



SSMA Series Connectors (DC~40GHz)

MicrowaveTown SSMA connectors are 50Ω precision connectors. They are designed with excellent characteristics over the full frequency range up to 40GHz.

Specifications

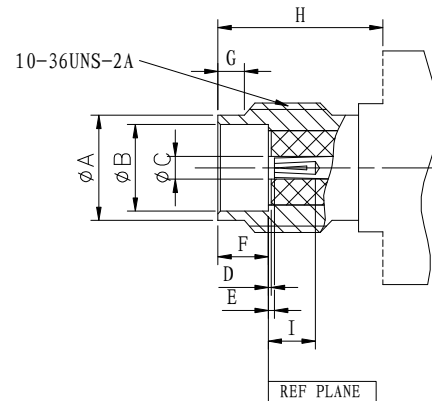
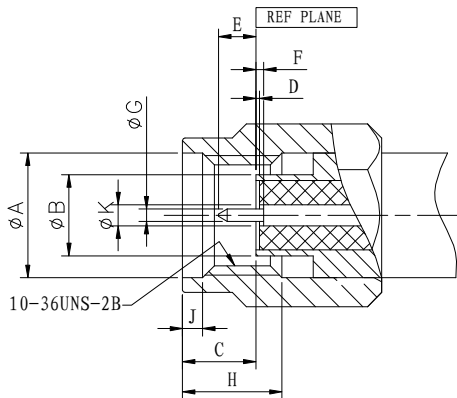
| |
|---|
| Impedance: 50Ω |
| Frequency: DC-40GHz |
| VSWR: |
| DC-40GHz... 1.20:1 (max) |
| Contact Resistance: Center Contact ≤ 5.0mΩ Housing ≤ 2.5mΩ |
| Insulation Resistance: ≥ 1000MΩ |
| Dielectric Withstanding Volatage: 750V |
| Durability: 500 cycles |
| Temperature Range: -55°C~+165°C |

Material/Finishing

| |
|--|
| Housing: Stainless steel SU303 polished/passivated |
| Center contact: Beryllium copper |
| Gold plated PER MIL-G-45204 |
| Insulators: PTFE&PEI |

Interfaces: PER MIL-STD-348A

Interface Dimensions

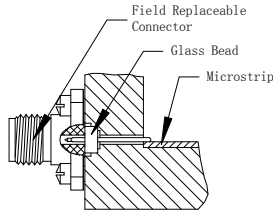


| SSMA Male | | | | |
|-----------|------|------|--------|--------|
| | mm | | Inch | |
| | Min | Max | Min | Max |
| A | 4.98 | 5.13 | 0.196 | 0.202 |
| B | 3.15 | 3.22 | 0.124 | 0.1268 |
| C | 2.54 | 3.38 | 0.100 | 0.133 |
| D | 0.00 | 0.25 | 0.000 | 0.010 |
| E | 1.27 | 1.65 | 0.050 | 0.065 |
| F | 0.00 | 0.25 | 0.000 | 0.010 |
| G | 0.50 | 0.53 | 0.0195 | 0.0208 |
| H | 3.30 | — | 0.130 | — |
| J | 0.38 | 1.14 | 0.015 | 0.045 |
| K | 0.85 | 0.88 | 0.0335 | 0.0348 |

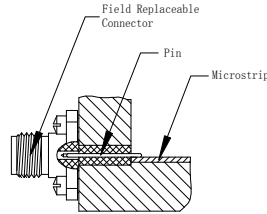
| SSMA Female | | | | |
|-------------|-------|-------|--------|--------|
| | mm | | Inch | |
| | Min | Max | Min | Max |
| A | 3.89 | 4.06 | 0.153 | 0.160 |
| B | 3.23 | 3.30 | 0.127 | 0.130 |
| C | 0.851 | 0.884 | 0.0335 | 0.0348 |
| D | 0.00 | 0.25 | 0.000 | 0.010 |
| E | 0.00 | 0.25 | 0.000 | 0.010 |
| F | 1.90 | 1.96 | 0.075 | 0.077 |
| G | 0.51 | 1.02 | 0.020 | 0.040 |
| H | 5.84 | — | 0.230 | — |
| I | 1.91 | — | 0.075 | — |

SSMA Replaceable Connectors

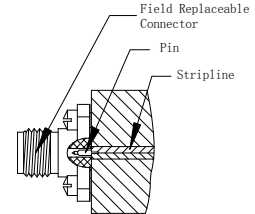
Product Application



glass bead Transitions to Microstrip and Stripline Circuits



Launch Pin & Dielectric Transitions to Microstrip and Stripline Circuits

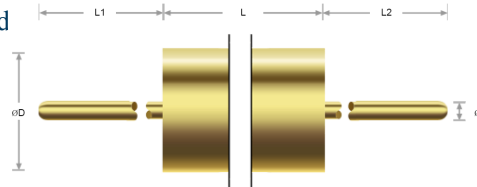


Pin/Tab Transitions to Microstrip and Stripline Circuits

*refer to combination type connector

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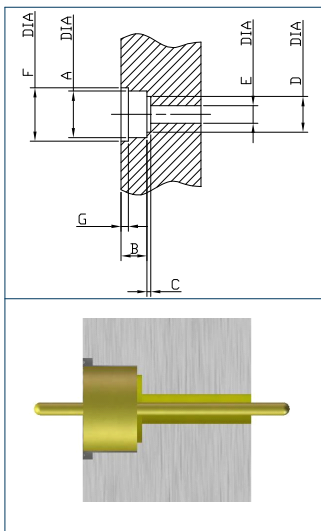
Glass Bead Commonly Used



| Commonly used size (recommend) | | | | | |
|--------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| d | <u>0.23mm</u> 0.009 ^{''} | <u>0.30mm</u> 0.012 ^{''} | <u>0.38mm</u> 0.015 ^{''} | <u>0.46mm</u> 0.018 ^{''} | <u>0.51mm</u> 0.020 ^{''} |
| D | <u>1.73mm</u> 0.068 ^{''} | <u>1.93mm</u> 0.076 ^{''} | <u>2.49mm</u> 0.098 ^{''} | <u>2.79mm</u> 0.110 ^{''} | <u>4.01mm</u> 0.158 ^{''} |
| L | <u>1.40mm</u> 0.055 ^{''} | <u>1.40mm</u> 0.055 ^{''} | <u>1.57mm</u> 0.062 ^{''} | <u>1.52mm</u> 0.06 ^{''} | <u>1.52mm</u> 0.06 ^{''} |
| L1 | A variety of sizes available | | | | |
| L2 | A variety of sizes available | | | | |

*Note: both ends of L1\L2 can insert into connector, depth less than 2mm

Glass Bead Installation Dimension (FYI)

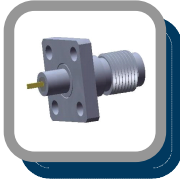
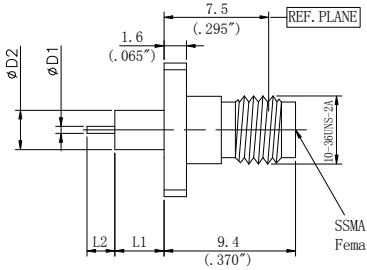
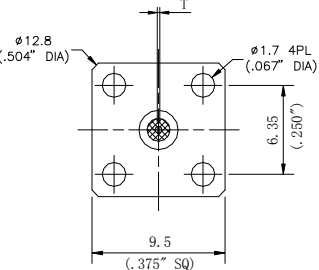


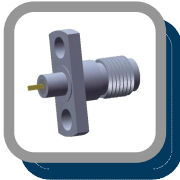
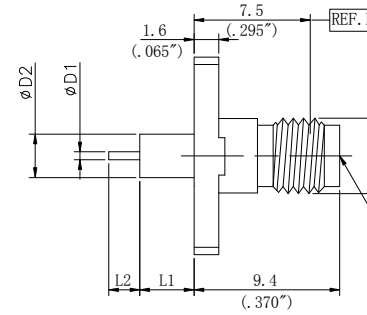
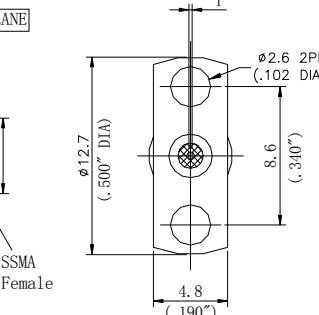
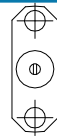
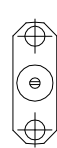
| Pin diameter | <u>0.23mm</u> 0.009 ^{''} | <u>0.30mm</u> 0.012 ^{''} | <u>0.38mm</u> 0.015 ^{''} | <u>0.46mm</u> 0.018 ^{''} | <u>0.51mm</u> 0.020 ^{''} |
|--------------|---|---|---|---|---|
| A | Glass bead dimension D&L | | | | |
| B | Glass bead dimension D&L | | | | |
| C | <u>0.15-0.20mm</u> 0.006-0.008 ^{''} | <u>0.06-0.09mm</u> 0.0025-0.0035 ^{''} | <u>0.13-0.18mm</u> 0.005-0.007 ^{''} | <u>0.18-0.23mm</u> 0.007-0.009 ^{''} | <u>0.23-0.25mm</u> 0.009-0.010 ^{''} |
| D | <u>0.77-0.82mm</u> 0.0302-0.0322 ^{''} | <u>1.65-1.70mm</u> 0.065-0.067 ^{''} | <u>1.98-2.03mm</u> 0.078-0.080 ^{''} | <u>2.13-2.18mm</u> 0.084-0.086 ^{''} | <u>3.15-3.20mm</u> 0.124-0.126 ^{''} |
| E | This is 50 ohms transmission line, In accordance with pin diameter conversion, E=pin diameter*2.3 | | | | |
| F | Solder capture slot, common dimension is F=A+1mm | | | | |
| G | Solder capture slot, common dimension is 0.5mm | | | | |


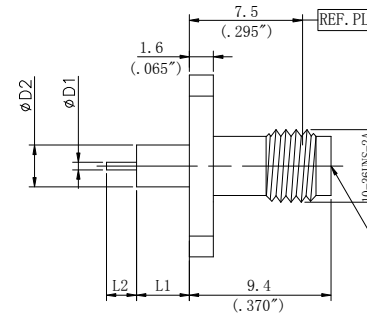
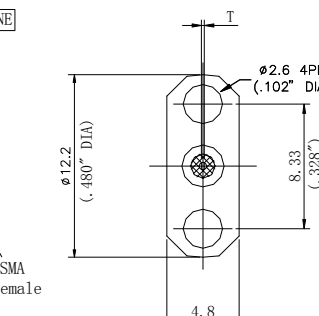
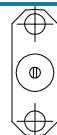
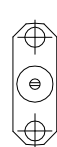
*Note: C/D structure is optional if processing precision cannot guarantee

| | <p>REF. PLANE 7.6 (.300") 1.6 (.065") 0.1 (.003") 9.5 (.375") 10-36UNF-2A SSMA Female</p> | <p>SOCKET TO ACCEPT ϕD PIN 2(.079") MAX DEPTH ϕ12.8 (.504" DIA) ϕ1.7 4PL (.067" DIA) 6.35 (.250") 9.5 (.375" SQ)</p> | <table border="1"> <thead> <tr> <th>PN</th> <th>Diameter</th> </tr> </thead> <tbody> <tr> <td>D570S09F02</td> <td>0.23mm/0.009 "</td> </tr> <tr> <td>D570S12F02</td> <td>0.30mm/0.012 "</td> </tr> <tr> <td>D570S15F02</td> <td>0.38mm/0.015 "</td> </tr> <tr> <td>D570S18F02</td> <td>0.46mm/0.018 "</td> </tr> <tr> <td>D570S20F02</td> <td>0.51mm/0.020 "</td> </tr> </tbody> </table> | PN | Diameter | D570S09F02 | 0.23mm/0.009 " | D570S12F02 | 0.30mm/0.012 " | D570S15F02 | 0.38mm/0.015 " | D570S18F02 | 0.46mm/0.018 " | D570S20F02 | 0.51mm/0.020 " |
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❖ SSMA Receptacle(Round Contact) Connectors

| | | | | | | |
|---|---|---------------|--|------------|----------------|---|
|  |  | |  | | | |
| | PN | D1 | D2 | L1 | L2 | T |
| D570M0616F02 | 0.6mm/0.024 " | 2.8mm/0.110 " | 3.1mm/0.122 " | 2mm/0.08 " | 0.20mm/0.008 " | |

| | | | | | | |
|---|--|---------------|---|------------|---|----|
|  |  | |  | |  1  2 | |
| | PN | D1 | D2 | L1 | | L2 |
| D570M0616F07 | 0.6mm/0.024 " | 2.8mm/0.110 " | 3.1mm/0.122 " | 2mm/0.08 " | 0.20mm/0.008 " | 1 |
| D570M0616F07C | 0.6mm/0.024 " | 2.8mm/0.110 " | 3.1mm/0.122 " | 2mm/0.08 " | 0.20mm/0.008 " | 2 |

| | | | | | | |
|---|---|---------------|--|------------|--|----|
|  |  | |  | |  1  2 | |
| | PN | D1 | D2 | L1 | | L2 |
| D570M0616F08 | 0.6mm/0.024 " | 2.8mm/0.110 " | 3.1mm/0.122 " | 2mm/0.08 " | 0.20mm/0.008 " | 1 |
| D570M0616F08C | 0.6mm/0.024 " | 2.8mm/0.110 " | 3.1mm/0.122 " | 2mm/0.08 " | 0.20mm/0.008 " | 2 |