

# 50Ω RF CABLE ASSEMBLIES RF174, RF316 SERIES

## SPECIFICATIONS

For complete specifications see [www.samtec.com?RF174](http://www.samtec.com?RF174) or [www.samtec.com?RF316](http://www.samtec.com?RF316)

### 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)  
Au plated Phosphor Bronze (BNC-J)

Au plated BeCu (SMA-J)

Insulator Material: PTFE

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

Insulator Resistance: 5,000 MΩ

Impedance: 50Ω

Frequency Range: 0-6 GHz

RoHS Compliant: Yes

### RG 174 Cable:

Impedance: 50Ω

Capacitance: 101.024pF/meter

Propagation Delay: 5.06 nsec/meter

Max Attenuation: 1.4dB @ 1GHz for 1 meter

Conductor Size: 26 AWG, (0.48mm) .019" dia.

Conductor Material: Copper

Conductor Resistance: 0.14Ω/meter

Current Rating: 5A DC

Insulator Material: PE

Dielectric Constant: 2.3dK

Shield Material: Tin Copper

Jacket Material: PVC

Jacket Diameter: (2.70mm) .106"

Jacket Temp Rating: -50°C to +90°C

Jacket Color: Black

RoHS Compliant: Yes

### RG 316 Cable:

Impedance: 50Ω

Capacitance: 96.432pF/meter

Propagation Delay: 4.83 nsec/meter

Max Attenuation: 1.25dB @ 1GHz for 1 meter

Conductor Size: 26 AWG, (0.51mm) .020" dia.

Conductor Material: Silver Plated Copper

Conductor Resistance: 0.13Ω/meter max

Current Rating: 5A DC

Insulator Material: PTFE

Dielectric Constant: 2.1dK

Shield Material: Silver Plated Copper Clad Steel

Jacket Material: FEP

Jacket Diameter: (2.54mm) .100"

Jacket Temp Rating: -50°C to +250°C

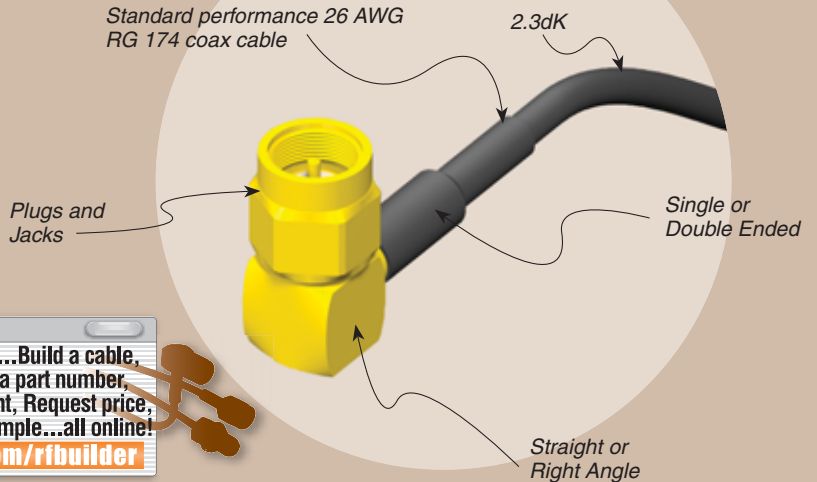
Jacket Color: Amber

RoHS Compliant: Yes

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CABLE TYPE	END 1 CONNECTOR	END 2 CONNECTOR
<b>RF174</b> = RG 174 Cable		
<b>RF316</b> = RG 316 Cable		

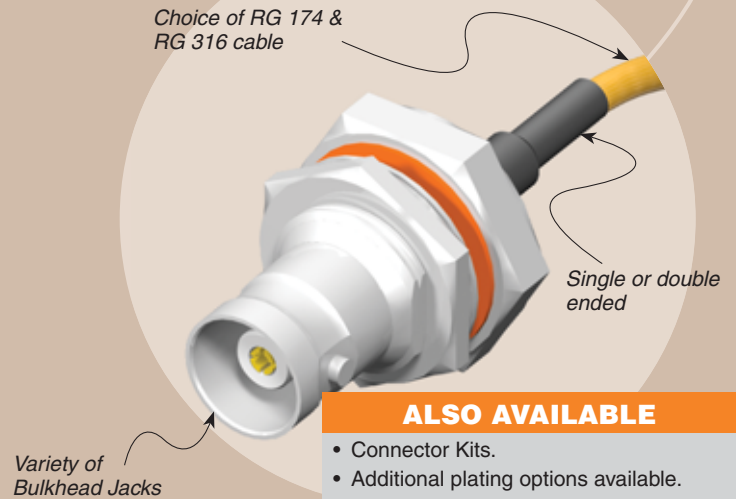
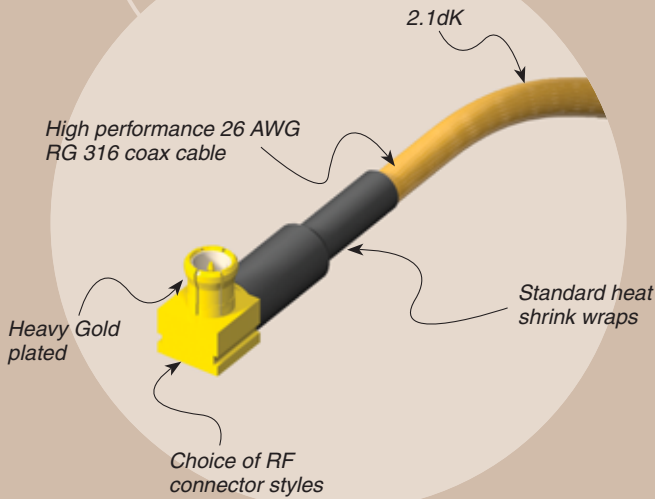
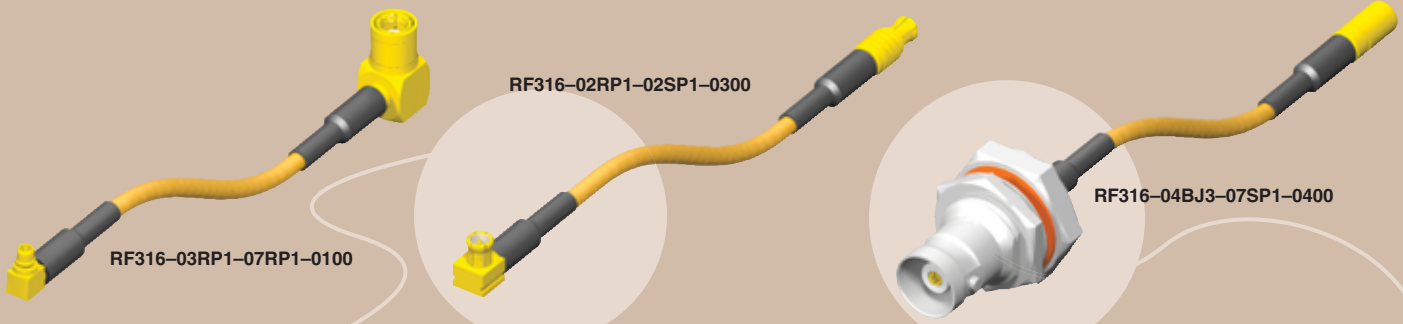
Specify END OPTIONS from chart

<b>-01SP1</b> = SMA, Straight Plug (30μ" (0.76μm) Gold on Center Contact, Gold Flash on Shell)	
<b>-01RP1</b> = SMA, Right Angle Plug (30μ" (0.76μm) Gold on Center Contact, Gold Flash on Shell)	
<b>-07SP1</b> = SMB, Straight Plug (30μ" (0.76μm) Gold on Center Contact, Gold Flash on Shell)	
<b>-07RP1</b> = SMB, Right Angle Plug (30μ" (0.76μm) Gold on Center Contact, Gold Flash on Shell)	
<b>-02SJ1</b> = MCX, Straight Jack (30μ" (0.76μm) Gold on Contact, Gold Flash on Shell)	

END OPTIONS	
<b>-02RP1</b> = MCX, Right Angle Plug (30μ" (0.76μm) Gold on Center Contact, Gold Flash on Shell)	
<b>-02SP1</b> = MCX, Straight Plug (30μ" (0.76μm) Gold on Center Contact, Gold Flash on Shell)	
<b>-03SP1</b> = MMCX, Straight Plug (30μ" (0.76μm) Gold on Center Contact, Gold Flash on Shell)	
<b>-03RP1</b> = MMCX, Right Angle Plug (30μ" (0.76μm) Gold on Center Contact, Gold Flash on Shell)	
<b>-04SP3</b> = BNC, Straight Plug (10μ" (0.25μm) Gold on Center Contact, Nickel on Shell)	
<b>-05SP3</b> = TNC, Straight Plug (10μ" (0.25μm) Gold on Center Contact, Nickel on Shell)	

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

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- ALSO AVAILABLE**
- Connector Kits.
  - Additional plating options available.
  - Additional end connector combinations. Call Samtec.

## OVERALL LENGTH

—“XXXX”

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

END OPTIONS	
-07BJ1 = SMB, Bulkhead Jack (30µ" (0,76µm) Gold on Center Contact, Gold Flash on Shell)	
-01BJ1 = SMA, Straight Bulkhead Jack	
-01BR1 = SMA, Straight Bulkhead Jack, Reversed Polarity (30µ" (0,76µm) Gold on Center Contact, Gold Flash on Shell)	
-01SB1 = SMA, Sealed Straight Bulkhead Jack	
-01SR1 = SMA, Sealed Bulkhead Jack, Reversed Polarity (30µ" (0,76µm) Gold on Center Contact, Gold Flash on Shell)	
END OPTIONS	
-SING = Single-Ended (End 2 only)	
XXXXXX = Stripped & Tinned (End 2 callout)	

END OPTIONS	
-04BJ3 = BNC, Bulkhead Jack (10µ" (0,25µm) Gold on Center Contact, Nickel on Shell)	
-05BJ3 = TNC, Bulkhead Jack (10µ" (0,25µm) Gold on Center Contact, Nickel on Shell)	
-06BJ2 = N Type, Bulkhead Jack (30µ" (0,76µm) Gold on Center Contact, Nickel on Shell)	
STRIPPED & TINNED CALLOUT	
-XX XX XX A B C	
Where XX = length in mm (0.0mm to 9.9mm)	

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