

RF316-07SP1-07BJ1-0200

RF174-01RP1-02RP1-0300

RF174, RF316 SERIES

50Ω RG 174 & RG 316 CABLE ASSEMBLIES

SPECIFICATIONS

For complete specifications see www.samtec.com?RF174 or 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:
 RF174: -50°C to +90°C
 RF316: -50°C to +165°C
Insulator Resistance: 5,000 MΩ
Impedance: 50Ω
Frequency Range: 0-6 GHz (Cable & connector dependent)
RoHS Compliant: Yes

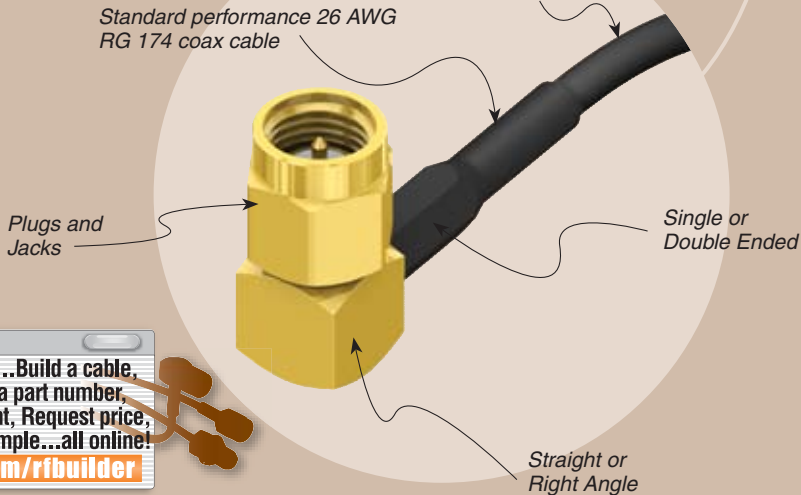
RG 174 Cable:

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: LEP
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 +165°C
Jacket Color: Amber
RoHS Compliant: Yes

Mates with:
 MCX, MMCX,
 SMA, SMB5



RF Cable Builder
 Quickly...Build a cable.
 Verify a part number.
 View print, Request price,
 Order sample...all online!
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CABLE TYPE	END 1 CONNECTOR	END 2 CONNECTOR
<p>RF174 = RG 174 Cable</p> <p>RF316 = RG 316 Cable</p>		

Specify END OPTIONS from chart

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

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

WWW.SAMTEC.COM



High performance 26 AWG
RG 316 coax cable

2.1dK

Standard heat
shrink wraps

Heavy Gold
plated

Choice of RF
connector styles

ALSO AVAILABLE

- Connector Kits.
 - Additional plating options available.
 - Additional end connector combinations.
 - Knurled nuts with BNC option.
- Call Samtec.

Choice of RG 174 &
RG 316 cable

Single or
double ended

Variety of
Bulkhead Jacks

OVERALL LENGTH

—“XXXX”

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

**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.
Call Samtec for other sizes or tinning options.

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)	

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)	

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