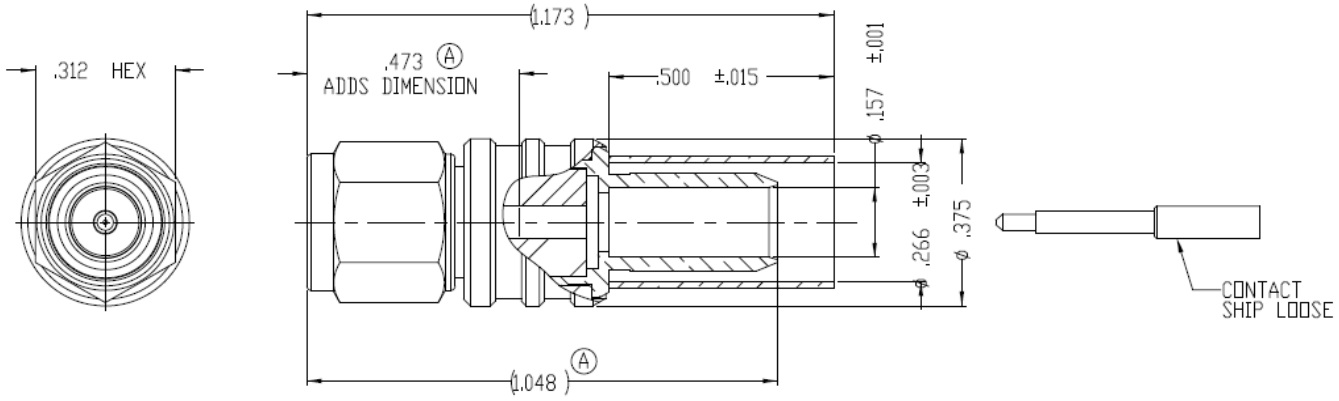
SYM	REVISION DESCRIPTION	DFTM	DATE	APPD	DATE
A	RELEASED FOR PRODUCTION	N.N.N	9/4/13	J.D.B.	9/10/13



NOTES:

1. ASSEMBLED CONNECTOR INTERFACE IS DESIGNED IN ACCORDANCE WITH MIL-STD-348

2. MATERIAL:
   CLAMP & CONTACT - BRASS PER ASTM B16, C36000 ALLOY, TEMPER H02
   BODY, CNUT - STAINLESS STEEL PER ASTM 582, S30300 ALLOY, COND. A
   INSULATOR - TEFLON PER ASTM D1710, TYPE 1, GRADE 1, CLASS A
   GASKET - SILICONE RUBBER PER A-A-59588, 50-75 DUROMETER
   SHRINK SLEEVE - HEAT SHRINKABLE ATUM PER MIL-I-23053/4 (NOT SHOWN)
   CRIMP SLEEVE - D.H.P. COPPER CDA, ALLOY #122, TEMPER HARD
   CONTACT & LOCKING RING - BERYLLIUM COPPER PER ASTM B196, C17300 ALLOY, CONDITION HT

3. FINISH:
   CONTACT - GOLD PLATE PER ASTM B488
   CRIMP SLEEVE - SULFAMATE NICKEL PER MIL-P-27418
   CLAMP - NICKEL PLATE PER AMS-QQ-N-290
   C'NUT & BODY - PASSIVATE PER SAE-AMS-2700

MATL:	UNLESS OTHERWISE SPECIFIED	DFTM. N. N. N	TIMES MICROWAVE SYSTEMS
USED ON: A	ALL DIMENSIONS ARE IN INCHES MACHINED SURFACES FINISH 63 RMS MAX. REMOVE ALL BURRS .004 MAX. BREAK MACHINE CORNERS .005 MAX. FILLET R. TOLERANCES ON DECIMALS .XX ±.01 .XXX ±.005 ANGLES ± 1° FRACTIONS ± 1/64	DATE 9/4/13 CHKD. J. D. B. DATE 9/10/13 APPD. J. D. B.	TC-240-SM-SS-X CONNECTOR ASSEMBLY SMAM for LMR-240
SCALE: NONE DWG. SIZE A	DO NOT SCALE DRAWING CODE IDENT 68999	DATE 9/10/13	SHT 1 of 1 SD3190-2898 REV A

PASTERNACK
an INFINITE brand

SMA Male Right Angle Connector Crimp/Solder Attachment for LMR-240, PE-C240

RF Connectors
Technical Data Sheet

TIMES MICROWAVE SYSTEMS
An Amphenol Company

TC-240-SM-RA-SS-D

Times Microwave Systems Connector Specification

Configuration

- SMA Male Connector
- 50 Ohms
- Right Angle Body Geometry
- Connector Interface Types: LMR-240, PE-C240

Features

- Max. Operating Frequency 6 GHz
- Good VSWR of 1.3:1
- Gold Plated Brass Contact
- 50 µin contact plating

Applications

- General Purpose Test
- Custom Cable Assemblies

Description

Pasternack's TC-240-SM-RA-SS-D Right Angle, SMA, Standard, Connector is part of our full line of RF components available for same-day shipping. Our SMA male connector operates up to a maximum frequency of 6 GHz and offers good VSWR of 1.3:1. Its right angle body geometry allows for easier connections in tight spaces.

Our SMA male right angle connector TC-240-SM-RA-SS-D 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		6	GHz
VSWR			1.3:1	
Insertion Loss			0.25	dB
Operating Voltage (AC)			500	Vrms
Impedance		50		Ohms
Dielectric Withstanding Voltage (AC)			1,000	Vrms
Insulation Resistance	5,000			MOhms

Mechanical Specifications

Size

Length	0.56 in [14.10 mm]
Width	0.31 in [7.92 mm]
Height	0.05 in [1.37 mm]
Weight	0.02 lbs [8.16 g]
Mating Cycles	500 Cycles

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: SMA Male Right Angle Connector Crimp/Solder Attachment for LMR-240, PE-C240 TC-240-SM-RA-SS-D

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

SMA Male Right Angle Connector Crimp/Solder Attachment for LMR-240, PE-C240

Mating Torque	7 to 10 in-lbs [0.79 to 1.13 Nm]
Cable Retention Force	60 lbs [27.22 kg]

Material Specifications

Description	Material	Plating
Contact	Brass	Gold 50 µin
Insulation	PTFE	
Body	Passivated Stainless Steel	
Coupling Nut	Passivated Stainless Steel	

Environmental Specifications

Temperature

Operating Range	-40 to +125 deg C
Shock	MIL-STD 202G, Meth. 213, Cond. I
Vibration	MIL-STD 202G, Meth. 204, Cond. D
Thermal Shock	MIL-STD 202G, Meth. 107, Cond. B

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

SMA Male Right Angle Connector Crimp/Solder Attachment for LMR-240, PE-C240 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 Male Right Angle Connector Crimp/Solder Attachment for LMR-240, PE-C240 TC-240-SM-RA-SS-D

URL: https://www.pasternack.com/sma-male-lmr-240-pe-c240-connector-tc-240-sm-ra-ss-d-p.aspx

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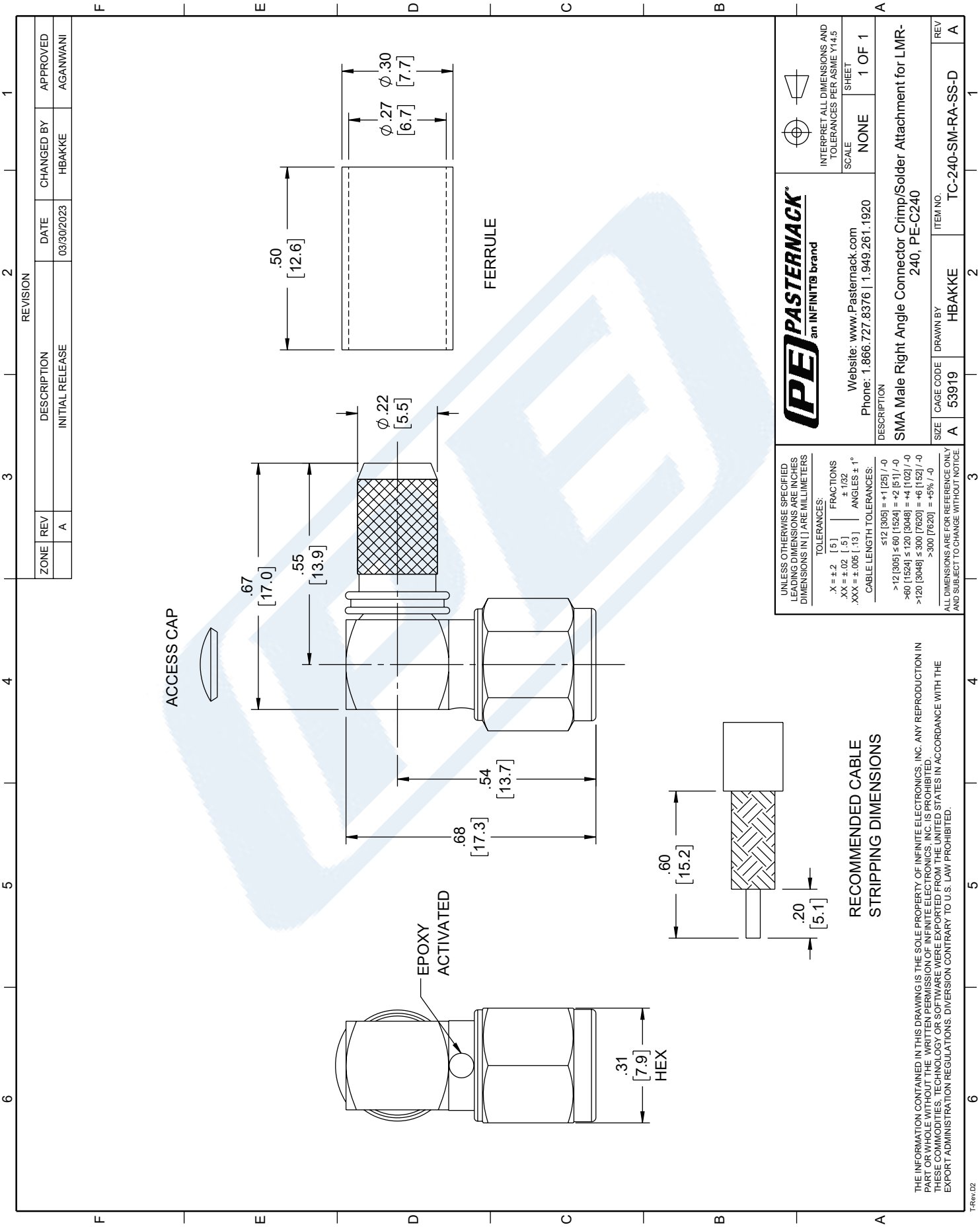
TC-240-SM-RA-SS-D CAD Drawing

SMA Male Right Angle Connector Crimp/Solder Attachment for LMR-240, PE-C240



PASTERNACK
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LMR-240-FR Fire Rated version of the 240 series Low Loss Coax

RF Cables
Technical Data Sheet

TIMES MICROWAVE SYSTEMS

LMR-240-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 83% VoP
- Max Operating Temperature +85°C
- Min Install Bend Radius of 0.75 inches

Applications

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

Description

LMR-240-FR Fire Rated version of the 240 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-240-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-240-FR is constructed with a 0.240 inch diameter and Black FRPE jacket.

LMR-240-FR flexible 50 Ohm coax cable with FRPE jacket is rated for a 5.8 GHz maximum operating frequency. This 50 Ohm 0.240 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-240-FR FRPE coax is constructed with Foam PE dielectric and a maximum operating temperature of 85 degrees C. Pasternack's offering of LMR-240-FR coax cable provides specs for this wire on its RF coax cable LMR-240-FR datasheet.

LMR-240-FR cable is part of more than one million RF, microwave parts in stock at Pasternack. This Times Microwave low loss flexible LMR-240-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		83		%
Time Delay		1.21 3.97		ns/ft ns/m
Shielding Effectiveness	90			dB
Dielectric Withstanding Voltage (DC)			1,500	Vdc

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: LMR-240-FR Fire Rated version of the 240 series Low Loss Coax LMR-240-FR

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LMR-240-FR Fire Rated version of the 240 series Low Loss Coax

Jacket Spark		5,000	Vrms
Inner Conductor DC Resistance		3.2	Ohms/1000ft
Outer Conductor DC Resistance		3.89	Ohms/1000ft
Nominal Capacitance	24.2 [79.4]		pF/ft [pF/m]
Nominal Inductance	0.06 [0.2]		uH/ft [uH/m]
Input Power (Peak)		5.6	kWatts

Performance by Frequency Band

Description	F1	F2	F3	F4	F5	Units
Frequency	50	150	220	450	900	MHz
Attenuation, Typ	1.7	3	3.7	5.3	7.6	dB/100ft
	5.58	9.84	12.14	17.39	24.93	dB/100m
Input Power (CW), Max	1,150	660	540	380	260	Watts

Description	F6	F7	F8	F9	F10	Units
Frequency	1.5	1.8	2	2.5	5.8	GHz
Attenuation, Typ	9.9	10.9	11.5	12.9	20.4	dB/100ft
	32.48	35.76	37.73	42.32	66.93	dB/100m
Input Power (CW), Max	200	180	170	150	100	Watts

Mechanical Specifications

Diameter	0.24 in 6.1 mm
Min. Bend Radius (Installation)	0.75 in [19.05 mm]
Min. Bend Radius (Repeated)	2.5 in [63.5 mm]
Bending Moment	0.25 lbs-ft [0.34 N-m]
Tensile Strength	80 lbs [36.29 kg
Flat Plate Crush	20 lbs/in [0.36 Kg/mm]

Construction Specifications

Description	Material and Plating	Diameter
Inner Conductor	Copper, 1 Strand	0.056 in [1.42 mm]
Conductor Type	Solid	

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: LMR-240-FR Fire Rated version of the 240 series Low Loss Coax LMR-240-FR

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LMR-240-FR Fire Rated version of the 240 series Low Loss Coax

Dielectric	Foam PE	0.15 in [3.81 mm]
First Shield	Aluminum Tape	[ ]
Second Shield	Tinned Copper	[ ]
Jacket	FRPE, Black	0.24 in [6.1 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-240-FR Fire Rated version of the 240 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-240-FR Fire Rated version of the 240 series Low Loss Coax LMR-240-FR

URL: https://www.pasternack.com/low-loss-flexible-lmr-240-fr-frpe-jacket-aluminum-tape-over-tinned-copper-outer-conductor-double-shielded-lmr-240-fr-p.aspx

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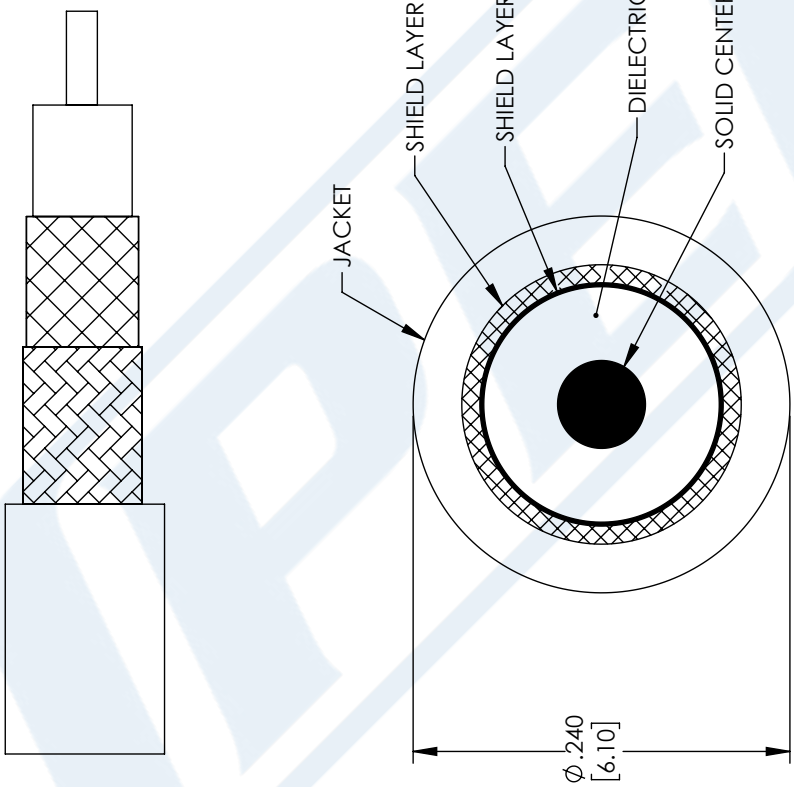
LMR-240-FR CAD Drawing

LMR-240-FR Fire Rated version of the 240 series Low Loss Coax

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

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%L / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

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Website: www.pasternack.com
E-mail: sales@pasternack.com

SHEET	OF	SCALE
1	1	N/A

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	53919	MVEERAPPAN	LMR-240-FR	A

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