



## **RF Connectors Technical Data Sheet**

## PE44521

#### Configuration

- N Male Connector
- MIL-STD-348A
- 50 Ohms
- Straight Body Geometry

#### **Features**

- Max. Operating Frequency 11 GHz
- Good VSWR of 1.3:1

#### **Applications**

General Purpose Test

LMR-240-UF, B7808A Interface Type • Crimp/Solder Attachment

• PE-C240, RG8X, 0.240 inch, LMR-240, LMR-240-DB,

- Gold Plated Brass Contact
   Journal plated Brass Contact
- 30 µin minimum contact plating
- Custom Cable Assemblies

#### Description

Pasternack's PE44521 type N male connector with crimp/solder attachment for PE-C240, RG8X, 0.240 inch, LMR-240, LMR-240-DB, LMR-240-UF and B7808A is part of our full line of RF components available for same-day shipping. Our type N male connector operates up to a maximum frequency of 11 GHz and offers good VSWR of 1.3:1.

Our type N male connector PE44521 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		11	GHz
VSWR			1.3:1	
Operating Voltage (AC)			1,500	Vrms
Dielectric Withstanding Voltage (AC)			2,500	Vrms
Inner Conductor DC Resistance			1	mOhms
Outer Conductor DC Resistance			1	mOhms
Insulation Resistance	5,000			MOhms
RF Leakage	90			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 Connector Crimp/Solder Attachment for PE-C240, RG8X, 0.240 inch, LMR-240, LMR-240-DB, LMR-240-UF, B7808A PE44521

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





PE44521

## **RF Connectors Technical Data Sheet**

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 10					GHz
nsertion Loss, Max	0.15					dB
hanical Specificatio	ons					
Size						
Length Width/Dia.				.36 in [34.54 n .83 in [21.08 n		
Weight			0	.069 lbs [31.3	g]	
Mating Cycles			5	00 Cycles		
Material Specification	s					
Description		М	aterial		Plating	
Contact			Brass		Gold 30 µin minim	um
nsulation			PTFE			
Body			Brass		Tri-Metal	
Coupling Nut			Brass		Tri-Metal	

#### **Environmental Specifications**

Temperature Operating Range Vibration Temperature Cycle Salt Spray

-65 to +165 deg C MIL-STD-202, Method 204, Condition B MIL-STD-202, Method 107, Condition B MIL-STD-202, Method 101, Condition B

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Compliance Certifications (see product page for current document)

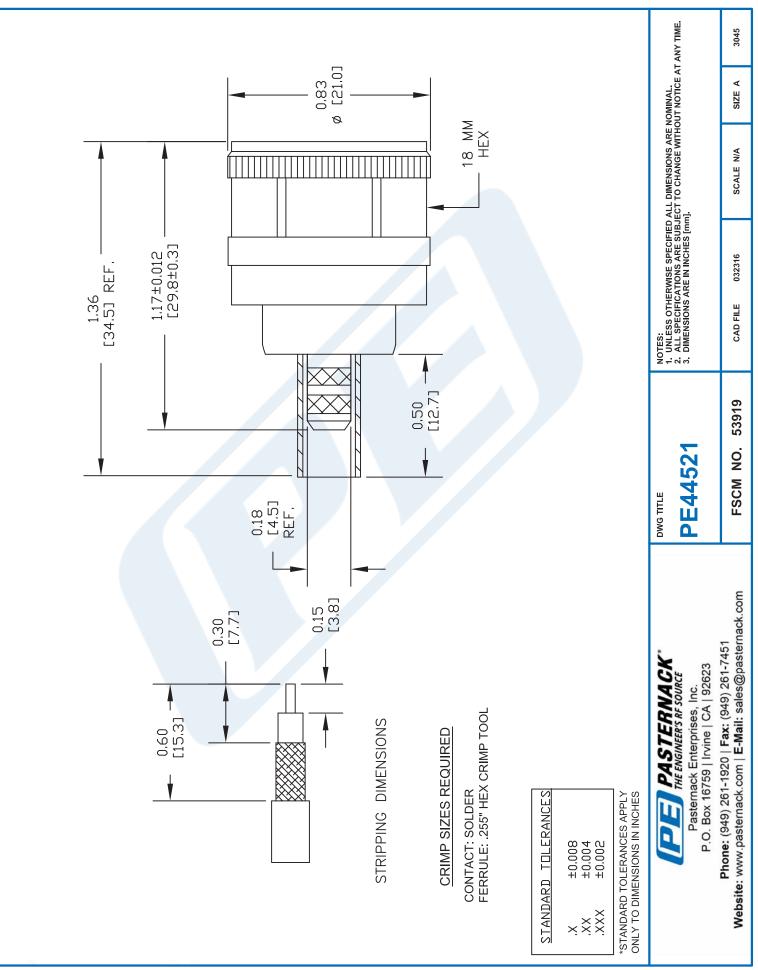
#### Plotted and Other Data Notes:

N Male Connector Crimp/Solder Attachment for PE-C240, RG8X, 0.240 inch, LMR-240, LMR-240-DB, LMR-240-UF, B7808A from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

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URL: https://www.pasternack.com/n-male-standard-pe-c240-0.240-connector-pe44521-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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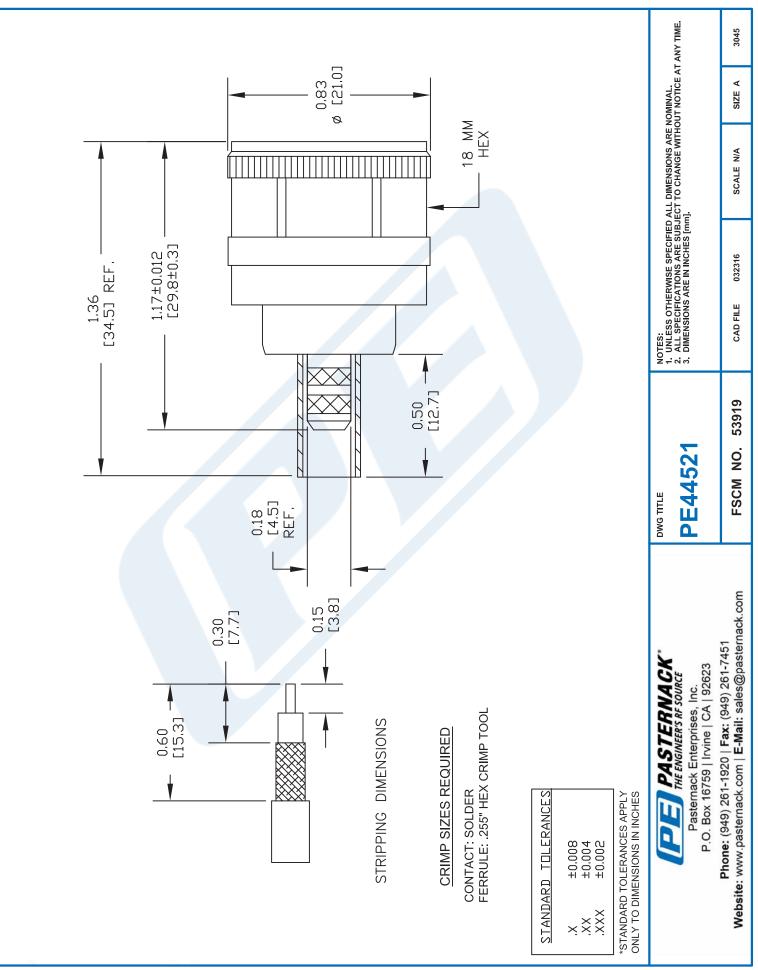
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# LMR<sup>®</sup>-240 Flexible Low Loss Communications Coax

## Ideal for...

- Jumper Assemblies in Wireless Communications Systems
- Short Antenna Feeder runs (e.g. WLL, GPS, LMR, Mobile Antennas)
- Any application (e.g. WLL, GPS, LMR, WLAN, WISP, WiMax, SCADA, Mobile Antennas) requiring an easily routed, low loss RF cable

• LMR<sup>\*</sup> standard is a UV Resistant Polyethylene jacketed cable designed for 20-year service outdoor use. The bending and handling characteristics are significantly better than air-dielectric and corrugated hard-line cables.

LMR\*-DB is identical to standard LMR plus has the advantage of being watertight. The addition of waterproofing compound in and around the foil/braid insures continuous reliable service should the jacket be inadvertently damaged during installation or in the future.
LMR\*-FR is a non-halogen (non-toxic), low smoke, fire retardant cable designed for in-building runs that can be routed anywhere except air handling plenums. LMR-FR is UL/NEC & CSA rated 'CMR' and 'FT4' respectively, meets FAA FAR25 requirements and is MSHA-P for mining applications.

• LMR\*- FR-PVC is a general-purpose indoor cable and has a UL/NEC & CSA rating of 'CMR' and 'FT4' respectively. It is less expensive than LMR-FR, however it emits toxic fumes (HCL) and greater smoke density when burned.

• LMR<sup>•</sup>- PVC is designed for low loss general-purpose applications and is somewhat more flexible than the standard polyethylene jacketed LMR.

• LMR\*- PVC-W is a white-jacketed version of LMR-PVC for marine and other applications where color compatibility is desired.

• LMR<sup>\*</sup>- MA is a flexible cable designed specifically for mobile antenna applications. It has a PVC jacket and un-bonded aluminum tape to facilitate end stripping with automated equipment.

• **Flexibility** and bendability are hallmarks of the LMR-240 cable design. The flexible outer conductor enables the tightest bend radius available for any cable of similar size and performance.

• Low Loss is another hallmark feature of LMR-240. Size for size LMR has the lowest loss of any flexible cable and comparable loss to semirigid hard-line cables.

LMR 240

• **RF Shielding** is 50 dB greater than typical single shielded coax (40 dB). The multi-ply bonded foil outer conductor is rated conservatively at > 90 dB (i.e. >180 dB between two adjacent cables).

• Weatherability: LMR-240 cables designed for outdoor exposure incorporate the best materials for UV resistance and have life expectancy in excess of 20 years.

• **Connectors**: A wide variety of connectors are available for LMR-240 cable, including all common interface types, reverse polarity, and a choice of solder or non-solder center pins. Most LMR connectors employ crimp outer attachment using standard hex crimp sizes.

• **Cable Assemblies**: All LMR-240 cable types are available as pre-terminated cable assemblies. Refer to the section on FlexTech for further details.

	<b>Part Description</b>			Stock
Part Number	Application	Jacket	Color	Code
LMR-240	Outdoor	PE	Black	54021
LMR-240-DB	Outdoor/Watertight	PE	Black	54090
LMR-240-FR	Indoor/Outdoor Riser CMR	FRPE	Black	54029
LMR-240-FR-PVC	Indoor/Outdoor Riser CMR	FRPVC	Black	54214
LMR-240-PVC	General Purpose	PVC	Black	54140
LMR-240-PVC-V	V General Purpose	PVC	White	54202
LMR-240-MA	Indoor & Mobile Antenna	PVC	Black	54046

<b>Construction Specifications</b>								
Description	Material	In.	(mm)					
Inner Conductor	Solid BC	0.056	(1.42)					
Dielectric	Foam PE	0.150	(3.81)					
Outer Conductor	Aluminum Tape	0.155	(3.94)					
Overall Braid	Tinned Copper	0.178	(4.52)					
Jacket	(see table above)	0.240	(6.10)					

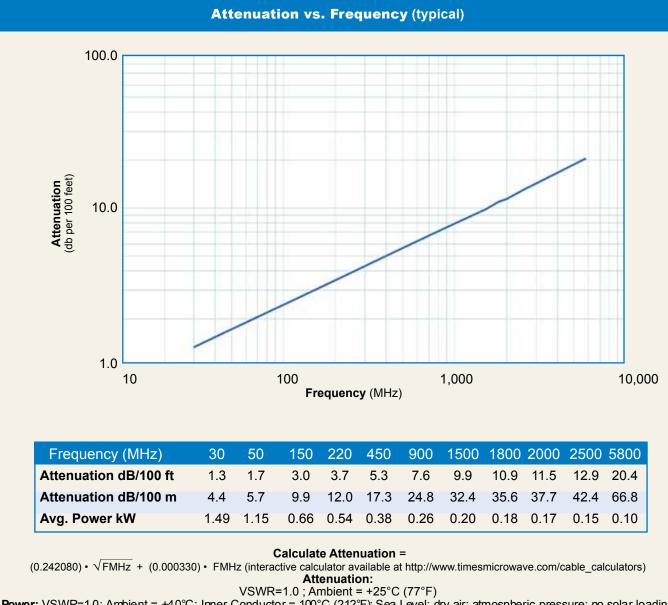


	Mechanic	al Specifica	tions	
S	Performance Property	Units	US	(metric)
	Bend Radius: installation	in. (mm)	0.75	(19.1)
	Bend Radius: repeated	in. (mm)	2.5	(63.5)
	Bending Moment	ft-lb (N-m)	0.25	(0.34)
	Weight	lb/ft (kg/m)	0.034	(0.05)
	Tensile Strength	lb (kg)	80	(36.3)
	Flat Plate Crush	lb/in. (kg/mm)	20	(0.36)

MES MICE

Environmental Specifications						
Performance Property	۴F	°C				
Installation Temperature Range	-40/+185	-40/+85				
Storage Temperature Range	-94/+185	-70/+85				
Operating Temperature Range	-40/+185	-40/+85				

<b>Electrical Specifications</b>							
Performance Property	Units	US	(metric)				
Velocity of Propagation	%	84					
Dielectric Constant	NA	1.42					
Time Delay	nS/ft (nS/m)	1.21	(3.97)				
Impedance	ohms	50					
Capacitance	pF/ft (pF/m)	24.2	(79.4)				
Inductance	uH/ft (uH/m)	0.060	(0.20)				
Shielding Effectiveness	dB	>90					
DC Resistance							
Inner Conductor	ohms/1000ft (/km)	3.2	(10.5)				
Outer Conductor	ohms/1000ft (/km)	3.89	(12.8)				
Voltage Withstand	Volts DC		1500				
Jacket Spark	Volts RMS		5000				
Peak Power	kW		5.6				



Power: VSWR=1.0; Ambient = +40°C; Inner Conductor = 100°C (212°F); Sea Level; dry air; atmospheric pressure; no solar loading

# **TIMES** MICROWAVE SYSTEMS

# LMR<sup>®</sup>-240 Flexible Low Loss Communications Coax



Connect	onnectors		Stock	Vel	NR**	Coupling	Inner Contact		Finish* Body		nath	Wi	łth	W	eiaht
Interface	Description	Number	Code	Freq.		Nut	Attach	Attach	/Pin	in	(mm)	in	(mm)	lb	(g)
1. F Male	Straight Plug	TC-240-FM-X	3190-2891	<1.25:1	(2.5)	Knurl	Solder	Crimp	N/G	1.1	(28)	0.45	(11.4)	0.014	(6.4)
2. N Male	Straight Plug	EZ-240-NMH-X	3190-2893	<1.25:1	(2.5)	Hex/Knurl	Spring Finger	r Crimp	A/G	1.5	(38.1)	0.78	(19.8)	0.086	6 (39.0)
3. N Male	RightAngle	TC-240-NMH-RA-D	3190-2426	<1.35:1	(6)	Hex/Knurl	Solder	Crimp	A/G	1.2	(32.4)	1.22	(31.0)	0.091	(41.7)
4. N Male	Straight Plug	TC-240-NMH-X	3190-2887*	<1.25:1	(2.5)	Hex/Knurl	Solder	Crimp	N/S	1.5	(38)	0.75	(19.1)	0.086	6 (39.0)
5. N Male	Straight Plug	TC-240-NMC	3190-244	<1.25:1	(2.5)	Knurl	Solder	Clamp	S/G	1.5	(38)	0.75	(19.1)	0.082	(37.2)
6. 1.0/2.3 DIN	Straight Plug	EZ-240-1023M	3190-2512	<1.35:1	(2.5)	knurl	Spring Finger	r Crimp	N/G	1.1	(228.5)	0.33	(8.5)	0.014	(6.63)
7. N Female	Bulkhead Jack	TC-240-NF-BH-X	3190-2888	<1.25:1	(2.5)	NA	Solder	Crimp	A/G	1.7	(44)	0.88	(22.2)	0.115	(52.2)
8. N Female	Panel Mount	TC-240-NF-PM-X	3190-2889*	<1.25:1	(6)	NA	Solder	Crimp	A/G	1.7	(44)	0.88	(22.2)	0.115	(52.2)
9. BNC Male	Straight Plug	TC-240-BMC	3190-242	<1.25:1	(2.5)	Knurl	Solder	Clamp	S/G	1.7	(43)	0.56	(14.2)	0.040	(18.1)
10. BNC Male	Straight Plug	TC-240-BM-X	3190-2890	<1.25:1	(2.5)	Knurl	Solder	Crimp	A/G	1.3	(34)	0.58	(14.7)	0.043	(19.5)
11. BNC Male	Straight Plug	TC-240-BM-RA-D	3190-2869	<1.25:1	(2)	Knurl	Solder	Crimp	A/G	1.0	(25.1)	0.57	(14.5)	0.115	(52.0)
12. TNC Male	Straight Plug	EZ-240-TM-X	3190-2725	<1.25:1	(2.5)	Knurl	Spring Finger	r Crimp	N/G	1.4	(34.3)	0.59	(15.0)	0.043	(19.5)
13. TNC Male	Straight Plug	TC-240-TM-X	3190-2797	<1.25:1	(2.5)	Knurl	Solder	Crimp	N/G	1.7	(43)	0.59	(15.0)	0.043	(19.5)
14. TNC Male	Reverse Polar	ity EZ-240-TM-RP-X	3190-2892	<1.25:1	(6)	Knurl	Spring Finger	r Crimp	A/G	1.4	(36)	0.59	(15.0)	0.043	(19.5)
15.TNC Male	RightAngle	TC-240-TM-RA-D	3190-2798	<1.25:1	(6)	Hex	Solder	Crimp	A/G	1.0	(25.1)	0.62	(15.7)	0.115	(52.0)
16. QMA Male	Straight Plug	EZ-240-QM-X	3190-2894	<1.25:	(6)	Knurl	Spring Finger	r Crimp	N/G	1.2	(30.0)	0.41	(10.5)	0.014	(6.35)
17. QMA Male	RightAngle	EZ-240-QM-RA-X	3190-2895	<1.25:	(<6)	Knurl	Spring Finger	r Crimp	N/G	0.8	(20.3)	0.65	(16.5)	0.019	(8.62)
18. SMA Male	Straight Plug	EZ-240-SM-X	3190-2897	<1:25:	(6)	Hex	Spring Finger	r Crimp	N/G	1.0	(25.4)	0.32	(8.1)	0.016	(7.26)
19. SMA Male	Straight Plug	TC-240-SM-SS-X	3190-2898*	<1.25:1	(10)	Hex	Solder	Crimp	SS/G	1.0	(25)	0.32	(8.1)	0.016	(7.3)
20. SMA Male	RightAngle	TC-240-SM-RA-SS-X	3190-2900*	<1.35:1	(6)	Hex	Solder	Crimp	SS/G	0.8	(20)	0.65	(16.5)	0.019	(8.6)
21. SMA Male	RightAngle	EZ-240-SM-RA-X	3190-2899	<1.25:1	(6)	Hex	Spring Finger	r Crimp	A/G	0.9	(22.8)	0.31	(7.9)	0.019	(8.6)
22. SMA Male	Reverse Polar	ity TC-240-SM-RP	3190-326	<1.25:1	(2.5)	Hex	Solder	Crimp	SS/G	1.0	(25)	0.32	(8.1)	0.016	(7.3)
23. SMAFemale	Bulkhead Jack	TC-240-SF-SS-BH-X	(3190-2896*	<1.25:1	(2.5)	NA	Solder	Crimp	SS/G	1.1	(29)	0.31	(7.9)	0.019	(8.6)
24. Mini-UHF	Straight Plug	TC-240-MUHF	3190-445	<1.25:1	(2.5)	Knurl	Solder	Crimp	N/G	1.1	(28)	0.45	(11.4)	0.014	(6.4)
25. 7/16 Din Male	Straight Plug	TC-240-716M	3190-2982	<1.35:1	(3)	Hex	Spring Finger	Crimp	A/S	2.0	(50.5)	1.26	(32.0)	0.186	(84.4)
26. 7/16 Din Male	Right Angle	TC-240-716M-RA-D	3190-2983	<1.35:1	(3)	Hex	Solder	Crimp	A/S	1.4	(34.3)	1.60	(40.6)	0.239	(108.5)
27. TNC Female	Straight Jack	EZ-240-TF	3190-2552	<1.35:1	(6)	NA	Spring Finger	Crimp	N/G	1.1	(27.0)	0.45	(11.4)	0.035	(15.9)





## **Hardware Accessories**

GK-S240TT

Туре	Part Number	Stock Code	Description
Ground Kit	GK-S240TT	GK-S240TT	Standard Ground Kit (each)



Number	Code	Description
CT-240/200/195/100	3190-667	Crimp tool for LMR-100, 195, 200 and 240 connectors
CST-240A	3192-152	Prep tool for LMR-240 connectors
DBT-U	3192-001	Removes center conductor rough edges
CCT-01	3190-1544	Cable end flush cut tool
RB-01	3190-1609	Replacement blade for cutting tool
RB-CST	3192-086	Replacement blade kit for all CST strip tools
	CT-240/200/195/100 CST-240A DBT-U CCT-01 RB-01	CT-240/200/195/1003190-667CST-240A3192-152DBT-U3192-001CCT-013190-1544RB-013190-1609