



N Male Right Angle Connector Crimp/Non-Solder Contact Attachment for LMR-240, LMR-240-DB, LMR-240-UF, LMR-240-FR, RG8X, PE-C240

RF Connectors Technical Data Sheet



EZ-240-NMH-RA-X

Times Microwave Systems Connector Specification

Configuration

- N Male Connector
- 50 Ohms
- Right Angle Body Geometry
- Connector Interface Types: LMR-240, LMR-240-DB, LMR-240-UF, LMR-240-FR, RG8X, PE-C240

Features

- Max. Operating Frequency 6 GHz
- Good VSWR of 1.35:1
- Gold Plated Beryllium Bronze Contact
- 50 µm minimum contact plating

Applications

- General Purpose Test
- Custom Cable Assemblies

Description

EZ-240-NMH-RA-X N male right angle coaxial connector has an interface type of N male LMR-240, LMR-240-DB, LMR-240-UF, LMR-240-FR, RG8X, and PE-C240 and a 50 Ohms impedance. Pasternack's N male connector uses crimp/non-solder contact as an attachment method. Our male N right angle coaxial connector provides a maximum frequency of 6 GHz.

The Pasternack right angle N male coaxial connector has a PTFE dielectric type and a VSWR of 1.35:1. Pasternack's N coaxial connector has a brass body with tri-metal plating. Our EZ-240-NMH-RA-X N right angle connector uses a gold plated beryllium bronze contact. Additional RF connector specs and dimensions for this component can be found on its PDF specification datasheet and CAD drawings above.

The radio frequency connector is made from brass material and has a contact life of 500 cycles or more. Our high-quality EZ-240-NMH-RA-X features an 80 µm minimum body plating specification. The Pasternack EZ-240-NMH-RA-X N connector operates at a temperature range of -55 to 125 deg C.

This Pasternack right angle male N connector will ship the same business day as purchased. Our N right angle male connector is part of over 40,000 RF, microwave, and millimeter wave components in stock for local, domestic, and international shipment. For further information on similar products, our expert technical support and trained sales team can get you the ideal RF connector as per your requirements.

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|--------------------------------------|---------|---------|---------|-------|
| Frequency Range | DC | | 6 | GHz |
| VSWR | | | 1.35:1 | |
| Insertion Loss | | | 0.24 | dB |
| Impedance | | 50 | | Ohms |
| Dielectric Withstanding Voltage (DC) | | | 1,000 | Vdc |
| Insulation Resistance | 5,000 | | | MOhms |

Electrical Specification Notes:
Insertion Loss is $0.1 \cdot \sqrt{\text{fGHz}}$ dB

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male Right Angle Connector Crimp/Non-Solder Contact Attachment for LMR-240, LMR-240-DB, LMR-240-UF, LMR-240-FR, RG8X, PE-C240 EZ-240-NMH-RA-X](#)



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RF Connectors Technical Data Sheet

Mechanical Specifications

Size

| | |
|-----------------------|----------------------|
| Length | 1.12 in [28.52 mm] |
| Width | 0.81 in [20.57 mm] |
| Height | 1.23 in [31.32 mm] |
| Weight | 0.10 lbs [45.36 g] |
| Mating Cycles | 500 Cycles |
| Mating Torque | 1.7 in-lbs [0.19 Nm] |
| Cable Retention Force | 300 lbs 136.08 kg |

Material Specifications

| Description | Material | Plating |
|--------------|------------------|-----------------------------|
| Contact | Beryllium Bronze | Gold 50 µin minimum |
| Insulation | PTFE | |
| Body | Brass | Tri-Metal 80 µin minimum |
| Coupling Nut | Brass | Tri-Metal 80 µin minimum |
| Gasket | Silicone | |
| Crimp Sleeve | Brass | Tri-Metal 80 µin minimum |

Environmental Specifications

Temperature

| | |
|-----------------|--------------------------------|
| Operating Range | -55 to 125 deg C |
| Shock | MIL-STD 202G, Meth.213, Cond I |
| Vibration | MIL-STD 202G, Meth.204, Cond.B |
| Thermal Shock | MIL-STD 202G, Meth.107, Cond.B |

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

Plotted and Other Data

Notes:

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N Male Right Angle Connector Crimp/Non-Solder Contact Attachment for LMR-240, LMR-240-DB, LMR-240-UF, LMR-240-FR, RG8X, PE-C240

RF Connectors Technical Data Sheet



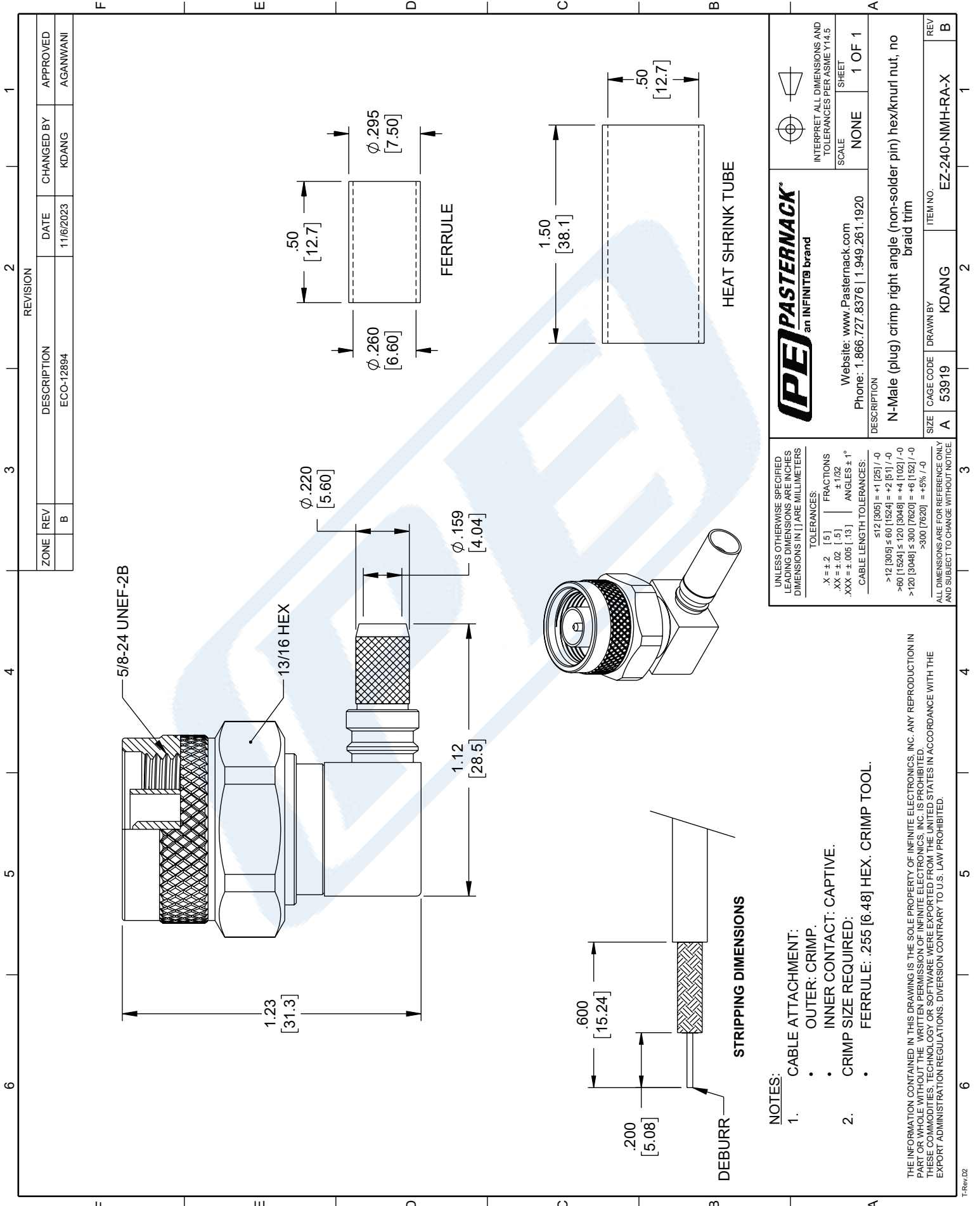
EZ-240-NMH-RA-X

N Male Right Angle Connector Crimp/Non-Solder Contact Attachment for LMR-240, LMR-240-DB, LMR-240-UF, LMR-240-FR, RG8X, 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.

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URL: <https://www.pasternack.com/n-male-lmr-240-lmr-240-db-connector-ez-240-nmh-ra-x-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.



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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5
SCALE: NONE SHEET: 1 OF 1

DESCRIPTION: N-Male (plug) crimp right angle (non-solder pin) hex/knurled nut, no braided trim

| | | | | | | | | | |
|------|---|-----------|-------|----------|-------|----------|-----------------|-----|---|
| SIZE | A | CAGE CODE | 53919 | DRAWN BY | KDANG | ITEM NO. | EZ-240-NMH-RA-X | REV | B |
|------|---|-----------|-------|----------|-------|----------|-----------------|-----|---|

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

TOLERANCES:

| | | | |
|--------------|-------|--------------------------|--------|
| .X = ±.2 | [.5] | FRACTIONS | ± 1/32 |
| .XX = ±.02 | [.5] | ANGLES ± 1° | |
| .XXX = ±.005 | [.13] | CABLE LENGTH TOLERANCES: | |

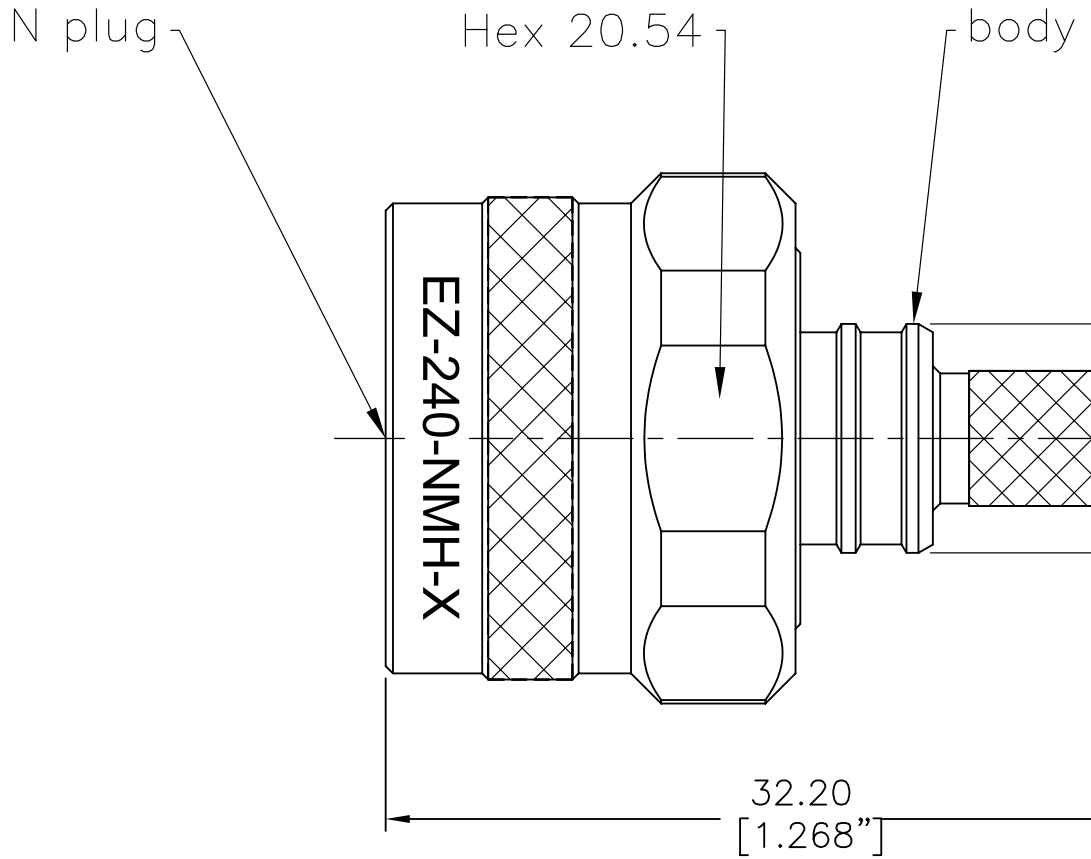
≤12 [305] = +1 [25] / -0
>12 [305] ≤ 60 [1524] = +2 [51] / -0
>60 [1524] ≤ 120 [3048] = +4 [102] / -0
>120 [3048] ≤ 300 [7620] = +6 [152] / -0
>300 [7620] = +5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTES:

- CABLE ATTACHMENT:
 - OUTER: CRIMP.
 - INNER CONTACT: CAPTIVE.
- CRIMP SIZE REQUIRED:
 - FERRULE: .255 [6.48] HEX. CRIMP TOOL.

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I. MATERIALS & FINISHES

| Components | Materials | Finishes | Thk. (μ") |
|--------------|-----------|----------|-----------|
| Body | Brass | Albaloy | 80 |
| Center Cont. | QBe2 | Gold | 50 |
| Ferrule | Brass | Albaloy | 80 |
| Nut | Brass | Albaloy | 80 |
| Insulator | PTFE | -- | -- |
| Gasket | Silicone | -- | -- |

III. ENVIRONMENT PROPERTIES

| | |
|--------------------|--------------------------------|
| Temperature Range: | -40°C~+125°C |
| Thermal Shock: | MIL-STD 202G, Meth.107, Cond.B |
| Vibration: | MIL-STD 202G, Meth.204, Cond.B |
| Shock: | MIL-STD 202G, Meth.213, Cond I |
| Climatic Class: | IEC 60068 55/155/56 |
| (2002/95/EC)RoHS: | Compliant |

V. TOOLING

Stripping Tool: 3192-152/CST-240A
 Crimping Tool: 3190-667/CT-240/200/100

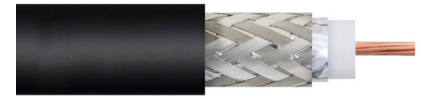
II. ELECTRICAL PROPERTIES

| | |
|-----------------------------|-------------|
| Impedance (Ω): | 50 |
| Frequency Range (GHz): | DC to 6 GHz |
| Working Voltage (V): | 2500 |
| Insulation Resistance (MΩ): | ≥10000 |
| VSWR: | ≤1.30 |
| Insertion Loss(dB, f/GHz): | -0.1x √f |

IV. MECHANICAL PROPERTIES

| | |
|------------------------------------|----------------|
| Center Cont.: | Finger Contact |
| Outer Cont.: | Crimp |
| Coupling Nut Torque (N.m): | 1.7 |
| Cbl-Connector Retention Force (N): | 250 |
| Durability (cycles): | 500 |

Flexible LMR-240-UF Indoor / Outdoor Rated Coax Cable Double Shielded with Black TPE Jacket



LMR-240-UF



Times Microwave Systems Connector Specification

Configuration

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

Features

- Highly Flexible
- Low Loss Cable
- RF Shielding > 90dB
- Designed for Indoor/Outdoor Use
- Max Operating Frequency of 8 GHz

Applications

- Jumper Assemblies
- Short Antenna Feeder Runs
- Wireless Communications

Description

Pasternack's LMR series RF cables from Times Microwave offer an ideal solution for applications where flexibility is essential. These flexible cables provide low loss with a minimum bend radius of 0.75 in. for installation. The stranded center conductor and rubber jacket also make this RF cable ideal for applications requiring periodic or repeated flexing. Pasternack's LMR-240-UF cable is designed for use in indoor and outdoor applications. The LMR-240-UF's thermoplastic elastomer (TPE) jacket gives this RF cable a life expectancy of 10 years. This low loss RF cable is also double shielded to provide greater than 90 dB RF shielding.

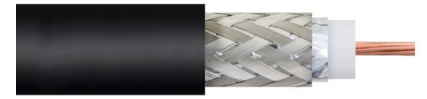
Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|--------------------------------------|---------|-------------|---------|--------------|
| Frequency Range | DC | | 8 | GHz |
| Impedance | | 50 | | Ohms |
| Velocity of Propagation | | 84 | | % |
| Time Delay | | 1.21 [3.97] | | ns/ft [ns/m] |
| Shielding Effectiveness | 90 | | | dB |
| Dielectric Withstanding Voltage (DC) | | | 1,500 | Vdc |
| Jacket Spark | | | 5,000 | Vrms |
| Inner Conductor DC Resistance | | | 4.28 | 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 |

Flexible LMR-240-UF Indoor / Outdoor Rated Coax
Cable Double Shielded with Black TPE Jacket



LMR-240-UF

Performance by Frequency Band

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|------|-------|-------|-------|-------|----------|
| Attenuation, Typ | 2.1 | 3.6 | 4.4 | 6.3 | 9.1 | dB/100ft |
| | 6.89 | 11.81 | 14.44 | 20.67 | 29.86 | dB/100m |
| Input Power (CW), Max | 960 | 550 | 450 | 310 | 220 | Watts |

| Description | F6 | F7 | F8 | F9 | F10 | Units |
|-----------------------|-------|-------|-------|-------|-------|----------|
| Frequency | 1.5 | 1.8 | 2 | 2.5 | 8 | GHz |
| Attenuation, Typ | 11.8 | 13 | 13.8 | 15.5 | 24.4 | dB/100ft |
| | 38.71 | 42.65 | 45.28 | 50.85 | 80.05 | dB/100m |
| Input Power (CW), Max | 170 | 150 | 140 | 130 | 80 | Watts |

Electrical Specification Notes:
Values at 25°C, sea level.
Attenuation = 0.290501*sqrt(FMHz) + 0.000396

Mechanical Specifications

| | |
|---------------------------------|--------------------------|
| Diameter | 0.24 in [6.1 mm] |
| Weight | 0.032 lbs/ft [0.05 kg/m] |
| Min. Bend Radius (Installation) | 0.75 in [19.05 mm] |
| Min. Bend Radius (Repeated) | 2.5 in [63.5 mm] |
| Bending Moment | 0.13 lbs-ft [0.18 N-m] |
| Tensile Strength | 80 lbs [36.29 kg] |
| Flat Plate Crush | 13 lbs/in [0.23 kg/mm] |

Construction Specifications

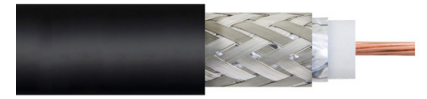
| Description | Material and Plating | Diameter |
|-----------------|----------------------|--------------------|
| Inner Conductor | Copper, Strand | 0.056 in [1.42 mm] |
| Conductor Type | Stranded | |
| Dielectric | PE (F) | 0.15 in [3.81 mm] |
| First Shield | Aluminum Tape | 0.155 in [3.94 mm] |
| Second Shield | Tinned Copper Braid | 0.178 in [4.52 mm] |
| Jacket | TPE, 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 |

Environmental Specification Notes:
Designed for indoor and outdoor use.

Flexible LMR-240-UF Indoor / Outdoor Rated Coax Cable Double Shielded with Black TPE Jacket



LMR-240-UF

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

Plotted and Other Data

Notes:

Flexible LMR-240-UF Indoor / Outdoor Rated Coax Cable Double Shielded with Black TPE Jacket 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.

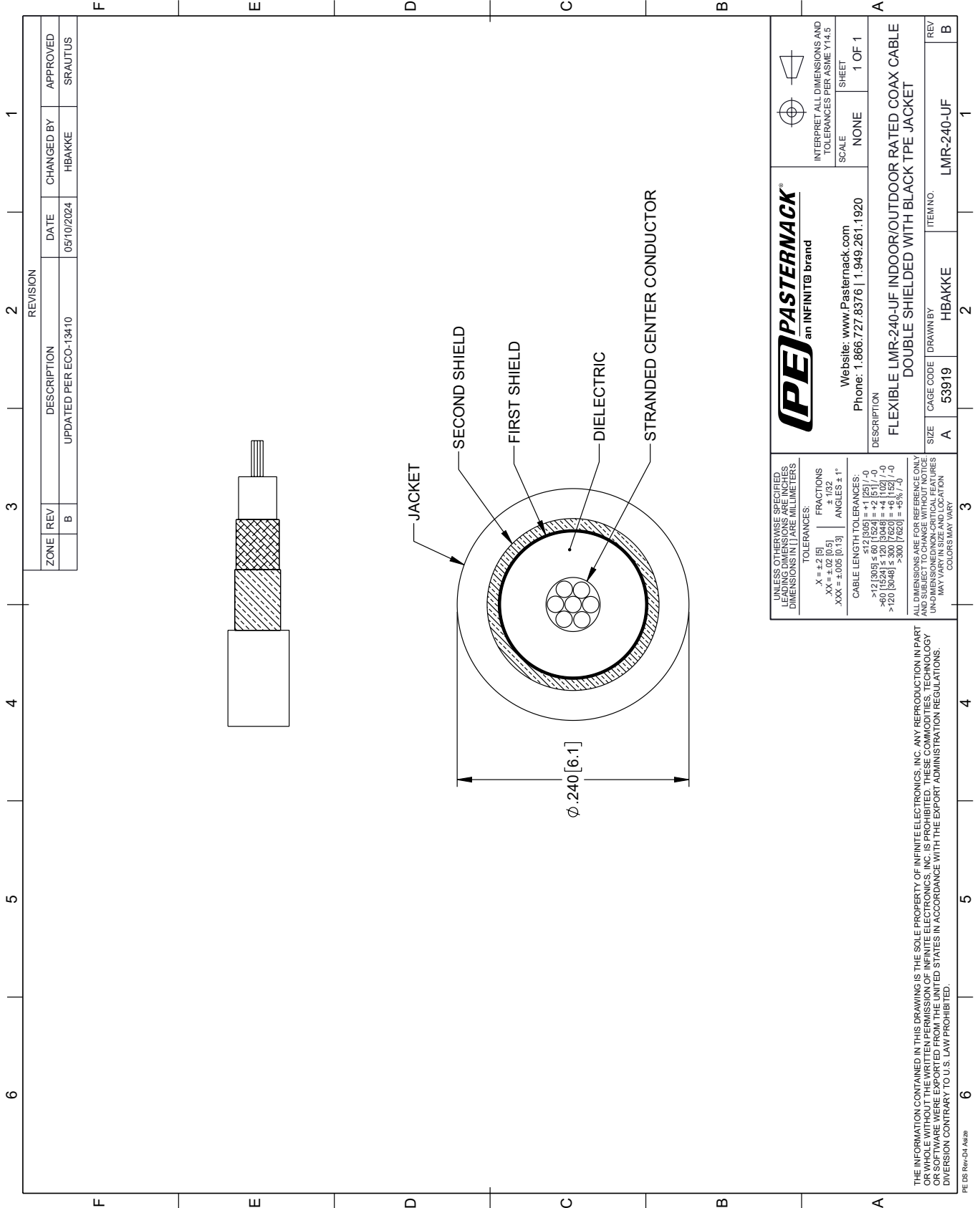
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Flexible LMR-240-UF Indoor / Outdoor Rated Coax Cable Double Shielded with Black TPE Jacket LMR-240-UF](#)

URL: <https://www.pasternack.com/50-ohm-ultra-flexible-lmr-240-uf-pe-jacket-tinned-copper-over-aluminum-tape-outer-conductor-double-shielded-lmr-240-uf-p.aspx>

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LMR-240-UF CAD Drawing

Flexible LMR-240-UF Indoor / Outdoor Rated Coax Cable Double Shielded with Black TPE Jacket



| | | | |
|---|--|--|--------|
| | | INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 | |
| Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920 | | SCALE | NONE |
| | | SHEET | 1 OF 1 |

| | | | |
|---|--------|-----------|------------|
| DESCRIPTION FLEXIBLE LMR-240-UF INDOOR/OUTDOOR RATED COAX CABLE DOUBLE SHIELDED WITH BLACK TPE JACKET | | ITEM NO. | LMR-240-UF |
| SIZE | A | CAGE CODE | 53919 |
| DRAWN BY | HBAKKE | REV | B |