

Series: RF047-A, Cable Assembly, 50 Ω



Part Number:

RF047-A-XXXX-XXXX-XXXX

END 1 CONNECTOR

- MOSP : SMPM Plug
- MOSJ : SMPM Jack
- MORJ : SMPM Right Angle Jack
- MOBJ : SMPM Bulkhead Jack
- 01SP : SMA Plug
- 01BJ : SMA Bulkhead Jack
- 01SB : SMA Sealed Bulkhead Jack
- 92SP : 2.92mm Plug
- 92SJ : 2.92mm Jack
- 18SP : 1.85mm Plug
- 18SJ : 1.85mm Jack
- 24SP : 2.4mm Plug
- 24SJ : 2.4mm Jack
- 13SP : 1.35mm Plug
- 13BJ : 1.35mm Bulkhead Jack
- 10SP : 1.0mm Plug
- 10BJ : 1.0mm Bulkhead Jack

END 2 CONNECTOR

- MOSP : SMPM Plug
- MOSJ : SMPM Jack
- MORJ : SMPM Right Angle Jack
- MOBJ : SMPM Bulkhead Jack
- 01SP : SMA Plug
- 01BJ : SMA Bulkhead Jack
- 01SB : SMA Sealed Bulkhead Jack
- 92SP : 2.92mm Plug
- 92SJ : 2.92mm Jack
- 18SP : 1.85mm Plug
- 18SJ : 1.85mm Jack
- 24SP : 2.4mm Plug
- 24SJ : 2.4mm Jack
- 13SP : 1.35mm Plug
- 13BJ : 1.35mm Bulkhead Jack
- 10SP : 1.0mm Plug
- 10BJ : 1.0mm Bulkhead Jack

OVERALL ASSEMBLY LENGTH (OAL)
XXXX (MILLIMETERS)
(0100 MIN)

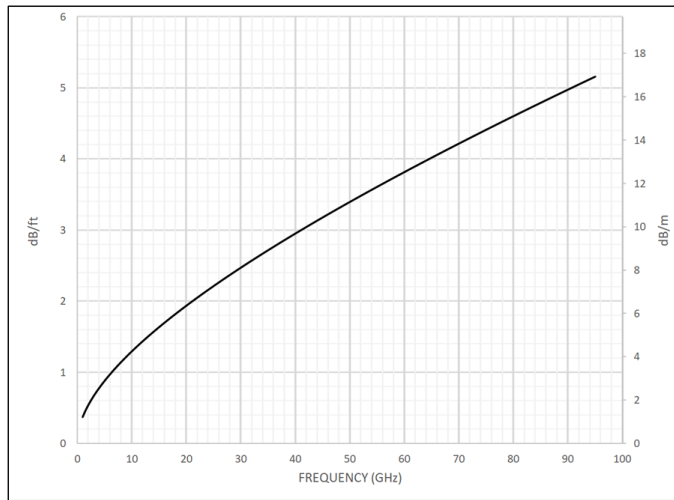
Series: RF047-A, Cable Assembly, 50 Ω

ELECTRICAL DATA

Impedance	50 Ω	
Frequency Range	1.00mm Plug, 1.00mm Jack	DC to 110 GHz
	1.35mm Plug, 1.35mm Jack	DC to 90 GHz
	1.85mm Plug, 1.85mm Jack	DC to 67 GHz
	2.40mm Plug, 2.40mm Jack,	DC to 50 GHz
	SMA Plug, SMA Bulkhead Jack, SMA Sealed Bulkhead Jack	DC to 26.5 GHz
	SMPM Right Angle Jack	DC to 20 GHz
	All Other Options	DC to 40 GHz
Velocity of Propagation	70 %	
Capacitance	95 pF/meter	
Time Delay	4.76 ns/meter	
VSWR	1.00mm Plug, 1.00mm Jack	DC to 90GHz: 1.4:1 Max 90GHz to 110GHz: 1.5:1 Max
	1.35mm Plug, 1.35mm Jack	1.4:1 Max
	1.85mm Plug, 1.85mm Jack	1.4:1 Max
	2.92mm Plug, 2.92mm Jack	1.35:1 Max
	2.40mm Plug, 2.40mm Jack	1.35:1 Max
	SMA Plug, SMA Bulkhead Jack, SMA Sealed Bulkhead Jack	1.3:1 Max
	SMPM Plug, SMPM Jack	1.4:1 Max
	SMPM Right Angle Jack	1.45:1 Max
Insertion Loss	See Graph	
Power Handling	See Graph	

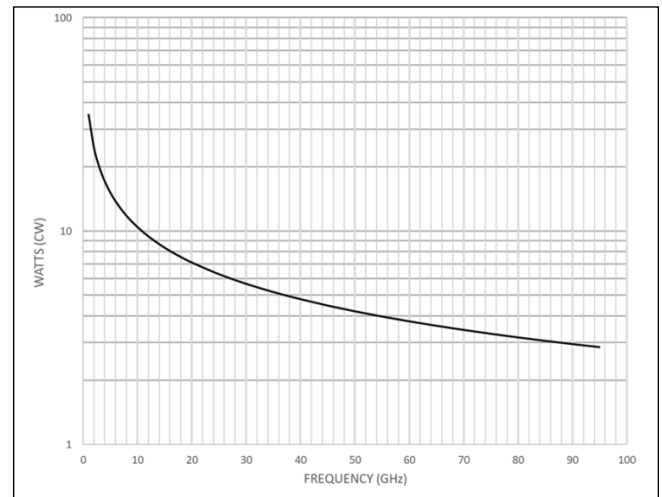
Series: RF047-A, Cable Assembly, 50 Ω

MAXIMUM INSERTION LOSS @ T=25°C¹



¹Not including connector losses. Connector losses can be approximated as $0.045\sqrt{F(\text{GHz})}$ dB/connector.

TYPICAL POWER HANDLING @ T=25°C²



²Guideline, only. Actual power handling performance depends on mounting and cooling.

MECHANICAL DATA

Outer Diameter (cable only)	1.42 mm
Mass	5.2 grams/meter
Minimum Bend Radius (Static)	5.0 mm
Minimum Bend Radius (Dynamic)	10.0 mm
Minimum Connector Retention	2.26 kg

ENVIRONMENTAL DATA

Temperature Range	-65 to +125°C
Thermal Shock	MIL-STD-202-107, -65°C to +125°C, 10 cycles

Series: RF047-A, Cable Assembly, 50 Ω

CONNECTOR OPTIONS

End Option	Description	Drawing
M0SP	SMPM Plug (Full Detent)	PRFM0-P-C-HG-047A-SD Drawing
M0SJ	SMPM Jack	PRFM0-J-C-HG-047A-SD Drawing
M0RJ	SMPM Right Angle Jack	PRFM0-J-C-EE-047A-RD Drawing
M0BJ	SMPM Bulkhead Jack	PRFM0-J-C-EE-047A-BD Drawing
92SP	2.92mm Plug	PRF92-P-C-EP-047A-SS Drawing
92SJ	2.92mm Jack	PRF92-J-C-EP-047A-SS Drawing
18SP	1.85mm Plug	PRF18-P-C-EP-047A-SS Drawing
18SJ	1.85mm Jack	PRF18-J-C-EP-047A-SS Drawing
24SP	2.40mm Plug	PRF24-P-C-EP-047A-SS Drawing
24SJ	2.40mm Jack	PRF24-J-C-EP-047A-SS Drawing
13SP	1.35mm Plug	PRF13-P-C-VP-047A-SS Drawing
13BJ	1.35mm Jack	PRF13-J-C-VP-047A-BS Drawing
10SP	1.00mm Plug	PRF10-P-C-VP-047A-SS Drawing
10BJ	1.00mm Jack	PRF10-J-C-VP-047A-BS Drawing
01SP	SMA Plug	PRF01-P-C-EG-047A-SD Drawing
01BJ	SMA Bulkhead Jack	PRF01-J-C-EG-047A-BD Drawing
01SB	SMA Sealed Bulkhead Jack	PRF01-J-C-EG-047A-BD-1 Drawing

ADDITIONAL INFORMATION

Cable Type	Datasheet
Cable Assembly	RF047-A Drawing

USE OF PRODUCT SPECIFICATION SHEET

This Product Specification Sheet (“PSS”) is a brief summary of information related to the Product identified. As a summary, it should only be used for the limited purpose of considering the purchase/use of Product. This PSS is the property of Samtec, Inc. (“Samtec”) and contains proprietary information of Samtec, our various licensors, or both. Samtec does not grant express or implied rights or license under any patent, copyright, trademark or other proprietary rights and the use of the PSS for building, reverse engineering or replication is strictly prohibited. By using the PSS, the user agrees to not infringe, directly or indirectly, upon any intellectual property rights of Samtec and acknowledges that Samtec, our various licensors, or both own all intellectual property therein. The PSS is presented “AS IS”. While Samtec makes every effort to present excellent information, the PSS is only provided as a guideline and does not, therefore, warrant it is without error or defect or that the PSS contains all necessary and/or relevant information about the Product. The user agrees that all access and use of the PSS is at its own risk. **NO WARRANTIES EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY KIND WHATSOEVER ARE PROVIDED**