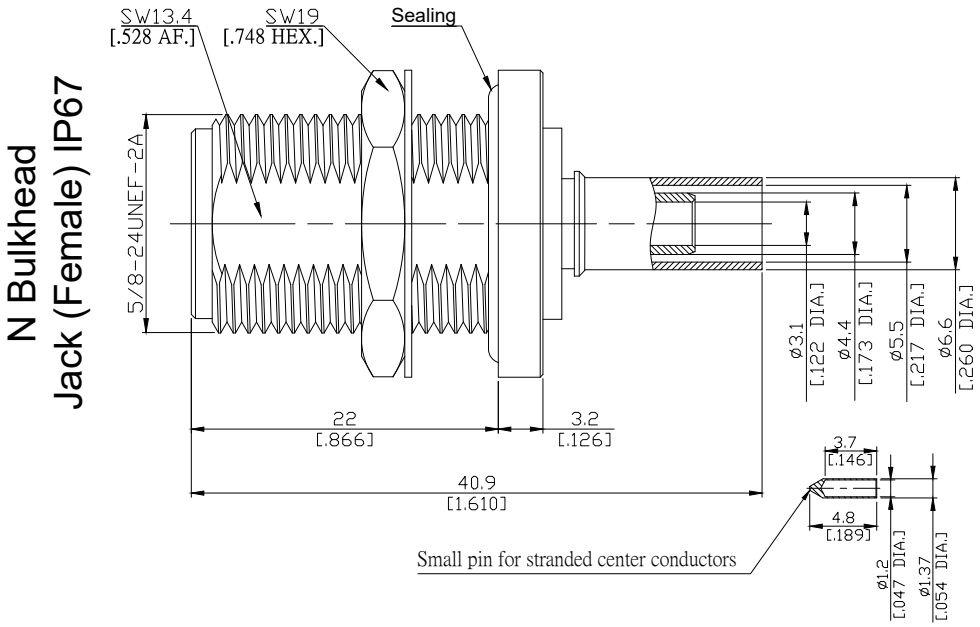
ROSNOL
RF/Microwave Interconnect

Technical Data Sheet

N CRIMP FOR BULKHEAD JACK WITH IP67 DC-6GHz, VSWR≤1.2

N2CA50-R200A / H4_IP67



All dimensions are in mm [inch]
Tolerances according to DIN ISO 2768-mH

Interface

According to	IEC 61169-16, MIL-STD-348B/304

Electrical Data

Impedance	50 Ω	
Frequency	DC to 6 GHz	
VSWR (Return Loss)	≤ 1.20 (≥ 20.8 dB)	
Insertion Loss	≤ 0.05 x √F (GHz) dB	
Insulation Resistance	≥ 5 GΩ	
Center Contact Resistance	≤ 1 mΩ	
Outer Contact Resistance	≤ 0.25 mΩ	
Working Voltage	500 V rms	
Power handling (at 20 °C, sea level)	≤ 1000 W @ 1 GHz	≤ 700 W @ 2 GHz

- Limitations are possible due to the used cable type -

Material And Plating

Piece Parts	Material	Plating
Centre contact	Phosphor Brronze	Gold plating, 3 μinch (Non-magnetic nickel-phosphorus underplating, 80 μinch)
Body	Brass	Copper-Tin-Zing Alloy
Insulator	PTFE	
Gasket	Silicone Rubber	
Ferrule	Brass	Copper-Tin-Zing Alloy

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N-CAGE Code: SFKK0 / ISO9001 Certified

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Mechanical Data

Coupling Mechanisms	Screw-Lock
Mating Cycles	≥ 500
Coupling Nut Retention	≥ 450 N
Center contact captivation: axial	≥ 28 N
Coupling Test Torque	≤ 1.7 Nm
Recommended Torque	1.36 Nm
Centre Contact	Soldered
Cable Entry	Crimped

Environmental Data

Temperature Range	-65°C to +165°C
Thermal Shock	MIL-STD-202, Method 107, Condition B
Corrosion	MIL-STD-202, Method 101, Condition B
Vibration	MIL-STD-202, Method 204, Condition B
Shock	MIL-STD-202, Method 213, Condition I
Moisture Resistance	MIL-STD-202, Method 106
IP Rating	IP6x- Dust tight - no partical ingress IPx7- Waterproof for 30 minutes up to 1 meter underwater.
RoHS	compliant

Suitable Cables

LMR200, RNL200

Weight

N/A

Packing

Single or 100

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SMA Plug (Male) Right Angle Connector Crimp/Contact Pin Solder Attachment for RG55, RG142, RG223, RG400, RG141 DC-6GHz VSWR1.20

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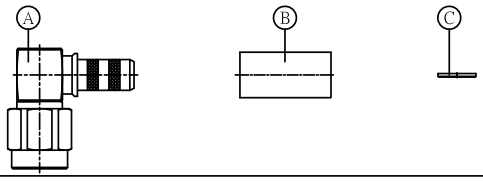
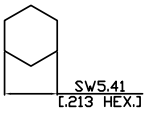
Connector Type:	SMA1C59-G142A/111	Inner Conductor Contact:	Soldered
Suitable Cable:	RG55, RG142, RG223, RG400, RG141	Outer Conductor Contact:	Crimped

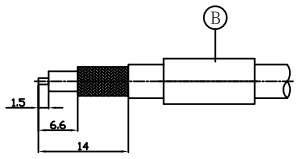
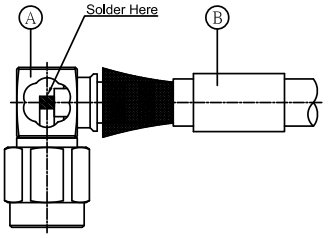
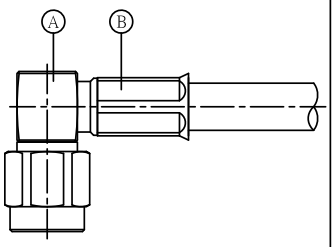
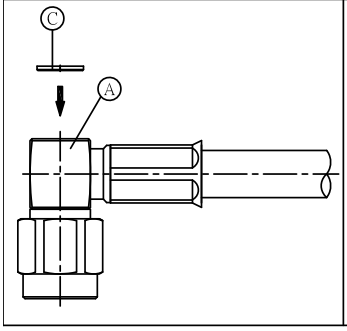
Parts List of Connector:



Crimped Ferrule
HEX. Crimp Size:



Assembly Steps:

Picture	Process	Attention/Check	Tools Required
	Push ferrule "B" over the cable. Prepare the cable according to the diagram.	Do not damage center contact, dielectric and braid.	Blade Scissor
	Splay out braid and insert cable in connector body "A" until it to stop. Solder center conductor according to the diagram.	Ensure that braid lies above crimp neck.	Solder Iron Solder Wire
	Slide ferrule "B" over braid and crimp.	Crimp as close to connector body "A" as possible. Do not damage connector body "A".	Crimp Tool: CT-L3 Crimp Insert: CI-L33F2A
	Place cover "C" on rear aperture of body "A". Press cover "C" into body "B".		Small press or a small bench vice.

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SMA Plug (Male) Right Angle Connector Crimp/Contact Pin Solder Attachment for RG55, RG142, RG223, RG400, RG141 DC-6GHz VSWR1.20

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Cable Assembly P/N	A1C59-RG142-A1C59-325
Connector 1	SMA1C59-G142A/111
Connector 2	SMA1C59-G142A/111
Cable	RG142
Cable Length	325mm
Vector Network Analyzer (VNA)	Keysight N5235A
Calibration Kit	Keysight 85052D
Test Method	Port 1: SMA Jack (Female) Port 2: SMA Jack (Female) Port 1 + DUT + Port 2