

#### DC to 40 GHz 50Ω

# **086 KM Model Series**

### 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: • 25 dB typ. to 18 GHz • 30 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.



- 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-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp





CASE STYLE: RQ2535-XX

XX= cable length in inches



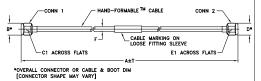
#### DC to 40 GHz **50**Ω 9 inch

#### Maximum Ratings

Operating Temperature	-	55°0	C to 85°C
Storage Temperature	-	55°(	C to 85°C
Power Handling at 25°C,	61W	at	1 GHz
Sea Level	24W	at	6 GHz
	16W	at	12 GHz
	12W	at	18 GHz
	9W	at2	26.5 GHz
	7W	at	40 GHz

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

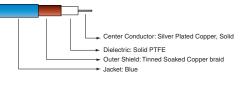
### **Outline Drawing**



### Outline Dimensions (inch)

<b>D</b> .36 9.14	C2 	<b>C1</b> .315 8.00	<b>B</b> .36 9.14	<b>A</b> 9.0 228.60
wt	<b>T</b>	<b>F</b>	E2	<b>E1</b>
grams	.08	.104		.315
12.92	2.03	2.64		8.00

### **Cable Construction**



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

#### Features

- Wideband frequency coverage, DC to 40 GHz
- Low Loss, 1.6 dB typ. at 40 GHz
- Excellent Return Loss, 30 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



086-9KM+

CASE STYLE: RQ2535-9 Connectors Model 2.92mm Male 086-9KM+

#### +RoHS Compliant

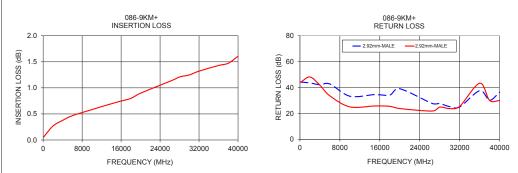
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

#### Electrical Specifications at 25°C

Parameter	Condition (GHz)	Min.	Тур.	Max.	Unit
Frequency Range		DC		40	GHz
Length			9		inches
	DC - 6000	—	0.3	0.8	
Insertion Loss	6000 - 18000	—	0.7	1.3	6 dB
Insertion Loss	18000 - 26500	—	1.0	1.6	
	26500 - 40000	—	1.4	2.1	
Return Loss	DC - 18000	18	30	_	dB
Return Loss	18000 - 40000	15	26		UD

#### **Typical Performance Data**

Frequency (MHz)				i Loss B)
			2.92mm-Male	2.92mm-Male
	100	0.06	44.29	44.01
	2000	0.27	43.59	48.20
	4000	0.38	42.18	41.82
	6000	0.47	42.80	33.61
	10000	0.58	33.35	25.12
	15000	0.72	34.59	25.83
	18000	0.80	34.21	25.56
	20000	0.90	39.11	23.84
	26500	1.14	27.75	21.91
	28000	1.21	27.72	24.96
	30000	1.25	25.31	23.82
	32000	1.32	25.06	25.52
	36000	1.43	37.56	43.37
	38000	1.47	30.26	30.09
	40000	1.61	36.47	30.00



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 ins C. The parts covered by this specification document are subject to Mini-Circuit's standard limited warrantv and terms and conditions (collectively: "Standard Terms"): Purchasers of this performance

Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 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-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp

# Mini-Circuits

www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

REV. OR M169239 086-9KM+ WP/CP/AM 180726 Page 2 of 2

# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for RF Cable Assemblies category:

Click to view products by Mini-Circuits manufacturer:

Other Similar products are found below :

 73-6352-10
 73-6353-3
 73-6364-6
 R285001001
 R288940004
 R288940005
 145111-05-12.00
 1661-C-24
 1801171170914KE
 24P104C24J1 

 012
 24P104C24P1-006
 24P104C24P1-018
 24P204C24J1-003
 172-2150-EX
 1800920920914PJ
 FCB-3030-ALT
 21117-046
 21117-050

 PCX-24-50
 24P103C24P2-003
 25P203C25P2-003
 PTWY-24-78
 R284008001
 R285001021
 R285426000
 R288940003
 R288940008
 RF179 

 74BJ3-77RP1-0305
 4814-BB-24
 5260-72
 JT2N1-CL1-1F
 DLP-COAX1
 4814-K-48
 115101-09-06.00
 CCNTN2-MM-LL335-26
 73-6351-25

 73-6352-3
 73-6353-25
 1800920920610PJ
 GD0BQ0BQ024.0
 1-3636-600-5210
 TL8A-11SMA-11SMA-01500-51
 R284C0351060

 R288940009
 R288940002
 9702-1SL-1
 PT82NSMA
 73-6353-10
 R285020301W