

# LMR<sup>®</sup>-400-75 Ohm Flexible Low Loss Coaxial Cable

## Ideal for...

- Satellite Applications
- Video Applications-CCTV, CATV, baseband or broadband
- In-Building Feeder Runs
- Any 75 ohm Wireless Application requiring an easily routed,



Part Description				
Part Number	Application	Jacket	Color	Stock Code
LMR-400-75	Indoor/Outdoor	PE	Black	54147
LMR-400-75-DB	Outdoor	PE	Black	54228
LMR-400-75-FR	Indoor	FRPE	Black	54256

Construction Specifications			
Description	Material	In.	(mm)
Inner Conductor	Solid BC	0.065	(1.65)
Dielectric	Foam PE	0.285	(7.24)
Outer Conductor	Aluminum Tape	0.291	(7.39)
Overall Braid	Tinned Copper	0.320	(8.13)
Jacket	(See Table)	0.405	(10.29)

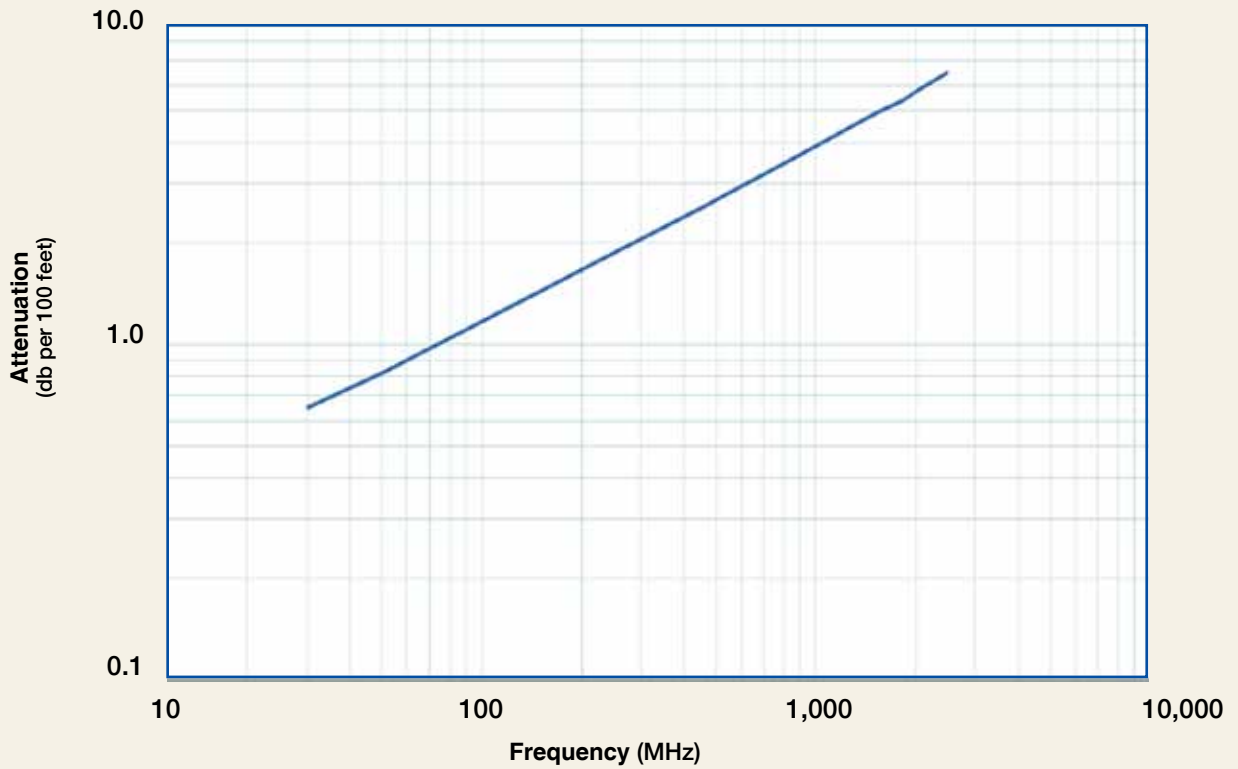
Environmental Specifications		
Performance Property	°F	°C
Installation Temperature Range	-40/+185	-40/+85
Storage Temperature Range	-94/+185	-70/+85
Operating Temperature Range	-40/+185	-40/+85

Mechanical Specifications			
Performance Property	Units	US	(metric)
Bend Radius: installation	in. (mm)	1.0	(25.4)
Bend Radius: repeated	in. (mm)	4.0	(101.6)
Bending Moment	ft-lb (N-m)	0.5	(0.68)
Weight	lb/ft (kg/m)	0.068	(0.10)
Tensile Strength	lb (kg)	160	(72.6)
Flat Plate Crush	lb/in. (kg/mm)	40	(0.71)

Electrical Specifications			
Performance Property	Units	US	(metric)
Max Operating Frequency	GHz	2.5	
Velocity of Propagation	%	85	
Dielectric Constant	NA	1.38	
Time Delay	nS/ft (nS/m)	1.20	(3.92)
Impedance	ohms	75	
Capacitance	pF/ft (pF/m)	15.9	(52.3)
Inductance	uH/ft (uH/m)	0.090	(0.29)
Shielding Effectiveness	dB	>90	
DC Resistance			
Inner Conductor	ohms/1000ft (/km)	2.50	(8.20)
Outer Conductor	ohms/1000ft (/km)	1.65	(5.4)
Voltage Withstand	Volts DC	2000	
Jacket Spark	Volts RMS	5000	
Peak Power	kW	10	

MICROWAVE

**Attenuation vs. Frequency (typical)**



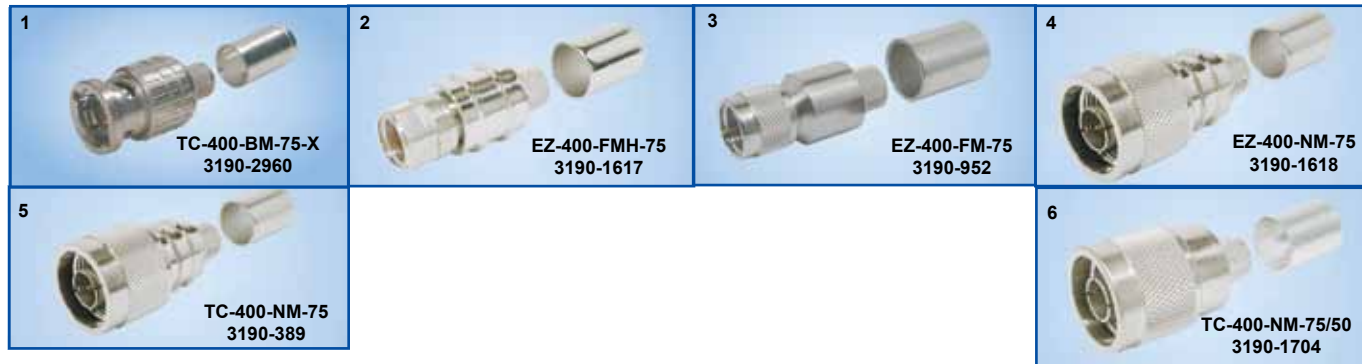
Frequency (MHz)	30	50	150	220	450	900	1500	1800	2000	2500
<b>Attenuation dB/100 ft</b>	0.6	0.8	1.5	1.8	2.6	3.7	4.9	5.4	5.7	6.4
<b>Attenuation dB/100 m</b>	2.1	2.7	4.8	5.8	8.4	12.1	16.0	17.6	18.7	21.1
<b>Avg. Power kW</b>	2.99	2.31	1.32	1.08	0.74	0.52	0.39	0.35	0.33	0.30

**Calculate Attenuation =**  
 $(0.115570) \cdot \sqrt{\text{FMHz}} + (0.000260) \cdot \text{FMHz}$  (interactive calculator available at [http://www.timesmicrowave.com/cable\\_calculators](http://www.timesmicrowave.com/cable_calculators))

**Attenuation:**  
 VSWR=1.0 ; Ambient = +25°C (77°F)

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

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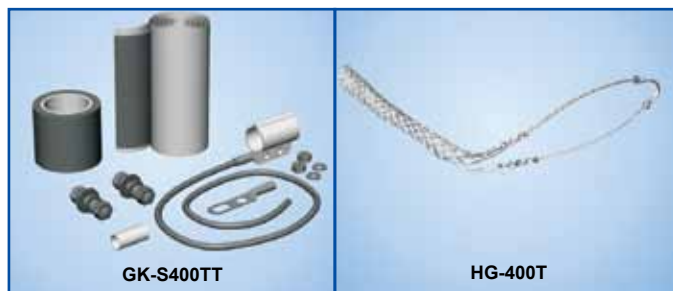
Connectors											
Interface	Description	Part Number	Stock Code	VSWR**	Coupling	Inner Contact	Outer Finish*	Length	Width	Weight	
				Freq. (GHz)	Nut	Attach	Contact Body Attach /Pin	in (mm)	in (mm)	lb (g)	
1.	BNC Male Straight Plug	TC-400-BM-75-X	3190-2960	<1.1:1	(2.0)	Knurl	Solder-on	Crimp N/G	1.37 (34.8)	0.56 (14.2)	0.043 (19.5)
2.	F Male Straight Plug	EZ-400-FMH-75	3190-1617	<1.25:1	(2.0)	Hex	Spring Finger	Crimp N/G	1.7 (42.9)	0.49 (12.4)	0.02 (9.07)
3.	F Male Straight Plug	EZ-400-FM-75	3190-952	<1.25:1	(2.5)	Knurl	Spring Finger	Crimp N/G	1.7 (43.2)	0.56 (14.2)	0.002 (9.1)
4.	N Male Straight Plug	EZ-400-NM-75	3190-1618	<1.25:1	(2.0)	Knurl	Spring Finger	Crimp N/G	2.0 (50.5)	0.81 (20.6)	0.10 (45.36)
5.	N Male Straight Plug	TC-400-NM-75	3190-389	<1.25:1	(2.5)	Knurl	Solder	Crimp N/G	1.5 (38.1)	0.83 (21.1)	0.90 (40.8)
6.	N Male Straight Plug	TC-400-NM-75/50***	3190-1704	<1.25:1	(2.0)	Knurl	Solder	Crimp N/G	1.5 (38.1)	0.83 (21.1)	0.09 (39.01)

\* Finish metals: N=Nickel, S=Silver, G=Gold, SS=Stainless Steel, A=Alballoy \*\*VSWR spec based on 3 foot cable with a connector pair  
 \*\*\*NOTE: 75/50 suffix indicates the connector is for installation on 75 ohm LMR cable and mates with 50 ohm type-N connectors



## Install Tools

Type	Part Number	Stock Code	Description
Crimp Tool	CT-U	3192-181	Crimp Handle (Dies Required)
Crimp Dies	Y1719	3190-202	.429" Hex Dies
Crimp Tool	CT-400/300	3190-666	Crimp tool for LMR 400 connectors
Crimp Rings	CR-400	3190-830	Crimp rings for TC/EZ-400 connectors (package of 10)
Strip Tool	CST-400-75	3192-089	Combination prep tool for LMR-400-75 crimp and clamp connectors
Mid-Span Strip Tool	GST-400	3190-2174	For ground strap attachment
Deburr Tool	DBT-U	3192-001	Removes center conductor rough edges
Cutting Tool	CCT-02	3192-165	Cable end flush cut tool
Replacement Blade	RB-02	3192-166	Replacement blade for cutting tool
Replacement Blade Kit	RB-CST	3192-086	Replacement blade kit for all CST tools
Tool Kit	TK-400EZ-75	660-0084	Tool kit for LMR-400-75 crimp/clamp connectors includes, CCT-02,CST-400-75, CT-400/300, Tool Pouch)



## Hardware Accessories

Type	Part Number	Stock Code	Description
Ground Kit	GK-S400TT	GK-S400TT	Standard Grounding Kit (each)
Hoisting Grip	HG-400T	HG-400T	Laced Type (each)