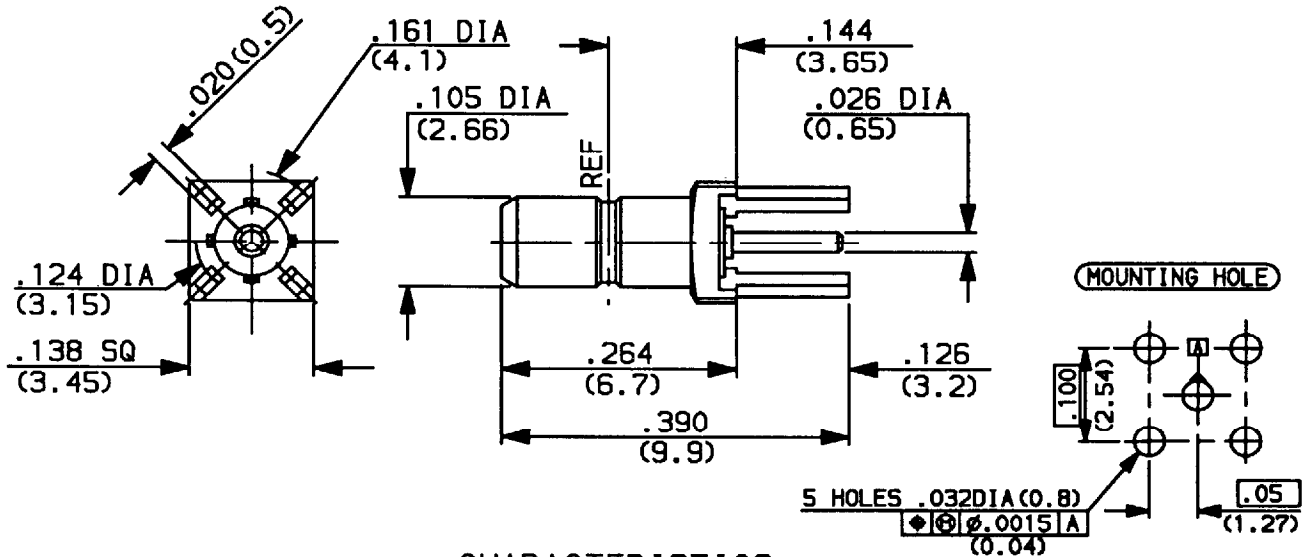
R 203 426

Issue : 9140

Page

PCB STRAIGHT RECEPTACLE

SERIES: SSMB 1 / 1



CHARACTERISTICS

NOMINAL IMPEDANCE	50 Ω
FREQUENCY RANGE	0-4 GHz
TEMPERATURE RATING	-65/+165 °C
VSWR	NA Max
RF INSERTION LOSS	NA \int dB Max I
VOLTAGE RATING	250 V _{rms} Max I
DIELECTRIC WITHSTANDING VOLTAGE	500 V _{rms} min I
INSULATION RESISTANCE	1000 M Ω min I
HERMETIC SEAL	NA cc/s - Atm.cm ³ /s
LEAKAGE (pressurized only)	NA psi - MPa

STANDARDISATION

MIL STD 348A
CEI 169-19
CECC 22170

CABLE RETENTION

NA Lb min I
- N

CENTER CONTACT RETENTION

Axial force - mating end 2.0 Lb min I
8.9 N
Axial force - opposite end 2.0 Lb min I
8.9 N
Torque (Min) NA Inch.oz
- cm.N

RECOMMENDED TORQUES

Mating NA Inch. Lb
- cm.N
Panel nut NA Inch. Lb
- cm.N
Clamp nut NA Inch. Lb
- cm.N

CONSTRUCTION

CONNECTOR PARTS	MATERIALS	FINISH
BODY	BRASS	GOLD
OUTER CONTACT	BRASS	GOLD
CENTER CONTACT	BERYLLIUM COPPER	GOLD
INSULATORS	PTFE	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-



RADIALL
Coaxial connectors

TECHNICAL DATA

R 203 553

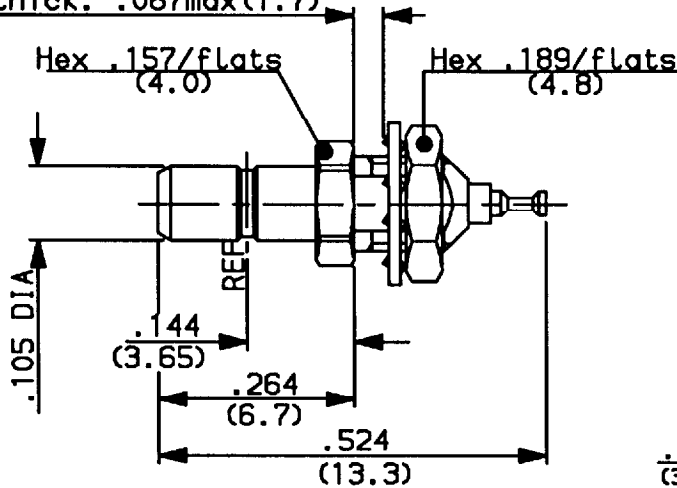
Issue : 9140

Page

STRAIGHT BULKHEAD RECEPTACLE
FRONT MOUNT

SERIES: SSMB 1 / 1

Panel thick. .067max(1.7)



MOUNTING HOLE

CHARACTERISTICS

NOMINAL IMPEDANCE	50 Ω
FREQUENCY RANGE	0-4 GHz
TEMPERATURE RATING	-65/+165 °C
VSWR	NA Max
RF INSERTION LOSS	NA /F dB MaxI
VOLTAGE RATING	250 V _{rms} MaxI
DIELECTRIC WITHSTANDING VOLTAGE	500 V _{rms} minI
INSULATION RESISTANCE	1000 M Ω minI
HERMETIC SEAL	NA cc/s - Atm.cm ³ /s
LEAKAGE (pressurized only)	NA psi - MPa

STANDARDISATION

MIL STD 348A
CEI 169-19
CECC 22170

CABLE RETENTION

NA Lb minI
- N

CENTER CONTACT RETENTION

Axial force - mating end 2.0 Lb minI
8.9 N
Axial force - opposite end 2.0 Lb minI
8.9 N
Torque (Min) NA Inch.oz
- cm.N

RECOMMENDED TORQUES

Mating NA Inch. Lb
- cm.N
Panel nut 2.2125 Inch. Lb
25 cm.N
Clamp nut NA Inch. Lb
- cm.N

CONSTRUCTION

CONNECTOR PARTS	MATERIALS	FINISH
BODY	BRASS	GOLD
OUTER CONTACT	BRASS	GOLD
CENTER CONTACT	BERYLLIUM COPPER	GOLD
INSULATORS	PTFE	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-



RADIALL
Coaxial connectors

TECHNICAL DATA

R 203 665

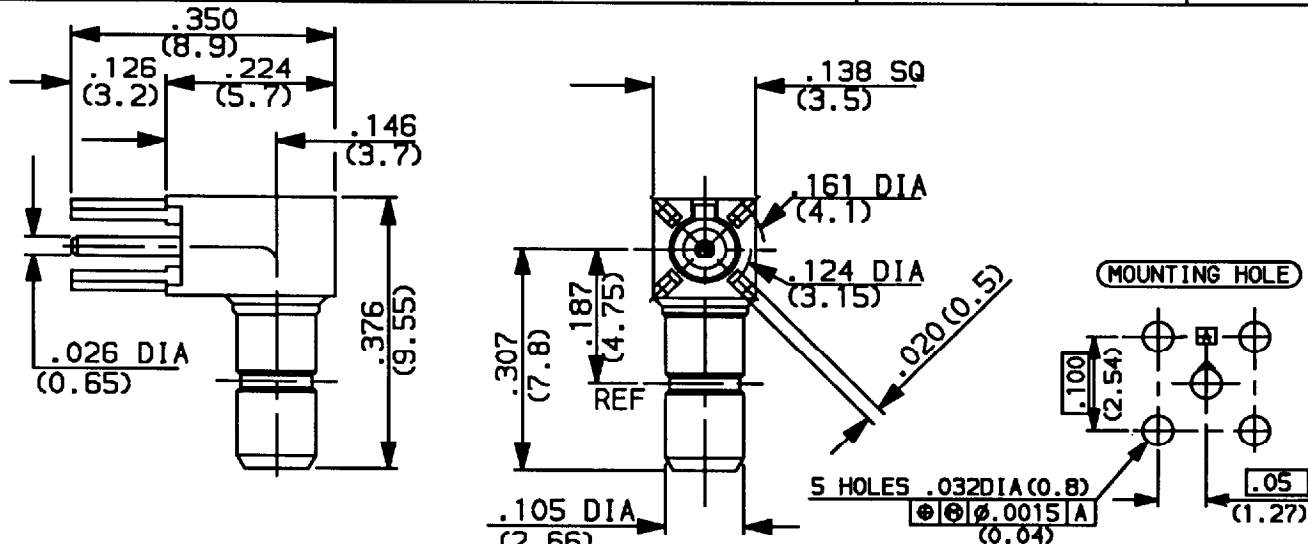
Issue : 9140

Page

PCB RIGHT ANGLE RECEPTACLE

SERIES: SSMB 1

1 / 1



CHARACTERISTICS

NOMINAL IMPEDANCE	50 Ω
FREQUENCY RANGE	0-4 GHz
TEMPERATURE RATING	-65/+165 °C
VSWR	NA Max
RF INSERTION LOSS	NA /F dB Maxi
VOLTAGE RATING	250 V _{rms} Maxi
DIELECTRIC WITHSTANDING VOLTAGE	500 V _{rms} mini
INSULATION RESISTANCE	1000 M Ω mini
HERMETIC SEAL	NA cc/s - Atm.cm ³ /s
LEAKAGE (pressurized only)	NA psi - MPa

STANDARDISATION

MIL STD 348A
CEI 169-19
CECC 22170

CABLE RETENTION

NA Lb mini
- N

CENTER CONTACT RETENTION

Axial force - mating end 2.0 Lb mini
8.9 N
Axial force - opposite end 2.0 Lb mini
8.9 N
Torque (Min) NA Inch.oz
- cm.N

RECOMMENDED TORQUES

Mating NA Inch. Lb
- cm.N
Panel nut NA Inch. Lb
- cm.N
Clamp nut NA Inch. Lb
- cm.N

CONSTRUCTION

CONNECTOR PARTS	MATERIALS	FINISH
BODY	BRASS	GOLD
OUTER CONTACT	BRASS	GOLD
CENTER CONTACT	BERYLLIUM COPPER	GOLD
INSULATORS	PTFE	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-