



Fire Rated TNC Male Right Angle to Water Blue FAKRA Jack Low Loss Cable Using LMR-100-FR Coax with HeatShrink in 48 Inch

RF Cable Assemblies Technical Data Sheet

PE3W13414/HS-48

Configuration

- Connector 1: TNC Male Right Angle
- Connector 2: FAKRA Jack
- Cable Type: LMR-100A-FR

Features

- Max Frequency 4 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- FRPE Jacket

Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W13414/HS-48 TNC male right angle to water blue FAKRA jack cable using LMR-100-FR 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 TNC to FAKRA cable assembly has a male to jack gender configuration with 50 ohm flexible LMR-100A-FR coax. The PE3W13414/HS-48 TNC male to FAKRA jack cable assembly operates to 4 GHz. The right angle TNC interface on the LMR-100A-FR cable allows for easier connections in tight spaces. 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Fire Rated TNC Male Right Angle to Water Blue FAKRA Jack Low Loss Cable Using LMR-100-FR Coax with HeatShrink in 48 Inch PE3W13414/HS-48](#)



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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		4	GHz
VSWR			1.5:1	
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]		Ω/1000ft [Ω/Km]
DC Resistance Outer Conductor		9.5 [31.17]		Ω/1000ft [Ω/Km]
Jacket Spark			2,000	Vrms

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.1	0.25	0.5	1	4	GHz
Insertion Loss (Typ.)	0.58	0.76	0.97	1.26	2.34	dB/ft
	1.9	2.49	3.18	4.13	7.68	dB/m

Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax and connectors used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.1 dB for the FAKRA connector and 0.2 dB for the TNC connector.

Mechanical Specifications

Cable Assembly

Length*	48 in [121.92 cm]
Weight	0.086 lbs [39.01 g]

Cable

Cable Type	LMR-100A-FR
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

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Jacket Material	FRPE, 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]

Connectors

Description	Connector 1	Connector 2
Type	TNC Male Right Angle	FAKRA Jack
Impedance	50 Ohms	50 Ohms
Configuration	Right Angle	Straight
Contact Material and Plating	Brass, Gold	Phosphor Bronze, Gold
Dielectric Type	POM	PTFE
Outer Conductor Material and Plating		Brass, Nickel
Body Material and Plating	Brass, Nickel	Plastic

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
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Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

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PE3W13414/HS-48

How to Order

Part Number Configuration:

PE3W13414/HS

- xx

uu

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

Example: PE3W13414/HS-12 = 12 inches long cable
PE3W13414/HS-100cm = 100 cm long cable

Fire Rated TNC Male Right Angle to Water Blue FAKRA Jack Low Loss Cable Using LMR-100-FR Coax with HeatShrink in 48 Inch 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: [Fire Rated TNC Male Right Angle to Water Blue FAKRA Jack Low Loss Cable Using LMR-100-FR Coax with HeatShrink in 48 Inch PE3W13414/HS-48](https://www.pasternack.com/fire-rated-tnc-male-right-angle-to-jack-cable-using-lmr-100-fr-with-heatshrink-pe3w13414-hs-48-p.aspx)

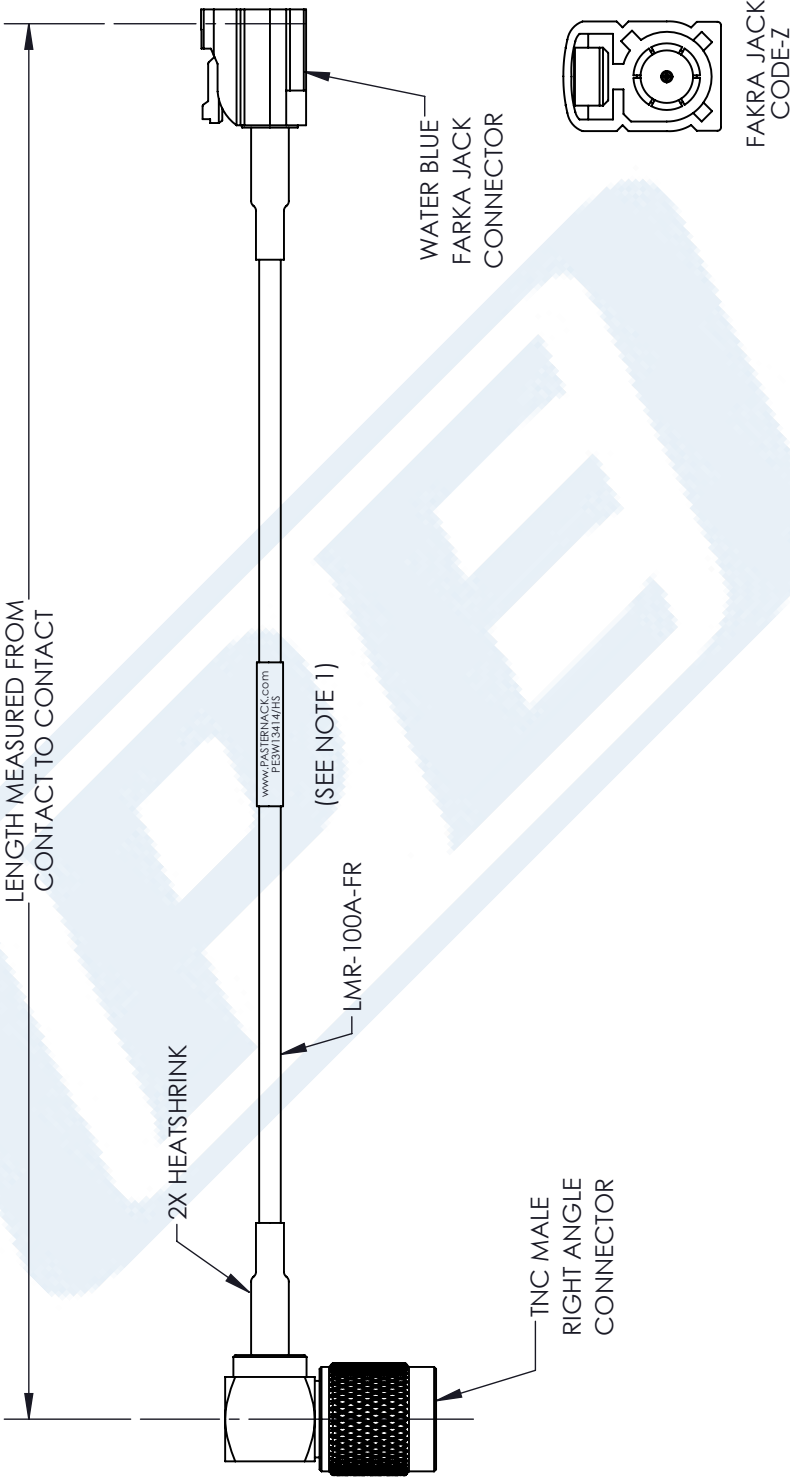
URL: <https://www.pasternack.com/fire-rated-tnc-male-right-angle-to-jack-cable-using-lmr-100-fr-with-heatshrink-pe3w13414-hs-48-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

PE3W13414/HS-48 CAD Drawing

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Cable Using LMR-100-FR Coax with HeatShrink in 48 Inch

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	08/10/2022	AGANWANI



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

TOLERANCES:

X = ± .2	[.008]	FRACTIONS
.XX = ± .02	[.51]	± 1/32
.XXX = ± .005	[.13]	ANGLES ± 1°

CABLE LENGTH (L) TOLERANCES:

L ≤ 12 [305]	= +1 [25] / -0
12 [305] < L ≤ 60 [1524]	= +2 [51] / -0
60 [1524] < L ≤ 120 [3048]	= +4 [102] / -0
120 [3048] < L ≤ 300 [7620]	= +6 [152] / -0
300 [7620] < L	= +5% / -0

ALL DIMENSIONS SHOWN
ARE FOR REFERENCE ONLY.

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an INFINITI® brand

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THIRD-ANGLE PROJECTION

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DESIGN IN THIS DOCUMENT
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SHEET 1 OF 1

SCALE N/A

REV A

SIZE A

CAGE CODE 53919

DRAWN BY BPUCHASKI

ITEM NO. PE3W13414/HS

NOTES:

1. CABLES 36" AND UNDER HAVE 1 LABEL CENTERED. CABLES OVER 36" HAVE 2 LABELS, ONE AT EACH END 6.0" FROM END OF CONNECTOR

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