

SMA8100L1-0316

SMA Jack Crimp Bulkhead  
For RG174,RG188,RG316; 12.4GHz VSWR 1.2

50Ω

Technical drawing of the SMA Jack Crimp Bulkhead showing front, side, and mounting hole views with dimensions in inches and millimeters.

**FRONT VIEW:** Outer diameter 5.75 (.226), 8 HEX (.315 HEX).

**SIDE VIEW:** 1/4-36UNS-2A, 4.2 MAX. (.165 MAX.), 12.5 (.492), 3.4 (.134), 20.9 (.823), Ø1.6 (Ø.063), Ø2.35 (Ø.093), 8 HEX (.315 HEX).

MOUNTING HOLE:

Technical drawing of the mounting hole showing dimensions: Ø6.5 (Ø.256) and 6 (.236).

| Parts       | Material         | Plating (Micro-inch)                                  |
|-------------|------------------|-------------------------------------------------------|
| Ferrule     | Brass            | Gold 4 Over Nickel-Phosphorus Alloy 80 Over Copper 20 |
| Hex Nut     | Brass            | Gold 4 Over Nickel-Phosphorus Alloy 80 Over Copper 20 |
| Lock Washer | Brass            | Gold 4 Over Nickel-Phosphorus Alloy 80 Over Copper 20 |
| Contact Pin | Beryllium Copper | Gold 4 Over Nickel-Phosphorus Alloy 80 Over Copper 20 |
| Barrel      | Brass            | Gold 4 Over Nickel-Phosphorus Alloy 80 Over Copper 20 |
| Insulator   | Teflon           |                                                       |
| Body        | Brass            | Gold 4 Over Nickel-Phosphorus Alloy 80 Over Copper 20 |

Suitable Cables:RG174,RG188,RG316,RG316-FEP

This part number complies with RoHS.

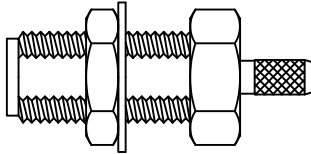
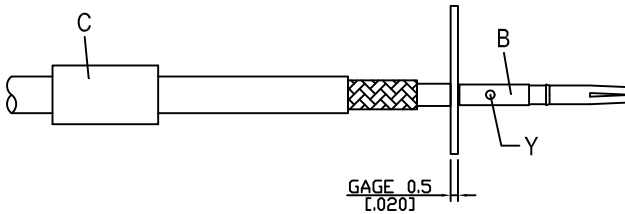
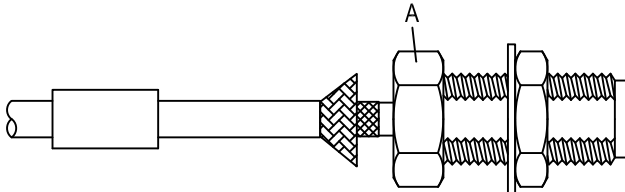
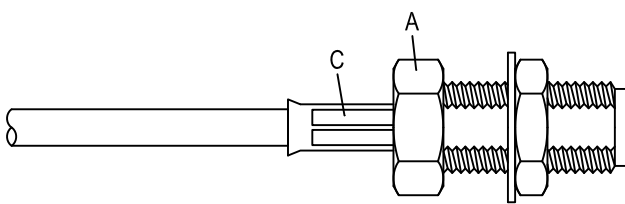
Notice: JYEBAO reserves the right to make modifications deemed appropriate.

| SMA                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SMA8100L1-0316 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <div>Interface</div> MIL-STD-348B<br>Mechanically compatible with 2.92 & 3.5                                                                                                                                                                                                                                                                                                                                                                                   |                |
| <div>Electrical Data</div> Impedance 50Ω<br>Frequency range DC to 12.4GHz<br>VSWR $\leq 1.2$ (DC to 12.4GHz)<br>Insertion loss $\leq 0.04 \times \sqrt{f(\text{GHz})}$ dB<br>Insulation resistance $\geq 5000\text{M}\Omega$<br>Contact resistance inner conductor $\leq 3\text{m}\Omega$<br>Contact resistance outer conductor $\leq 2\text{m}\Omega$<br>Dielectric withstanding voltage (at sea level) 750 V rms<br>Working voltage (at sea level) 250 V rms |                |
| <div>Mechanical Data</div> Recommended coupling nut torque 4 inch lbs<br>Coupling proof torque 5.3 inch lbs<br>Contact Captivation-axial $\geq 6.1$ lbs<br>Durability (mating) $\geq 100$                                                                                                                                                                                                                                                                      |                |
| <div>Environmental Data</div> Temperature range -65°C to +165°C<br>Thermal shock MIL-STD-202, Method 107, Condition B<br>Moisture resistance MIL-STD-202, Method 106<br>Corrosion MIL-STD-202, Method 101, Condition B<br>RoHS Compliant                                                                                                                                                                                                                       |                |
| <div>Tooling</div> Crimping tool CRT-1 or CRT-2<br>Crimp insert INSERT-A<br>Soldering gauge ST-0.5                                                                                                                                                                                                                                                                                                                                                             |                |

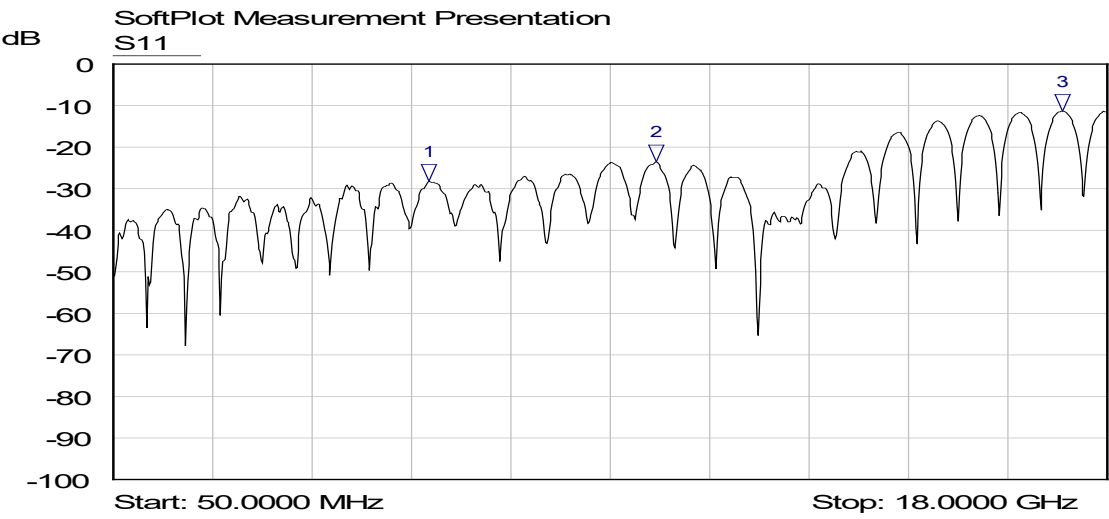
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# JYE BAO CO., LTD.

## CABLE ASSEMBLY INSTRUCTION

|                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |         |                                                                                                                                                   |         |   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------|---|
| SMA8100L1-0316                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | DATE    | 2017/11/01                                                                                                                                        | REV     | — |
| <div><div><div>A</div><div></div><div>BODY + HEX NUT<br/>+ LOCK WASHER</div></div><div><div>B</div><div></div><div>CONTACT PIN</div></div><div><div>C</div><div></div><div>FERRULE</div></div></div> |  |         |                                                                                                                                                   |         |   |
| DIAGRAM                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |         | ASSEMBLY INSTRUCTION                                                                                                                              |         |   |
|                                                                                                                                                                                                                                                                                                                                                                         |  |         | Step 1: STRIP AS SHOWN.                                                                                                                           |         |   |
|                                                                                                                                                                                                                                                                                                                                                                        |  |         | Step 2: SLIDE FERRULE "C" OVER CABLE.<br>Step 7: PUT 0.5 MM GAGE IN PLACE, INSERT CABLE'S CENTER CONDUCTOR INTO CENTER PIN "B" AND SOLDER IN "Y". |         |   |
|                                                                                                                                                                                                                                                                                                                                                                        |  |         | Step 4: LOOSEN BRAIDING AND SLIDE CONNECTOR "A" IN PLACE.                                                                                         |         |   |
|                                                                                                                                                                                                                                                                                                                                                                        |  |         | Step 5: SLIDE FERRULE "C" TOWARDS THE CONNECTOR "A" AND CRIMP.<br>(USE 3.3mm/0.130inch HEX SECTION OF INSERT-A)                                   |         |   |
| This part number complies with RoHS.<br>Notice: JYEBAO reserves the right to make modifications deemed appropriate.                                                                                                                                                                                                                                                                                                                                       |  |         |                                                                                                                                                   |         |   |
| APPROVED                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | CHECKED |                                                                                                                                                   | DRAWING |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |         |                                                                                                                                                   | Albert  |   |

SMA8100L1-0316



| Mkr | Trace | X-Axis      | Value     | Notes |
|-----|-------|-------------|-----------|-------|
| 1 ▽ | S11   | 5.7405 GHz  | -28.17 dB |       |
| 2 ▽ | S11   | 9.8536 GHz  | -23.58 dB |       |
| 3 ▽ | S11   | 17.2013 GHz | -11.32 dB |       |