



THE BIG DEAL

- Wideband frequency coverage, DC to 40 GHz
- Low Loss, 3.0 dB typ. at 40 GHz
- Excellent Return Loss, 23 dB typ. at 40 GHz
- Hand formable to almost any custom shape without special bending tools
- 6mm bend radius for tight installations
- Anti-torque nut prevents cable stress during installation
- Insulated outer jacket standard
- Connector interface, meets MIL-STD-348
- Ideal for interconnect of assembled systems



Generic photo used for illustration purposes only

Model No.	086-18KM+
Case Style	RQ2535-18
Connectors	2.92mm Male

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our website for methodologies and qualifications

APPLICATIONS

- Replacement for custom bent 0.086" semi-rigid cables
- Communication receivers and transmitters
- Military and aerospace system
- Environmental and test chambers

PRODUCT OVERVIEW

The 086 Series Hand-Flex Coaxial Cables are ideal for interconnection of coaxial components or sub-systems. The construction includes a gold-plated beryllium copper center conductor which maintains the shape after bending. The outer shield is copper braid, tin soaked, which minimizes signal leakage and at the same time flexible for easy bend. Dielectric is low loss PTFE. Connectors have passivated stainless-steel coupling nut over a gold plated connector body.

KEY FEATURES

Feature	Advantages
Hand-Formable RF Cables	The 086 Series Hand-Flex cables are hand formable making them ideal for use integrating coaxial components and sub-assemblies without the need for special cable-bending tools and alleviating the risk of damage during the bending process typical of semi-rigid coaxial cable assemblies.
Tight Bend Radius	Capable of only 6mm bend radius, the 086 Hand Flex series is able to make connections in tight spaces making these cables ideal for dense system integration
Excellent Return Loss: <ul style="list-style-type: none"> • 26 dB typ. to 18 GHz • 23 dB typ. to 40 GHz 	The 086 Series Hand-Flex Cables are ideally suited for interconnecting a wide variety of RF components while minimizing VSWR ripple contribution due to mating cables & connectors.
Good Power Handling Capability: <ul style="list-style-type: none"> • 61W at 1 GHz • 7W at 40 GHz 	Mini-Circuits 086 Cable series can support medium to high RF power levels enabling these cables to be used in the transmit path. NOTE: power rating is at sea-level altitudes.
Built in Anti-torque nut	Mini-Circuits 086 Series Hand Flex cables include an anti-torque feature to support the connector body during installation alleviating risk of stress to the connector/cable interface.



Coaxial Cable

086-18KM+

50Ω 18 inch DC to 40 GHz 2.92mm Male

ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC		40	GHz
Length		18			inches
Insertion Loss	DC - 6	—	0.5	1.3	dB
	6 - 18	—	1.0	2.2	
	18 - 26.5	—	1.8	2.7	
	26.5 - 40	—	2.4	3.4	
Return Loss	DC - 18	18	33	—	dB
	18 - 40	15	27	—	

ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-55°C to +85°C
Storage Temperature	-55°C to +85°C
Power Handling at 25°C, Sea Level	61W at 1 GHz
	24W at 6 GHz
	16W at 12 GHz
	12W at 18 GHz
	9W at 26.5 GHz
	7W at 1 GHz

Permanent damage may occur if any of these limits are exceeded.



HAND FLEX™

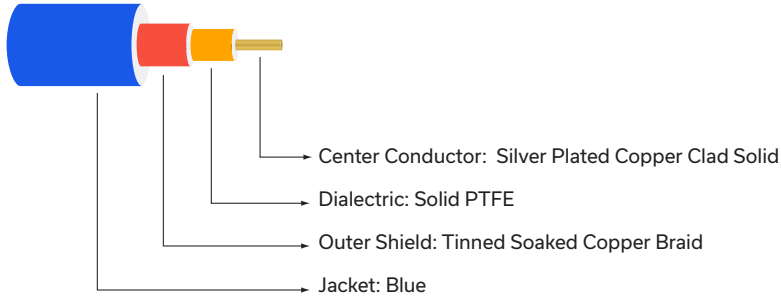
Coaxial Cable

086-18KM+

Mini-Circuits

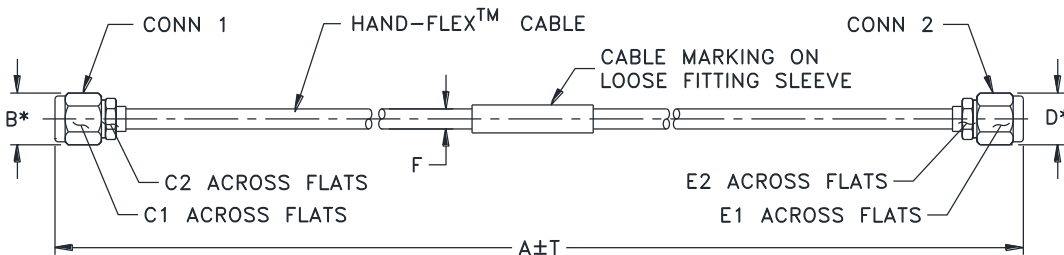
50Ω 18 inch DC to 40 GHz 2.92mm Male

CABLE CONSTRUCTION



Connectors: Coupling Nut: Stainless Steel Passivated
 Body: Brass Gold Plated
 Center Pin: Beryllium Copper, Gold Plated

OUTLINE DRAWING



* OVERALL CONNECTOR OR CABLE & BOOT DIM.
 [CONNECTOR SHAPE MAY VARY]

OUTLINE DIMENSIONS (Inch/mm)

A	B	C1	C2	D	E1	E2	F	T
18.0	.36	.315	.250	.36	.315	.250	.104	.15
457.20	9.14	8.00	6.35	9.14	8.00	6.35	2.64	3.81

Mini-Circuits



HAND FLEX™

Coaxial Cable

086-18KM+

Mini-Circuits

50Ω 18 inch DC to 40 GHz 2.92mm Male

TYPICAL PERFORMANCE DATA AND CHARTS

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	
		2.92 mm-Male	2.92 mm-Male
100	0.11	25.0	42.4
2000	0.34	38.1	28.4
4000	0.62	42.1	34.7
6000	0.75	38.3	37.8
10000	1.14	24.1	21.5
15000	1.47	25.6	27.8
18000	1.67	35.1	26.7
20000	1.79	30.7	27.9
26500	2.23	21.1	23.2
28000	2.28	24.6	24.7
30000	2.37	34.1	28.1
32000	2.48	24.2	26.4
36000	2.69	27.4	28.4
38000	2.79	25.6	32.8
40000	2.96	23.5	28.7

