

SMA Female to SMA Male Low Loss Cable Using LMR-100A-UF Coax



PE3W15075

Configuration

- Connector 1: SMA Female
- Connector 2: SMA Male
- Cable Type: LMR-100A-UF
- Coax Flex Type: Flexible

Features

- Max Frequency 6 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- TPE Jacket



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W15075 SMA female to SMA male cable using LMR-100A-UF coax is part of our full line of RF components available for same-day shipping. Pasternack's flexible RF cable assemblies are ideal for applications where tight bends and flexure are required. This Pasternack SMA to SMA cable assembly has a female to male gender configuration with 50 ohm flexible LMR-100A-UF coax. The PE3W15075 SMA female to SMA male cable assembly operates to 6 GHz. The double shielding of this Pasternack cable assembly provides excellent shielding effectiveness of better than 90 dB.

Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other available RF cable assembly value added services include connector orientation or clocking, heat shrink booting and custom labeling. RF testing can also be performed to document the electrical performance of your cable assembly.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		6	GHz
VSWR			1.4:1	
Velocity of Propagation		66		%
RF Shielding	90			dB
Group Delay		1.54 [5.05]		ns/ft [ns/m]
Capacitance		30.8 [101.05]		pF/ft [pF/m]
Inductance		0.077 [0.25]		uH/ft [uH/m]
DC Resistance Inner Conductor		81 [265.75]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		9.5 [31.17]		Ohms/1000ft [Ohms/Km]

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Jacket Spark			2,000	Vrms

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency					MHz	
PE3W15075	Custom Lengths Available	Insertion Loss (Typ.)	0.115	0.165	0.24	0.398	0.641	dB/ft	
			0.38	0.55	0.79	1.31	2.11	dB/m	
PE3W15075-24	24 In	Insertion Loss (Typ.)	0.43	0.53	0.68	1	1.49	dB	0.041
PE3W15075-36	36 In	Insertion Loss (Typ.)	0.55	0.7	0.92	1.4	2.13	dB	0.049
PE3W15075-48	48 In	Insertion Loss (Typ.)	0.66	0.86	1.16	1.8	2.77	dB	0.057
PE3W15075-100CM	100 CM	Insertion Loss (Typ.)	0.58	0.75	0.99	1.51	2.31	dB	0.051
PE3W15075-200CM	200 CM	Insertion Loss (Typ.)	0.96	1.29	1.78	2.82	4.41	dB	0.077

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

Loss due to Connector 1:	0.1 dB
Loss due to Connector 2:	0.1 dB
Base Weight:	0.032 pounds
Additional Weight per Inch:	0.00067 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.032 lbs [14.51 g]

Cable

Cable Type	LMR-100A-UF
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper
Dielectric Type	PE
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper
Jacket Material	TPE, Black
Jacket Diameter	0.11 in [2.79 mm]
One Time Minimum Bend Radius	0.25 in [6.35 mm]
Repeated Minimum Bend Radius	1 in [25.4 mm]
Bending Moment	0.1 lbs-ft [0.14 N-m]
Flat Plate Crush	10 lbs/in [0.18 Kg/mm]
Tensile Strength	15 lbs [6.8 Kg]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Female	SMA Male
Specification	MIL-STD-348	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Beryllium Copper, Gold	Brass, Gold
Contact Plating Specification	MIL-G-45204	30 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	QQ-N-290	100 µin minimum
Coupling Nut Material and Plating	Brass, Nickel	Brass, Nickel
Coupling Nut Plating Specification		100 µin minimum
Hex Size		5/16 inch
Torque		3 in-lbs 0.34 Nm

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

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

Plotted and Other Data

Notes:

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PE3W15075

Typical Performance Data

How to Order

Part Number Configuration:

PE3W15075

- **xx**

uu

Unit of Measure:
cm = Centimeters
<blank> = Inches
Length
Base Number

Example: PE3W15075-12 = 12 inches long cable
PE3W15075-100cm = 100 cm long cable

SMA Female to SMA Male Low Loss Cable Using LMR-100A-UF Coax 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.

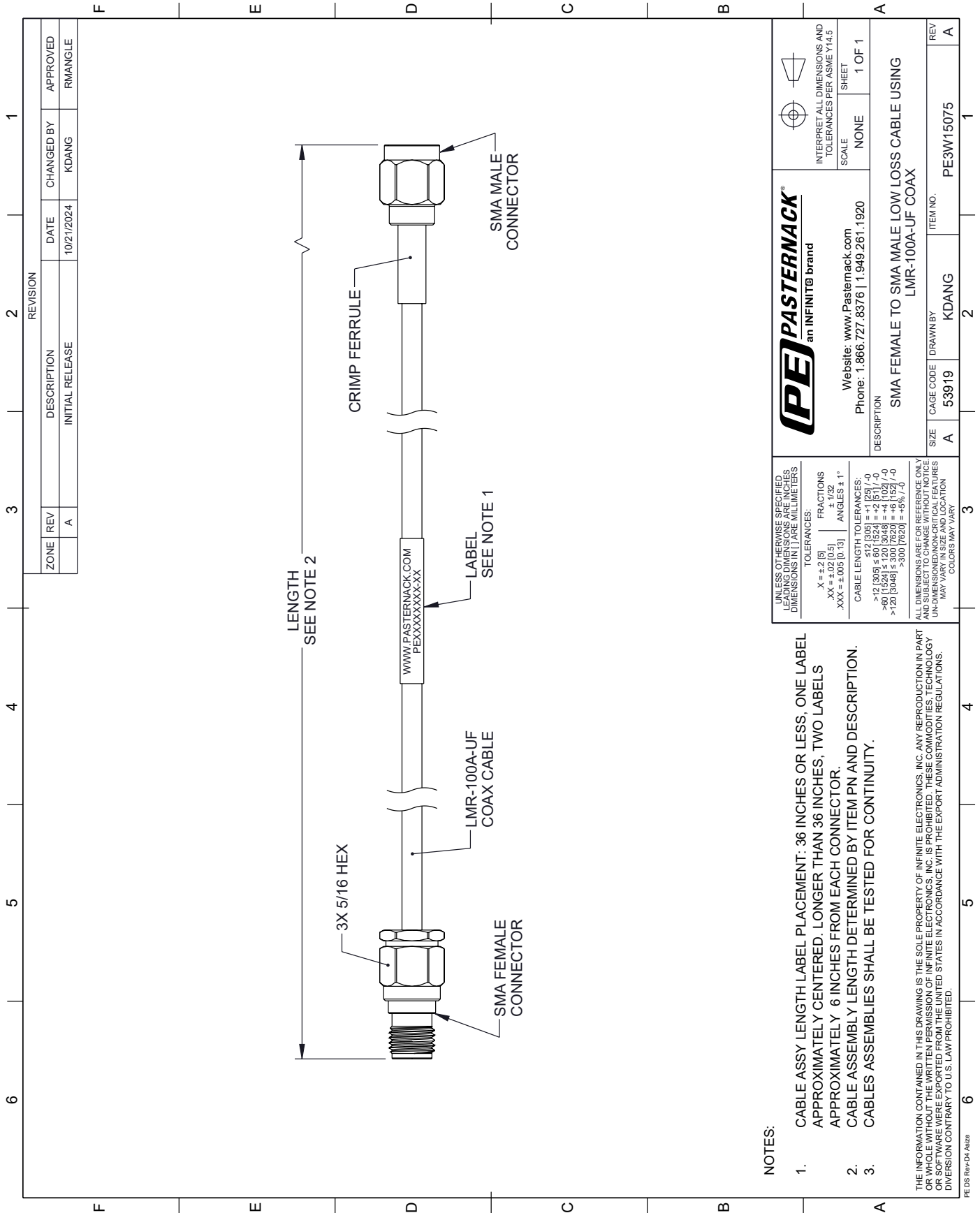
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Female to SMA Male Low Loss Cable Using LMR-100A-UF Coax PE3W15075](#)

URL: <https://www.pasternack.com/sma-female-to-sma-male-low-loss-cable-using-lmr-100a-uf-pe3w15075-p.aspx>

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PE3W15075 CAD Drawing

SMA Female to SMA Male Low Loss Cable Using LMR-100A-UF Coax



NOTES:

1. CABLE ASSY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
2. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.
3. CABLES ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.

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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN PAREMILLIMETERS

TOLERANCES:
 .X = ±.2 [5]
 .XX = ±.02 [0.5]
 .XXX = ±.005 [0.13]

FRACTIONS
 ± 1/32
 ANGLES ± 1°

CABLE LENGTH TOLERANCES:
 >12 [305] ≤ 60 [1524] = +1 [25] / -0
 >60 [1524] ≤ 120 [3048] = +4 [102] / -0
 >120 [3048] ≤ 300 [7620] = +5 [127] / -0
 >300 [7620] = +5 [127] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY UNLESS OTHERWISE SPECIFIED. DIMENSIONS ON CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE
 SHEET: 1 OF 1

DESCRIPTION: SMA FEMALE TO SMA MALE LOW LOSS CABLE USING LMR-100A-UF COAX

SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	53919	KDANG	PE3W15075

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