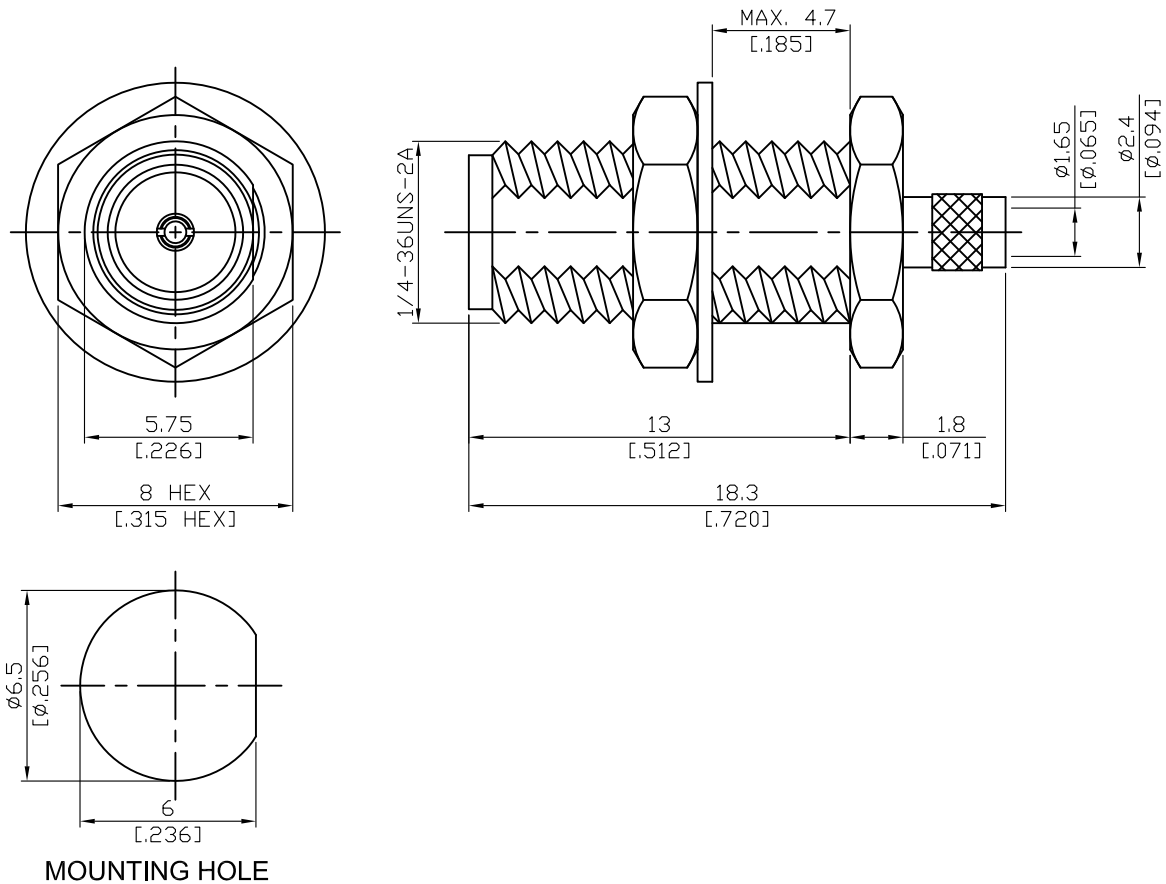


SMA81NDLB-0178

SMA Jack Solder Bulkhead  
For RG178, RG178-FEP; 1.8GHz VSWR 1.2 50Ω



| Parts       | Material         | Plating ( Micro-inch )                                |
|-------------|------------------|-------------------------------------------------------|
| Hex Nut     | Brass            | Tin-Zinc-Copper-Alloy 100 Over Copper 50              |
| Lock Washer | Brass            | Tin-Zinc-Copper-Alloy 100 Over Copper 50              |
| Contact Pin | Beryllium Copper | Gold 4 Over Nickel-Phosphorus Alloy 80 Over Copper 20 |
| Insulator   | Teflon           |                                                       |
| Body        | Brass            | Tin-Zinc-Copper-Alloy 100 Over Copper 50              |

Suitable Cables: RG178; RG178-FEP; RG196

This part number complies with RoHS.

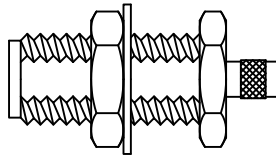
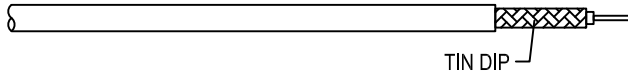
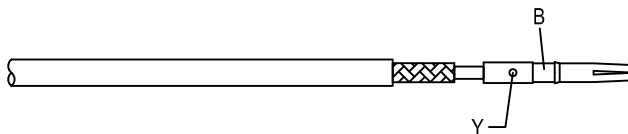
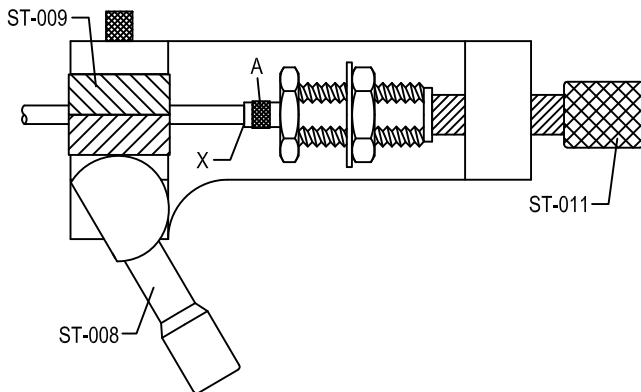
Notice: JYEBAO reserves the right to make modifications deemed appropriate.

| SMA                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SMA81NDLB-0178 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>Interface</b><br>MIL-STD-348B<br>Mechanically compatible with 2.92 & 3.5                                                                                                                                                                                                                                                                                                                                                                                |                |
| <b>Electrical Data</b><br>Impedance 50Ω<br>Frequency range DC to 1.8GHz<br>VSWR $\leq 1.2$ (DC to 1.8GHz)<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) 250V rms |                |
| <b>Mechanical Data</b><br>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) $\geq 100$                                                                                                                                                                                                                                                                   |                |
| <b>Environmental Data</b><br>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                                                                                                                                                                                                                    |                |
| <b>Tooling</b><br>Locator tool ST-011<br>Soldering fixture ST-008<br>Insert for .085" Semi-Rigid Cable ST-009                                                                                                                                                                                                                                                                                                                                              |                |

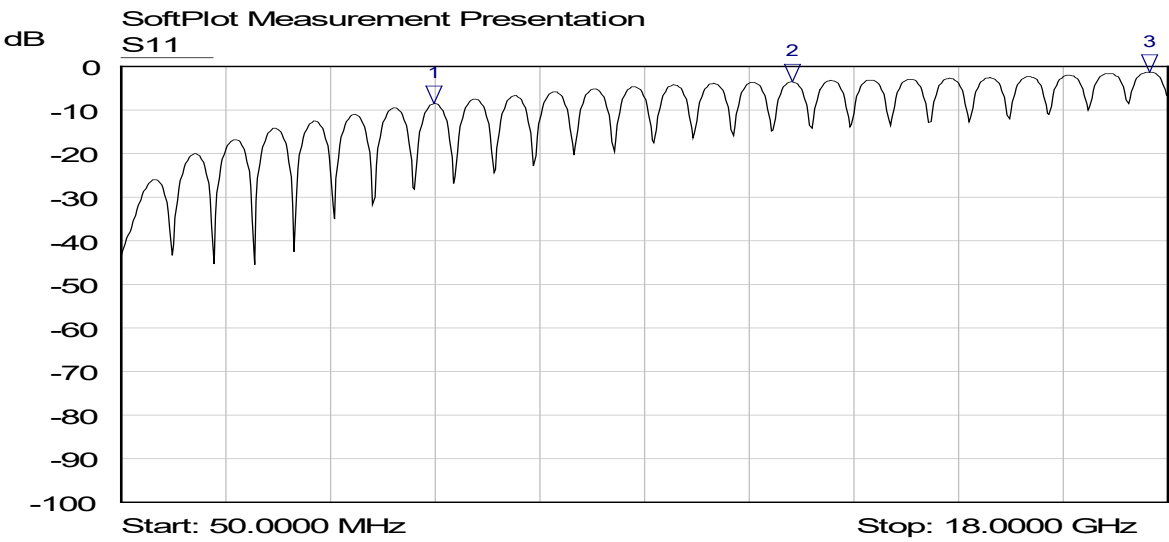
Notice: JYEBAO reserves the right to make modifications deemed appropriate.

# JYE BAO CO., LTD.

## CABLE ASSEMBLY INSTRUCTION

|                                                                                                                     |  |                                                                                                                                     |            |         |   |
|---------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------|------------|---------|---|
| SMA81NDLB-0178                                                                                                      |  | DATE                                                                                                                                | 2015/12/15 | REV     | — |
| A                                                                                                                   |  | B                                                                                                                                   |            |         |   |
|                                    |  |                                                   |            |         |   |
| BODY + WASHER<br>+ HEX NUT                                                                                          |  | CONTACT PIN                                                                                                                         |            |         |   |
| DIAGRAM                                                                                                             |  | ASSEMBLY INSTRUCTION                                                                                                                |            |         |   |
|                                   |  | Step 1: STRIP AS SHOWN.                                                                                                             |            |         |   |
|                                  |  | Step 2: TIN DIP BRAID.                                                                                                              |            |         |   |
|                                  |  | Step 3: PUT PIN " B " ON CENTER CONDUCTOR AND SOLDER IN " Y ".                                                                      |            |         |   |
|                                   |  | Step 5: USE SOLDERING FIXTURE " ST-008 ", INSERT TOOL " ST-009 " AND LOCATOR TOOL " ST-011 " TO FIX THE CONNECTOR. SOLDER IN " X ". |            |         |   |
| This part number complies with RoHS.<br>Notice: JYEBAO reserves the right to make modifications deemed appropriate. |  |                                                                                                                                     |            |         |   |
| APPROVED                                                                                                            |  | CHECKED                                                                                                                             |            | DRAWING |   |
|                                                                                                                     |  |                                                                                                                                     |            | Albert  |   |

SMA81NDLB-0178



| Mkr | Trace | X-Axis      | Value    | Notes |
|-----|-------|-------------|----------|-------|
| 1 ▾ | S11   | 5.4160 GHz  | -8.50 dB |       |
| 2 ▾ | S11   | 11.5615 GHz | -3.51 dB |       |
| 3 ▾ | S11   | 17.6769 GHz | -1.33 dB |       |