With the right mix of industry experts and knowledgeable engineers, Samtec can assist with challenges throughout a customer’s system – including those specific to RF.

**TECHNICAL SUPPORT**

- Launch Optimizations
- Simulations
- Test & Measurements
- Customs

RF Technical Group: RFTechnicalGroup@samtec.com
Signal Integrity Group: SIG@samtec.com

**PRECISION RF**

- Bulls Eye* high-performance test to 50 GHz
- 34 / 40 / 50 / 65 GHz solutions
- Variety of options, including compression mount or blind-mate

**UNMATCHED SERVICE**

- 24-hour samples and quotes
- No minimum order quantity on standards
- 2 to 5 day lead time on standard products
# TABLE OF CONTENTS

## Overview
- Bulls Eye® High-Performance Test Systems ................... 4-5
- Precision RF ............................................................... 6
- Customs and Mix-and-Match Solutions ......................... 7
- 50 Ω Cables and Connectors ........................................ 8-9
- 75 Ω Cables and Connectors ........................................ 10-11
- Cable Selector Chart .................................................. 12-13
- Original Solutions ....................................................... 14

## 50 Ω and 75 Ω Cable Assemblies
- Bulls Eye® High-Performance Test Systems ............... 16-20
- Micro High Frequency U.FL/W.FL Assemblies ............. 22-23
- 50 Ω Cable Assemblies ............................................ 24-36
- 75 Ω Cable Assemblies ............................................ 37-40

## 50 Ω and 75 Ω Connectors
- 50 Ω (2.92 mm, SMA, SMP, SMB, MMCX, MCX, BNC, N Type, TNC) ........................................... 42-54
- 75 Ω (DIN 1.0/2.3, HD-BNC™, BNC, SMB) ............... 55-60

## Original RF Solutions
- 100 Ω Shielded Twisted Pair System ......................... 62-63
- Micro-Mini Ganged Systems ....................................... 64-70
- 50 Ω Cable Assembly with High-Cycle U.FL Plug ........... 71
- 75 Ω MMCX & MCX .................................................. 72-73
- IsoRate® Systems ..................................................... 74-77
- Custom Solutions ..................................................... 78
HIGH-PERFORMANCE TEST TO 50 GHz

The high-density array designs and advanced cabling solutions within Samtec's Bulls Eye® product family enable optimized performance to 50 GHz. A compression interface, small footprint and high cycle count make Bulls Eye® ideal for high-performance test applications.

**Bulls Eye® Product Family Features:**

- Compression interface to the board provides easy on/off and eliminates soldering costs
- Small footprint design significantly saves space on the board
- Microstrip or Stripline PCB transmission
- Assembly options: Dual Row (BE40A, BDRA) and Quad Row (BQRA)
- Installation: While the attach process for each series is similar, each have unique specifications that need to be observed. Contact RFTechnicalGroup@samtec.com.
- To 65 GHz in development

**Transmission Types:**

- Two options: Microstrip (BE40A) or Stripline (BE40A, BDRA, BQRA)
- Compression interface to the board
**BE40A SERIES**  50 GHz, Double Row

- Enhanced system design with signal and ground pogo pins
- Microstrip or Stripline PCB transmission
- Backward compatible with BDRA Series
- 50 Ω impedance
- Positions: 2x 3, 4, 6, 8, 10, 12, 14, 16
- End 2 options: 2.92 mm, 2.4 mm also available
- 23 AWG solid dielectric, low loss microwave cable with additional copper shielding
- Replacement components available:
  Cables (BE40C Series) | Block (BE40B Series)

**BDRA SERIES**  20 GHz, Double Row

- 23 AWG solid dielectric, low loss microwave cable
- Stripline PCB transmission
- Fixed-pin design
- 50 Ω impedance
- Positions: 2 x 12
- End 2 options: 2.92 mm, SMA also available
- Replacement components available:
  Cables (BE23S Series) | Block (BQR Series) | Elastomer

**BQRA SERIES**  20GHz, Quad Row

- 23 AWG solid dielectric, low loss microwave cable
- Stripline PCB transmission
- Fixed-pin design
- 50 Ω impedance
- Positions: 20 (Quad Row)
- End 2 options: 2.92 mm, SMA also available
- Replacement components available:
  Cables (BE23S Series) | Block (BDR Series) | Elastomer

<table>
<thead>
<tr>
<th>Series</th>
<th>BE40A</th>
<th>BDRA</th>
<th>BQRA</th>
<th>Replacement Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable</td>
<td>23 AWG, additional shielding</td>
<td>23 AWG, additional shielding</td>
<td></td>
<td>For BE40A: BE40C, BE40B</td>
</tr>
<tr>
<td>PCB Transmission</td>
<td>Microstrip or Stripline</td>
<td>Stripline</td>
<td></td>
<td>For BDRA: BE23S, BDR</td>
</tr>
<tr>
<td>Ground</td>
<td>Pogo-pin design on Bulls Eye® probe end</td>
<td>Elastomer</td>
<td></td>
<td>For BQRA: BE23S, BQR</td>
</tr>
<tr>
<td>Positions</td>
<td>2 x 3, 4, 6, 8, 10, 12, 14, 16</td>
<td>2 x 12</td>
<td>20 (Quad Row)</td>
<td></td>
</tr>
<tr>
<td>Frequency (GHz)</td>
<td>Up to 50</td>
<td>Up to 20</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

65 GHz high-performance test solution in development.
Wide variety of Precision interconnects for high-performance testing.
MIX-AND-MATCH END OPTIONS

on standard cable assemblies, with standard pricing and lead times

View series-specific catalog pages for all end options and details. Or, use the charts below as a quick reference guide.

<table>
<thead>
<tr>
<th>HIGH FREQUENCY MICROWAVE</th>
<th>50 Ω RF CABLES</th>
<th>75 Ω RF CABLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABLE</td>
<td>AWG</td>
<td>END OPTIONS</td>
</tr>
<tr>
<td>MWC-2350CU-01</td>
<td>23</td>
<td>2.92 mm, 2.4 mm, SMA, SMP</td>
</tr>
<tr>
<td>MWC-2350-01</td>
<td>23</td>
<td>3.50 mm</td>
</tr>
<tr>
<td>MWC-2550-01</td>
<td>25</td>
<td>SMA, SMP</td>
</tr>
<tr>
<td>CCA-047</td>
<td>28</td>
<td>HMH, SMA</td>
</tr>
<tr>
<td>RG 405</td>
<td>24</td>
<td>SMA, SMP</td>
</tr>
<tr>
<td>RG 402</td>
<td>19</td>
<td>SMA</td>
</tr>
<tr>
<td>RG 412</td>
<td>18</td>
<td>SMA, SMP</td>
</tr>
</tbody>
</table>

rf.samtec.com | Solutionator® Online RF Assembly Builder

Solutionator is Samtec’s online parametric filter that lets you easily choose your product and board-level mate in a matter of minutes. It also connects you directly to:

- **LIVE CHAT** with an RF engineer
- **VIEW** engineering drawings
- **REQUEST** samples and quotes

CUSTOM SOLUTIONS

28% of Samtec’s total sales are in customs or product modifications. This includes RF. Why is this? Samtec has the willingness, expertise and service to make it happen.

- **23%** Express Modifications
  - 92% do not require engineering or tooling charges

- **5%** Engineered Customs

See additional details on page 78 regarding RF Express or Engineered customs.
50 Ω RF CABLES & CONNECTORS

WIDE VARIETY OF CABLES
- High frequency microwave cables:
  - Hand-formable semi-flexible cables at .047” DIA, .086” DIA or .141” DIA
  - 23 AWG or 25 AWG solid dielectric cables to 50 GHz
  - 10 GHz, 500 cycle U.FL HMHF1 plug terminations
- Micro High Frequency U.FL/W.FL cable assemblies
- Industry standard cables with mix-and-match end options:
  - RG 316, RG 174, RG 178, RG 58
  - Double-shielded RG 316 cable for approx. 75 dB shielding effectiveness

50 Ω HIGH FREQUENCY CABLE ASSEMBLIES

<table>
<thead>
<tr>
<th>Series</th>
<th>RF405</th>
<th>RF402</th>
<th>RF23C</th>
<th>RF23S</th>
<th>RF25S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>0.86” DIA</td>
<td>.141” DIA</td>
<td>23 AWG</td>
<td>25 AWG</td>
<td></td>
</tr>
<tr>
<td>Type Cable</td>
<td>Hand-formable, semi-flexible</td>
<td>Solid dielectric, microwave</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Terminations</td>
<td>SMA, SMP</td>
<td>SMA</td>
<td>2.92 mm, 2.40 mm</td>
<td>3.50 mm</td>
<td>SMA, SMP</td>
</tr>
</tbody>
</table>

Page 32 33 34 36 36

50 Ω STANDARD CABLE ASSEMBLIES

<table>
<thead>
<tr>
<th>Series</th>
<th>RF174/RF316</th>
<th>RF178</th>
<th>RS316</th>
<th>RF058</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>U.FL &amp; W.FL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type Cable</td>
<td>0.81 mm/ 1.13 mm</td>
<td>RG 174/RG 316</td>
<td>RG 178</td>
<td>RG 316 double-shielded</td>
</tr>
<tr>
<td>Terminations</td>
<td>MHF1, MHF3, SMA</td>
<td>SMA, SMB, MCX, MMCX, MMCXV, BNC, TNC, N Type</td>
<td>SMA, SMB, MCX, MMCX, BNC, TNC, N Type</td>
<td>SMA, TNC, N Type</td>
</tr>
</tbody>
</table>

Page 22-23 24-25, 28-29 26-27 30 31

PRECISION INTERCONNECTS
See page 6
**WIDE VARIETY OF TERMINATIONS**
- MHF (U.FL/W.FL), HMHF1 (High Cycle U.FL)
- 2.92 mm, 2.40 mm, 3.50 mm, SMA, SMP, SMB, MCX, MMCX, BNC, TNC, N Type and high vibration MMCX
- Straight and right-angle available for most; variety of jacks and plugs
- Bulkhead jack options

**BOARD LEVEL INTERCONNECTS**
- Straight or right-angle orientations
- Through-hole, surface mount, edge mount or mixed technology
- 2.92 mm, SMA, SMP, MCX, MMCX, BNC and TNC
- MMCX jacks/plugs and switchable internal/external antenna jack

**SMP Plugs & Adaptors**
- Compensates for misalignment in X & Y directions
- Bullet adaptor allows for flexible connections
- Frequency range: DC to 40 GHz

**50 Ω BOARD LEVEL INTERCONNECTS**

<table>
<thead>
<tr>
<th>Series</th>
<th>292</th>
<th>SMA</th>
<th>SMP</th>
<th>SMB5</th>
<th>MMCX*</th>
<th>MCX</th>
<th>BNC5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>2.92 mm</td>
<td>SMA</td>
<td>Floating System</td>
<td>SMB</td>
<td>MMCX</td>
<td>MCX</td>
<td>BNC</td>
</tr>
<tr>
<td>Orientation</td>
<td>Straight</td>
<td>Straight, Right-Angle</td>
<td>Right-Angle</td>
<td>Straight, Right-Angle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Terminations</td>
<td>Panel Mount</td>
<td>T/H, SM, MT, Edge Mount</td>
<td>T/H, MT, Edge Mount</td>
<td>T/H</td>
<td>T/H, SM, MT, Edge Mount</td>
<td>T/H, SM, MT, Edge Mount</td>
<td>T/H</td>
</tr>
<tr>
<td>Page</td>
<td>42-43</td>
<td>44-46</td>
<td>47</td>
<td>48</td>
<td>49, 51</td>
<td>50-51</td>
<td>52</td>
</tr>
</tbody>
</table>

* High vibration available. Contact Samtec.
75 Ω RF CABLES & CONNECTORS

WIDE VARIETY OF CABLES
- Industry standard cables with mix-and-match end options: RG 179, RG 6, Belden 1694A, Belden 1855A
- RFB8T Series (with Belden 1855A cable)
- Components are available for customer-installed field termination to cable

WIDE VARIETY OF TERMINATIONS
- BNC, HD-BNC™, DIN 1.0/2.3
- 75 Ω SMB to 8 GHz
- Straight and right-angle orientations
- Die cast options available
- Unique-to-Samtec Mini and Micro-mini components with higher extraction force
- See page 14 for board mates (MCX7, MMCX7)

BOARD LEVEL INTERCONNECTS
- 12G-SDI Broadcast Video Solutions: BNC, HD-BNC™, DIN 1.0/2.3
- Through-hole, surface mount, edge mount and straight or right-angle orientations
- SMB, DIN 1.0/2.3, HD-BNC™, BNC jacks
- BNC includes low-profile, right-angle
- HD-BNC™ for high-density applications
- 75 Ω SMB jacks

75 Ω STANDARD CABLE ASSEMBLIES

<table>
<thead>
<tr>
<th>Series</th>
<th>RFA6T</th>
<th>RFB6T</th>
<th>RF179</th>
<th>RFB8T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Commodity components &amp; assemblies</td>
<td>Commodity components &amp; assemblies</td>
<td>Commodity components &amp; assemblies</td>
<td>Commodity components &amp; assemblies</td>
</tr>
<tr>
<td>Type Cable</td>
<td>RG 6</td>
<td>1694A</td>
<td>RG 179</td>
<td>1855A</td>
</tr>
<tr>
<td>Terminations</td>
<td>HD-BNC™, BNC, DIN 1.0/2.3</td>
<td>HD-BNC™, BNC, DIN 1.0/2.3</td>
<td>MMCX7, MCX, SMB, BNC, DIN 1.0/2.3</td>
<td>HD-BNC™, DIN 1.0/2.3</td>
</tr>
</tbody>
</table>

| Page | 37 | 37 | 38-39 | 40 |

* HD-BNC™ is a trademark of Amphenol.
HD-BNC SYSTEMS
- 4X the panel density of traditional BNCs
- Patented design and bayonet latch
- 20% reduction in weight of traditional BNCs
- Crimp style plugs use industry standard termination tools
- Compatible with Amphenol’s HD-BNC™

Broadcast Video Solutions
samtec.com/12GSDI
Samtec has the largest variety of 12G-SDI products available: BNC, HD-BNC™ and DIN 1.0/2.3 with a variety of orientation and termination options including low-profile, right-angle.

Contact RFTechnicalGroup@samtec.com for more information.

75 Ω BOARD LEVEL INTERCONNECTS

<table>
<thead>
<tr>
<th>Series</th>
<th>DIN7A</th>
<th>HD8NC</th>
<th>BNC7T</th>
<th>SMB7H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>DIN 1.0/2.3</td>
<td>High-Density BNC</td>
<td>BNC</td>
<td>SMB</td>
</tr>
<tr>
<td>Orientation</td>
<td>Straight, Right-Angle</td>
<td>Straight, Right-Angle</td>
<td>Straight, Right-Angle</td>
<td>Straight, Right-Angle</td>
</tr>
<tr>
<td>Terminations</td>
<td>T/H</td>
<td>T/H, Edge Mount</td>
<td>T/H, Edge Mount</td>
<td>T/H, Edge Mount</td>
</tr>
</tbody>
</table>

Page 55 56-57 58-59 60
### RF CABLE SPECIFICATIONS

<table>
<thead>
<tr>
<th>CABLE TYPE</th>
<th>50 Ω CABLES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.81</td>
</tr>
<tr>
<td>Impedance</td>
<td>Ω</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Attenuation (dB/m)</td>
<td></td>
</tr>
<tr>
<td>100 MHz</td>
<td>1.0</td>
</tr>
<tr>
<td>1 GHz</td>
<td>3.1</td>
</tr>
<tr>
<td>6 GHz</td>
<td>8.6</td>
</tr>
<tr>
<td>Dielectric Constant (dk)</td>
<td>-----</td>
</tr>
<tr>
<td>Dielectric Strength</td>
<td>VAC</td>
</tr>
<tr>
<td>Propagation Delay</td>
<td>nS/m</td>
</tr>
<tr>
<td>Current Rating</td>
<td>Amps</td>
</tr>
<tr>
<td>Capacitance</td>
<td>pF/m</td>
</tr>
</tbody>
</table>

#### Center Conductor

<table>
<thead>
<tr>
<th>Material</th>
<th>AWG</th>
<th>Stranding (No./mm)</th>
<th>Diameter (mm)</th>
<th>Max Resistance (Ω/m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEP</td>
<td>36</td>
<td>7/0.05</td>
<td>0.15</td>
<td>1.40</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td>7/0.076</td>
<td>0.23</td>
<td>0.60</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>7/0.10</td>
<td>0.31</td>
<td>0.34</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>9/0.16</td>
<td>0.48</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>7/0.17</td>
<td>0.48</td>
<td>0.14</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td></td>
<td>0.51</td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td></td>
<td>0.53</td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td></td>
<td>0.80</td>
<td>0.13</td>
</tr>
</tbody>
</table>

#### Dielectric

<table>
<thead>
<tr>
<th>Material</th>
<th>FEP</th>
<th>PTFE</th>
<th>Foamed FEP</th>
<th>KLPE</th>
<th>PTFE</th>
<th>FEP</th>
<th>Solid Polyethylene</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter (mm)</td>
<td>0.40</td>
<td>0.68</td>
<td>0.84</td>
<td>1.29</td>
<td>1.52</td>
<td>1.52</td>
<td>1.53</td>
</tr>
</tbody>
</table>

#### Shield

<table>
<thead>
<tr>
<th>Material</th>
<th>Silver Plated Copper</th>
<th>Tinned Copper</th>
<th>Silver Plated Copper</th>
<th>Tinned Copper</th>
<th>Silver Plated Copper</th>
<th>Tinned Copper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter (mm)</td>
<td>0.65</td>
<td>0.89</td>
<td>1.37</td>
<td>1.5</td>
<td>2.57</td>
<td>1.73</td>
</tr>
</tbody>
</table>

#### Jacket

<table>
<thead>
<tr>
<th>Material</th>
<th>PFA</th>
<th>FEP</th>
<th>PVC</th>
<th>FEP</th>
<th>PVC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter (mm)</td>
<td>0.81</td>
<td>1.13</td>
<td>1.80</td>
<td>2.79</td>
<td>2.53</td>
</tr>
</tbody>
</table>

#### Temp Rating

-40 °C to +90 °C  
-50 °C to +165 °C  
-40 °C to +200 °C  
-20 °C to +80 °C  
-55 °C to +165 °C  
-50 °C to +90 °C

#### Color

- Gray  
- Brown  
- Blue  
- Black  
- Brown  
- Black

#### Bend Radius

- Min 5 mm 6.8 mm 10.2 mm 3.175 mm 25.4 mm 12.7 mm 12.8 mm 48.3 mm

#### Termination Options

MHF1, MHF3, SMA  
MHF1, SMA  
MMCX, MCX, SMA, SMB, BNC, TNC, N Type, Ganged  
MMCX, MCX, SMA, BNC, TNC  
SM, TNC, N Type

#### Samtec Series

- MH081  
- MH113  
- RF178  
- LSC  
- RF174  
- RF316, IJSC, IJSH, GRF1-C, GRF1H-C  
- RS316  
- RF058
### 50 Ω MICROWAVE CABLES

<table>
<thead>
<tr>
<th>MWC-2550-01</th>
<th>MWC-2350-01</th>
<th>MWC-2350CU-01</th>
<th>CCA-047 (.047&quot;)</th>
<th>RG 405 (.086&quot;)</th>
<th>RG 402 (.141&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 ± 1</td>
<td>50 ± 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.65 @ 1 GHz</td>
<td>0.17</td>
<td>0.80 @ 0.5 GHz</td>
<td>0.72 @ 1 GHz</td>
<td>0.40 @ 1 GHz</td>
<td></td>
</tr>
<tr>
<td>1.37 @ 4 GHz</td>
<td>0.7</td>
<td>1.15</td>
<td>2.59 @ 4 GHz</td>
<td>1.04 @ 4 GHz</td>
<td></td>
</tr>
<tr>
<td>3.36 @ 20 GHz</td>
<td>1.7</td>
<td>2.62 @ 4 GHz</td>
<td>4.26 @ 20 GHz</td>
<td>2.30 @ 20 GHz</td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>2.15</td>
<td>2.1</td>
<td>2.04</td>
<td>1.99</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>300</td>
<td>-----</td>
<td>1000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.76</td>
<td>4.72</td>
<td>4.76</td>
<td>-----</td>
<td>4.79</td>
<td></td>
</tr>
<tr>
<td>5.3</td>
<td>7.4</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>96.8</td>
<td>95.45</td>
<td>97.80</td>
<td>95.14</td>
<td>98.072</td>
<td></td>
</tr>
</tbody>
</table>

### 75 Ω MICROWAVE CABLES

<table>
<thead>
<tr>
<th>RG 179</th>
<th>BELDEN 1855A</th>
<th>BELDEN 1694A</th>
<th>RG 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>75 ± 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.3</td>
<td>0.12</td>
<td>0.07</td>
<td></td>
</tr>
<tr>
<td>0.8</td>
<td>0.37</td>
<td>0.21</td>
<td></td>
</tr>
<tr>
<td>3.6</td>
<td>0.97</td>
<td>0.59</td>
<td></td>
</tr>
<tr>
<td>1.8</td>
<td>1.42</td>
<td>1.44</td>
<td></td>
</tr>
<tr>
<td>1200</td>
<td>300</td>
<td>2000</td>
<td>2.1</td>
</tr>
<tr>
<td>4.83</td>
<td>4.12</td>
<td>4.06</td>
<td>4.03</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>64</td>
<td>55.7</td>
<td>53.14</td>
<td>38</td>
</tr>
</tbody>
</table>

### 100 Ω CABLES

<table>
<thead>
<tr>
<th>TPS-28100-RF</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 ± 5</td>
</tr>
</tbody>
</table>

### Silver Plated Copper

<table>
<thead>
<tr>
<th>Silver Plated Copper</th>
<th>Silver Plated Copper Clad Steel</th>
<th>Silver Plated Copper Clad Steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>23</td>
<td>28</td>
</tr>
<tr>
<td>1/0.45</td>
<td>1/0.57</td>
<td>1/0.29</td>
</tr>
<tr>
<td>0.45</td>
<td>0.57</td>
<td>0.29</td>
</tr>
<tr>
<td>0.105</td>
<td>0.071</td>
<td>-----</td>
</tr>
<tr>
<td>Solid FEP</td>
<td>FEP</td>
<td>PTFE</td>
</tr>
<tr>
<td>1.46</td>
<td>1.85</td>
<td>0.92</td>
</tr>
<tr>
<td>1.87</td>
<td>2.25</td>
<td>1.12</td>
</tr>
<tr>
<td>FEP</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>2.06</td>
<td>2.59</td>
<td>1.42</td>
</tr>
<tr>
<td>-40 °C to +200 °C</td>
<td>-65 °C to +165 °C</td>
<td>-40 °C to +125 °C</td>
</tr>
<tr>
<td>Blue</td>
<td>Violet</td>
<td>Brown</td>
</tr>
</tbody>
</table>

### 9 mm, 12 mm, 6 mm, 10 mm, 3.18 mm, 6.35 mm

<table>
<thead>
<tr>
<th>SMA, SMP</th>
<th>RF25S, BORA, RF23S</th>
<th>RF23C, BE40A</th>
<th>RF047</th>
<th>RF405</th>
<th>RF402</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.50, 2.92</td>
<td>2.92, 2.40, SMA, SMP</td>
<td>HMF1 (U, FL), SMA</td>
<td>SMA, SMP</td>
<td>SMA</td>
<td></td>
</tr>
<tr>
<td>10.2 mm</td>
<td>38.1 mm</td>
<td>69.85 mm</td>
<td>19.05 mm</td>
<td>CJT</td>
<td></td>
</tr>
</tbody>
</table>

### 0.18 mm, 0.37 mm, 0.97 mm

<table>
<thead>
<tr>
<th>RF179, GRF7-C, GRF7H-C</th>
<th>RFB8T</th>
<th>RFB6T</th>
<th>RFA6T</th>
<th>C28S</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.17</td>
<td>1.21</td>
<td>1.12</td>
<td>1.47</td>
<td></td>
</tr>
<tr>
<td>0.21</td>
<td>0.97</td>
<td>0.59</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>0.3</td>
<td>1.42</td>
<td>1.44</td>
<td>38</td>
<td></td>
</tr>
</tbody>
</table>
ORIGIONAL RF SOLUTIONS

SHIELDED TWISTED PAIR SYSTEM
• 100 Ω differential pair
• 28 AWG shielded twisted pair cable assembly
• High reliability BeCu contacts
• 1/4-turn bayonet lock

GANGED MICRO-MINI SYSTEMS
• 50 Ω & 75 Ω board stacking and cable assemblies
• High performance rugged contacts
• Variety of End 2 options (GRF1H, GRF7H Series)

ISORATE® SYSTEMS
• 50 Ω board stacking and cable assemblies
• Isolated signal systems for 90 percent performance of traditional RF at 50 percent of the cost

MINI & MICRO-MINI INTERCONNECTS
• Higher extraction forces
• Not intermateable with standard MMCX, MCX

HIGH-CYCLE U.FL CABLE PLUG
• 500 cycle U.FL compatible plug (HMHF1)
• .047" DIA flexible cable (RF047 Series)

CABLE SOLUTIONS

<table>
<thead>
<tr>
<th>Series</th>
<th>Application</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>C28S/CJT</td>
<td>Shielded Twisted Pair</td>
<td>62-63</td>
</tr>
<tr>
<td>GRF1-C</td>
<td>50 Ω Micro-Mini Ganged</td>
<td>65</td>
</tr>
<tr>
<td>GRF1H-C / GRF7H-C</td>
<td>50 &amp; 75 Ω Micro-Mini Hybrid Ganged</td>
<td>66-69</td>
</tr>
<tr>
<td>RF047</td>
<td>50 Ω .047 DIA flexible cable</td>
<td>71</td>
</tr>
<tr>
<td>IJ5C/IJ5H</td>
<td>50 Ω IsoRate®</td>
<td>74-75</td>
</tr>
</tbody>
</table>

BOARD-TO-BOARD SOLUTIONS

<table>
<thead>
<tr>
<th>Series</th>
<th>Application</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRF1-P/GRF1-J</td>
<td>50 Ω Micro-Mini Ganged</td>
<td>64</td>
</tr>
<tr>
<td>GRF7-P/GRF7-J</td>
<td>75 Ω Micro-Mini Ganged</td>
<td>70</td>
</tr>
<tr>
<td>MMCX7</td>
<td>75 Ω Mini and Micro-Mini Interconnects</td>
<td>72</td>
</tr>
<tr>
<td>MCX7</td>
<td>50 Ω IsoRate®</td>
<td>73</td>
</tr>
<tr>
<td>IJ5/IP5</td>
<td>50 Ω IsoRate®</td>
<td>76-77</td>
</tr>
</tbody>
</table>
HIGH PERFORMANCE TEST SYSTEMS
Bulls Eye® Cross Reference Chart .................................................. 16
50 GHz, Double Row, 23 AWG Cable Assembly (BE40A) ...................... 17
20 GHz, Double Row, 23 AWG Cable Assembly (BDRA) ....................... 18
20 GHz, Quad Row, 23 AWG Cable Assembly (BQRA) ......................... 19

REPLACEMENT COMPONENTS
Replacement Block for BE40A Series Bulls Eye® Assembly (BE40B) .......... 20
Replacement Cable for BE40A Series Bulls Eye® Assembly (BE40C) .......... 20
Replacement Block for BDRA Series Bulls Eye® Assembly (BDR) .......... 20
Replacement Block for BQRA Series Bulls Eye® Assembly (BQR) .......... 20
Replacement Cable for BDRA & BQRA Series Bulls Eye® Assembly (BE23S) .......... 20

APPLICATIONS
Bulls Eye® High-Performance Test to 50 GHz ........................................ 4-5
HIGH-PERFORMANCE TEST TO 50 GHz

Compression interface design, small footprint and high-cycle count make Bulls Eye® ideal for high-performance test applications.

Bulls Eye® Series Cross Reference

<table>
<thead>
<tr>
<th></th>
<th>BE40A</th>
<th>BDRA</th>
<th>BQRA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance</td>
<td>50 GHz</td>
<td>20 GHz</td>
<td></td>
</tr>
<tr>
<td>End 2 Options</td>
<td>2.40 mm Jack / Plug (50 GHz), 2.92 mm Jack/Plug</td>
<td>2.92 mm Jack / Plug</td>
<td></td>
</tr>
<tr>
<td>Cable Type</td>
<td>23 AWG, Double Row, Copper Foil Shield</td>
<td>23 AWG, Double Row</td>
<td>23 AWG, Quad Row</td>
</tr>
<tr>
<td>Cable Management</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>PCB Transmission</td>
<td>Microstrip or Stripline</td>
<td>Stripline</td>
<td></td>
</tr>
<tr>
<td>Ground</td>
<td>Pogo-pin design on Bulls Eye® probe end</td>
<td>Elastomer</td>
<td></td>
</tr>
<tr>
<td>No. of Positions</td>
<td>2x 3, 4, 6, 8, 10, 12, 14, 16</td>
<td>2x 12</td>
<td>20 (Quad Row)</td>
</tr>
<tr>
<td>Impedance</td>
<td></td>
<td></td>
<td>50 Ω</td>
</tr>
<tr>
<td>Future Proof</td>
<td>BE40A is backward compatible with BDRA</td>
<td></td>
<td>N/A</td>
</tr>
</tbody>
</table>

Test assemblies up to 65 GHz are in development.
Replacement components are available (cables, blocks, elastomer) – See page 20.

INSTALLATION

Samtec offers a variety of series within the Bulls Eye® product family for meeting customer’s criteria. While the attach process is similar, each have unique specifications that need to be observed.
For questions, please contact RFTechnicalGroup@samtec.com.

Due to technical progress, all designs, specifications and components are subject to change without notice.

All parts within this catalog are built to Samtec’s specifications.
Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
50 GHz DOUBLE ROW TEST ASSEMBLY

SPECIFICATIONS
For complete specifications see www.samtec.com?BE40A

End 2 Connector:
Shell Material: Stainless Steel
Contact Material: BeCu
Cable Body: Stainless Steel
Insulator Material: Ultem 1000
Operating Temperature: -65 °C to +165 °C
Impedance: 50 Ω
Frequency Range: 50 GHz
RoHS Compliant: Yes

MWC-2350CU-01
Cable:
Type: Low Loss Microwave Coax
Gauge: 23 AWG
Shield Material: 1. Flat silver plated copper 2. Copper tape 3. Silver plated copper braid
Dielectric: Solid FEP
Jacket Material: FEP
Bend Radius: 6 mm
Impedance: 50 ± 1 Ω
Propagation Delay: 4.76 nsec/meter
Capacitance: 97.80 pF/meter

TEST REPORTS
Visit www.samtec.com?BE40A or contact RFTechnicalGroup@samtec.com for Insertion Loss, Return Loss, V.S.W.R. and other testing information.

COMPONENTS
• For replacement cable see www.samtec.com?BE40C
• For replacement block see www.samtec.com?BE40B

END 2 OPTIONS
• –92SJ = 2.92 mm
• –24SJ* = 2.40 mm
Straight Jack (30 µ" (0.76 µm) Gold on Center Contact, Stainless Steel on Shell)

• –92SP = 2.92 mm
• –24SP* = 2.40 mm
Straight Plug (30 µ" (0.76 µm) Gold on Center Contact, Stainless Steel on Shell)

Notes:
Cable lengths longer than 40.00” (1 meter) are not supported with S.I. test data
Some lengths, styles and options are non-standard, non-returnable.

WWW.SAMTEC.COM
Due to technical progress, all designs, specifications and components are subject to change without notice.
All parts within this catalog are built to Samtec’s specifications.
Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
20 GHz DOUBLE ROW TEST ASSEMBLY

SPECIFICATIONS

For complete specifications see www.samtec.com?BDRA

End 2 Connector:
Shell Material: Stainless Steel
Contact Material: BeCu
Cable Body: Stainless Steel
Insulator Material: Ultem 1000
Operating Temperature: -65 °C to +165 °C
Impedance: 50 Ω
Frequency Range: 20 GHz
RoHS Compliant: Yes
MWC-2350-01
Cable:
Cable Type: Low Loss Microwave Coax
Gauge: 23 AWG
Shield Material:
1. Flat silver plated copper
2. Silver plated copper braid
Dielectric: Solid FEP
Jacket Material: FEP
Bend Radius: 12 mm
Impedance: 50 Ω ±1 Ω

COMPONENTS

- For replacement cable see www.samtec.com?BE23S
- For replacement block see www.samtec.com?BDR
- Replacement elastomer gaskets available Contact Samtec.

Due to technical progress, all designs, specifications and components are subject to change without notice.
All parts within this catalog are built to Samtec’s specifications. Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
**SPECIFICATIONS**

For complete specifications see www.samtec.com/BQRA

**End 2 Connector:**
- **Shell Material:** Stainless Steel
- **Contact Material:** BeCu
- **Cable Body:** Stainless Steel
- **Insulator Material:** Ultem 1000
- **Operating Temperature:** -65 °C to +165 °C
- **Impedance:** 50 Ω
- **Frequency Range:** 20 GHz
- **RoHS Compliant:** Yes

**MWC-2350-01**

**Cable:**
- **Type:** Low Loss Microwave Coax
- **Gauge:** 23 AWG
- **Shield Material:**
  1. Flat silver plated copper
  2. Silver plated copper braid
- **Dielectric:** Solid FEP
- **Jacket Material:** FEP
- **Bend Radius:** 12 mm
- **Impedance:** 50 Ω ±1 Ω

**COMPONENTS**

- For replacement cable see www.samtec.com/BQRA
- For replacement block see www.samtec.com/BQRA
- Replacement elastomer gaskets available
  - Contact Samtec.

**END 2 CONNECTOR**

- **End 2 Option:**
  - **92SJP = 2.92 mm Straight Jack**
  - **92SPP = 2.92 mm Straight Plug**

**PHASE MATCHING**

- **Specify END 2 OPTION from chart**

**OVERALL LENGTH**

- **XXXX** = OAL (millimeters)

**END 2 OPTIONS**

- **92SJP = 2.92 mm Straight Jack**
  - (30 μ (0.76 μm) Gold on Center Contact, Stainless Steel on Shell)
- **92SPP = 2.92 mm Straight Plug**
  - (30 μ (0.76 μm) Gold on Center Contact, Stainless Steel on Shell)

**Due to technical progress, all designs, specifications and components are subject to change without notice.**

**WWW.SAMTEC.COM**

Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
**REPLACEMENT COMPONENTS**

Testing can be a long, arduous process and engineers need an assembly that will standup to the demands. Yet, even the best components have a life cycle. As a result, Samtec makes it easy to order replacement components for our Bulls Eye® assemblies. The following outlines each replacement component, and in which assembly it is used:

<table>
<thead>
<tr>
<th>SERIES</th>
<th>COMPONENT</th>
<th>ASSEMBLY USED IN</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE40B</td>
<td>Block</td>
<td>BE40A</td>
</tr>
<tr>
<td>BE40C</td>
<td>Cable</td>
<td>BE40A</td>
</tr>
<tr>
<td>BDR</td>
<td>Block</td>
<td>BDRA</td>
</tr>
<tr>
<td>BQR</td>
<td>Block</td>
<td>BQRA</td>
</tr>
<tr>
<td>BE23S</td>
<td>Cable</td>
<td>BDRA and BQRA</td>
</tr>
<tr>
<td></td>
<td>Elastomer</td>
<td>BDRA and BQRA</td>
</tr>
</tbody>
</table>

To find these replacement components on our website, simply type the series name into the search box in the upper, right-hand corner of samtec.com. Contact RFTechnicalGroup@samtec.com for additional information.

**BE40B SERIES**
- Replacement block for 50 GHz Bulls Eye® (BE40A)
- Microstrip or stripline PCB transmission
- Double row

**BE40C SERIES**
- Replacement cable for 50 GHz Bulls Eye® (BE40A)
- Pogo-pin design with ground/signal/ground
- 23 AWG solid dielectric low loss cable with additional copper foil shield

**BDR SERIES**
- Replacement block for 20 GHz Bulls Eye® (BDRA)
- Stripline PCB transmission
- Double row

**BQR SERIES**
- Replacement block for 20 GHz Bulls Eye® (BDRA)
- Stripline PCB transmission
- Quad row

**BE23S SERIES**
- Replacement cable for 20 GHz Bulls Eye® (BDRA, BQRA)
- Fixed-pin design
- 23 AWG solid dielectric low loss cable

*Due to technical progress, all designs, specifications and components are subject to change without notice.*
50 Ω & 75 Ω CABLE ASSEMBLIES

MICRO HIGH FREQUENCY
50 Ω RF Cable Assembly, 0.81 mm Diameter (MH081).......................................................... 22
50 Ω RF Cable Assembly, 1.31 mm Diameter (MH113).......................................................... 23

50 Ω CABLE ASSEMBLIES
RF Cable Assembly, RG 174 Cable (RF174)....................................................................... 24-25
RF Cable Assembly, RG 178 Cable (RF178)....................................................................... 26-27
RF Cable Assembly, RG 316 Cable (RF316)....................................................................... 28-29
RF Cable Assembly, Double Shielded RG 316 Cable (RS316)............................................. 30
RF Cable Assembly, RG 58 Cable (RF058)....................................................................... 31
24 AWG Semi-Flexible RF Cable Assembly, (.086" DIA) (RF405)........................................... 32
19 AWG Semi-Flexible RF Cable Assembly, (.141" DIA) (RF402)........................................... 33
50 GHz RF Cable Assembly, 23 AWG (RF23C).................................................................... 34-35
20 GHz RF Cable Assembly, 23 & 25 AWG (RF23S & RF25S)............................................ 36

75 Ω CABLE ASSEMBLIES
RF Cable Assembly, RG 6 Cable, 1694A Cable (RFA6T, RFB6T).......................................... 37
RF Cable Assembly, RG 179 Cable (RF179)....................................................................... 38-39
RF Cable Assembly, 1855A Cable (RFB8T)....................................................................... 40

APPLICATIONS
50 Ω Cables & Connectors........................................................................................................ 8-9
75 Ω Cables & Connectors........................................................................................................ 10-11
MICRO HIGH FREQUENCY RF CABLES

SPECIFICATIONS
For complete specifications see www.samtec.com?MH081

Outer Contact Material: Au plated Phosphor Bronze
Center Contact Material: Au plated BaCu (SMA)
Insulator Material: PBT (MHX)
PTFE (SMA)

Operating Temperature: -40 °C to +90 °C
Voltage Rating: 170 V max
Dielectric Withstanding Voltage: 200 Vrms
Frequency Range: 0–6 GHz
Impedance: 50 Ω
RoHS Compliant: Yes

0.81 mm Cable:
Impedance: 50 Ω
Capacitance: 100 pF/meter
Max Attenuation (cable only): 3.1 dB @ 1 GHz
Conductor Size: 36 AWG, (0.81 mm).032" dia.
Conductor Material: Silver Plated Copper
Conductor Resistance: 1.40 Ω/meter max
Insulator Diameter: (0.4 mm).016”
Insulator Material: FEP
Shield Material: Silver Plated Copper
Jacket Material: PFA
Jacket Diameter: (0.81 mm).032” dia.
Bend Radius: 5.0 mm
Jacket Temp Rating: -40 °C to +90 °C
RoHS Compliant: Yes

APPLICATION

MH081

END 1 CONNECTOR

END 2 CONNECTOR

OVERALL LENGTH

Specify END OPTIONS from chart

MH081 OVERALL LENGTH

–0030 = 1.18” (30 mm)
–0050 = 1.97” (50 mm)
–0100 = 3.94” (100 mm)
–0150 = 5.91” (150 mm)
–0300 = 11.81” (300 mm)

END OPTIONS

–MH1RP = MHF1 Type Plug
(3.9 µ" (1 µm) Gold on Center Contact, 1.9 µ" (0.05 µm) Gold on Shell)

–MH3RP = MHF3 Type Plug
(3.9 µ" (1 µm) Gold on Center Contact, 1.9 µ" (0.05 µm) Gold on Shell)

–01BJ1 = SMA Straight Bulkhead Jack
–01BJ2 = SMA Straight Bulkhead Jack, Reversed Polarity
–01S1 = SMA Straight Jack, Sealed Bulkhead
–01SR1 = SMA Straight Jack, Sealed Bulkhead, Reversed Polarity
(30 µ" (0.76 µm) Gold on Center Contact, Gold Flash on Shell)

–SING = Single Ended (End 2 callout)

XXXXXX = Stripped & Tinned (End 2 callout)

STRIPPED & TINNED
(Dimensions in mm)

CALLOUT A B C
–03030 3.0 3.0 3.0
–03030 3.0 3.0 4.0
–03030 4.0 3.0 3.0
–03030 4.0 3.0 4.0
–04040 4.0 4.0 4.0

Both center conductor and braid shield are stripped, only the center conductor is tinned.

MH081 Series was previously RF081 Series

MH081–MH3RP–01BJ1–0300
MH081–MH3RP–01BJ2–0300
Mating PCB connectors available

Due to technical progress, all designs, specifications and components are subject to change without notice.

All parts within this catalog are built to Samtec’s specifications.
Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.

WWW.SAMTEC.COM
MH113* SERIES

MICRO HIGH FREQUENCY RF CABLES

SPECIFICATIONS
For complete specifications see www.samtec.com/MH113

Outer Contact Material: Au plated Phosphor Bronze
Center Contact Material: Au plated Phosphor Bronze (MHX)
Au plated BeCu (SMA)
Insulator Material: PBT (MHX)
PTFE (SMA)

Operating Temperature:
-40 °C to +90 °C
Voltage Rating: 170 V max
Dielectric Withstanding Voltage: 200 V rms
Frequency Range: 0–6 GHz
Impedance: 50 Ω
RoHS Compliant: Yes

1.13 mm Cable:
Impedance: 50 Ω
Capacitance: 95 pF/meter
Max Attenuation (cable only): 2 dB @ 1 GHz
Conductor Size: 32 AWG, (1.13 mm) .045” dia.
Conductor Material: Silver Plated Copper
Conductor Resistance: 0.60 Ω/meter max
Insulator Diameter: (0.66 mm) .026”
Insulator Material: FEP
Shield Material: Tinned Copper
Jacket Material: FEP
Jacket Diameter: (1.13 mm) .045” dia
Bend Radius: 6.8 mm
Jacket Temp Rating: -40 °C to +90 °C
RoHS Compliant: Yes

ALSO AVAILABLE (MOQ Required)
• Additional stripping and tinning options
• Additional end connector combinations
• Overall lengths
Contact Samtec.

EXTRACTION TOOL
• -MH1RP = RSP-122893-01

* MH113 Series was previously RF113 Series

MH113–MH1RP–MH1RP–0300
Micro High Frequency RF, MHF or SMA Bulkhead
Mating PCB connectors available
U.FL Type

APPLICATION

MH113–MH1RP–01BJ1–0300
2.4 mm (2.5 mm MAX)

Specify END OPTIONS from chart

MH113 OVERALL LENGTH

OVERALL LENGTH

0030 = 1.18” (30 mm)
0050 = 1.97” (50 mm)
0100 = 3.94” (100 mm)
0150 = 5.91” (150 mm)
0300 = 11.81” (300 mm)

END OPTIONS

-MH1RP = MHF1 Type Plug
(3.9 µ” (.1 µm) Gold on Center Contact, 1.9 µ” (.06 µm) Gold on Shell)

-01BJ = SMA Straight Bulkhead Jack
-01BJ2 = SMA Straight Bulkhead Jack, Reversed Polarity
-01SB1 = SMA Straight Jack, Sealed Bulkhead
-01SR1 = SMA Straight Jack, Sealed Bulkhead, Reversed Polarity
(30 µ” (0.76 µm) Gold on Center Contact, Gold Flash on Shell)

-SING = Single Ended (End 2 callout)

XXXXX = Stripped & Tinned (End 2 callout)

STRIPPED & TINNED (Dimensions in mm)

CALLOUT A B C
303030 3.0 3.0 3.0
303040 3.0 3.0 4.0
403030 4.0 3.0 3.0
403040 4.0 3.0 4.0
404040 4.0 4.0 4.0

Both center conductor and braid shield are stripped, only the center conductor is tinned.

Due to technical progress, all designs, specifications and components are subject to change without notice.
Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
**SPECIFICATIONS**

For complete specifications see www.samtec.com?RF174

**RF Connector:**
- Outer Contact Material: Ni plated Brass (BNC)
- Au plated Brass (SMB & SMA)
- Au plated BeCu (MCX & MMCX)
- Center Contact Material: Au plated Brass (BNC-P, MCX-P, MMCX-P & SMA-P)
- Au plated BeCu (SMB-P & SMA-J)
- Au plated Phos. Bronze (BNC-J)
- Insulator Material: PTFE
- Operating Temperature: -55°C to +90°C
- Impedance: 50Ω
- Frequency Range: 0–6 GHz (Cable & connector dependent)
- RoHS Compliant: Yes

**RG 174 Cable:**
- Impedance: 50Ω
- Capacitance: 101.024 pF/meter
- Max Attenuation (cable only): 1.4 dB @ 1 GHz for 1 meter
- Conductor Size: 26 AWG, (0.48 mm) .019" dia.
- Conductor Material: Copper
- Insulator Material: KLPE
- Shield Material: Tin Copper
- Jacket Material: PVC
- Jacket Diameter: (2.70 mm) .106"
- Jacket Color: Black
- Bend Radius: 25.4 mm
- RoHS Compliant: Yes

**Mates with:**
- MCX, MMCX, MMCXV, SMA, SMB5, BNC5, TNC

**50 Ω RG 174 CABLE ASSEMBLIES**

- Create a full system: cable assembly and board level mates, 50Ω and 75Ω solutions
- 24-hour samples on standard products
- Visit: rf.samtec.com

---

**CABLE TYPE**

*RF174 = RG 174 Cable*

**END 1 CONNECTOR**

**END OPTIONS**

<table>
<thead>
<tr>
<th>END OPTIONS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-01SP1 = SMA</td>
<td>Straight Plug (30 µ&quot; (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
</tr>
<tr>
<td>-01RP1 = SMA</td>
<td>Right-angle Plug (30 µ&quot; (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
</tr>
<tr>
<td>-07SP1 = SMB</td>
<td>Straight Plug (30 µ&quot; (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
</tr>
<tr>
<td>-07RP1 = SMB</td>
<td>Right-angle Plug (30 µ&quot; (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
</tr>
<tr>
<td>-02SJ1 = MCX</td>
<td>Straight Jack (30 µ&quot; (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
</tr>
</tbody>
</table>

**END 2 CONNECTOR**

**END OPTIONS**

<table>
<thead>
<tr>
<th>END OPTIONS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-02RP1 = MCX</td>
<td>Right-angle Plug, High Vibration (30 µ&quot; (0.76 µm) Gold on Center Contact, Nickel on Shell)</td>
</tr>
<tr>
<td>-02SP1 = MCX</td>
<td>Straight Plug, High Vibration (30 µ&quot; (0.76 µm) Gold on Center Contact, Nickel on Shell)</td>
</tr>
<tr>
<td>-03SP1 = MMCX</td>
<td>Straight Plug, High Vibration (30 µ&quot; (0.76 µm) Gold on Center Contact, Nickel on Shell)</td>
</tr>
<tr>
<td>-03RP1 = MMCX</td>
<td>Right-angle Plug, High Vibration (30 µ&quot; (0.76 µm) Gold on Center Contact, Nickel on Shell)</td>
</tr>
<tr>
<td>-V3SP1 = MMCXV</td>
<td>Straight Plug (30 µ&quot; (0.76 µm) Gold on Center Contact, Nickel on Shell)</td>
</tr>
<tr>
<td>-V3RP1 = MMCXV</td>
<td>Right-angle Plug, High Vibration (30 µ&quot; (0.76 µm) Gold on Center Contact, Nickel on Shell)</td>
</tr>
</tbody>
</table>

---

Due to technical progress, all designs, specifications and components are subject to change without notice.

Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.

WWW.SAMTEC.COM
### RF174 Series

**Standard heat shrink wraps**

**Variety of Bulkhead Jacks**

- **RF174–04BJ2–07SP1–0100**
- **RF174–02RP1–02SP1–0200**
- **RF174–03RP1–07RP1–0200**

**Choice of RF connector styles**

- Heavy Gold plated

**Also Available**

- **(MOQ Required)**
  - Additional stripping and tinning options
  - IP67 TNC option
  - Additional plating options
  - Additional end connector combinations
  - Knurled nuts with BNC option
  - Contact Samtec.

**Other Solutions**

- Cable connector kits (see cable components catalog pages)

### Overall Length

**“XXXX”**

= Overall Length in millimeters –0100 (100 mm) minimum

(Cable lengths larger than 1000 millimeters are not supported by S.I. Test data)

<table>
<thead>
<tr>
<th>END OPTIONS</th>
<th>END OPTIONS</th>
<th>END OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>–04P3 = BNC</td>
<td>–01PN1 = SMA</td>
<td>–SING = Single Ended (End 2 Callout)</td>
</tr>
<tr>
<td>Straight Plug (10 µ (0.25 µm), Gold on Center Contact, Nickel on Shell)</td>
<td>4-Hole Panel Mount Jack (30 µ (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
<td>XXXXXX = Stripped &amp; Tinned (End 2 Callout)</td>
</tr>
<tr>
<td>–05P3 = TNC</td>
<td>–04BJ2 = BNC</td>
<td></td>
</tr>
<tr>
<td>Straight Plug (10 µ (0.25 µm), Gold on Center Contact, Nickel on Shell)</td>
<td>Bulkhead Jack (30 µ (0.76 µm) Gold on Center Contact, Nickel on Shell)</td>
<td></td>
</tr>
<tr>
<td>–07BJ1 = SMB</td>
<td>–05BJ3 = TNC</td>
<td></td>
</tr>
<tr>
<td>Bulkhead Jack (30 µ (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
<td>Bulkhead Jack (10 µ (0.25 µm) Gold on Center Contact, Nickel on Shell)</td>
<td></td>
</tr>
<tr>
<td>–01BJ1 = SMA</td>
<td>–06BJ3 = TNC</td>
<td></td>
</tr>
<tr>
<td>Straight Bulkhead Jack</td>
<td>Bulkhead Jack (30 µ (0.76 µm) Gold on Center Contact, Nickel on Shell)</td>
<td></td>
</tr>
<tr>
<td>–01SR1 = SMA</td>
<td>–06BJ2 = N Type</td>
<td></td>
</tr>
<tr>
<td>Straight Bulkhead Jack, Sealed</td>
<td>Bulkhead Jack</td>
<td></td>
</tr>
<tr>
<td>–01BR1 = SMA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Straight Bulkhead Jack, Reversed Polarity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(30 µ (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Stripped & Tinned (Dimensions in mm)

<table>
<thead>
<tr>
<th>CALLOUT</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>–303030</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>–303040</td>
<td>3.0</td>
<td>3.0</td>
<td>4.0</td>
</tr>
<tr>
<td>–403030</td>
<td>4.0</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>–403040</td>
<td>4.0</td>
<td>3.0</td>
<td>4.0</td>
</tr>
<tr>
<td>–404040</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Both center conductor and braid shield are stripped, only the center conductor is tinned.

---

Due to technical progress, all designs, specifications and components are subject to change without notice.

All parts within this catalog are built to Samtec’s specifications. Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.

WWW.SAMTEC.COM
50 Ω RG 178 CABLE ASSEMBLIES

Mates with:
MCX, MMCX, BNC, TNC, SMA, SMB

RF Connector:
Outer Contact Material:
Au plated Brass (SMA & SMB)
Au plated BeCu (MCX & MMCX)
Nickel (BNC & TNC)
Center Contact Material:
Au plated Brass (MCX-P, MMCX-P, BNC, TNC & SMB)
Au plated BeCu (SMA-J & MCX-J)
Insulator Material:
PTFE
Operating Temperature:
-55 °C to +125 °C
Frequency Range:
0–5 GHz (Connector dependent)
Impedance:
50 Ω
RoHS Compliant:
Yes

RG 178 Cable:
Impedance:
50 Ω
Capacitance:
96 pF/meter
Propagation Delay:
4.83 nsec/meter
Max Attenuation:
1.7 dB @ 1 GHz for 1 meter
Conductor Size:
30 AWG, (0.31 mm) .012” dia.
Conductor Material:
Silver Plated Copper
Conductor Resistance:
0.34 Ω/meter max
Current Rating:
3 A DC
Insulator Diameter:
(0.86 mm) .034”
Insulator Material:
PTFE
Dielectric Constant:
2.1 dK
Shield Material:
Silver Plated Copper Clad Steel
Jacket Material:
FEP
Jacket Diameter:
(1.80 mm) .071”
Jacket Temp Rating:
-50 °C to +165 °C
Jacket Color:
Amber
Bend Radius:
10.2 mm
RoHS Compliant:
Yes

CREATE A FULL SYSTEM:
cable assembly and board level mates,
50 Ω and 75 Ω solutions
24-hour samples on standard products
Visit: rf.samtec.com

SPECIFICATIONS
For complete specifications see www.samtec.com?RF178

CABLE TYPE
RF178 = RG 178 Cable

END 1 CONNECTOR

END 2 CONNECTOR

Specify END OPTIONS from chart

Due to technical progress, all designs, specifications and components are subject to change without notice.

All parts within this catalog are built to Samtec’s specifications.
Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.

WWW.SAMTEC.COM
Due to technical progress, all designs, specifications and components are subject to change without notice. All parts within this catalog are built to Samtec’s specifications. Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
**50 Ω RG 316 CABLE ASSEMBLIES**

**SPECIFICATIONS**

For complete specifications see www.samtec.com?RF316

**RF Connector:**
- **Outer Contact Material:** Ni plated Brass (BNC)
- **Center Contact Material:** Au plated BeCu (MCM & MMCX-P)
- **Insulator Material:** PTFE

**Operating Temperature:** -55 °C to +125 °C

**Impedance:** 50 Ω

**Frequency Range:** 0–6 GHz

**RoHS Compliant:** Yes

**RG 316 Cable:**
- **Impedance:** 50 Ω
- **Capacitance:** 96.432 pF/meter
- **Max Attenuation** (cable only): 1.25 dB @ 1 GHz for 1 meter
- **Conductor Size:** 26 AWG, (0.51 mm) .020” dia.
- **Conductor Material:** Silver Plated Copper
- **Insulator Material:** PTFE
- **Shield Material:** Silver Plated Copper Clad Steel
- **Jacket Material:** FEP
- **Jacket Diameter:** (2.54 mm) .100”
- **Jacket Color:** Amber
- **Bend Radius:** 12.7 mm
- **RoHS Compliant:** Yes

**END OPTIONS**
- **–01SP1 = SMA**
  - Straight Plug (30 µ” (0.76 µm) Gold on Center Contact, Gold Flash on Shell)
- **–01RP1 = SMA**
  - Right-angle Plug (30 µ” (0.76 µm) Gold on Center Contact, Gold Flash on Shell)
- **–02SP1 = SMB**
  - Straight Plug (30 µ” (0.76 µm) Gold on Center Contact, Gold Flash on Shell)
- **–02RP1 = SMB**
  - Right-angle Plug (30 µ” (0.76 µm) Gold on Center Contact, Gold Flash on Shell)
- **–07SP1 = MMCX**
  - Straight Plug (30 µ” (0.76 µm) Gold on Center Contact, Gold Flash on Shell)
- **–07RP1 = MMCX**
  - Right-angle Plug (30 µ” (0.76 µm) Gold on Center Contact, Gold Flash on Shell)
- **–03SP1 = MMCXV**
  - Straight Plug, High Vibration (30 µ” (0.76 µm) Gold on Center Contact, Nickel on Shell)
- **–03RP1 = MMCXV**
  - Right-angle Plug, High Vibration (30 µ” (0.76 µm) Gold on Center Contact, Nickel on Shell)
- **–02SJ1 = MCX**
  - Straight Jack (30 µ” (0.76 µm) Gold on Center Contact, Gold Flash on Shell)
- **–02SJ2 = MCX**
  - Right-angle Jack (30 µ” (0.76 µm) Gold on Center Contact, Gold Flash on Shell)

**Mates with:**
- MCX, MMCX, MMCXV, SMA, SMB5, BNC5, TNC

**High performance 26 AWG RG 316 coax cable**

**Due to technical progress, all designs, specifications and components are subject to change without notice.**

**OTHER SOLUTIONS**

- Double shielded RG 316 cable available, see RS316 Series
- Cable connector kits (see cable components catalog pages)

**WWW.SAMTEC.COM**

Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
RF316 SERIES

Standard heat shrink wraps
RF316–04BJ2–07SP1–0100
RF316–02RP1–02SP1–0200
RF316–03RP1–07RP1–0200

Choice of RF connector styles
Heavy Gold plated

Single or Double ended

Variety of Bulkhead Jacks

ALSO AVAILABLE
(MOQ Required)

- Additional stripping and tinning options
- IP68 Sealed AccliMate™ end options
- IP67 TNC option
- Additional plating options
- Additional end connector combinations
- Knurled nuts with BNC option
Contact Samtec.

OVERALL LENGTH

- “XXXX”
= Overall Length in millimeters –0100 (100 mm) minimum
(Cable lengths larger than 1000 millimeters are not supported by S.I. Test data)

<table>
<thead>
<tr>
<th>END OPTIONS</th>
<th>END OPTIONS</th>
<th>END OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>–04SP3 = BNC Straight Plug, (10 µ” (0.25 µm) Gold on Center Contact, Nickel on Shell)</td>
<td>–01PN1 = SMA 4-Hole Panel Mount Jack (30 µ” (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
<td>–SING = Single Ended (End 2 Callout)</td>
</tr>
<tr>
<td>–06SP3 = TNC Straight Plug, (10 µ” (0.25 µm) Gold on Center Contact, Nickel on Shell)</td>
<td>–04BJ2 = BNC Bulkhead Jack (30 µ” (0.76 µm) Gold on Center Contact, Nickel on Shell)</td>
<td>XXXXXX = Stripped &amp; Tinned (End 2 Callout)</td>
</tr>
<tr>
<td>–07BJ1 = SMB Bulkhead Jack (30 µ” (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
<td>–05BJ3 = TNC Bulkhead Jack (10 µ” (0.25 µm) Gold on Center Contact, Nickel on Shell)</td>
<td></td>
</tr>
<tr>
<td>–01BJ1 = SMA Straight Bulkhead Jack -01SB1 = SMA Straight Bulkhead Jack, Sealed -01SR1 = SMA Straight Bulkhead Jack, Reversed Polarit</td>
<td>–05BJ3 = SMA Straight Bulkhead Jack (30 µ” (0.76 µm) Gold on Center Contact, Nickel on Shell)</td>
<td></td>
</tr>
<tr>
<td>(30 µ” (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>–06BJ2 = N Type Bulkhead Jack (30 µ” (0.76 µm) Gold on Center Contact, Nickel on Shell)</td>
<td></td>
</tr>
</tbody>
</table>

Due to technical progress, all designs, specifications and components are subject to change without notice.

All parts within this catalog are built to Samtec’s specifications. Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
RS316 SERIES

50 Ω DOUBLE SHIELDED RG 316 CABLE

For complete specifications see www.samtec.com/?RS316

RF Connector:
- Outer Contact Material: Ni plated Brass (BNC), Au plated Brass (SMA), Au plated BeCu (MCX, MMCX)
- Center Contact Material: Au plated Brass (SMA, MCX, MMCX), Au plated Phosphor Bronze (BNC)
- Insulator Material: PTFE
- Operating Temperature: -50 °C to +165 °C
- Impedance: 50 Ω
- Frequency Range: 0–6 GHz (Cable & connector dependent)
- RoHS Compliant: Yes

RG 316 DS Cable:
- Impedance: 50 Ω
- Capacitance: 95.8 pF/meter
- Max Attenuation (cable only): 1.4 dB @ 2 GHz for 1 meter
- Conductor Size: 26 AWG, (0.51 mm) .020" dia.
- Conductor Material: Silver Plated Copper Clad Steel
- Insulator Material: FEP
- Shield 1 Material: Silver Plated Copper
- Shield 2 Material: Silver Plated Copper
- Jacket Material: FEP
- Jacket Diameter: (2.90 mm) .114"
- Jacket Color: Amber
- Bend Radius: 12.8 mm
- RoHS Compliant: Yes

Mates with:
- SMA, MCX, MMCX, TNC, BNC

Also Available
- Additional stripping and tinning options
Contact Samtec.

Want it? Get it fast.
Click Apps > Solutionator

Solutionator
DESIGN IN A MINUTE

Due to technical progress, all designs, specifications and components are subject to change without notice.

Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
50 Ω RG 58 CABLE ASSEMBLIES

SPECIFICATIONS

For complete specifications see www.samtec.com/?RF058

RF Connector:
Outer Contact Material: Ni plated Brass (TNC, N Type), Au plated Ni (SMA)
Center Contact Material: Au plated Ni (TNC, N Type), Au plated Brass (SMA)
Insulator Material: PTFE
Frequency Range: 0–1 GHz
Impedance: 50 Ω
RoHS Compliant: Yes

RG 58 Cable:
Impedance: 50 Ω
Capacitance: 102 pF/meter
Max Attenuation (cable only): 0.8 dB @ 1 GHz
Conductor Size: 20 AWG, (0.90 mm) .036” dia.
Conductor Material: Tinned Copper
Insulator Diameter: (3.00 mm) .076”
Insulator Material: Solid Polyethylene
Shield Material: Tinned Copper
Jacket Material: PVC
Jacket Diameter: (5.00 mm) .197” dia.
Bend Radius: 48.3 mm
Jacket Temp Rating: -50 °C to +90 °C
RoHS Compliant: Yes

ALSO AVAILABLE (MOQ Required)

- Additional stripping and tinning options
- Additional plating options
- Additional end connector options
Contact Samtec.

OTHER SOLUTIONS

- Cable connector kits (see cable components catalog pages)

FOR COMPLETE SPECIFICATIONS SEE WWW.SAMTEC.COM

Mates with:
TNC, SMA

Solutionator
DESIGN IN A MINUTE

- Create a full system: cable assembly and board level mates, 50 Ω and 75 Ω solutions
- 24-hour samples on standard products
- Visit: rf.samtec.com

END OPTIONS

Specify END OPTIONS from chart

END 1 CONNECTOR

END 2 CONNECTOR

OVERALL LENGTH

- “XXXX” = Overall Length in millimeters
-0100 (100 mm) 3.94” minimum

STRIPPED & TINNED (Dimensions in mm)

<table>
<thead>
<tr>
<th>CALLOUT</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>-01SP1</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>-05SR3</td>
<td>3.0</td>
<td>3.0</td>
<td>4.0</td>
</tr>
<tr>
<td>-06SP3</td>
<td>4.0</td>
<td>3.0</td>
<td>4.0</td>
</tr>
<tr>
<td>-01BJ1</td>
<td>4.0</td>
<td>3.0</td>
<td>4.0</td>
</tr>
<tr>
<td>-SING</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>-XXXXXX</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Both center conductor and braid shield are stripped, only the center conductor is tinned.
**50 Ω .086" DIA SEMI-FLEXIBLE CABLE**

**SPECIFICATIONS**

For complete specifications see [www.samtec.com](http://www.samtec.com?RF405)

**RF Connector:**
- **Shell Material:** Brass (SMA), Au plated BeCu (SMP)
- **Contact Material:** Brass (SMA), Au plated BeCu (SMP)
- **Impedance:** 50 Ω
- **Frequency Range:** DC to 20 GHz
- **Dielectric Withstanding:** 1,000 Vrms (SMA), 500 Vrms min (SMP)

**RG 405 (.086") Cable:**
- **Impedance:** 50 Ω microwave
- **Capacitance:** 104.97 pF/meter
- **Max Attenuation (cable only):** 0.72 @ 1 GHz for 1 meter
- **Conductor Size:** 24 AWG (0.56 mm) .022" dia.
- **Conductor Material:** Silver plated copper clad steel
- **Insulator Material:** PTFE
- **Shield Material:** Tinned Copper
- **Bend Radius:** 3.18 mm
- **RoHS Compliant:** Yes

**Mates with:**
- SMA, SMP

**Choice of SMA or SMP terminations**

**Solutionator**
- Create a full system: cable assembly and board level mates, 50 Ω and 75 Ω solutions
- 24-hour samples on standard products
- Visit: rf.samtec.com

**ALSO AVAILABLE (MOQ Required)**
- Additional stripping and tinning options
  - Contact Samtec.

**OTHER SOLUTIONS**
- Cable connector kits
  - (see cable components catalog pages)

**Note:**
- Cable lengths longer than (1000 mm) 39.40" are not supported with S.I. test data.

**OVERALL LENGTH**

- “XXXX” = Overall Length in millimeters

**CABLE TYPE**

**END 1 CONNECTOR**

**END 2 CONNECTOR**

**Specify END OPTIONS from chart**

**END OPTIONS**

- **01SP1–01RP1 Shown**

<table>
<thead>
<tr>
<th>END OPTIONS</th>
<th>END OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>01SP1 = SMA Straight Plug (30 µ (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
<td>00SJ7 = SMP Straight Jack, (10 µ (0.25 µm) Gold on Center Contact, Gold Flash on Shell)</td>
</tr>
<tr>
<td>01RP1 = SMA Right-angle Plug (30 µ (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
<td>00RJ7 = SMP Right-angle Jack, (10 µ (0.25 µm) Gold on Center Contact, Gold Flash on Shell)</td>
</tr>
</tbody>
</table>

**XXX = Stripped & Tinned (End 2 callout)**

**STRIPPED & TINNED (Dimensions in mm)**

<table>
<thead>
<tr>
<th>CALLOUT</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>-3030</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>-4030</td>
<td>4.0</td>
<td>3.0</td>
</tr>
<tr>
<td>-4040</td>
<td>4.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Both center conductor and braid shield are stripped, only the center conductor is tinned.
RF402 SERIES

**50 Ω .141" DIA SEMI-FLEXIBLE CABLE**

### SPECIFICATIONS

- **For complete specifications see [www.samtec.com/RF402](http://www.samtec.com/RF402)**
- **RF Connector:**
  - **Shell Material:** Brass
  - **Contact Material:** Brass
  - **Insulator Material:** PTFE
  - **Impedance:** 50 Ω
  - **Frequency Range:** 0–20 GHz
  - **Dielectric Withstanding:** 1,000 Vrms
- **RG 402 (.141")**
  - **Cable:**
    - **Impedance:** 50 Ω microwave
    - **Capacitance:** 98.072 pF/meter
    - **Max Attenuation (cable only):** 0.40 @ 1 GHz for 1 meter
    - **Conductor Size:** 19 AWG (0.92 mm) .036" dia.
    - **Conductor Material:** Silver plated copper clad steel
    - **Insulator Material:** PTFE
    - **Shield Material:** Tinned Copper
    - **Bend Radius:** 6.35 mm
    - **RoHS Compliant:** Yes

### Mates with:
- SMA

- **Hand-formable semi-flexible cable** (3.58 mm)
- **.141" DIA cable**
- **High frequency performance**
- **Choice of SMA right-angle or straight plug terminations**

### Cable Connector Kits
- **Cable connector kits**
- **(see cable components catalog pages)**

### ALSO AVAILABLE
- **(MOQ Required)**
- • Additional stripping and tinning options
- • Contact Samtec.

### OTHER SOLUTIONS
- **• Solutionator – DESIGN IN A MINUTE**
- • Create a full system: cable assembly and board level mates, 50 Ω and 75 Ω solutions
- • 24-hour samples on standard products
- • Visit: rf.samtec.com

### CABLE TYPE

- **RF402**
  - (3.58 mm) .141" DIA
  - 19 AWG Semi-flexible coax cable

### END OPTIONS

<table>
<thead>
<tr>
<th>END OPTIONS</th>
<th>STRIPPED &amp; TINNED</th>
</tr>
</thead>
<tbody>
<tr>
<td>-01SP1 = SMA Straight Plug (30 µ&quot; (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
<td><img src="image" alt="Straight Plug" /></td>
</tr>
<tr>
<td>-01RP1 = SMA Right-angle Plug (30 µ&quot; (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
<td><img src="image" alt="Right-angle Plug" /></td>
</tr>
<tr>
<td>XXXX = Stripped &amp; Tinned (End 2 callout)</td>
<td><img src="image" alt="Stripped &amp; Tinned" /></td>
</tr>
</tbody>
</table>

### END 1 CONNECTOR

### END 2 CONNECTOR

### OVERALL LENGTH

- **"XXXX"** = Overall Length in millimeters
- **-0100 (100 mm) 3.94" minimum**

### Note:
- Cable lengths longer than (1000 mm) 39.4" are not supported with S.I. test data.

---

All parts within this catalog are built to Samtec’s specifications. Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.

Due to technical progress, all designs, specifications and components are subject to change without notice.
RF23C SERIES

Robust in dynamic applications

RF23C–92SP–92SJ–0152
RF23C–92SJ–92SP–0152
2.92 mm and 2.40 mm terminations

WWW.SAMTEC.COM

Due to technical progress, all designs, specifications and components are subject to change without notice.

All parts within this catalog are built to Samtec’s specifications. Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.

---

50 Ω 50 GHz RF CABLE ASSEMBLY

SPECIFICATIONS

For complete specifications see www.samtec.com?RF23C

RF Connector:
Shell Material: Stainless Steel
Contact Material: BeCu
Cable Body: Stainless Steel
Insulator Material: Ultem 1000
Operating Temperature: -40 °C to +85 °C
Impedance: 50 Ω
Frequency Range: 50 GHz
RoHS Compliant: Yes

MWC-2350CU-01
Cable:
Type: Low Loss Microwave Coax
Gauge: 23 AWG
Shield Material: 1. Flat silver plated copper 2. Copper tape 3. Silver plated copper braid
Dielectric: Solid FEP
Jacket Material: FEP
Bend Radius: 6 mm
Impedance: 50 Ω ± 1 Ω
Propagation Delay: 4.76 nsec/meter
Capacitance: 97.80 pF/meter

TEST REPORTS

Visit www.samtec.com?RF23C or contact RFTechnicalGroup@samtec.com for Insertion Loss, Return Loss, V.S.W.R. and other testing information.

APPLICATION

Copper foil shielding

2.92 mm and 2.40 mm terminations

END OPTIONS*

Specify END OPTIONS from chart

NOTE:
Cable lengths longer than 40.00" (1 meter) are not supported with S.I. test data. Some lengths, styles and options are non-standard, non-returnable.

Notes:

CABLE TYPE

END 1 CONNECTOR

END 2 CONNECTOR

OVERALL LENGTH

Mates with:

292

CABLE

TYPE

END OPTIONS*

-92SJ–92SP SHOWN

APPLICATION

-“XXXX” = Overall Length in millimeters

-92SJ = 2.92 mm Straight Jack
-24SJ = 2.40 mm Straight Jack
(30 µ" (0.76 µm) Gold on Center Contact, Stainless Steel on Shell)

-92SP = 2.92 mm Straight Plug
-24SP = 2.40 mm Straight Plug
(30 µ" (0.76 µm) Gold on Center Contact, Stainless Steel on Shell)

* 2.40 mm end option is needed for 50 GHz performance.
Contact RFTechnicalGroup@samtec.com

Due to technical progress, all designs, specifications and components are subject to change without notice.
50 Ω, 23 AWG SOLID, MICRO CU COAX CABLE

**PERFORMANCE DATA**

- **Capacitance:** 97.80 pF/meter (nominal)
- **Propagation Delay:** 4.76 ns/meter
- **Flex Cycles:** 600 cycles, single conductor*
- **Current Rating:** Single conductor = 6.9 Amps**

- **Shield DCR:** 10.8 Ω/1000 ft
- **CC DCR:** 21.6 Ω/1000 ft
- **Min. Bend Radius:** 6 mm
- **Availability:** Single
- **Temperature Rating:** -65 °C to +125 °C, UL VW-1 Tested ***
- **DWV Working Voltage:** 375 V†

**Insertion Loss**

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>0.25 m</th>
<th>1 m</th>
</tr>
</thead>
<tbody>
<tr>
<td>-3 dB</td>
<td>&gt;40 GHz</td>
<td>13 GHz</td>
</tr>
<tr>
<td>-7 dB</td>
<td>&gt;40 GHz</td>
<td>&gt;40 GHz</td>
</tr>
</tbody>
</table>

* Test Conditions – 4 oz. weight, dia 7/8" mandrel, +/-90° bend X2

** Rating – 30 °C Temperature Rise, 20% de-rated.

*** Temperature Rating – Heat Shock/Cold Soak per UL #1581, wire wrap 1/4" mandrel, visual inspection

†Test Conditions – IR/DWV/Thermal Shock/Humidity per EIA-364-20, 21, 31 and 32

**INSERTION LOSS AND RETURN LOSS GRAPHS‡**

Due to technical progress, all designs, specifications and components are subject to change without notice.

**WWW.SAMTEC.COM**

All parts within this catalog are built to Samtec's specifications.

Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.

‡IL and RL data is typical. Results may vary.

DUT terminated with SMA Connector and has not been de-embedded.
RF25S, RF23S SERIES

Due to technical progress, all designs, specifications and components are subject to change without notice.

All parts within this catalog are built to Samtec’s specifications.
Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.

WWW.SAMTEC.COM

RF25S, RF23S SERIES

Due to technical progress, all designs, specifications and components are subject to change without notice.

All parts within this catalog are built to Samtec’s specifications.
Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.

WWW.SAMTEC.COM

RF25S, RF23S SERIES

For complete specifications see www.samtec.com/RF25S

MWC-2550-01
Cable:
Type: Low Loss Microwave Coax
Gauge: 25 AWG
Shield Material:
1. Flat silver plated copper
2. Silver plated copper braid
Dielectric:
Solid FEP
Jacket Material:
FEP
Bend Radius:
9 mm
Impedance:
50 Ω ± 1 Ω
Propagation Delay:
4.76 nsec/meter
Capacitance:
96.8 pF/meter

Notes:
Cable lengths longer than 40.00” (1 meter) are not supported with S.I. test data.
Some lengths, styles and options are non-standard, non-returnable.

---

CABLE TYPE

END 1 CONNECTOR

END 2 CONNECTOR

OVERALL LENGTH

Specify END OPTIONS from chart

50 Ω RF CABLE ASSEMBLIES

Mates with:
SMA, SMP

For complete specifications see www.samtec.com/RF25S

ALSO AVAILABLE (MOQ Required)
• Additional stripping and tinning options
  Contact Samtec.

OTHER SOLUTIONS
• Bulls Eye® test point available
  Contact Samtec.

SPECIFICATIONS

For complete specifications see www.samtec.com/RF25S

MWC-2350-01
Cable:
Type: Low Loss Microwave Coax
Gauge: 23 AWG
Shield Material:
1. Flat silver plated copper
2. Silver plated copper braid
Dielectric:
Solid FEP
Jacket Material:
FEP
Bend Radius:
1.2 mm
Impedance:
50 Ω ± 1 Ω
Propagation Delay:
4.72 nsec/meter
Capacitance:
95.45 pF/meter

Notes:
Cable lengths longer than 40.00” (1 meter) are not supported with S.I. test data.
Some lengths, styles and options are non-standard, non-returnable.

---

CABLE TYPE

END 1 CONNECTOR

END 2 CONNECTOR

OVERALL LENGTH

Specify END OPTIONS from chart

STRIPPED & TINNED (Dimensions in mm)

CALLOUT A B C

–303030 3.0 3.0 3.0
–303040 3.0 3.0 4.0
–403030 4.0 3.0 3.0
–403040 4.0 3.0 4.0
–404040 4.0 4.0 4.0

Both center conductor and braid shield are stripped, only the center conductor is tinned.

---

Notes:
Cable lengths longer than 40.00” (1 meter) are not supported with S.I. test data.
Some lengths, styles and options are non-standard, non-returnable.

---

For complete specifications see www.samtec.com/RF25S

MWC-2350-01
Cable:
Type: Low Loss Microwave Coax
Gauge: 23 AWG
Shield Material:
1. Flat silver plated copper
2. Silver plated copper braid
Dielectric:
Solid FEP
Jacket Material:
FEP
Bend Radius:
1.2 mm
Impedance:
50 Ω ± 1 Ω
Propagation Delay:
4.72 nsec/meter
Capacitance:
95.45 pF/meter

Notes:
Cable lengths longer than 40.00” (1 meter) are not supported with S.I. test data.
Some lengths, styles and options are non-standard, non-returnable.

---

SPECIFICATIONS

For complete specifications see www.samtec.com/RF25S

MWC-2350-01
Cable:
Type: Low Loss Microwave Coax
Gauge: 23 AWG
Shield Material:
1. Flat silver plated copper
2. Silver plated copper braid
Dielectric:
Solid FEP
Jacket Material:
FEP
Bend Radius:
1.2 mm
Impedance:
50 Ω ± 1 Ω
Propagation Delay:
4.72 nsec/meter
Capacitance:
95.45 pF/meter

Notes:
Cable lengths longer than 40.00” (1 meter) are not supported with S.I. test data.
Some lengths, styles and options are non-standard, non-returnable.

---

CABLE TYPE

END 1 CONNECTOR

END 2 CONNECTOR

OVERALL LENGTH

Specify END OPTIONS from chart

STRIPPED & TINNED (Dimensions in mm)

CALLOUT A B C

–303030 3.0 3.0 3.0
–303040 3.0 3.0 4.0
–403030 4.0 3.0 3.0
–403040 4.0 3.0 4.0
–404040 4.0 4.0 4.0

Both center conductor and braid shield are stripped, only the center conductor is tinned.
**RF Connector:**
- **Outer Contact Material:** Ni plated Brass (BNC), Au plated BeCu (DIN), Au plated Phosphor Bronze (HDBNC)
- **Center Contact Material:** Gold plated Brass

**Insulator Material:**
- PTFE

**Operating Temperature:**
- -65 °C to +125 °C

**Impedance:**
- 75 Ω ± 3 W (–ST)

**Frequency Range:**
- 0–3.5 GHz

**Working Voltage:**
- 500 Vrms max

**Dielectric Withstanding:**
- 1500 Vrms min

**RoHS Compliant:**
- Yes

**RG 6/1694A Cable:**
- **Impedance:** 75 Ω ± 3 Ω
- **Capacitance:** 54 ±3 pF/meter
- **Max Attenuation:** (cable only): 0.21 dB @ 1 GHz for 1 meter
- **Conductor Size:** 18 AWG, (1.02 mm), .040” dia.
- **Conductor Material:** Bare Copper
- **Insulator Material:** Gas Injected Foamed Polyethylene
- **Shield Material:** Tinned Copper Braid over Aluminum Foil Wrap
- **Jacket Material:** PVC
- **Jacket Diameter:** (7.00 mm) .275”
- **Bend Radius:** 69.85 mm
- **Jacket Color:** Black
- **RoHS Compliant:** Yes

**Also Available (MOQ Required):**
- Additional stripping and tinning options
- Additional plating options
- Contact Samtec

**Solutionator Design in a Minute®**
- Create a full system: cable assembly and board level mates, 50 Ω and 75 Ω solutions
- 24-hour samples on standard products
- Visit: rf.samtec.com

**End Options**
- **H4SP3 = 75 Ω High-Density BNC Straight Plug (10 µ” (0.25 µm) Gold on Center Contact, Nickel on Shell)
- ~78SP4 = 75 Ω DIN Straight Plug (10 µ” (0.25 µm) Gold on Center Contact, Nickel on Shell)
- ~74SP3 = 75 Ω BNC Straight Plug (10 µ” (0.25 µm) Gold on Center Contact, Nickel on Shell)
- ~SING = Single Ended (End 2 callout)

**Other Solutions**
- Additional stripping and tinning options
- Additional plating options
- Contact Samtec

**Specifications**

---

**RFA6T, RFB6T SERIES**

**RFA6T–74SP3–74SP3–0300**

18 AWG 75 Ω RG 6 coax cable, or 1694A Belden cable

---

Mates with:
- BNC7T, DIN7A, HDBNC

---

**CABLE TYPE**

<table>
<thead>
<tr>
<th>RFA6T</th>
<th>RFB6T</th>
</tr>
</thead>
<tbody>
<tr>
<td>= RG 6 Cable</td>
<td>= Belden 1694A Cable</td>
</tr>
</tbody>
</table>

**End Options**

- **~H4SP3 = 75 Ω High-Density BNC Straight Plug (10 µ” (0.25 µm) Gold on Center Contact, Nickel on Shell)**
- **~78SP4 = 75 Ω DIN Straight Plug (10 µ” (0.25 µm) Gold on Center Contact, Nickel on Shell)**
- **~74SP3 = 75 Ω BNC Straight Plug (10 µ” (0.25 µm) Gold on Center Contact, Nickel on Shell)**
- **~SING = Single Ended (End 2 callout)**

---

**Overall Length**

- “XXXX” = Overall Length in millimeters
- ~4300 (169.3 mm) 11.81” minimum

---

**End Options**

- **~78RP3 = 75 Ω BNC Right-angle Plug (10 µ” (0.25 µm) Gold on Center Contact, Nickel on Shell)**
- **~SING = Single Ended (End 2 callout)**

---

**End Options**

- **~XXXXXX = Stripped & Tinned (End 2 callout)** (See chart for callout)

---

**Due to technical progress, all designs, specifications and components are subject to change without notice.**

---

**WWW.SAMTEC.COM**

Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
75 Ω OPTIMIZED RG 179 CABLES

SPECIFICATIONS
For complete specifications see www.samtec.com?RF179

RF Connector:
Outer Contact Material:
Ni plated Brass (BNC)
Au plated Brass (SMB)
Au plated BeCu (MCX, MMCX7, DIN)
Center Contact Material:
Au plated Brass (BNC-P, MCX, MMCX7)
Au plated BeCu (SMB)
Au plated Copper Alloy (DIN, BNC-U)
Insulator Material: PTFE
Operating Temperature:
-50 °C to +165 °C
Impedance: 75 Ω
Frequency Range: 0–4 GHz
RoHS Compliant: Yes

RG 179 Cable:
Impedance: 75 Ω ±3 Ω
Capacitance: 84 pF/meter
Propagation Delay: 4.83 nsec/meter
Max Attenuation (cable only):
0.8 dB @ 1 GHz for 1 meter
Conductor Size: 30 AWG, (0.31 mm) .012” dia.
Conductor Material: Silver Plated Copper
Conductor Resistance: 0.34 W/meter max
Current Rating: 3 A DC
Insulator Diameter: (1.6 mm) .063”
Insulator Material: PTFE
Dielectric Constant: 1.8 dK
Shield Material: Silver Plated Copper
Jacket Material: FEP
Jacket Diameter: (2.54 mm) .100”
Bend Radius: 10.2 mm
Jacket Temp Rating: -50 °C to +165 °C
Jacket Color: Amber
RoHS Compliant: Yes

Mates with:
BNC7T, MCX7, MMCX7, SMB7H, DIN7A

• Create a full system: cable assembly and board level mates, 50 Ω and 75 Ω solutions
• 24-hour samples on standard products
• Visit: rf.samtec.com

* See connector component pages for specific range.

CABLE TYPE

END 1 CONNECTOR

END 2 CONNECTOR

Specify END OPTIONS from chart

<table>
<thead>
<tr>
<th>END OPTIONS</th>
<th>END OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>–73SP4 = 75 Ω MMCX7 Straight Plug (10 µ” (0.25 µm) Gold on Center Contact, Gold Flash on Shell)</td>
<td>–72RP1 = 75 Ω MCX Right-angle Plug (30 µ” (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
</tr>
<tr>
<td>–73RP1 = 75 Ω MMCX7 Right-angle Plug (30 µ” (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
<td>–72SP1 = 75 Ω MCX Straight Plug (30 µ” (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
</tr>
<tr>
<td>–73SJ4 = 75 Ω MMCX7 Straight Jack (10 µ” (0.25 µm) Gold on Center Contact, Gold Flash on Shell)</td>
<td>–77SP1 = 75 Ω SMB Straight Plug (30 µ” (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
</tr>
</tbody>
</table>

–77RP2–74SP3 SHOWN

Due to technical progress, all designs, specifications and components are subject to change without notice.

WWW.SAMTEC.COM

All parts within this catalog are built to Samtec’s specifications.
Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
Wide variety of 75 Ω end options including BNC, MCX and SMB

Straight or Right-angle terminations

Also Available (MOQ Required)
- Additional stripping and tinning options
- Additional plating options
- Additional end connector combinations
  Contact Samtec.

Other Solutions
- Cable connector kits (see cable components catalog pages)

Due to technical progress, all designs, specifications and components are subject to change without notice.

All parts within this catalog are built to Samtec's specifications. Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
75 Ω OPTIMIZED 1855A CABLE ASSEMBLIES

Mates with: DIN7A, HDBNC

RF Connector:
Outer Contact Material: Ni plated Brass (BNC)
Au plated BiCu (DIN)
Center Contact Material: Au plated Brass
Operating Temperature: -65 °C to +125 °C
Impedance: 75 Ω ± 0.5 Ω (ST), 75 Ω ± 1 Ω (RA)
Frequency Range: 0-3.5 GHz
Working Voltage: 250 Vrms (DIN), 330 Vrms (BNC)
Dielectric Withstanding: 750 Vrms (DIN), 1000 Vrms (BNC)
RoHS Compliant: Yes

1855A Cable:
Impedance: 75 Ω ± 1.1
Capacitance: 58.5 ± 3 pF/meter
Max Attenuation (cable only): 0.37 dB @ 1 GHz for 1 meter
Conductor Size: 23 AWG, (0.58 mm), .023” dia.
Conductor Material: Bare Copper
Insulator Material: Gas Injected Foamed Polyethylene
Shield Material: Tin Copper
Jacket Material: PVC
Jacket Diameter: (4.03 mm), .159”
Bend Radius: 38.1 mm
Jacket Color: Black
RoHS Compliant: Yes

Solutionator DESIGN IN A MINUTE

- Create a full system: cable assembly and board level mates, 50 Ω and 75 Ω solutions
- 24-hour samples on standard products
- Visit: rf.samtec.com

* See connector component pages for specific range.

CABLE TYPE

END 1 CONNECTOR

-78SP4–H4SP3–0300

END 2 CONNECTOR

OVERALL LENGTH

= Overall Length in millimeters
= “XXXX” (300 mm) 11.81” minimum

STRIPPED & TINNED
(Dimensions in mm)

CALLOUT A B C
-303030 3.0 3.0 3.0
-303040 3.0 3.0 4.0
-403030 4.0 3.0 3.0
-403040 4.0 3.0 4.0
-404040 4.0 4.0 4.0

Both center conductor and braid shield are stripped, only the center conductor is tinned.

End Options

-78SP4 = 75 Ω DIN Straight Plug (10 µ” (0.25 µm) Gold on Center Contact, Nickel on Shell)

-78SP4–H4SP3 SHOWN

-78SP4 = Single Ended (End 2 callout)

-XXXXX = Stripped & Tinned (End 2 callout) (See chart for callout)

RF-18

Due to technical progress, all designs, specifications and components are subject to change without notice.

WWW.SAMTEC.COM

Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
50 Ω & 75 Ω CONNECTORS

50 Ω CONNECTORS
2.92 mm Precision Jacks & Cable Components (292, 292-CA) ......................................................... 42-43
50 Ω SMA Jacks & Cable Components (SMA, SMA-CA) ................................................................. 44-46
50 Ω SMP Jacks/Plugs & Adaptor (SMP, SMP-CA) ........................................................................ 47
50 Ω SMB Jacks & Plugs (SMB5, SMB5-CA) ................................................................................ 48
50 Ω MMCX & MCX Jacks & Plugs (MMCX, MCX) ......................................................................... 49-50
50 Ω MMCX & MCX Cable Components (MMCX-CA, MCX-CA) ................................................ 51
50 Ω BNC Cable Components (BNC5-CA) ....................................................................................... 52
50 Ω N Type Cable Components (NTPE-CA) ................................................................................ 53
50 Ω TNC Jacks & Cable Components (TNC, TNC-CA) .................................................................. 54

75 Ω CONNECTORS
75 Ω DIN 1.0/2.3 Jacks & Cable Components (DIN7A, DIN7A-CA) .................................................... 55
75 Ω High Density BNC Jacks & Cable Components (HD8NC, HD8NC-CA) ............................. 56-57
75 Ω BNC Jacks & Cable Components (BNC7T, BNC7T-CA) ....................................................... 58-59
75 Ω SMB Jacks & Cable Components (SMB7H, SMB7H-CA) ..................................................... 60

APPLICATIONS
50 Ω Cables & Connectors ............................................................................................................... 8-9
75 Ω Cables & Connectors ............................................................................................................. 10-11
50 Ω 2.92 Jack

**SPECIFICATIONS**

For complete specifications and assembly instructions see www.samtec.com/292-CM

- **Shell Material:** Stainless Steel
- **Insert:** Stainless Steel
- **Socket:** BeCu
- **Insulator Material:** PCTFE
- **Impedance:** 50 Ω
- **RoHS Compliant:** Yes
- **Lead–Free Solderable:** Yes

**APPLICATION**

- **Performance up to 40 GHz/80 Gbps**
- **Compression Mount**
- **Passivated Stainless Steel outer contact and shell**

**TYPE**

- **GENDER**
  - **–J** = Jack

**TYPE**

- **–P** = PCB Mount

**PLATING**

- **–HP**
  - **–30 µ** (0.76 µm) Gold center contact, Passivated outer contact

**ORIENTATION**

- **–ST** = Straight

**TERMINATION**

- **–CM2** = Compression Mount

**APPLICATION Diagram**

- **Compression contact**

**Dimensions**

- **(9.91) 390 DIA**
- **(5.66) 223**
- **(1.65) .065**
- **(11.51) .453**
- **(7.16) .282**

**Due to technical progress, all designs, specifications and components are subject to change without notice.**

**WWW.SAMTEC.COM**

All parts within this catalog are built to Samtec’s specifications.

Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
50 Ω 2.92 COMPONENTS

**SPECIFICATIONS**

For complete specifications and assembly instructions see www.samtec.com?292-CA

- **Shell Material:** Stainless Steel
- **Contact Material:** BeCu
- **Cable Body:** Stainless Steel
- **Insulator Material:** Ultem 1000
- **Insert Material:** Stainless Steel

---

**GENDER**

- **292** = Passivated Stainless Steel

**PLATING**

- **–HP** = 30 µ" (0.76 µm)

- **–CS3** = MWC-2350-01 23 AWG Microwave Cable

---

**ORIENTATION**

- **–ST** = Straight

---

**TERMINATION**

- **–CS3** = MWC-2350-01 23 AWG Microwave Cable

---

**SPECIFICATIONS**

For complete specifications and assembly instructions see www.samtec.com?292-CA

- **Shell Material:** Stainless Steel
- **Contact Material:** BeCu
- **Cable Body:** Stainless Steel
- **Insulator Material:** Ultem 1000
- **Gasket:** Silicone
- **C-Ring:** Stainless Steel

---

**GENDER**

- **292** = Passivated Stainless Steel

**PLATING**

- **–HP** = 30 µ" (0.76 µm)

---

**ORIENTATION**

- **–ST** = Straight

---

**TERMINATION**

- **–CS3** = MWC-2350-01 23 AWG Microwave Cable

---

Due to technical progress, all designs, specifications and components are subject to change without notice.

All parts within this catalog are built to Samtec's specifications.

Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
50 Ω SMA JACKS

SPECIFICATIONS


Contact Material: BeCu
Shell Material: Brass
Insulator Material: PTFE (-PN)
Operating Temp Range: -65 °C to +125 °C
Impedance: 50 Ω
Dielectric Withstanding Voltage: 1,000 Vrms
Frequency Range: 0–20 GHz (Cable dependent)
Working Voltage: 335 V
RoHS Compliant: Yes

PROCESSING

Lead–Free Solderable: Yes

Note: While optimized for 50 Ω applications, this connector can also perform well in certain 75 Ω applications. Contact RFGroup@samtec.com for further information.

Due to technical progress, all designs, specifications and components are subject to change without notice.

All parts within this catalog are built to Samtec’s specifications. Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
SMA SERIES

Standard or Drop-in Edge Mount

50 W impedance

SMA–J–P–GF–RA–SM1
Mixed Technology
Performance up to 6 GHz
SMA–J–P–H–ST–MT1

Due to technical progress, all designs, specifications and components are subject to change without notice.

All parts within this catalog are built to Samtec’s specifications.
Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.

WWW.SAMTEC.COM
**50 Ω SMA COMPONENTS**

**SPECIFICATIONS**

For complete specifications and assembly instructions see www.samtec.com/SMA-CA

- **Shell Material:** Brass
- **Contact Material:** Brass
- **Center Contact:** Soldered
- **Outer Ferrule:** Crimped

**Operating Temperature:** -65 °C to +125 °C
**Voltage Rating:** 335 V
**Dielectric Withstanding Voltage:** 1,000 Vrms
**Frequency Range:** 0~20 GHz
**Impedance:** 50 Ω

---

**SMA COMPONENTS**

<table>
<thead>
<tr>
<th>SMA</th>
<th>GENDER</th>
<th>TYPE</th>
<th>PLATING</th>
<th>ORIENTATION</th>
<th>TERMINATION</th>
</tr>
</thead>
</table>

**Supplied with pins, washers, nuts and ferrules. See website for dimensions.**

---

Due to technical progress, all designs, specifications and components are subject to change without notice.
**SPECIFICATIONS**


Shell Material:
- Au plated Brass (–TH2, –EM3)
- Au plated BeCu (–J–B, –J–C)

Contact Material:
- Brass (–TH2, –EM3)
- BeCu (–CA)

Insulator Material: PTFE

Impedance: 50 W

Frequency Range:
- DC to 40 GHz
- DC to 20 GHz (25 AWG)

Working Voltage: 335 Vrms min

Dielectric Withstanding: 500 Vrms min

Engagement Force:
- PF: 15 lbs. max
- PL: 10 lbs. max
- PS & -PC: 2 lbs. max

Disengagement Force:
- PF: 2 lbs. min
- PL: 2 lbs. min
- PS & -PC: 0.5 lbs. min

Operating Temperature: -65 °C to +165 °C

RoHS Compliant: Yes

Lead–Free Solderable: Yes

**APPLICATION**

Cable Mates:
- RF-405, RF-25S

**ALTERNATIVE SOLUTIONS**

The SMP Series is an alternative to the Corning Gilbert GPO Series. A mini SMP Series, available as an ASO, is an alternative to the Corning Gilbert GPPO Series.

**PROCESSING**

Lead–Free Solderable: Yes

**EXTRACTION TOOL**

- CAT-EX-SMP-01 Contact Samtec

**CABLE END**

- CA7 = RG 405 (.086” DIA) Semi-flexible Cable
- CA5 = CCA-25M Cable
- CS5 = MWC-2550-01 25 AWG Microwave Cable

Note:
While optimized for 50 Ω applications, this connector can also perform well in certain 75 Ω applications. Contact RFGroup@samtec.com for further information.
50 Ω SMB JACKS & PLUGS

Mates with:
RF174, RF316, GRF1H-C

**SPECIFICATIONS**

For complete specifications and recommended PCB layouts see www.samtec.com?SMB5-TH

Shell Material: Brass
Contact Material: Brass
Insulator Material: PTFE
Impedance: 50 Ω
Frequency Range: 0–4 GHz
Working Voltage: 250 Vrms max
Dielectric Withstanding: 750 Vrms min
Operating Temp Range: -65 °C to +165 °C
RoHS Compliant: Yes

**PROCESSING**

Lead–Free Solderable: Yes

Note: 75 Ω version available. See SMB7H Series.

**SPECIFICATIONS**

For complete specifications and assembly instructions see www.samtec.com?SMB5-CA

Shell Material: Brass
Contact Material: Brass (–J), Phosphor Bronze (–P–ST), BeCu (–P–RA)
Center Contact: Soldered
Outer Ferrule: Crimped
Insulator Material: PTFE
Impedance: 50 Ω
Frequency Range: 0–4 GHz
Working Voltage: 335 Vrms max
Dielectric Withstanding: 1000 Vrms min
Operating Temp Range: -65 °C to +165 °C
50 Ω MMCX MICRO-MINI JACKS & PLUGS

Mates with:
RF174, RF316, RF178, RS316, GRF1H-C

SPECSIFICATIONS
Contact Material: BeCu
Insulator Material: PTFE
Pin and Shell Material: Brass
Operating Temp Range: -65 °C to +125 °C
Impedance: 50 W
Dielectric Withstanding Voltage: 500 Vrms, 50 Hz
Dielectric Working Voltage: 170 Vrms, 50 Hz
RoHS Compliant: Yes

PROCESSING
Lead-Free Solderable: Yes

OTHER SOLUTIONS
• High Vibration jacks and plugs. These connectors are not interchangeable with the MMCX.
• MMCX Jack that switches from internal to external antenna when cable is mated. Contact Samtec.

Notes:
Random vibration and Resonant Search test reports available online.
75 Ω version available. See MMCX7 Series.

Due to technical progress, all designs, specifications and components are subject to change without notice.
## MCX SERIES

### 50 Ω MCX MINI JACKS & PLUGS

**Mates with:**
RF174, RF316, RF178, RS316, GRF1H-C

### SPECIFICATIONS


**Insulator Material:** PTFE  
**Contact Material:** BeCu, Brass (–P–TH)  
**Shell Material:** Brass

**Operating Temp Range:** -65 °C to +125 °C  
**Impedance:** 50 W

**Dielectric Withstanding Voltage:** 1000 Vrms min, 50 Hz  
**Dielectric Working Voltage:** 335 Vrms max  
**Frequency Range:** 0–6 GHz  
**RoHS Compliant:** Yes

### PROCESSING

**Lead–Free Solderable:** Yes

---

**Note:**  
75 Ω version available. See MCX7 Series.

---

### MCX = GENDER = TYPE = PLATING = ORIENTATION = TERMINATION

#### –J = Jack

<table>
<thead>
<tr>
<th>–P = PCB Mount</th>
</tr>
</thead>
<tbody>
<tr>
<td>–H = 30 µ&quot; (0.76 µm) Gold center contact, 3 µ&quot; (0.08 µm) Gold outer contact</td>
</tr>
<tr>
<td>–RA = Right-angle</td>
</tr>
<tr>
<td>–ST = Straight</td>
</tr>
<tr>
<td>–TH1 = Through-hole (–RA only)</td>
</tr>
<tr>
<td>–SM1 = Surface Mount</td>
</tr>
<tr>
<td>–EM1 = Edge Mount (–ST only)</td>
</tr>
<tr>
<td>–MT1 = Mixed Technology (–ST only)</td>
</tr>
</tbody>
</table>

#### –P = Plug

<table>
<thead>
<tr>
<th>–P = PCB Mount</th>
</tr>
</thead>
<tbody>
<tr>
<td>–H = 30 µ&quot; (0.76 µm) Gold center contact, 3 µ&quot; (0.08 µm) Gold outer contact</td>
</tr>
<tr>
<td>–RA = Right-angle</td>
</tr>
<tr>
<td>–ST = Straight</td>
</tr>
<tr>
<td>–TH1 = Through-hole</td>
</tr>
<tr>
<td>–TH2 = Elevated Through-hole (–ST only)</td>
</tr>
</tbody>
</table>

---

Due to technical progress, all designs, specifications and components are subject to change without notice.

WWW.SAMTEC.COM

Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.

---

All parts within this catalog are built to Samtec’s specifications.
**50 Ω MMCX & MCX COMPONENTS**

### MMCX

<table>
<thead>
<tr>
<th>GENDER</th>
<th>TYPE</th>
<th>PLATING</th>
<th>ORIENTATION</th>
<th>TERMINATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>–P</td>
<td>–C</td>
<td>–H</td>
<td>–RA</td>
<td>–CA1</td>
</tr>
<tr>
<td>= Plug</td>
<td>= Cable</td>
<td>= 30 μm (0.76 μm)</td>
<td>= Right-angle</td>
<td>= RG 174/316 Cable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gold center contact, 3 μm (0.08 μm) Gold outer contact (–CA1 &amp; –CA2 only)</td>
<td></td>
<td>–CA2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>–ST</td>
<td>–CA1S</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>= Straight</td>
<td>= RG 316 Cable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Double Shield</td>
</tr>
<tr>
<td>–RA–CA1 &amp; –RA–CA2</td>
<td></td>
<td></td>
<td></td>
<td>–ST only</td>
</tr>
</tbody>
</table>

Supplied with pins and ferrules. See website for dimensions.

**SPECIFICATIONS**

For complete specifications and assembly instructions see www.samtec.com/MMCX-CA

Shell Material: Brass
Insulator Material: PTFE
Lead, Contact Socket and Outer Conductor Material: BeCu with Au plating
Center Contact: Soldered
Outer Ferrule: Crimped
Operating Temp Range: -65 °C to +125 °C
Impedance: 50 Ω
Dielectric Withstanding Voltage: 500 Vrms, 50 Hz
Dielectric Working Voltage: 170 Vrms, 50 Hz
Frequency Range: 0–6 GHz (Cable dependent)

**MCX**

<table>
<thead>
<tr>
<th>GENDER</th>
<th>TYPE</th>
<th>PLATING</th>
<th>ORIENTATION</th>
<th>TERMINATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>–J</td>
<td>–C</td>
<td>–H</td>
<td>–RA</td>
<td>–CA1</td>
</tr>
<tr>
<td>= Jack</td>
<td>= Cable</td>
<td>= 30 μm (0.76 μm)</td>
<td>= Right-angle</td>
<td>= RG 174/316 Cable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gold center contact, 3 μm (0.08 μm) Gold outer contact (–CA1 &amp; –CA2 only)</td>
<td></td>
<td>–CA2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>–ST</td>
<td>–CA1S</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>= Straight</td>
<td>= RG 316 Cable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Double Shield</td>
</tr>
<tr>
<td></td>
<td></td>
<td>= 30 μm (0.76 μm)</td>
<td>= Right-angle</td>
<td>= Straight</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gold center contact, 3 μm (0.08 μm) Gold outer contact (–CA1S only)</td>
<td></td>
<td>–ST</td>
</tr>
</tbody>
</table>

Supplied with pins and ferrules. See website for dimensions.

**SPECIFICATIONS**

For complete specifications and assembly instructions see www.samtec.com?MCX-CA

Insulator Material: PTFE
Contact Material: BeCu
Shell and Pin Material: Brass
Center Contact: Soldered
Outer Ferrule: Crimped
Operating Temp Range: -65 °C to +125 °C
Impedance: 50 Ω
Frequency Range: 0–6 GHz (Cable dependent)
Dielectric Withstanding Voltage: 1,000 Vrms min, 50 Hz
Dielectric Working Voltage: 335 Vrms max.

**All parts within this catalog are built to Samtec’s specifications.**
**Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.**
# 50 Ω BNC Cable Components

## Specifications

For complete specifications and assembly instructions see [www.samtec.com?BNC5-CA](http://www.samtec.com?BNC5-CA)

**Shell Material:** Brass  
**Contact Material:**  
- Brass (-P)  
- Copper Alloy (-J)  
**Center Contact:** Soldered  
**Outer Contact:** Crimped  
**Impedance:** 50 Ω  
**Frequency Range:** 0–4 GHz  
(Cable dependent)  
**Working Voltage:** 500 Vrms max  
**Dielectric Withstanding:** 1500 Vrms min  
**Operating Temp Range:** -65 °C to +125 °C

## Other Solutions

- 50 Ω BNC Board Jacks  
- 50 Ω TNC Board Jacks  
- 50 Ω TNC Cable Components  
Contact Samtec.

## BNC5 Series

<table>
<thead>
<tr>
<th>BNC5</th>
<th>GENDER</th>
<th>TYPE</th>
<th>PLATING</th>
<th>ORIENTATION</th>
<th>TERMINATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>-P</td>
<td>-C</td>
<td>-GN</td>
<td>-ST</td>
<td>-CA1</td>
<td>-CA1</td>
</tr>
</tbody>
</table>
| = Plug | = Cable | = 10 µ"  
(0.25 µm)  
Gold on contact, Nickel on body  | = Straight  | = RG 174 / 316 Cable  
(-P only)  |
| -J   |        |       |         | -CA2        | -CA2        |
| = Jack |        |       |         | = RG 178 Cable  
(-P only)  |
|       | -BH1   |       |         | -BH1        | -BH1        |
|       | = Bulkhead,  
RG 174 / 316 Cable  
(-J only)  |       |         | = Bulkhead,  
RG 178 Cable  
(-J only)  |
|       | -BH1S  |       |         | -BH1S       | -BH1S       |
|       | = Bulkhead,  
RG 316 Cable,  
Double Shield  
(-J only)  |

Supplied with pins, washers, nuts, gaskets and ferrules. See website for dimensions.

Due to technical progress, all designs, specifications and components are subject to change without notice.

All parts within this catalog are built to Samtec’s specifications.  
Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
50 Ω N TYPE RF COMPONENTS

SPECIFICATIONS

For complete specifications and assembly instructions see www.samtec.com/NTPE-CA

Shell Material: Brass
Contact Material: Phosphor Bronze
Insulator Material: PTFE
Center Contact: Soldered
Outer Contact: Crimped
Impedance: 50 Ω
Frequency Range: 0–3 GHz
(Cable dependent)
Working Voltage: 1000 Vrms max
Dielectric Withstanding: 2500 Vrms min
Operating Temp Range: -65 °C to +125 °C

NTPE = Bulkhead, RG 174 & RG 316 Cable terminations
–J = Jack
–C = Cable
–GN = 10 µ" (0.25 µm) Gold on contact, Nickel on body
–ST = Straight
–BH1 = Bulkhead, RG 174 & RG 316 Cable

Supplied with pins, washers, nuts, gaskets and ferrules. See website for dimensions.

Due to technical progress, all designs, specifications and components are subject to change without notice.

www.samtec.com

All parts within this catalog are built to Samtec’s specifications. Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
50 Ω TNC JACKS & PLUGS

Mates with:
RF058, RF178, RF316, RF174, GRF1H-C

SPECIFICATIONS
For complete specifications and recommended PCB layouts see www.samtec.com/TNC-TH
Outer Contact Material: Ni plated Brass
Center Contact Material: Au plated Phosphor Bronze
Insulator Material: PTFE
Operating Temperature: -65 °C to +125 °C
Impedance: 50 Ω
Frequency Range: 0~6 GHz
Working Voltage: 500 Vrms max
Dielectric Withstanding: 1500 Vrms min
RoHS Compliant: Yes

PROCESSING
Lead–Free Solderable: Yes

Note:
While optimized for 50 Ω applications, this connector can also perform well in certain 75 Ω applications. Contact RFGroup@samtec.com for further information.

SHELL MATERIAL
Brass
Contact Material: Brass (–P–ST), Phosphor Bronze (–J)
Center Contact: Soldered
Outer Ferrule: Crimped
Impedance: 50 Ω
Frequency Range: 0~3 GHz (Cable dependent)
Working Voltage: 500 Vrms max
Dielectric Withstanding: 1500 Vrms min
Operating Temp Range: -65 °C to +125 °C

PROCESSING
Lead–Free Solderable: Yes

SUPPLIED WITH:
• IP67 sealed option
Contact Samtec.

SPECIFICATIONS
For complete specifications and assembly instructions see www.samtec.com/TNC-CA

TNC GENDER TYPE PLATING ORIENTATION TERMINATION

–P = Plug
–J = Jack
–C = Cable
–GN = 10 µ" (0.25 µm) Gold on contact, Nickel on body
–ST = Straight
–SR = Straight Reverse Polarity (–P only)
–CA1 = RG 174 / 316 Cable (–P & –ST only)
–CA2 = RG 176 Cable (–P & –ST only)
–C10 = RG 58 Cable (–P & –SR only)
–BH1 = Bulkhead, RG 174 / 316 Cable (–J & –ST only)
–BH2 = Bulkhead, RG 178 Cable (–J & –ST only)

-supplied with pins, washers, nuts and ferrules. See website for dimensions.

Due to technical progress, all designs, specifications and components are subject to change without notice.

www.samtec.com

All parts within this catalog are built to Samtec’s specifications.
Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
SPECSIFICATIONS


Shell Material: Brass
Contact: Copper Alloy
Insulator Material: PTFE
Operating Temp Range: -65 °C to +125 °C
Impedance: 75 Ω
Working Voltage: 250 Vrms
Dielectric Withstanding: 750 Vrms

Notes:
12G-SDI available for PCB mounts only.
Contact RFTechnicalGroup@samtec.com for 12G-SDI PCB mount launch characteristics.
Designed to meet SMPTE 2082 12G-SDI specifications.

Supplied with pins and ferrules. See website for dimensions.

Due to technical progress, all designs, specifications and components are subject to change without notice.

Mates with:
RFB8T, RFA6T, RFB6T, RF179, GRF7H-C

www.samtec.com/12GSDI
**75 Ω HIGH-DENSITY BNC JACKS**

**SPECIFICATIONS**


- **Shell Material:** Au plated Brass
- **Contact Material:** Copper Alloy
- **Insulator Material:** PTFE
- **Impedance:** 75 Ω ± 2 Ω
- **Voltage Rating:** 500 VAC
- **Dielectric Withstanding:** 1500 Vrms min
- **Operating Temperature:** -65 °C to +125 °C
- **RoHS Compliant:** Yes
- **Lead–Free Solderable:** Yes

**Mates with:**
- RFB6T, RFB8T, RFA6T

**4X THE PANEL DENSITY**

- **Extended performance of 12G for high density terminations**
- **20% reduction in weight of traditional BNCs**
- **Patented design and bayonet latch**

**EXTRACTION TOOL**

- Hand tool for quickly installing/uninstalling HDBNC Series.
- Part Number: CAT-EX-HDBNC-01
- Contact Samtec.

**Notes:**
- Compatible with Amphenol's HD-BNC™
- Designed to meet SMPTE 424M 12G-SDI specifications.

**TERMINATION**

- **J** = Jack
- **GENDER**
- **TYPE**
- **PLATING**
- **ORIENTATION**
- **BH1** = Through-hole
- **BH2** = Through-hole (.25 mm) .093 Board (–RA only)
- **EM1** = Edge Mount (–ST only)
- **TH1** = Through-hole (–ST only)

**TERMINATION**

- **J** = Jack
- **GENDER**
- **TYPE**
- **PLATING**
- **ORIENTATION**
- **BH1** = Through-hole
- **BH2** = Through-hole (.25 mm) .093 Board (–RA only)
- **EM1** = Edge Mount (–ST only)
- **TH1** = Through-hole (–ST only)
**SPECIFICATIONS**

For complete specifications and assembly instructions see www.samtec.com/HDBNC-CA

Shell Material: Brass
Contact Material: Brass
Center Contact: Soldered
Outer Ferrule: Crimped
Impedance: 75 Ω
Voltage Rating: 500 VAC
Dielectric Withstanding: 1000 Vrms
Operating Temperature: -65 °C to +125 °C

**EXTRACTION TOOL**

- Hand tool for quickly installing/uninstalling HDBNC Series.
- Part Number: CAT-EX-HDBNC-01
- Contact Samtec.

**TERMINATION**

- CA6 = RG 6 or Belden 1694A Cable
- CA8 = Belden 1855A Cable

**PLATING**

- GN = 10 µ” (0.25 µm) Gold on contact, Nickel on outer contact and shell

**ORIENTATION**

- ST = Straight

**TYPE**

- C = Cable

**GENDER**

- P = Plug

**HDBNC-CA SERIES**

Crimp style plugs use industry standard termination tools

Choice of RG 6, Belden 1694A or Belden 1855A cable terminations

Due to technical progress, all designs, specifications and components are subject to change without notice.

All parts within this catalog are built to Samtec’s specifications. Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.

www.samtec.com
Mates with:
RF-179, RFA-6T, RFB-6T, GRF-7H-C

**75 Ω MACHINED BNC JACKS & PLUGS**

**SPECSIFICATIONS**


Shell Material:
Ni plated Brass
Contact Material:
TH1 & BH1 = Copper Alloy
Insulator Material:
PTFE
Impedance:
ST = 75 Ω ±2 Ω
RA = 75 Ω ±4 Ω
Frequency Range:
0-12 GHz
Working Voltage:
500 Vrms
Dielectric Withstanding:
1500 Vrms min
Operating Temperature:
-65 °C to +125 °C
RoHS Compliant:
Yes
Lead-Free Solderable:
Yes

Notes:
12G-SDI available for PCB mounts only.
Contact RFTechnicalGroup@samtec.com for 12G-SDI PCB mount launch characteristics.
Designed to meet SMPTE 2082 12G-SDI specifications.

**SPECSIFICATIONS**

For complete specifications and assembly instructions see www.samtec.com?BNC7T-CA

Shell Material:
Brass
Contact Material:
Brass (–P), Copper Alloy (–J)
Center Contact:
Soldered
Outer Ferrule:
Crimped
Impedance:
75 Ω
Working Voltage:
500 Vrms
Dielectric Withstanding:
1500 Vrms min
Operating Temperature:
-65 °C to +125 °C

**SPECIFICATIONS**

For complete specifications and assembly instructions see www.samtec.com?BNC7T-CA

Shell Material:
Brass
Contact Material:
Brass (–P), Copper Alloy (–J)
Center Contact:
Soldered
Outer Ferrule:
Crimped
Impedance:
75 Ω
Working Voltage:
500 Vrms
Dielectric Withstanding:
1500 Vrms min
Operating Temperature:
-65 °C to +125 °C

**SPECSIFICATIONS**


Shell Material:
Ni plated Brass
Contact Material:
TH1 & BH1 = Copper Alloy
Insulator Material:
PTFE
Impedance:
ST = 75 Ω ±2 Ω
RA = 75 Ω ±4 Ω
Frequency Range:
0-12 GHz
Working Voltage:
500 Vrms
Dielectric Withstanding:
1500 Vrms min
Operating Temperature:
-65 °C to +125 °C
RoHS Compliant:
Yes
Lead-Free Solderable:
Yes

Notes:
12G-SDI available for PCB mounts only.
Contact RFTechnicalGroup@samtec.com for 12G-SDI PCB mount launch characteristics.
Designed to meet SMPTE 2082 12G-SDI specifications.
75 Ω DIE CAST BNC JACKS & PLUGS


Shell Material: Zinc
Contact Material: Brass
Center Contact: Soldered
Outer Ferrule: Crimped
Impedance: 75 Ω
Working Voltage: 500 Vrms
Dielectric Withstanding: 1500 Vrms min
Operating Temperature: -65 °C to +125 °C
RoHS Compliant: Yes
Lead–Free Solderable: Yes

Notes:
12G-SDI available for PCB mounts only.
Contact RF-TechnicalGroup@samtec.com for 12G-SDI PCB mount launch characteristics.
Designed to meet SMPTE 2082 12G-SDI specifications.

Mates with:
RF179, RFA6T, RFB6T, GRF7H-C

www.samtec.com/12GSDI

Due to technical progress, all designs, specifications and components are subject to change without notice.
All parts within this catalog are built to Samtec’s specifications.
Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.

For complete specifications and assembly instructions see www.samtec.com/BNC7T-CA

Shell Material: Zinc
Contact Material: Brass
Center Contact: Soldered
Outer Ferrule: Crimped
Impedance: 75 Ω
Working Voltage: 500 Vrms
Dielectric Withstanding: 1500 Vrms min
Operating Temperature: -65 °C to +125 °C

Supplied with pins, ferrules, washers, nuts and gaskets. See website for dimensions.
### SMB7H SERIES

#### 75 Ω OPTIMIZED SMB JACKS & PLUGS

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>SMB7H</th>
<th>GENDER</th>
<th>TYPE</th>
<th>PLATING</th>
<th>ORIENTATION</th>
<th>TERMINATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>–ST–TH1 &amp; –ST–TH2</td>
<td>–J = Jack</td>
<td>–P = PCB Mount</td>
<td>–H = 30 μ(0.76 μm) Gold center contact, 3 μ(0.08 μm) Gold outer contact</td>
<td>–ST = Straight</td>
<td>–TH1 = Through-hole (0.90 mm) .035&quot; DIA Signal Pin</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>–RA = Right-angle</td>
<td>–TH2 = Through-hole (0.51 mm) .020&quot; DIA Signal Pin</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>–EM1 = Edge Mount (–ST only)</td>
</tr>
</tbody>
</table>

**Mates with:** RF179, GRF7H-C

**Supplied with pins and ferrules. See website for dimensions.**

Due to technical progress, all designs, specifications and components are subject to change without notice.

---

### SMB7H GENDER PLATING TYPE ORIENTATION TERMINATION

<table>
<thead>
<tr>
<th>SHELL MATERIAL</th>
<th>CONTACT MATERIAL</th>
<th>INSULATOR MATERIAL</th>
<th>CENTER CONTACT</th>
<th>OUTER FERRULE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brass</td>
<td>Brass</td>
<td>PTFE</td>
<td>Soldered</td>
<td>Crimped</td>
</tr>
<tr>
<td>Impedance:</td>
<td>Frequency Range:</td>
<td>Working Voltage:</td>
<td>Dielectric Withstanding:</td>
<td>Operating Temperature:</td>
</tr>
<tr>
<td>ST = 75 Ω ± 3 %</td>
<td>0–4 GHz</td>
<td>335 Vrms max</td>
<td>1000 Vrms min</td>
<td>-65 °C to +165 °C</td>
</tr>
</tbody>
</table>

**All parts within this catalog are built to Samtec’s specifications.**

Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.

WWW.SAMTEC.COM

For complete specifications and assembly instructions see www.samtec.com?SMB7H-CA

Shell Material: Brass
Contact Material: BeCu
Insulator Material: PTFE
Center Contact: Soldered
Outer Ferrule: Crimped
Impedance: 75 Ω
Frequency Range: 0–8 GHz (–ST), 0–7 GHz (–RA)
Working Voltage: 335 Vrms max
Dielectric Withstanding: 1000 Vrms min
Operating Temperature: -65 °C to +165 °C

---

RF-18
# ORIGINAL RF SOLUTIONS

<table>
<thead>
<tr>
<th>100 Ω SYSTEMS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Shielded Twisted Pair Twinax Cable (C28S)</td>
<td>62</td>
</tr>
<tr>
<td>Twinax Jack (CJT)</td>
<td>63</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>75 Ω SYSTEMS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>75 Ω Micro-Mini Ganged Cable (GRF7H-C)</td>
<td>68-69</td>
</tr>
<tr>
<td>75 Ω Micro-Mini Ganged Connectors (GRF7-J, GRF7-P)</td>
<td>70</td>
</tr>
<tr>
<td>75 Ω MMCX Jacks &amp; Plugs (MMCX7)</td>
<td>72</td>
</tr>
<tr>
<td>75 Ω MCX Jacks/Plugs &amp; Cable Components (MCX7)</td>
<td>73</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>50 Ω SYSTEMS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>50 Ω Micro-Mini Ganged Connectors (GRF1-J, GRF1-P)</td>
<td>64</td>
</tr>
<tr>
<td>50 Ω Micro-Mini Ganged Cable (GRF1-C, GRF1H-C)</td>
<td>65-67</td>
</tr>
<tr>
<td>50 Ω, 30 AWG Flexible Cable Assembly, (.047” Dia) (RF047)</td>
<td>71</td>
</tr>
<tr>
<td>50 Ω IsoRate® Cable (IJ5C, IJSH)</td>
<td>74-75</td>
</tr>
<tr>
<td>50 Ω IsoRate® Connectors (IJ5, IP5)</td>
<td>76-77</td>
</tr>
</tbody>
</table>

# APPLICATIONS

Original RF Solutions .................................................................................................................. 14
### SPECIFICATIONS


### RF CONNECTOR

- **Outer Contact Material:** Phosphor Bronze (Plug), Brass (Jack)
- **Center Contact Material:** Phosphor Bronze (Terminals), BeCu (Sockets)
- **Insulator Material:** PTFE
- **Operating Temperature:** -40 °C to +85 °C
- **Voltage Rating:** 200 VAC
- **Frequency Range:** 0 - 4 GHz
- **Impedance:** 100 Ω
- **RoHS Compliant:** Yes

### CABLE

- **Cable:** 28 AWG shielded twisted pair
- **Signal Routing:** 100 W Differential
- **Jacket Material:** PVC
- **Insulator Material:** FEP
- **RoHS Compliant:** Yes

### Mates with:

- CJT, C28S

### ALSO AVAILABLE (MOQ Required)

- Additional stripping and tinning options
  - Contact Samtec.

### Note:

- Cable lengths longer than 36.00" (0.92 meter) are not supported with S.I. test data.

---

**100 Ω CIRCULAR RF TWINAX CABLE**

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>OVERALL LENGTH</th>
<th>END 1 CONNECTOR</th>
<th>END 2 CONNECTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>C28S</td>
<td>XX.XX” = Overall Length in Inches (101.6 mm) 04.00” minimum</td>
<td>Specify END OPTIONS from chart</td>
<td>-Bjt8–Rps8 SHOWN</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>END OPTIONS</th>
<th>STRIPPED &amp; TINNED (Dimensions in inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>–SPS8 = Straight Plug with Sockets (30 µ” (0.76 µm) Gold on Center and Outer Contact, Gold Flash on Shell)</td>
<td>CALLOUT A B C</td>
</tr>
<tr>
<td>–RPS8 = Right-angle Plug with Sockets (30 µ” (0.76 µm) Gold on Center and Outer Contact, Gold Flash on Shell)</td>
<td>-303030 30 30 .30</td>
</tr>
<tr>
<td>–BJT8 = Bulkhead Jack with Terminals (30 µ” (0.76 µm) Gold on Center and Outer Contact, Gold Flash on Shell)</td>
<td>-303040 30 30 .40</td>
</tr>
<tr>
<td>–SING = Single Ended (End 2 callout)</td>
<td>-403030 40 30 .30</td>
</tr>
<tr>
<td>–XXXXXX = Stripped &amp; Tinned (End 2 callout)</td>
<td>-403040 40 30 .40</td>
</tr>
</tbody>
</table>

Both center conductors and braid shield are stripped, only the center conductors are tinned.

Due to technical progress, all designs, specifications and components are subject to change without notice.

All parts within this catalog are built to Samtec’s specifications.

Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.

WWW.SAMTEC.COM
CJT SERIES

100 Ω CIRCULAR RF TWINAX JACK

SPECIFICATIONS

Mates with:
C28S

For complete specifications and recommended PCB layouts see www.samtec.com?CJT-TH or www.samtec.com?CJT-BH

Shell Material:
Brass
Insulator Material:
PTFE
Contact Material:
Phosphor Bronze

Operating Temperature:
-20 °C to +105 °C
Frequency Range:
0 - 4 GHz
Working Voltage:
200 VAC
Impedance:
100 Ω
RoHS Compliant:
Yes
Lead-Free Solderable:
Yes

CJT = GENDER

GENDER

P = PCB Mount

TYPE

PLATING

ORIENTATION

TERMINATION

CJT = GENDER

–T = Jack

–P = PCB Mount

–HH = 30 µ" (0.76 µm) Gold on pins and outer contact

–ST = Straight

–RA = Right-angle

–TH1 = Standard Through-hole

–BH1* = Standard Bulkhead Through-hole (–RA only)

Due to technical progress, all designs, specifications and components are subject to change without notice.

www.samtec.com
50 Ω GANGED MICRO-MINI RF SYSTEMS

**SPECIFICATIONS**

- **Mates with:**
  - GRF1-P, GRF1-C, GRF1H-C

**GRF1**

- **J**
- **P**
- **NO. OF JACKS**
- **PLATING**
- **LEAD STYLE**
- **TH1**
- **INSERT OPTION**

**PROCESSING**

- **Lead–Free Solderable:** Yes

**RECOGNITIONS**

- For complete scope of recognitions see www.samtec.com/quality

**APPLICATION**

- **Mates with:**
  - GRF1-J

**OTHER SOLUTIONS**

- • Cable assembly (see GRF1-C Series)

**OTHER SOLUTIONS**

- • Cable assembly (see GRF1-C Series)

Due to technical progress, all designs, specifications and components are subject to change without notice.
**SPECIFICATIONS**

For complete specifications see www.samtec.com?GRF1-C

**Shell Material:** Brass  
**Insulator Material:** PTFE  
**Contact Material:** BeCu  
**Pin Material:** Brass  
**Plating:** 30 µ" (0.76 µm) Au over 50 µ" (1.27 µm) Ni  
**Operating Temp Range:** -40 °C to +90 °C  
**Impedance:** 50 Ω  
**RoHS Compliant:** Yes

**RG 316 Cable:**  
**Impedance:** 50 Ω  
**Capacitance:** 96.432 pF/meter  
**Propagation Delay:** 4.83 ns/meter  
**Max Attenuation (cable only):** 1.25 dB @ 1 GHz for 1 meter  
**Conductor Size:** 26 AWG, (0.51 mm) .020" dia.  
**Conductor Material:** Silver Plated Copper  
**Insulator Diameter:** (1.52 mm) .060"  
**Insulator Material:** PTFE  
**Shield Material:** Silver Plated Copper Clad Steel  
**Jacket Material:** FEP  
**Jacket Diameter:** (2.54 mm) .100"  
**Jacket Color:** Amber  
**Bend Radius:** 12.7 mm  
**RoHS Compliant:** Yes

**RECOGNITIONS**

For complete scope of recognitions see www.samtec.com/quality

**Notes:**  
Cable lengths longer than 40.00" (1 meter) are not supported with S.I. test data.  
This Series is non-standard, non-returnable.

---

**TOOLING**

Application Tooling. Contact atg@samtec.com for more information.

---

**OTHER SOLUTIONS**

- 50 Ω Board-to-Board system (see GRF1-J & GRF1-P Series)

---

**50 Ω GANGED MICRO-MINI RF CABLE**

Mates with: GRF1-J

---

**FILE NO. E111594**

**SPECIFICATIONS**

For complete scope of recognitions see www.samtec.com/quality

---

Notes:
Cable lengths longer than 40.00" (1 meter) are not supported with S.I. test data.
This Series is non-standard, non-returnable.

---

Due to technical progress, all designs, specifications and components are subject to change without notice.

All parts within this catalog are built to Samtec’s specifications.  
Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
**SPECIFICATIONS**

For complete specifications see www.samtec.com/GRFH1-C

**RF Connector:**
- **Shell Material:** Brass (GRF, SMA, MCX, MMCX, SMB, BNC)
- **Insulator Material:** PTFE
- **Contact Material:** Brass (GRF, SMA, MCX, MMCX, SMB-J, BNC-P, TNC-P) Phosphor Bronze (SMB-P-ST, TNC-J, N Type) BeCu (SMB-P-RA) Copper Alloy (BNC-J)
- **Operating Temp Range:** -40 °C to +90 °C
- **Impedance:** 50 Ω
- **RoHS Compliant:** Yes

**RG 316 Cable:**
- **Impedance:** 50 Ω
- **Capacitance:** 96.432 pF/meter
- **Propagation Delay:** 4.83 nsec/meter
- **Max Attenuation (cable only):** 1.25 dB @ 1 GHz for 1 meter
- **Conductor Size:** 26 AWG, (0.51 mm) .020" dia.
- **Conductor Material:** Silver Plated Copper
- **Insulator Material:** PTFE
- **Shield Material:** Silver Plated Copper Clad Steel
- **Jacket Material:** FEP
- **Jacket Diameter:** (2.54 mm) .100"
- **Jacket Color:** Amber
- **Bend Radius:** 12.7 mm
- **RoHS Compliant:** Yes

**RECOGNITIONS**

For complete scope of recognitions see www.samtec.com/quality

---

**Mates with:**
- GRF1-J, SMA, MCX, SMB5, MMCX, BNC5, TNC, NTPE

---

**50 Ω HYBRID MICRO-MINI RF CABLE**

---

**END OPTIONS**

- **01SP1 = SMA Straight Plug** (30 µ (0.76 µm) Gold on Center Contact, Gold Flash on Shell)
- **01RP1 = SMA Right-angle Plug** (30 µ (0.76 µm) Gold on Center Contact, Gold Flash on Shell)
- **01PN1 = SMA Straight Panel Mount Jack** (30 µ (0.76 µm) Gold on Center Contact, Gold Flash on Shell)
- **07SP1 = SMB Straight Plug** (30 µ (0.76 µm) Gold on Center Contact, Gold Flash on Shell)
- **07RP1 = SMB Right-angle Plug** (30 µ (0.76 µm) Gold on Center Contact, Gold Flash on Shell)
- **02SJ1 = MCX Straight Jack** (30 µ (0.76 µm) Gold on Center Contact, Gold Flash on Shell)

---

Due to technical progress, all designs, specifications and components are subject to change without notice.
GRF1H-C SERIES

Standard heat shrink wraps

Variety of Bulkhead Jacks

Choice of RF connector styles

GRF1H–4–0800–1–CA1–01SP1

GRF1H–2–0500–1–CA1–S–01BJ1

Due to technical progress, all designs, specifications and components are subject to change without notice.

All parts within this catalog are built to Samtec’s specifications. Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.

END 1 PLATING

-1 = All Gold components

-CA1 = RG 316 cable

CABLE TYPE

-CA1

SCREW OPTION

-S = Captive Panel Screws (Leave blank for no Screw Option)

END 2 OPTION

Specify END OPTIONS from chart

---

<table>
<thead>
<tr>
<th>END OPTIONS</th>
<th>END OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>-02SP1 = MCX Straight Plug (30 µ&quot; (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
<td>-05SP3 = TNC Straight Plug (10 µ&quot; (0.25 µm) Gold on Center Contact, Gold Flash on Shell)</td>
</tr>
<tr>
<td>-02RP1 = MCX Right-angle Plug (30 µ&quot; (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
<td>-01BJ1 = SMB Straight Bulkhead Jack (30 µ&quot; (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
</tr>
<tr>
<td>-03SP1 = MMXX Straight Plug (30 µ&quot; (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
<td>-01SR1 = SMA Straight Bulkhead Jack, Sealed, Reversed Polarity (30 µ&quot; (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
</tr>
<tr>
<td>-03RP1 = MMXX Right-angle Plug (30 µ&quot; (0.76 µm) Gold on Center Contact, Gold Flash on Shell)</td>
<td>-05BJ3 = TNC Straight Bulkhead Jack (10 µ&quot; (0.25 µm) Gold on Center Contact, Nickel on Shell)</td>
</tr>
<tr>
<td>-04SP3 = BNC Straight Plug (10 µ&quot; (0.25 µm) Gold on Center Contact, Nickel on Shell)</td>
<td>-06BJ2 = N Type Straight Bulkhead Jack (30 µ&quot; (0.76 µm) Gold on Center Contact, Nickel on Shell)</td>
</tr>
</tbody>
</table>
75 Ω HYBRID MICRO-MINI RF CABLE

Mates with: GRF7-J, MCX7, MMCX7, SMB7H, DIN7A, BNC7T

SPECIFICATIONS

For complete specifications see www.samtec.com/GRF7H-C

RF Connector:
Shell Material:
Brass (GRF, MCX, SMB, DIN, BNC, MMCX7-J)
BeCu (MMCX7-P)
Insulator Material:
PTFE
Contact Material:
BeCu (GRF, SMB)
Brass (MCX, BNC-P, MMCX7)
Copper Alloy (DIN, BNC-J)
Operating Temp Range:
-40 °C to +90 °C
Impedance:
75 Ω
RoHS Compliant:
Yes

RG 179 Cable:
Impedance:
75 Ω ±3 Ω
Capacitance:
64 pF/meter
Max Attenuation (cable only):
0.8 dB @ 1 GHz for 1 meter
Conductor Size:
30 AWG, (0.31 mm) .012" dia.
Conductor Material:
Silver Plated Copper
Insulator Material:
PTFE
Shield Material:
Silver Plated Copper
Jacket Material:
FEP
Jacket Diameter:
(2.54 mm) .100"
Jacket Color:
Amber
Bend Radius:
10.2 mm
RoHS Compliant:
Yes

RECOGNITIONS

For complete scope of recognitions see www.samtec.com/quality

Notes:
Cable lengths longer than 40.00" (1 meter) are not supported with S.I. test data.
This series is non-standard, non-returnable.

Due to technical progress, all designs, specifications and components are subject to change without notice.
WWW.SAMTEC.COM

All parts within this catalog are built to Samtec's specifications.
Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
## GRF7H-C SERIES

- **Standard Heat Shrink Wraps**
- **Optional Captive Panel Screws**
- **High Vibration Jacks**

### Variety of Standard Straight and Right-Angle Plugs and Jacks

---

### END 1 PLATING

- **–1** = All Gold components

### CABLE TYPE

- **–CA3** = RG 179 cable

### SCREW OPTION

- **–S** = Captive Panel Screws (Leave blank for no Screw Option)

### END 2 OPTION

Specify END OPTIONS from chart

---

### END OPTIONS

#### –77RP1 = 75 Ω SMB
- Right-Angle Plug
- Gold on Center Contact, Gold Flash on Shell

#### –77SP1 = 75 Ω SMB
- Straight Plug
- Gold on Center Contact, Gold Flash on Shell

#### –78SP4 = 75 Ω DIN Straight Plug
- Gold on Center Contact, Nickel on Shell

#### –74B3 = 75 Ω BNC
- Straight Bulkhead Jack
- (10 μ” (0.25 μm)
- Gold on Center Contact, Nickel on Shell

#### –74SP3 = 75 Ω BNC
- Straight Plug
- Metal Gold (0.25 μm)
- Gold on Center Contact, Nickel on Shell

*Die Cast also available = –D4SP3*

---

Assembled Length = XXXX

---

Due to technical progress, all designs, specifications and components are subject to change without notice.

All parts within this catalog are built to Samtec’s specifications.

Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.

WWW.SAMTEC.COM
Due to technical progress, all designs, specifications and components are subject to change without notice.

All parts within this catalog are built to Samtec’s specifications. Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.

www.samtec.com
50 Ω .047" DIA FLEXIBLE CABLE

Mates with:
SMA, RSP-122811-01

A Samtec original solution:
U.FL compatible plug
to 500 cycles (HMHF1)

(1.2 mm) .047" DIA flexible coax cable

High frequency performance to 10 GHz

Specifications
For complete specifications see www.samtec.com/RF047

RF Connector:
Outer Contact Material:
Brass (SMA), BeCu (HMHF1)
Contact Material:
Brass (SMA), BeCu (HMHF1)
Insulator Material:
PTFE
Impedance:
50 Ω
Frequency Range:
0–10 GHz (HMHF1)
0–20 GHz (SMA)
Dielectric Withstanding:
1,000 Vrms (SMA)

CCA-047 (.047") Cable:
Impedance:
50 Ω microwave
Capacitance:
95.14 pF/meter
Max Attenuation
(cable only):
1.15 @ 1 GHz for 1 meter
Conductor Size:
28 AWG (0.29 mm), .011" dia.
Conductor Material:
Silver plated copper
Insulator Material:
FEP
Shield Material:
Metallic Alloy
Jacket Material:
FEP
Jacket Diameter:
(1.42 mm), .056" dia.
Bend Radius:
5 mm

Also Available
(MOQ Required)
• Additional stripping and tinning options
Contact Samtec.

Other Solutions
• Cable connector kits
(see cable components catalog pages)

Cable Type
RF047
= (1.2 mm) .047" DIA
28 AWG Flexible coax cable

End 1 Connector
Specify END OPTIONS from chart

End 2 Connector

Overall Length
–“XXXX” = Overall Length in millimeters
–0100 (100 mm) 3.94" minimum

End Options

<table>
<thead>
<tr>
<th>END OPTIONS</th>
<th>CALLOUT</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>–01SP = SMA Straight Plug (30 μ&quot; (0.76 μm) Gold on Center Contact, Gold Flash on Shell)</td>
<td>–303030</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>–11SP = HMHF1 U.FL Straight Plug (30 μ&quot; (0.76 μm) Gold on Center Contact, Gold Flash on Shell)</td>
<td>–303040</td>
<td>3.0</td>
<td>3.0</td>
<td>4.0</td>
</tr>
<tr>
<td>–11RP = HMHF1 U.FL Right-angle Plug (30 μ&quot; (0.76 μm) Gold on Center Contact, Gold Flash on Shell)</td>
<td>–403030</td>
<td>4.0</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>–SING = Single Ended (End 2 Callout)</td>
<td>–303040</td>
<td>3.0</td>
<td>3.0</td>
<td>4.0</td>
</tr>
<tr>
<td>–XXXXX = Stripped &amp; Tinned (End 2 Callout)</td>
<td>–403040</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Both center conductor and braid shield are stripped, only the center conductor is tinned.

Due to technical progress, all designs, specifications and components are subject to change without notice.

Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
75 Ω MICRO-MINI SYSTEMS

**SPECIFICATIONS**

For complete specifications and recommended PCB layouts see www.samtec.com/MMCX7-TH

Shell Material: Brass
Insulator Material: PTFE
Contact Material: BeCu
Pin Material: Brass

- Operating Temp Range: -65 °C to +125 °C
- Impedance: 75 Ω
- Dielectric Withstanding Voltage: 500 Vrms, 50 Hz
- Dielectric Working Voltage: 170 Vrms, 50 Hz
- Frequency Range: 0~6 GHz
- RoHS Compliant: Yes

**PROCESSING**

Lead-Free Solderable: Yes

**OTHER SOLUTIONS**

- 75 Ω Cable Components available
- Contact Samtec

---

Due to technical progress, all designs, specifications and components are subject to change without notice.

WWW.SAMTEC.COM

All parts within this catalog are built to Samtec’s specifications. Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
**SPECIFICATIONS**

For complete specifications and assembly instructions see www.samtec.com?MCX7-CA

Contact Material: Brass
Finger Shell Material: BeCu
Body Material: Brass
Insulator Material: PTFE
Center Contact: Soldered
Outer Ferrule: Crimped
Impedance: 75 Ω
Frequency Range: 0–6 GHz (-ST)
0–4.5 GHz (-RA)
Working Voltage: 170 Vrms max
Dielectric Withstanding: 500 Vrms min
Operating Temperature: -65 °C to +125 °C

MCX7 GENDER TYPE PLATING ORIENTATION TERMINATION

<table>
<thead>
<tr>
<th>MCX7</th>
<th>GENDER</th>
<th>TYPE</th>
<th>PLATING</th>
<th>ORIENTATION</th>
<th>TERMINATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>–P</td>
<td>Plug</td>
<td>–H</td>
<td>30 μ&quot; (0.76 μm) Gold center contact, 3 μ&quot; (0.08 μm) Gold outer contact</td>
<td>–ST</td>
<td>–SM1= Surface Mount (–ST only)</td>
</tr>
<tr>
<td>–J</td>
<td>Jack</td>
<td>–P</td>
<td>PCB Mount</td>
<td>–RA = Right-angle (–J–TH1 only)</td>
<td>–CA3= RG 179 Cable</td>
</tr>
<tr>
<td>–P–ST–SM1</td>
<td></td>
<td>–ST–TH1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Supplied with pins and ferrules. See website for dimensions.

Due to technical progress, all designs, specifications and components are subject to change without notice.

www.samtec.com

Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
**50 Ω HIGH ISOLATION RF CABLE ASSEMBLY**

**Specifications**

For complete specifications and recommended PCB layouts see www.samtec.com/IJ5C

- **Insulator Material:** Black LCP
- **Contact Material:** Copper Alloy
- **Pin Material:** Copper Alloy
- **Dielectric Material:** Black LCP
- **Plating:** Au over 50 µ" (1.27 µm) Ni
- **Operating Temp Range:** -40 °C to +90 °C
- **RoHS Compliant:** Yes

**Cable (-1):**

- **Conductor Size:** 26 AWG, (0.48 mm) .019" dia.
- **Conductor Material:** Silver Plated Copper
- **Insulator Diameter:** (1.27 mm) .050"
- **Insulator Material:** Foamed FEP
- **Shield Material:** Silver Plated Copper
- **Plating:** Au over 50 µ" (1.27 µm) Ni
- **Impedance:** 50 Ω
- **Current Rating:** 2.5 A
- **RoHS Compliant:** Yes

**Cable (-2):**

- **Conductor Size:** 26 AWG, (0.51 mm) .020" dia.
- **Conductor Material:** Silver and Copper Plated Steel Wire
- **Insulator Diameter:** (1.52 mm) .060"
- **Insulator Material:** PTFE
- **Shield Material:** Silver Plated Copper Wire
- **Plating:** Au over 50 µ" (1.27 µm) Ni
- **Impedance:** 50 Ω
- **Current Rating:** 5 A DC
- **RoHS Compliant:** Yes

**RECOGNITIONS**

For complete scope of recognitions see www.samtec.com/quality

**Note:** This Series is non-standard, non-returnable.

---

**1 Meter Cable Assembly**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>1 Meter Cable Assembly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion Loss = 3 dB</td>
<td>9.5 GHz / 19.0 Gbps</td>
</tr>
<tr>
<td>Return Loss = 15 dB</td>
<td>2.2 GHz / 4.4 Gbps</td>
</tr>
<tr>
<td>Isolation = 60 dB</td>
<td>3.1 GHz / 6.2 Gbps</td>
</tr>
</tbody>
</table>

Performance and complete test data available at www.samtec.com/IJ5C or contact sig@samtec.com

---

**TYPICAL APPLICATION**

Mates with: IP5

**RUGGEDIZED BY SAMTEC**

- Edge Rate® Contacts
- Positive Latching

---

**HIGH ISOLATION RF CABLE ASSEMBLY**

**IJ5C – NO. OF POSITIONS – ASSEMBLED LENGTH – PLATING OPTION – END OPTION – END 2 OPTION – CABLE TYPE**

<table>
<thead>
<tr>
<th>NO. OF POSITIONS</th>
<th>A</th>
<th>“XXXX” = Assembled Length in millimeters</th>
<th>–S = Single Ended</th>
<th>–D = Double Ended</th>
<th>–NUS = Notch up, straight P1 to P1</th>
<th>–NDS = Notch down, straight P1 to PN</th>
<th>–1 = CTB-2650F-01 cable</th>
<th>–2 = RG 316 cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>–01</td>
<td>(20.87) .822</td>
<td>70.0 mm (2.75&quot;)</td>
<td>–S = 30 µ&quot; (0.76 µm)</td>
<td>Gold on contact</td>
<td></td>
<td></td>
<td>–1</td>
<td>CTB-2650F-01 cable</td>
</tr>
<tr>
<td>–02</td>
<td>(24.87) .979</td>
<td>76.0 mm (3.00&quot;)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>–2</td>
<td>RG 316 cable</td>
</tr>
<tr>
<td>–04</td>
<td>(32.87) 1.294</td>
<td>94.0 mm (3.70&quot;)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>–06</td>
<td>(40.87) 1.609</td>
<td>112.0 mm (4.40&quot;)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>–08</td>
<td>(48.87) 1.924</td>
<td>130.0 mm (5.12&quot;)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Due to technical progress, all designs, specifications and components are subject to change without notice.**

All parts within this catalog are built to Samtec’s specifications. Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
**IJ5H SERIES**

**50 Ω HYBRID RF CABLE ASSEMBLY**

**SPECIFICATIONS**

For complete specifications and recommended PCB layouts see www.samtec.com?IJ5H

- **Insulator Material:** Black LCP
- **Contact Material:** Copper Alloy
- **Pin Material:** Copper Alloy
- **Dielectric Material:** Black LCP
- **Plating:** Au over 50 μ" (1.27 μm) Ni
- **Operating Temp Range:** -40 °C to +90 °C
- **RoHS Compliant:** Yes

**Cable (-2):**

- **Conductor Size:** 28 AWG, (0.51 mm) .020" dia.
- **Conductor Material:** Silver and Copper Plated Steel Wire
- **Insulator Diameter:** (1.52 mm) .060"
- **Insulator Material:** PTFE
- **Shield Material:** Silver Plated Copper Wire
- **Jacket Material:** FEP
- **Jacket Diameter:** (2.54 mm) .100"
- **Bend Radius:** 12.7 mm
- **Impedance:** 50 Ω
- **Current Rating:** 5A DC
- **RoHS Compliant:** Yes

**Cable (-3):**

- **Conductor Size:** 28 AWG, (0.51 mm) .020" dia.
- **Conductor Material:** Silver and Copper Plated Steel Wire
- **Insulator Diameter:** (1.52 mm) .060"
- **Insulator Material:** PTFE
- **Shield Material:** Silver Plated Copper Wire
- **Jacket Material:** FEP
- **Jacket Diameter:** (2.54 mm) .100"
- **Bend Radius:** 12.7 mm
- **Impedance:** 50 Ω
- **Current Rating:** 5A DC
- **RoHS Compliant:** Yes

**Cable (-7):**

- **Conductor Size:** 28 AWG, (0.51 mm) .020" dia.
- **Conductor Material:** Silver and Copper Plated Steel Wire
- **Insulator Diameter:** (1.52 mm) .060"
- **Insulator Material:** PTFE
- **Shield Material:** Silver Plated Copper Wire
- **Jacket Material:** FEP
- **Jacket Diameter:** (2.54 mm) .100"
- **Bend Radius:** 12.7 mm
- **Impedance:** 50 Ω
- **Current Rating:** 5A DC
- **RoHS Compliant:** Yes

**Mates with:**
IP5, SMA, MCX, MMCX, SMB5

**ASSEMBLED LENGTH**

- "XXXX" = Assembled Length in millimeters
- 0300 to 1000 (1000 mm) 39.40" maximum

**END 1 PLATING**

- S = 30 μ" (0.76 μm) Gold on contact

**CABLE TYPE**

- -2 = RG 316 cable

**END 2 OPTION**

- 01SP1 = SMA Straight Plug
- 02SP1 = MCX Straight Plug
- 03SP1 = MMCX Straight Plug
- 07SP1 = SMB Straight Plug
- 02SP2 = MCX Straight Plug
- 03SP2 = MMCX Straight Plug
- 07SP2 = SMB Straight Plug

**EDGE RATE CONTACT**

**Low-cost isolated transmission line system**

1, 2, 4, 6 or 8 Positions

**Positive latching**

**RG 316 Cable**

**Choice of traditional RF end options**

---

**Note:**
This Series is non-standard, non-returnable.

---

Due to technical progress, all designs, specifications and components are subject to change without notice.

All parts within this catalog are built to Samtec’s specifications.
Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
50 Ω HIGH ISOLATION RF JACKS

**SPECIFICATIONS**

For complete specifications and recommended PCB layouts see www.samtec.com/IJ5

Shell Material: Copper Alloy
Insulator Material: Black LCP
Contact Material: Copper Alloy
Dielectric Material: Black LCP
Plating: Au or Sn over 50 μ" (1.27 μm) Ni
Current Rating (Vertical): Signals: 2.36 A per pin (2 adjacent pins powered) Grounds: 4.4 A per pin (2 adjacent pins powered)
Operating Temp Range: -55 °C to +125 °C
Dielectric Withstanding Voltage: 600 VAC
Working Voltage: 200 VAC
RoHS Compliant: Yes

**PROCESSING**

Lead–Free Solderable: Yes

**RECOGNITIONS**

For complete scope of recognitions see www.samtec.com/quality

**APPLICATION**

For complete scope of recognitions see www.samtec.com/quality

**ALSO AVAILABLE**

- Other stack heights
- Other PCB thicknesses
Contact Samtec.

**OTHER SOLUTIONS**

- Cable assembly (see IJ5C Series)

**Mates with:** IP5

**IP5/IJ5**

<table>
<thead>
<tr>
<th>10 mm Stack Height</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion Loss = 3 dB</td>
<td>10.5 GHz / 21.0 Gbps</td>
</tr>
<tr>
<td>Return Loss = 15 dB</td>
<td>5.5 GHz / 11.0 Gbps</td>
</tr>
<tr>
<td>Isolation = 60 dB</td>
<td>8.8 GHz / 17.6 Gbps</td>
</tr>
<tr>
<td>Isolation = 70 dB</td>
<td>7.6 GHz / 15.2 Gbps</td>
</tr>
<tr>
<td>Isolation = 80 dB</td>
<td>1.3 GHz / 2.6 Gbps</td>
</tr>
</tbody>
</table>

Complete test data available at www.samtec.com/IJ5 or contact sig@samtec.com

**APPLICATION**

Due to technical progress, all designs, specifications and components are subject to change without notice.

WWW.SAMTEC.COM
50 Ω HIGH ISOLATION RF PLUGS

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com/IP5

Shell Material: Copper Alloy
Insulator Material: Black LCP
Contact Material: Copper Alloy
Dielectric Material: Black LCP
Plating: Au or Sn over 50 µ" (1.27 µm) Ni

Current Rating (Vertical):
Signals: 2.36 A per pin
(2 adjacent pins powered)
Grounds: 4.4 A per pin
(2 adjacent pins powered)

Operating Temp Range: -55 °C to +125 °C

Dielectric Withstanding Voltage:
IP5 = 600 VAC
IP5-RA = 190 VAC

Working Voltage:
IP5 = 200 VAC
IP5-RA = 190 VAC

RoHS Compliant: Yes

APPLICATION

FILE NO. E111594

RF-18

IP5–04–05.0–L–S–1–TR
IP5–08–05.0–L–S–1–TR

IP5–04–01–L–S–RA1–TR

IP5–04–01–L–S–RA1–TR

PROCESSING

Lead–Free Solderable: Yes

RECOGNITIONS

For complete scope of recognitions see www.samtec.com/quality

ALSO AVAILABLE (MOQ Required)

• Other stack heights
• Other PCB thicknesses
Contact Samtec.

Due to technical progress, all designs, specifications and components are subject to change without notice.

WWW.SAMTEC.COM

Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.
CUSTOM RF SOLUTIONS

EXPRESS MODIFICATIONS
- Quick-turn prototype samples
- Short lead times
- Low or no Nonrecurring Engineering Charges (NREs)
- Low or no tooling charges

RF Board Level Interconnects
- Custom tail lengths
- Through-hole termination to surface mount or mixed technology
- Right-angle height adjustment from PCB
- Alternate plating options

RF Cable Assemblies
- Performance testing: VNA, TDR
- Custom labels and heat-shrink tubing
- Non-standard connector termination orientation
- Adding or removing bulkhead mounting
- Alternate plating options

ENGINEERED CUSTOMS
- Full engineering, design and prototype support from Samtec’s RF Group
- Design, simulation and processing assistance
- Flexible, quick-turn manufacturing
- Dedicated engineers and technicians for application specific RF products

RF Board Level Interconnects
- Completely customized to your specifications

RF Cable Assemblies
- Completely customized to your specifications
- Customized connector terminated to existing cable
- Customized cable terminated to existing connector

RF GROUP
- Personal support from Samtec’s highly qualified, in-house staff of RF engineers
- Express modifications to standard products to complete engineering, design and prototype support
- Design, simulation and processing assistance
- Dedicated engineers and technicians for application specific RF products
- Contact RFTechnicalGroup@samtec.com
INDEX

Series Description Page
292 50 Ω Precision 2.92 mm Jacks 42
292-CA 50 Ω Precision 2.92 mm Cable Components 43
BDR Replacement block for 20 GHz Bulls Eye® (BDRA) 20
BDRA 20 GHz Bulls Eye® Assembly: Double Row 18
BE23S Replacement cable for 20 GHz Bulls Eye® (BDRA, BQRA) 20
BE40A 50 GHz Bulls Eye® Assembly: Double Row 17
BE40B Replacement block for 50 GHz Bulls Eye® (BE40A) 20
BE40C Replacement cable for 50 GHz Bulls Eye® (BE40A) 20
BNC5-CA 50 Ω BNC Cable Components 52
BNC7 75 Ω, 12G-SDI BNC Jacks 58-59
BNC7T-CA 75 Ω, 12G-SDI BNC Cable Components 58-59
BQ Replacement block for 20 GHz Bulls Eye® (BQRA) 20
BQRA 20 GHz Bulls Eye® Assembly: Quad Row 19
C28S 100 Q Shielded Twisted Pair Twinax Cable Assembly 62
CJT 100 Q Twinax Jack, Through-hole & Bulkhead Through-hole 63
DIN7A 75 Ω, 12G-SDI DIN 1.0/2.3 Jacks 55
DIN7A-CA 75 Ω, 12G-SDI DIN 1.0/2.3 Cable Components 55
GRF1-C 5.00 mm 50 Q Ganged Micro-Mini RF Plug, Cable 65
GRF1H-C 5.00 mm 50 Q Ganged Hybrid Micro-Mini RF Cable 66-67
GRF1-J 5.00 mm 50 Q Ganged Micro-Mini RF Jack, PCB Mount 64
GRF1-P 5.00 mm 50 Q Ganged Micro-Mini RF Plug, PCB Mount 64
GRF7H-C 5.00 mm 75 Q Ganged Hybrid Micro-Mini RF Cable 68-69
GRF7-J 5.00 mm 75 Q Ganged Micro-Mini RF Jack, PCB Mount 70
GRF7-P 5.00 mm 75 Q Ganged Micro-Mini RF Plug, PCB Mount 70
HDBNC 75 Ω, 12G-SDI High-Density BNC Jacks 56
HDBNC-CA 75 Ω, 12G-SDI High-Density BNC Cable Components 57
JS 4.00 mm IsoRate® 50 Q High Isolation RF Jack Strip 76
JSC 4.00 mm IsoRate® 50 Q High Isolation RF Cable 74
JSH 4.00 mm IsoRate® 50 Q High Isolation RF Plug Strip 77
MCX 50 Ω MCX Jacks & Plugs 50
MCX7 75 Ω MCX Jacks & Plugs 73
MCX7-CA 75 Ω MCX Cable Components 73
MCX-CA 50 Ω MCX Cable Components 51
MH081 Micro High Frequency RF Cable Assembly, 0.81 mm Diameter 22
MH113 Micro High Frequency RF Cable Assembly, 1.13 mm Diameter 23
MMCX 50 Ω MMCX Jacks & Plugs 49
MMCX7 75 Ω Micro-Mini Jacks & Plugs 72
MMCX-CA 50 Ω MMCX Cable Components 51
MMCX-SW 50 Ω MMCX Switchable Jack 49
NTPE-CA N Type Jack Cable Components 53
RF047 50 Q Flexible RF Cable Assembly, (.047” DIA) 28 AWG 71
RF058 50 Q RF Cable Assembly, RG 58 Cable 31
RF174 50 Q RF Cable Assembly, RG 174 Cable 24-25
RF178 50 Q RF Cable Assembly, RG 178 Cable 26-27
RF179 75 Q RF Cable Assembly, RG 179 Cable 38-39
RF23C 50 Q Cable Assembly, 23 AWG Solid Dielectric with Copper Shield 34-35
RF23S 50 Q Cable Assembly, 23 AWG Solid Dielectric 36
RF25S 50 Q Cable Assembly, 25 AWG Solid Dielectric 36
RF316 50 Q RF Cable Assembly, RG 316 Cable 28-29
RF402 50 Q Semi-Flexible RF Cable Assembly, (.141” DIA) 19 AWG 33
RF403 50 Q Semi-Flexible RF Cable Assembly, (.086” DIA) 24 AWG 32
RFA6T 75 Q RF Cable Assembly, RG 6 Cable 37
RFB6T 75 Q RF Cable Assembly, 16/4A Cable 37
RFCB 75 Q RF Cable Assembly, 18/5A Cable 40
RS316 50 Q RF Cable Assembly, Double-Shielded RG 316 Cable 30
SMA 50 Q SMA Jacks 44-45
SMA-CA 50 Q SMA Cable Components 46
SB5 50 Q SMB Jacks 48
SB5S-CA 50 Q SMB Cable Components 48
SMB7H 75 Q SMB Jacks 60
SMB7H-CA 75 Q SMB Cable Components 60
SMP 50 Q SMP Jacks/Plugs & Adaptor 47
SMP-CA 50 Q SMP Cable Components 47
TNC 50 Q TNC Jacks 54
TNC-CA 50 Q TNC Cable Components 54

GENERAL POLICY

The information contained in this catalog is accurate to the best of our knowledge. Due to technical progress, it is subject to change without notice. Application information is informational in nature and shall not be construed to warrant suitability of products for any particular purpose as performance may vary with the conditions encountered. Any cut strips or custom made items or options are considered “special” non-returnable items. Samtec products are warranted for 30 days and the warranty is limited strictly to replacement of products with defective workmanship.

Federal Supply Code: 55322
SAMTEC USA
P.O. Box 1147 • Near Albany, NY 12211-1147 USA
+1-800-SAMTEC-9 (+1-800-776-3299) USA & Canada
Tel: +1-812-944-6733 • Fax: +1-812-948-5047
Email: info@samtec.com

SAMTEC NORTHERN CALIFORNIA
2531 Owain St. • Ste. 120 • Santa Clara, CA 95054
+1-800-726-8337 (USA & Canada)
Tel: +1-812-944-6733 • Fax: +1-408-217-5171
Email: samtecnorcal@samtec.com

SAMTEC SOUTHERN CALIFORNIA
5410 Traubuco Road • Suite 120 • Irvine, CA 92620
Tel: +1-800-726-8337
Email: samtecsouthcalifornia@samtec.com

SAMTEC SOUTH AMERICA
Rua Alegos N° 1460 • Sala 805 • Bairro Savassi
Belo Horizonte • Minas Gerais 50130-160 • Brazil
Tel: +55 31 9 914-4447
Email: brazilsales@samtec.com

SAMTEC UNITED KINGDOM
11 Mollins Court • Westfield, Cumbernauld
Scotland G68 9HP
Tel: +44 01236 739292 • Fax: +44 01236 727113
Email: scotland@samtec.com

SAMTEC GERMANY
Streiflacher Str. 7 • 82170 Germersheim • Germany
1-800-SAMTEC-9 (+1-800-776-3299) Germany only
Tel: +49 (0) 391 / 694600 • Fax: +49 (0) 391 / 694689
Email: germany@samtec.com

SAMTEC FRANCE
11 rue du Courtelin • Bâtiment B
77700 Magny-le-Hongre • France
Tel: +33 1 60 95 06 60 • Fax: +33 1 60 95 06 61
Email: france@samtec.com

SAMTEC ITALY
Via Colonne 25 • Centro Direzionale Colonne
Palazzo Pegasso Ingresso 3
20804 Agate Branca-Monza Branca (MB) • Italy
Tel: +39 039 6890337 • Fax: +39 039 6890315
Email: italy@samtec.com

SAMTEC NORDIC/BALTIC
Sokobralanagen 25 • 11370 Stockholm • Sweden
Tel: +46 8 4477280 • Fax: +46 8 7426413
Email: scandiravie@samtec.com

SAMTEC BENELUX
11 Mollins Court • Westfield, Cumbernauld
Scotland G68 9HP
Tel: +44 01236 739292 • Fax: +44 01236 727113
Email: benelux@samtec.com

SAMTEC ISRAEL
21 Bar-Kochva St. • Concord Tower
Bnei Brak, Israel 51260
Tel: +972 3 7326600 • Fax: +972 3 7326690
Email: israeil@samtec.com

SAMTEC INDIA
#1, 2nd Floor, Chetana, Dattareya Road
Basavanagudi • Bangalore • 560 004 India
Tel: +91 80 3277 1612 • Fax: +91 80 2662 0967
Email: india@samtec.com

SAMTEC ANZ
2A San Antonio Court • Moonee Ponds 3194
Victoria, Australia
Tel: +61 3 9580 0683 • Fax: +61 3 9580 0684
Email: australia@samtec.com

SAMTEC SINGAPORE
1 Kolam Ayer Industrial Park
Singapore 349276
Tel: +65 6745 5955 • Fax: +65 6841 1502
Email: singpores@samtec.com

SAMTEC JAPAN
Nissyo No. 16 Bldg. • 3-3-8, Shinjyokohama, Kohoku-ku
Yokohama-shi, Kanagawa 222-0033 Japan
Tel: +81 45 475 1305 • Fax: +81 45 475 1340
Email: japan@samtec.com

SAMTEC SHANGHAI
Unic 661, Qibei Building • No 889 Yishan Road
Shanghai, China 200233
Tel: +86 21 6083 3766 • Fax: +86 21 5423 4575
Email: china@samtec.com

SAMTEC SHENZHEN
Rm 9068 9/F, New World Center Tower
Yi Tian Road, Fu Tian District • Shenzhen, China 518026
Tel: +86 755 83776760 • Fax: +86 755 83776767
Email: hangkong@samtec.com

SAMTEC TAIWAN
Room D, Floor 81, No. 205, Sec. 3 • Beixin Rd.
Xindian District • New Taipei City 23143 • Taiwan
Tel: +886 2 7277 4060 • Fax: +886 2 7277 4179
Email: taiwan@samtec.com

SAMTEC HONG KONG
Room 18, 13/F, Shatin Galleria • 18-24 Shan Mei Street
Fo Tan, Shatin, Hong Kong
Tel: +852 26990488 • Fax: +852 26990484
Email: hongkong@samtec.com

SAMTEC KOREA
RM 775, 109 Gwanggyo-ro
Youngtang gu, Seoul gu, Gyeonggi Do
16291 South Korea
Tel: +82 31 717 5685 • Fax: +82 70 7500 0246
Email: korea@samtec.com

SAMTEC ONLINE
www.samtec.com

ISO-9001 and/or INAF 16949 Certified
2008