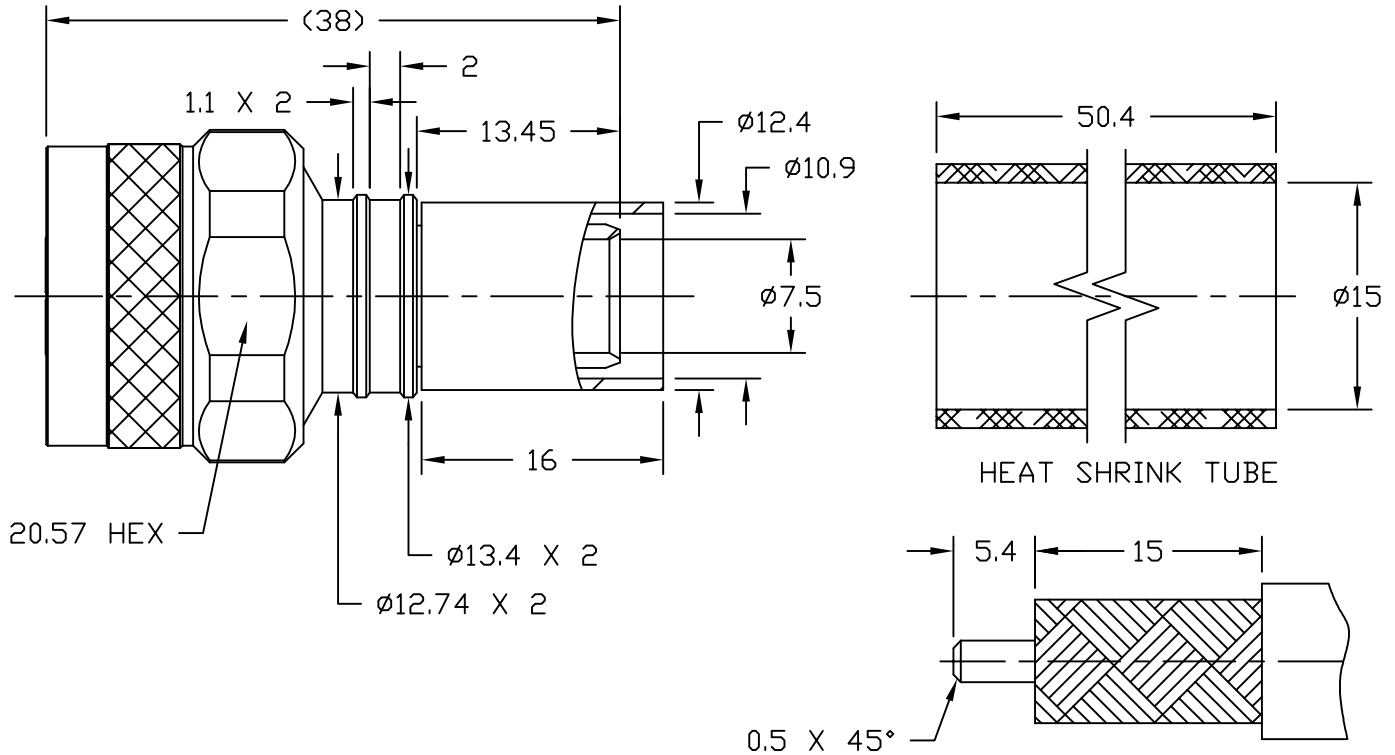


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SYM	REVISION DESCRIPTION	DFTM	DATE	APPD	DATE
A	RELEASED FOR PRODUCTION	D. J. H.	3/15/11	J. D. B.	8/16/11



Reference standard IEC60169-16

I. Electric Performance

Impedance(Ω): 50

Frequency Range: DC-6GHz

VSWR: ≤ 1.25

Insert Loss: (dB) ≤ 0.1

Insulation resistance (M Ω) > 5000

Work voltage (V) 1500

Conductor resistance (m Ω) outer conductor < 0.2
inner conductor < 0.8

II. Mechanical Performance

Nut torque 25N.m

(Nut) Whorl pull 1000N

Tensile force (cable-connect) 400N

Torsion (cable-connect) 2N.m

III. Material and plating:

Component	Material	Plating
inner conductor	Brass	Au50 micro inches over nickel 100 over copper
outer conductor	Brass	copper tin-zinc 100-150 micro inches
tube	Copper	copper tin-zinc 100-150 micro inches
nut	Brass	copper tin-zinc 100-150 micro inches
gasket	Silicone rubber	
insulator	PTFE	

IV. Environment

Temp. range -55°C~+155°C

Weather standard IEC 60068 55 / 155/ 56

Thermal shock US MIL-STD 202, Meth.107, Cond.B

Vibration US MIL-STD 202, Meth.204, Cond.B

Shock US MIL-STD 202, Meth.213, Cond.I

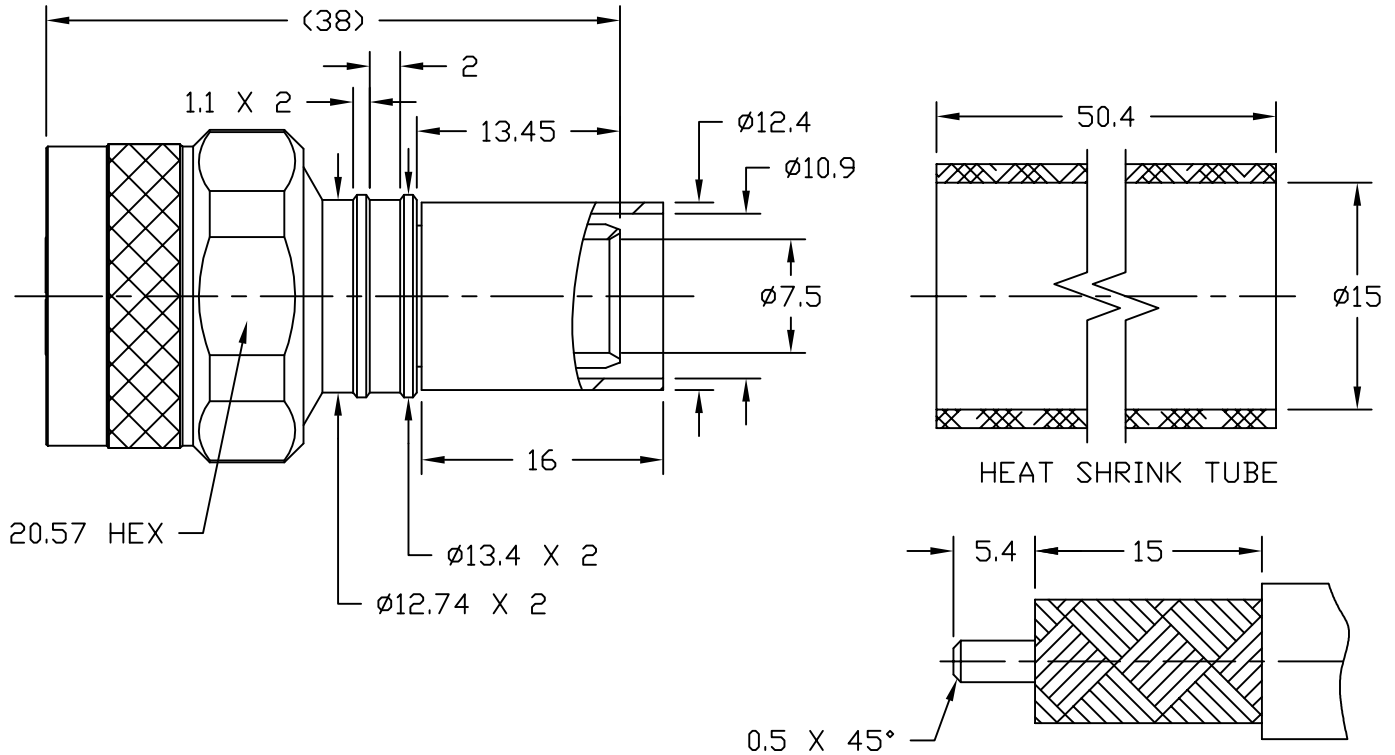
Waterproofing standard IP67

V. Assembly: inner conductor soldered and outer conductor crimped.

MATL:	UNLESS OTHERWISE SPECIFIED	DFTM. D. J. H.	TIMES MICROWAVE SYSTEMS
		DATE 3/15/11	
USED ON: 0	ALL DIMENSIONS ARE IN mm MACHINED SURFACES FINISH N/A RMS MAX. REMOVE ALL BURRS N/A MAX. BREAK MACHINE CORNERS N/A MAX. FILLET R. TOLERANCES ON DECIMALS . XX $\pm$ N/A . XXX $\pm$ N/A ANGLES $\pm 1^\circ$ FRACTIONS $\pm$ N/A	CHKD. J. D. B.	TC-400-NMH-X "N" MALE FOR LMR-400 CABLE SOLDER/CRIMP/NO BRAID TRIM
		DATE 8/16/11	
SCALE: N/A	DWG. SIZE A	APPD. J. D. B.	SHEET 1 of 1 SD3190-2626 REV A
DO NOT SCALE DRAWING	CODE IDENT 68999	DATE 8/16/11	

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SYM	REVISION DESCRIPTION	DFTM	DATE	APPD	DATE
A	RELEASED FOR PRODUCTION	D. J. H.	3/15/11	J. D. B.	8/16/11



CABLE PREP.
USE CST-400
(3192-004)
.429" HEX.

Reference standard IEC60169-16
I. Electric Performance
Impedance(Ω): 50
Frequency Range: DC-6GHz
VSWR: ≤ 1.25
Insert Loss: (dB) ≤ 0.1
Insulation resistance (M Ω) > 5000
Work voltage (V) 1500
Conductor resistance (m Ω)
outer conductor < 0.2
inner conductor < 0.8

II. Mechanical Performance
Nut torque 25N.m
(Nut) Whorl pull 1000N
Tensile force (cable-connect) 400N
Torsion (cable-connect) 2N.m

III. Material and plating:

Component	Material
inner conductor	Brass
outer conductor	Brass
tube	Copper
nut	Brass
gasket	Silicone rubber
insulator	PTFE

IV. Environment
Temp. range -55°C~+155°C
Weather standard IEC 60068 55 / 155/ 56
Thermal shock US MIL-STD 202, Meth.107, Cond.B
Vibration US MIL-STD 202, Meth.204, Cond.B
Shock US MIL-STD 202, Meth.213, Cond.I
Waterproofing standard IP67

Plating
Au50 micro inches over nickel 100 over copper
copper tin-zinc 100-150 micro inches
copper tin-zinc 100-150 micro inches
copper tin-zinc 100-150 micro inches

V. Assembly: inner conductor soldered and outer conductor crimped.

MATL:		UNLESS OTHERWISE SPECIFIED		DFTM. D. J. H.		TIMES MICROWAVE SYSTEMS									
		ALL DIMENSIONS ARE IN mm MACHINED SURFACES FINISH N/A RMS MAX. REMOVE ALL BURRS N/A MAX. BREAK MACHINE CORNERS N/A MAX. FILLET R. TOLERANCES ON DECIMALS . XX ± N/A . XXX ± N/A ANGLES ± 1° FRACTIONS ± N/A		DATE 3/15/11											
USED ON: 0				CHKD. J. D. B.		TC-400-NMH-X "N" MALE FOR LMR-400 CABLE SOLDER/CRIMP/NO BRAID TRIM									
				DATE 8/16/11											
SCALE: N/A		DWG. SIZE A		DO NOT SCALE DRAWING		CODE IDENT 68999		DATE 8/16/11		SHT 1 of 1		SD3190-2626		REV A	



LMR-400-FR Fire Rated version of the 400 series Low Loss Coax

RF Cables Technical Data Sheet



LMR-400-FR

Times Microwave Systems Coax Cable Specification

Configuration

- Low Loss, Outdoor Flexible Cable
- 2 Shield(s)

Features

- CMR Riser Rated Coax
- Non-Halogen, Low Smoke FRPE Jacket
- Max Operating Frequency of 5.8 GHz
- Phase Velocity 84% VoP
- Max Operating Temperature +85°C
- Min Install Bend Radius of 1 inches

Applications

- In-Building Riser Runs
- Short Antenna Installs
- RF Test Systems
- General Purpose RF Interconnect
- Laboratory Applications

Description

LMR-400-FR Fire Rated version of the 400 series Low Loss Coax from Times Microwave is part of the large product offering by Pasternack of radio frequency coaxial cable types specifically stocked to be ready for same-day shipment. Pasternack LMR-400-FR coax cable is manufactured in a flexible design and has a 50 Ohm impedance. This low loss and CMR riser rated 50 Ohm coax cable LMR-400-FR is constructed with a 0.405 inch diameter and Black FRPE jacket.

LMR-400-FR flexible 50 Ohm coax cable with FRPE jacket is rated for a 5.8 GHz maximum operating frequency. This 50 Ohm 0.405 inch diameter and low loss fire rated coax cable is built with an aluminum double shield count and RF shielding of 90 dB. Times Microwave LMR-400-FR FRPE coax is constructed with Foam PE dielectric and a maximum operating temperature of 85 degrees C. Pasternack's offering of LMR-400-FR coax cable provides specs for this wire on its RF coax cable LMR-400-FR datasheet.

LMR-400-FR cable is part of more than one million RF, microwave parts in stock at Pasternack. This Times Microwave low loss flexible LMR-400-FR coax cable is ready to buy and can be shipped worldwide. Pasternack also maintains a wide selection of other radio frequency coaxial cable types that ship same-day from our warehouse as with the rest of our other RF/microwave components.

* LMR™ is a trademark of Times Microwave Systems.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		5.8	GHz
Impedance		50		Ohms
Velocity of Propagation		84		%
Time Delay		1.2 3.94		ns/ft ns/m
Shielding Effectiveness	90			dB
Dielectric Withstanding Voltage (DC)			2,500	Vdc

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [LMR-400-FR Fire Rated version of the 400 series Low Loss Coax LMR-400-FR](#)



LMR-400-FR Fire Rated version of the 400 series Low Loss Coax

RF Cables Technical Data Sheet



LMR-400-FR

Jacket Spark	8,000	Vrms
Inner Conductor DC Resistance	1.39	Ohms/1000ft
Outer Conductor DC Resistance	1.65	Ohms/1000ft
Nominal Capacitance	23.9 [78.41]	pF/ft [pF/m]
Nominal Inductance	0.06 [0.2]	uH/ft [uH/m]
Input Power (Peak)	16	kWatts

Performance by Frequency Band

Description	F1	F2	F3	F4	F5	Units
Frequency	50	150	220	450	900	MHz
Attenuation, Typ	0.9	1.5	1.9	2.7	3.9	dB/100ft
	2.95	4.92	6.23	8.86	12.8	dB/100m
Input Power (CW), Max	2,570	1,470	1,200	830	580	Watts

Description	F6	F7	F8	F9	F10	Units
Frequency	1.5	1.8	2	2.5	5.8	GHz
Attenuation, Typ	5.1	5.7	6	6.8	10.8	dB/100ft
	16.73	18.7	19.69	22.31	35.43	dB/100m
Input Power (CW), Max	440	400	370	330	210	Watts

Mechanical Specifications

Diameter	0.405 in 10.29 mm
Weight	0.068 lbs/ft [0.1 Kg/m]
Min. Bend Radius (Installation)	1 in [25.4 mm]
Min. Bend Radius (Repeated)	4 in [101.6 mm]
Bending Moment	0.5 lbs-ft [0.68 N-m]
Tensile Strength	160 lbs [72.57 kg]
Flat Plate Crush	40 lbs/in [0.71 Kg/mm]

Construction Specifications

Description	Material and Plating	Diameter
Inner Conductor	Copper, 1 Strand	0.108 in [2.74 mm]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [LMR-400-FR Fire Rated version of the 400 series Low Loss Coax LMR-400-FR](#)



LMR-400-FR Fire Rated version of the 400 series Low Loss Coax

RF Cables Technical Data Sheet



LMR-400-FR

Conductor Type	Solid	
Dielectric	Foam PE	0.285 in [7.24 mm]
First Shield	Aluminum Tape	[]
Second Shield	Tinned Copper	[]
Jacket	FRPE, Black	0.405 in [10.29 mm]

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Installation Range	-40 to +85 deg C
Storage Range	-70 to +85 deg C

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

Plotted and Other Data

Notes:

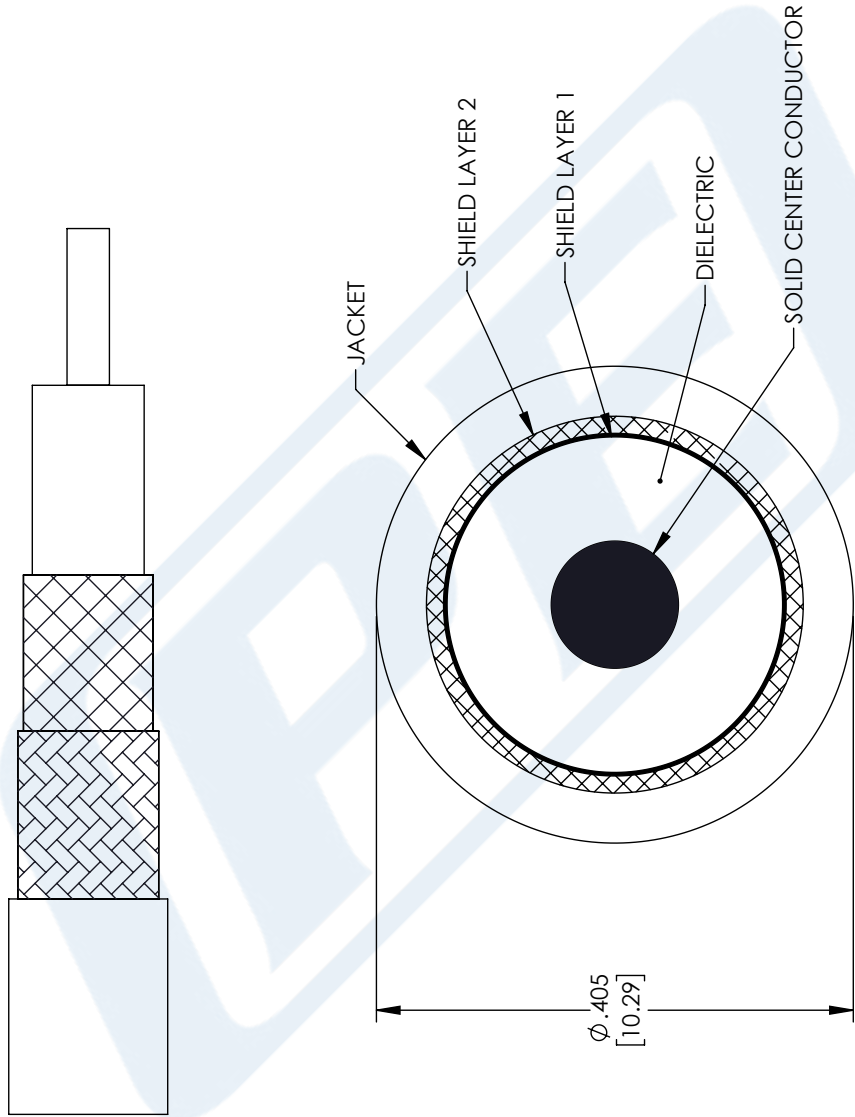
LMR-400-FR Fire Rated version of the 400 series Low Loss Coax from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [LMR-400-FR Fire Rated version of the 400 series Low Loss Coax LMR-400-FR](#)

URL: <https://www.pasternack.com/low-loss-flexible-lmr-400-fr-frpe-jacket-aluminum-tape-over-tinned-copper-outer-conductor-double-shielded-lmr-400-fr-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.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	06-04-2021	SELLIS



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

TOLERANCES:	
X = ±.2	[5.08]
.XX = ±.02	[.51]
.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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SCALE	N/A		
REV	A		

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