

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 & SSMB)

Center Contact Material:

Au plated Brass (BNC-P, MCX-P, MMCX-P & SMA-P)
Au plated BeCu
(SMB-P, SMA-J & SSMB)

Au plated Phos. Bronze (BNC-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, SSMB,
BNC, TNC, N TYPE

Standard performance 26 AWG
RG 174 coax cable

2.3dK

Plugs and
Jacks

Single or
Double Ended

**RF Cable
Builder**

Quickly...Build a cable.
Verify a part number.
View print, Request price,
Order sample...all online!

www.samtec.com/rfbuilder

Straight or
Right Angle

CABLE TYPE

**END 1
CONNECTOR**

**END 2
CONNECTOR**

Specify END OPTIONS from chart

RF174
= RG 174 Cable

RF316
= RG 316 Cable

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)	
-01PN1 = SMA, Straight Panel Mount Jack (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)	

END OPTIONS

-02SJ1 = MCX, Straight Jack (30μ" (0.76μm) Gold on Center Contact, Gold Flash on Shell)	
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)	
-S7SP4 = SSMB, Straight Plug (10μ" (0.25μm) Gold on Center Contact, Nickel on Shell)	
-S7RP4 = SSMB, Right Angle 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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RF316-03RP1-07RP1-0100



RF316-02RP1-02SP1-0300



RF174-04BJ3-07SP1-0400



High performance 26 AWG
RG 316 coax cable

2.1dK

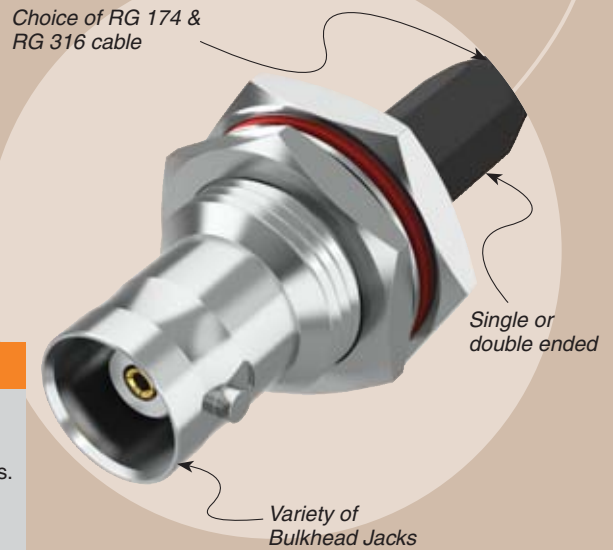
Standard heat
shrink wraps

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)

END OPTIONS	
-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)	
-07BJ1 = SMB, Bulkhead Jack (30µ" (0.76µm) Gold on Center Contact, Gold Flash on Shell)	
-01BJ1 = SMA, Straight Bulkhead Jack	
-01SB1 = SMA, Straight Bulkhead Jack, Sealed	
-01SR1 = SMA, Straight Bulkhead Jack, Sealed, Reversed Polarity	
-01BR1 = SMA, Straight Bulkhead Jack, Reversed Polarity (30µ" (0.76µm) Gold on Center Contact, Gold Flash on Shell)	

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)	

END OPTIONS
-SING = Single-Ended (End 2 Callout)
XXXXXX = 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.
Call Samtec for other sizes or tinning options.

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