



FAKRA Jack Right Angle Connector Crimp/Solder Attachment for RG174, RG316, RG188, .100 inch, PE-B100, PE-C100, LMR-100, Black Color

RF Connectors  
Technical Data Sheet

PE44648A

**Configuration**

- FAKRA Jack Connector
- 50 Ohms
- Right Angle Body Geometry
- Connector Interface Types: RG174, RG316, RG188, .100 inch, PE-B100, PE-C100, LMR-100

**Features**

- Max. Operating Frequency 4 GHz
- Good VSWR of 1.5:1
- Gold Plated Phosphor Bronze Contact

**Applications**

- General Purpose Test
- Custom Cable Assemblies

**Description**

Pasternack's PE44648A FAKRA jack right angle connector with crimp/solder attachment for RG174, RG316, RG188, .100 inch, PE-B100, PE-C100 and LMR-100 is part of our full line of RF components available for same-day shipping. Our FAKRA jack connector operates up to a maximum frequency of 4 GHz and offers good VSWR of 1.5:1. Its right angle body geometry allows for easier connections in tight spaces.

Our FAKRA jack right angle connector PE44648A datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. Whether the need is to provide an I/O for a board design, or simply create a custom cable assembly configuration, Pasternack has the right connector for the job. Pasternack can also expertly build your custom cable assemblies for you and ship same-day.

**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		4	GHz
VSWR			1.5:1	
Operating Voltage (AC)			335	Vrms
Dielectric Withstanding Voltage (AC)			1,000	Vrms
Inner Conductor DC Resistance			6	mOhms
Outer Conductor DC Resistance			2.5	mOhms
Insulation Resistance	1,000			MOhms

**Mechanical Specifications**

<b>Size</b>	
Length	0.878 in [22.3 mm]
Width/Dia.	0.37 in [9.40 mm]
Weight	0.015 lbs [6.8 g]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [FAKRA Jack Right Angle Connector Crimp/Solder Attachment for RG174, RG316, RG188, .100 inch, PE-B100, PE-C100, LMR-100, Black Color PE44648A](#)



FAKRA Jack Right Angle Connector Crimp/Solder Attachment for RG174, RG316, RG188, .100 inch, PE-B100, PE-C100, LMR-100, Black Color

RF Connectors  
Technical Data Sheet

PE44648A

**Material Specifications**

Description	Material	Plating
Contact	Phosphor Bronze	Gold
Insulation	PTFE	
Outer Conductor	Brass	Nickel
Body	Plastic	

**Environmental Specifications**

**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [FAKRA Jack Right Angle Connector Crimp/Solder Attachment for RG174, RG316, RG188, .100 inch, PE-B100, PE-C100, LMR-100, Black Color PE44648A](#)

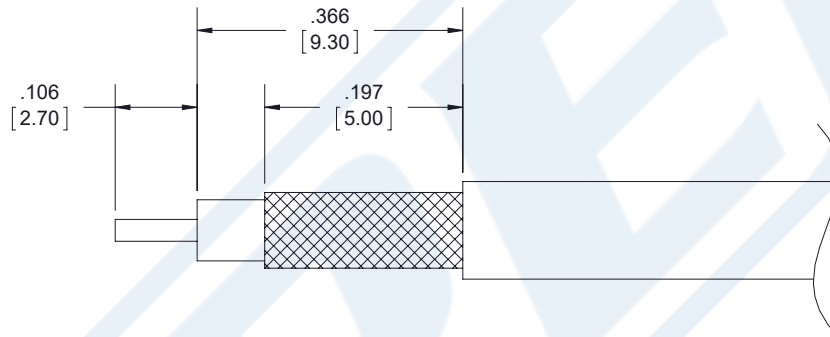


FAKRA Jack Right Angle Connector Crimp/Solder Attachment for RG174, RG316, RG188, .100 inch, PE-B100, PE-C100, LMR-100, Black Color

RF Connectors  
Technical Data Sheet

PE44648A

**Assembly Instruction**



**ASSEMBLY PROCEDURES**

1. STRIP CABLE TO THE DIMENSIONS SHOWN AND SLIDE FERRULE OVER CABLE.
2. INSTALL CABLE INTO BODY OF CONNECTOR AND SOFT SOLDER CENTER CONDUCTOR IN PLACE.
3. CRIMP FERRULE AND PRESS CAP DOWN.

**CRIMP SIZE REQUIRED**

- FERRULE: .128 [3.25] HEX CRIMP TOOL.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [FAKRA Jack Right Angle Connector Crimp/Solder Attachment for RG174, RG316, RG188, .100 inch, PE-B100, PE-C100, LMR-100, Black Color PE44648A](#)



FAKRA Jack Right Angle Connector Crimp/Solder Attachment for RG174, RG316, RG188, .100 inch, PE-B100, PE-C100, LMR-100, Black Color

RF Connectors  
Technical Data Sheet

PE44648A

FAKRA Jack Right Angle Connector Crimp/Solder Attachment for RG174, RG316, RG188, .100 inch, PE-B100, PE-C100, LMR-100, Black Color from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [FAKRA Jack Right Angle Connector Crimp/Solder Attachment for RG174, RG316, RG188, .100 inch, PE-B100, PE-C100, LMR-100, Black Color PE44648A](https://www.pasternack.com/fakra-jack-standard-pe-c100-rg174-rg316-connector-pe44648a-p.aspx)

URL: <https://www.pasternack.com/fakra-jack-standard-pe-c100-rg174-rg316-connector-pe44648a-p.aspx>

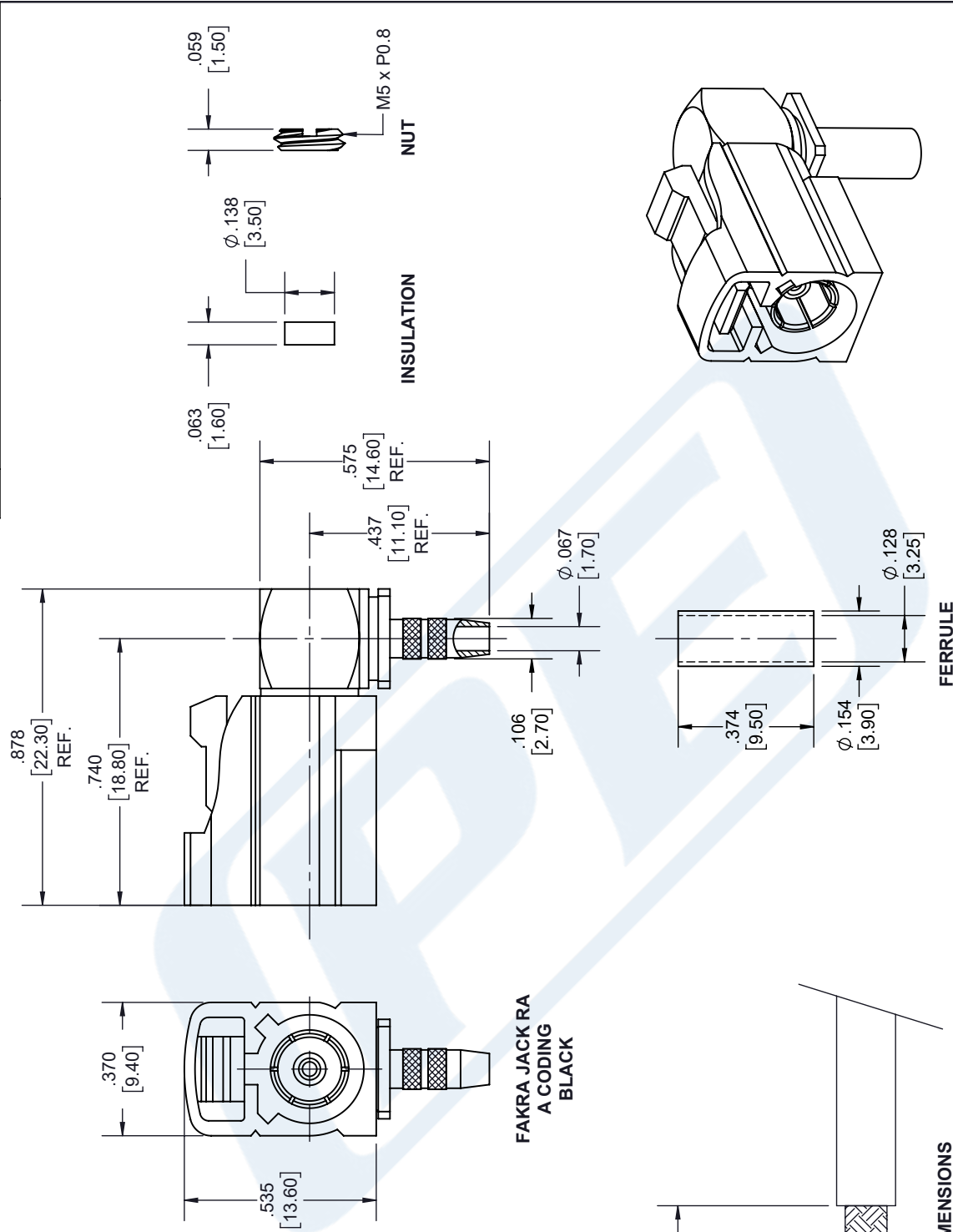
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# PE44648A CAD Drawing

FAKRA Jack Right Angle Connector Crimp/Solder Attachment for RG174, RG316, RG188, .100 inch, PE-B100, PE-C100, LMR-100, Black Color

REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	09/22/19	S.ELLIS

FAKRA CONFIGURATION	
CODING JACK	APPLICATION
A	RADIO WITH PHANTOM SUPPLY
B	RADIO WITHOUT PHANTOM SUPPLY
C	GPS, TELEMATICS OR NAVIGATION
D	GSM; CELLULAR PHONE
H	GPS, TELEMATICS AND NAVIGATION
I	BLUETOOTH
K	RADIO WITH IF OUTPUT (ANTENNA DIVERSITY)
Z	NEUTRAL CODING



FAKRA JACK RA A CODING BLACK

**STRIPPING DIMENSIONS**

- NOTES:
- CABLE ATTACHMENT:
    - OUTER: CRIMP.
    - INNER: SOLDER.
  - CRIMP SIZE REQUIRED:
    - FERRULE: .128 [3.25] HEX. CRIMP TOOL
    - CONTACT: SOLDER.

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES:  
 X±.2 [5.08] FRACTIONS ±1/32  
 XX±.01 [.25] ANGLES ± 1°  
 XXX±.005 [0.13] ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1  
 SCALE N/A

SIZE A  
 CAGE 53919  
 DRAWN BY K.DANG  
 PART NUMBER PE44648A  
 REV A

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# FAKRA Plug Connector Crimp/Solder Attachment for RG174, RG316, RG188, .100 inch, PE- B100, PE-C100, LMR-100, White Color

## RF Connectors Technical Data Sheet

PE45404B

### Configuration

- FAKRA Plug Connector
- 50 Ohms
- Straight Body Geometry
- Connector Interface Types: RG174, RG316, RG188, .100 inch, PE-B100, PE-C100, LMR-100

### Features

- Max. Operating Frequency 4 GHz
- Good VSWR of 1.3:1
- Gold Plated Phosphor Bronze Contact

### Applications

- General Purpose Test
- Custom Cable Assemblies

### Description

Pasternack's PE45404B FAKRA plug connector with crimp/solder attachment for RG174, RG316, RG188, .100 inch, PE-B100, PE-C100 and LMR-100 is part of our full line of RF components available for same-day shipping. Our FAKRA plug connector operates up to a maximum frequency of 4 GHz and offers good VSWR of 1.3:1.

Our FAKRA plug connector PE45404B datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. Whether the need is to provide an I/O for a board design, or simply create a custom cable assembly configuration, Pasternack has the right connector for the job. Pasternack can also expertly build your custom cable assemblies for you and ship same-day.

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		4	GHz
VSWR			1.3:1	
Operating Voltage (AC)			335	Vrms
Dielectric Withstanding Voltage (AC)			800	Vrms
Inner Conductor DC Resistance			6	mOhms
Outer Conductor DC Resistance			2.5	mOhms
Insulation Resistance	1,000			MOhms

### Mechanical Specifications

Size	
Length	0.887 in [22.53 mm]
Width/Dia.	0.37 in [9.40 mm]
Height	0.433 in [11 mm]
Weight	0.005 lbs [2.27 g]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [FAKRA Plug Connector Crimp/Solder Attachment for RG174, RG316, RG188, .100 inch, PE-B100, PE-C100, LMR-100, White Color PE45404B](#)



FAKRA Plug Connector Crimp/Solder Attachment  
for RG174, RG316, RG188, .100 inch, PE-  
B100, PE-C100, LMR-100, White Color

RF Connectors  
Technical Data Sheet

PE45404B

**Material Specifications**

Description	Material	Plating
Contact	Phosphor Bronze	Gold
Insulation	PTFE	
Outer Conductor	Brass	Nickel
Body	Plastic	

**Environmental Specifications**

**Temperature**

Operating Range -40 to +85 deg C

**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

Notes:

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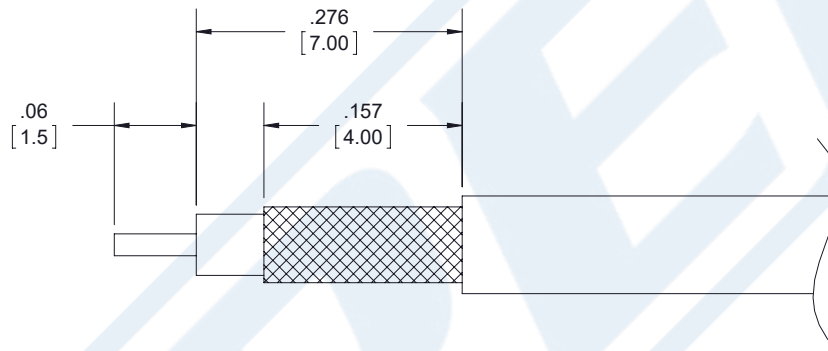


FAKRA Plug Connector Crimp/Solder Attachment  
for RG174, RG316, RG188, .100 inch, PE-  
B100, PE-C100, LMR-100, White Color

RF Connectors  
Technical Data Sheet

PE45404B

**Assembly Instruction**



**ASSEMBLY PROCEDURES**

1. STRIP CABLE TO THE DIMENSIONS SHOWN, DO NOT NICK CENTER CONDUCTOR OR BRAID.
2. PUSH CENTER CONDUCTOR FULLY INTO CONTACT AND SOLDER, REMOVE ANY EXCESS SOLDER.
3. FLARE BRAID AND INSERT CONTACT INTO THE BODY UNTIL IT SEATS.
4. SLIDE FERRULE OVER BRAID AND CRIMP WITH CRIMP TOOL.

**CRIMP SIZE REQUIRED**

- CONTACT: SOLDER.
- FERRULE: .128 HEX CRIMP TOOL.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [FAKRA Plug Connector Crimp/Solder Attachment for RG174, RG316, RG188, .100 inch, PE-B100, PE-C100, LMR-100, White Color PE45404B](#)



FAKRA Plug Connector Crimp/Solder Attachment  
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RF Connectors  
Technical Data Sheet

PE45404B

FAKRA Plug Connector Crimp/Solder Attachment for RG174, RG316, RG188, .100 inch, PE-B100, PE-C100, LMR-100, White Color from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

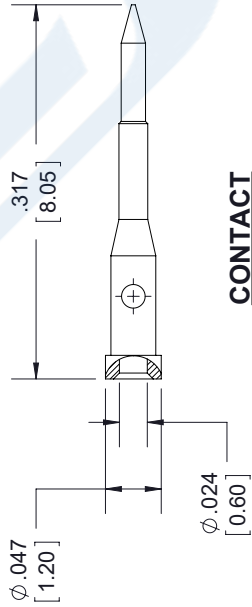
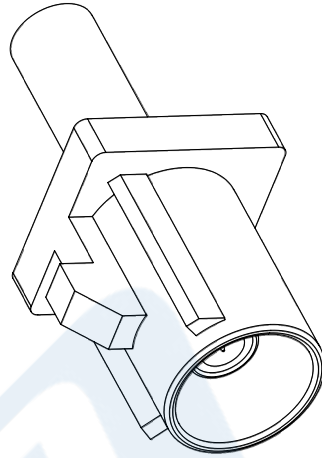
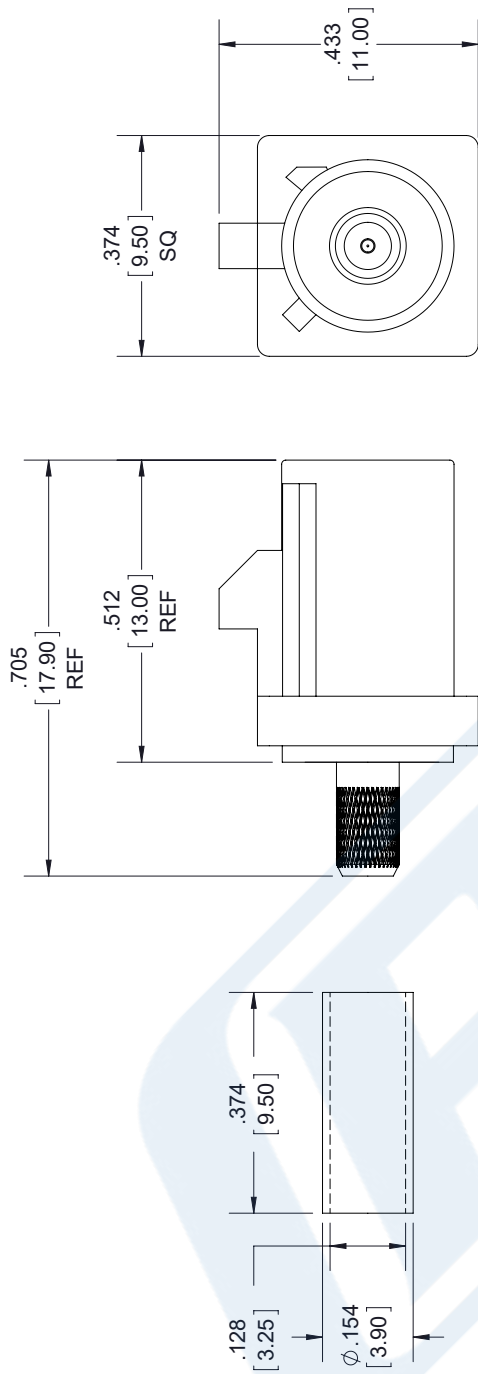
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URL: <https://www.pasternack.com/fakra-plug-rg174-rg316-.100-pe-b100-pe-c100-connector-pe45404b-p.aspx>

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# PE45404B CAD Drawing

FAKRA Plug Connector Crimp/Solder Attachment for RG174, RG316, RG188, .100 inch, PE-B100, PE-C100, LMR-100, White Color



**CONTACT**

## FAKRA CONFIGURATION

CODING	JACK	COLOR	APPLICATION
A		BLACK	RADIO WITH PHANTOM SUPPLY
B		WHITE	RADIO WITHOUT PHANTOM SUPPLY
C		BLUE	GPS: TELEMATICS OR NAVIGATION
D		BORDEAUX	GSM: CELLULAR PHONE
H		VIOLET	GPS: TELEMATICS AND NAVIGATION
I		BEIGE	BLUETOOTH
K		CURRY	RADIO WITH IF OUTPUT (ANTENNA DIVERSITY)
Z		WATER BLUE	NEUTRAL CODING

### STANDARD TOLERANCES

.X ±0.2  
.XX ±0.01  
.XXX ±0.005

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



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Website: www.pasternack.com | E-Mail: sales@pasternack.com

DWG TITLE

PE45404B

CAGE CODE 53919

CAD FILE 082917

SCALE N/A

SIZE A

9999

NOTES:  
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME  
3. DIMENSIONS ARE IN INCHES [mm].

# LMR<sup>®</sup>-100A Flexible Low Loss Communications Coax

## Ideal for...

- Drop-in Replacement for RG-316/RG-174 (uses standard connectors)
- Jumper Assemblies in Wireless Communications Systems
- Short Antenna Feeder runs
- Any application (e.g. WLL, GPS, LMR, WLAN, WiSP, WiMax, SCADA, Mobile Antennas) requiring an easily routed, low loss RF cable

• **LMR<sup>®</sup>-PVC** is designed for low loss general-purpose indoor/outdoor applications and is somewhat more flexible than the standard polyethylene jacketed LMR.

• **LMR<sup>®</sup>-PVC-W** is a white-jacketed version of LMR-PVC for marine and other indoor/outdoor applications where color compatibility is desired.

• **Flexibility** and bendability are hallmarks of the LMR-100A cable design. The flexible outer conductor enables the tightest bend radius available for any cable of similar size and performance.

• **Low Loss** is another hallmark feature of LMR-100A. Size for size LMR has the lowest loss of any flexible cable and comparable loss to semirigid hard-line cables.

• **RF Shielding** is 50 dB greater than typical single shielded coax (40 dB). The multi-ply bonded foil outer conductor is rated conservatively at > 90 dB (i.e. >180 dB between two adjacent cables).

• **Weatherability:** LMR-100A cables designed for outdoor exposure incorporate the best materials for UV resistance and have life expectancy in excess of 20 years.

• **Connectors:** A wide variety of connectors are available for LMR-100A cable, including all common interface types, reverse polarity, and a choice of solder or non-solder center pins. Most LMR connectors employ crimp outer attachment using standard hex crimp sizes.

• **Cable Assemblies:** All LMR-100A cable types are available as pre-terminated cable assemblies. Refer to the section on FlexTech for further details.

Part Description					Stock
Part Number	Application	Jacket	Color	Code	
LMR-100A-FR	Indoor/Outdoor Riser CMR	FRPE	Black	54037	
LMR-100A-PVC	Indoor/Outdoor	PVC	Black	54119	
LMR-100A-PVC-W	Indoor/Outdoor	PVC	White	54200	

PVC = Poly Vinyl Chloride; MTO = Made to Order



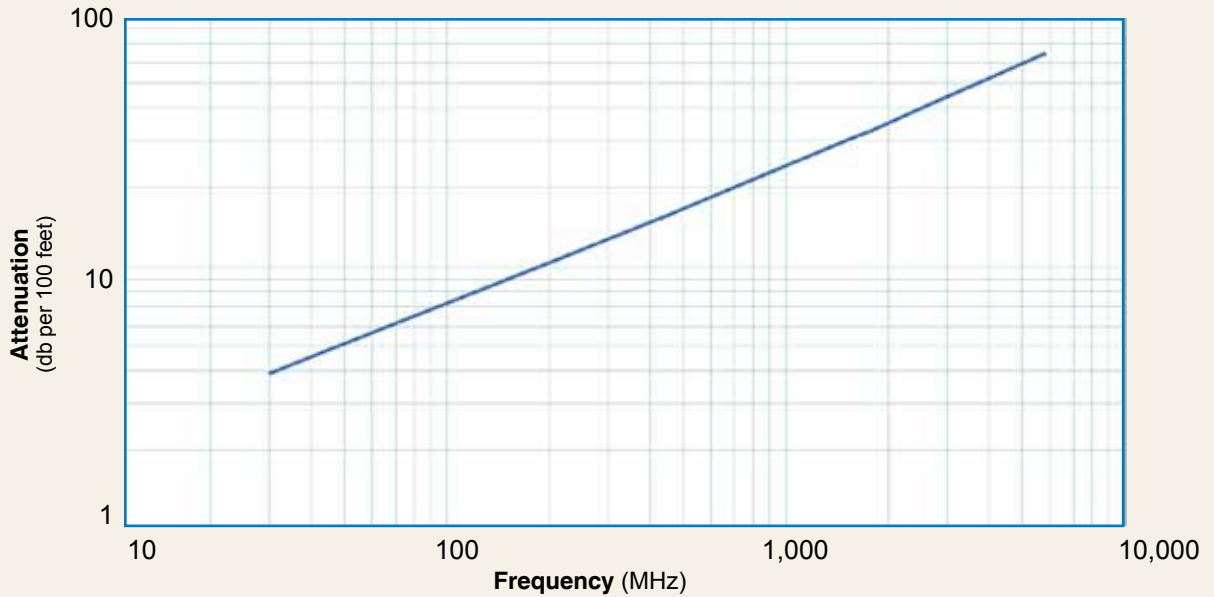
Construction Specifications			
Description	Material	In.	(mm)
Inner Conductor	Solid BCCS	0.018	(0.46)
Dielectric	Solid PE	0.060	(1.52)
Outer Conductor	Aluminum Tape	0.065	(1.65)
Overall Braid	Tinned Copper	0.083	(2.11)
Jacket	(see table above)	0.110	(2.79)

Mechanical Specifications			
Performance Property	Units	US	(metric)
Bend Radius: installation	in. (mm)	0.25	(6.4)
Bend Radius: repeated	in. (mm)	1	(25.4)
Bending Moment	ft-lb (N-m)	0.1	(0.014)
Weight	lb/ft (kg/m)	0.0092	(.014)
Tensile Strength	lb (kg)	15	(6.8)
Flat Plate Crush	lb/in. (kg/mm)	10	(0.18)

Environmental Specifications		
Performance Property	°F	°C
Installation Temperature Range	-40/+185	-40/+85
Storage Temperature Range	-94/+185	-70/+85
Operating Temperature Range	-40/+185	-40/+85

Electrical Specifications			
Performance Property	Units	US	(metric)
Velocity of Propagation	%	66	
Dielectric Constant	NA	2.30	
Time Delay	nS/ft (nS/m)	1.54	(5.05)
Impedance	ohms	50	
Capacitance	pF/ft (pF/m)	30.8	(101.1)
Inductance	uH/ft (uH/m)	0.077	(0.25)
Shielding Effectiveness	dB	>90	
DC Resistance			
Inner Conductor	ohms/1000ft (/km)	81.0	(266)
Outer Conductor	ohms/1000ft (/km)	9.5	(31.2)
Voltage Withstand	Volts DC	500	
Jacket Spark	Volts RMS	2000	
Peak Power	kW	0.6	

**Attenuation vs. Frequency (typical)**



Frequency (MHz)	30	50	150	220	450	900	1500	1800	2000	2500	5800
<b>Attenuation dB/100 ft</b>	3.9	5.1	8.9	10.9	15.8	22.8	30.1	33.2	35.2	39.8	64.1
<b>Attenuation dB/100 m</b>	12.9	16.7	29.4	35.8	51.9	74.9	98.7	109.0	115.5	130.6	210.3
<b>Avg. Power kW</b>	0.230	0.180	0.100	0.083	0.057	0.039	0.029	0.027	0.025	0.022	0.013

**Calculate Attenuation** =  $(0.709140) \cdot \sqrt{\text{FMHz}} + (0.001740) \cdot \text{FMHz}$  (interactive calculator available at <http://www.timesmicrowave/telecom>)  
**Attenuation:** VSWR=1.0 ; Ambient = +25°C (77°F) **Power:** VSWR=1.0; Ambient = +40°C; Inner Conductor = 100°C (212°F);  
 Sea Level; dry air; atmospheric pressure; no solar loading



**Connectors**

Interface	Description	Part Number	Stock Code	VSWR ** Freq. (GHz)	Coupling Nut	Inner Contact Attach	Outer Contact Attach	Finish* Body /Pin	Length in (mm)	Width in (mm)	Weight lb (g)
SMA male	Straight Plug	TC-100-SM	3190-1551	<1.25:1 (<3)	Hex	Solder	Crimp	SS/G	1.0 (25.4)	0.32 (8.1)	0.015 (6.8)
TNC male	Straight Plug	TC-100-TM	3190-1552	<1.25:1 (<3)	Knurl	Solder	Crimp	S/G	1.4 (35.6)	0.59 (15.0)	0.045 (20.4)

\* Finish metals: N=Nickel, S=Silver, G=Gold, SS=Stainless Steel, A=Alballoy \*\*VSWR spec based on 3 foot cable with a connector pair



**Install Tools**

Type	Part Number	Stock Code	Description
Crimp Tool	CT-240/200/195/100	3190-667	Crimp tool for LMR-100, 195, 200 and 240 connectors
Cutting Tool	CCT-01	3190-1544	Cable end flush cut tool
Replacement Blade	RB-01	3190-1609	Replacement blade for cutting tool

