Coaxial Cable

086 KM Model Series

50Ω DC to 40 GHz

CASE STYLE: RQ2535-XX

XX= cable length in inches

The Big Deal

- Hand Formable
- Tight Bend-Radius
- Excellent Return Loss and Insertion Loss
- Ideal for interconnect of assembled systems

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: • 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: • 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.

HAND FLEX™

Coaxial Cable

086-18KM+

50Ω 18 inch DC to 40 GHz

CASE STYLE: RQ2535-18

Connectors	Model
2.92mm Male	086-18KM+

Maximum 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	40 GHz

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

Features

- 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**

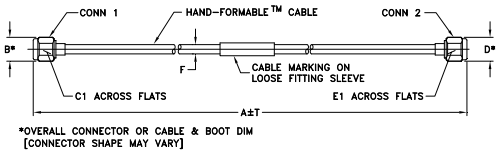
Applications

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

+RoHS Compliant

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

Outline Drawing

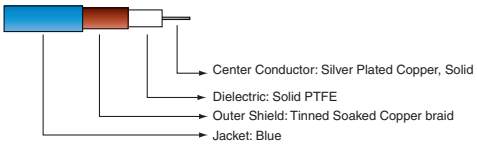


Outline Dimensions (inch / mm)

A	B	C1	C2	D
18.0	.36	.315	--	.36
457.20	9.14	8.00	--	9.14

E1	E2	F	T	wt
.315	--	.104	.15	grams
8.00	--	2.64	3.81	17.85

Cable Construction



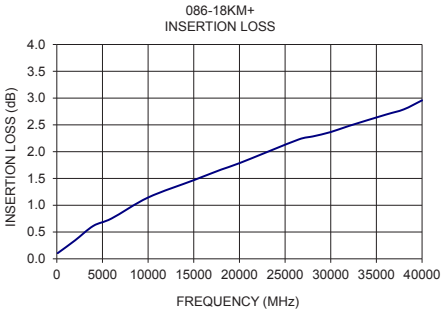
Connectors: Coupling Nut: Stainless Steel Passivated
Body: Brass Gold Plated
Center Pin: Beryllium Copper, Gold Plated

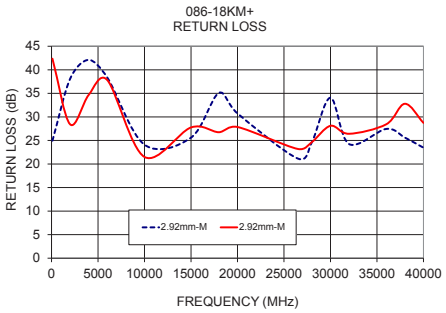
Electrical Specifications at 25°C

Parameter	Condition (GHz)	Min.	Typ.	Max.	Unit
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	—	

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	
		2.92mm-Male	2.92mm-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





Notes

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp