TIMES MICROWAVE SYSTEMS

LMR®-600-75 Ohm Flexible Low Loss Coaxial Cable

Ideal for...

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



• **LMR®-75** standard is a UV Resistant Polyethylene jacketed cable designed for 20-year service outdoor use. The bending and handling characteristics are significantly better than any smooth wall or corrugated hard-line cables.

• **Flexibility** and bendability are hallmarks of the LMR-600-75 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-600-75. Size for size LMR-75 has the lowest loss of any flexible cable and comparable loss to semirigid hard-line cables.

• **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-600-75 cables designed for outdoor exposure incorporate the best materials for UV resistance and have life expectancy in excess of 20 years.

• **Connectors**: Standard available connectors include type-N and type-F male plug with 75 ohm interface. Most LMR-75 connectors are the EZ install type with crimp outer and non-solder center contact attachment.

• **Cable Assemblies**: All LMR-600-75 cable types are available as pre-terminated cable assemblies. Refer to the section on FlexTech for further details.

Part Description

Part Number	Application	Jacket	Color	Stock Code
LMR-600-75	Indoor/Outdoor	PE	Black	54148
LMR-600-75-DB	Outdoor	PE	Black	54220

Construction Specifications

Description	Material	In.	(mm)
Inner Conductor	Solid BCCAl	0.108	(2.74)
Dielectric	Foam PE	0.455	(11.56)
Outer Conductor	Aluminum Tape	0.461	(11.71)
Overall Braid	Tinned Copper	0.490	(12.45)
Jacket	Black PE	0.590	(14.99)

Mechanical Specifications

Performance Property	Units	US	(metric)
Bend Radius: installation	in. (mm)	1.5	(38.1)
Bend Radius: repeated	in. (mm)	6.0	(152.4)
Bending Moment	ft-lb (N-m)	2.75	(3.73)
Weight	lb/ft (kg/m)	0.131	(0.20)
Tensile Strength	lb (kg)	350	(158.9)
Flat Plate Crush	lb/in. (kg/mm)	60	(1.07)

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

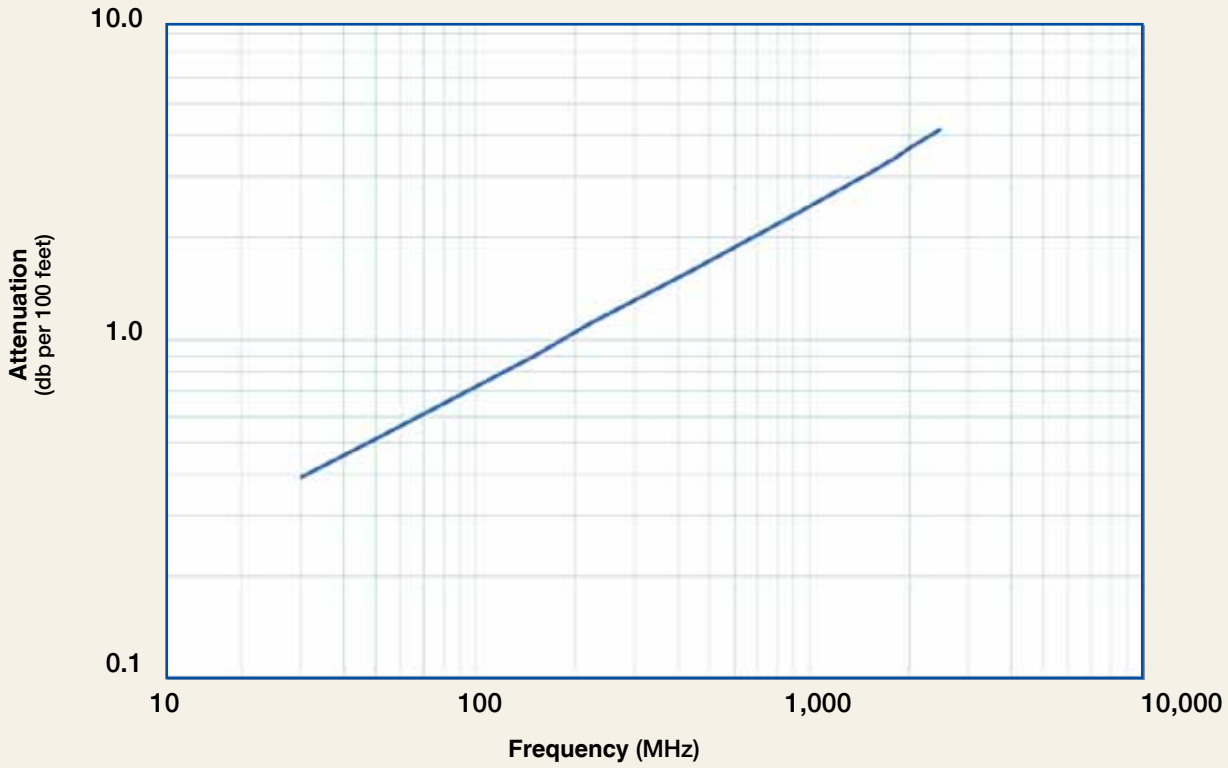


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Electrical Specifications

Performance Property	Units	US	(metric)
Max Operating Frequency	GHz	2.5	
Velocity of Propagation	%	87	
Dielectric Constant	NA	1.32	
Time Delay	nS/ft (nS/m)	1.17	(3.83)
Impedance	ohms	75	
Capacitance	pF/ft (pF/m)	15.6	(51.1)
Inductance	uH/ft (uH/m)	0.088	(0.29)
Shielding Effectiveness	dB	>90	
DC Resistance			
Inner Conductor	ohms/1000ft (/km)	1.39	(4.56)
Outer Conductor	ohms/1000ft (/km)	1.2	(3.9)
Voltage Withstand	Volts DC	4000	
Jacket Spark	Volts RMS	8000	
Peak Power	kW	40	

Attenuation vs. Frequency (typical)



Frequency (MHz)	30	50	150	220	450	900	1500	1800	2000	2500
Attenuation dB/100 ft	0.4	0.5	0.9	1.1	1.6	2.3	3.1	3.5	3.7	4.2
Attenuation dB/100 m	1.3	1.7	3.0	3.6	5.3	7.7	10.2	11.4	12.1	13.7
Avg. Power kW	4.77	3.67	2.08	1.70	1.16	0.80	0.60	0.54	0.51	0.45

Calculate Attenuation =
(0.070590) • $\sqrt{FMHz}$ + (0.000260) • FMHz (interactive calculator available at 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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EZ-600-FMH-75


EZ-600-NM-75


TC-600-NMH-75/50

Connectors

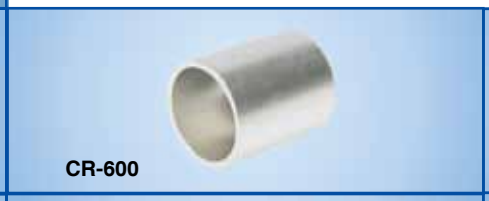
Interface	Description	Part Number	Stock Code	VSWR** Freq. (GHz)	Coupling Nut	Inner Contact Attach	Outer Contact Attach	Finish* Body /Pin	Length in (mm)	Width in (mm)	Weight lb (g)
F Male	Straight Plug	EZ-600-FMH-75	3190-1619	<1.25:1 (2.5)	Hex	Spring Finger	Crimp	N/G	1.7 (43.2)	0.56(14.2)	0.112 (50.8)
N Male	Straight Plug	EZ-600-NM-75	3190-1620	<1.25:1 (2.0)	Knurl	Spring Finger	Crimp	N/G	2.1 (53.1)	0.87(22.1)	0.166 (75)
	Straight Plug	TC-600-NMH-75/50***	3190-1610	<1.25:1 (2.0)	Hex	Solder	Crimp	N/G	2.1 (53.1)	0.83(21.1)	0.166 (75)

* 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



HX-4


Y1720


CR-600


ST-600-75



DBT-U

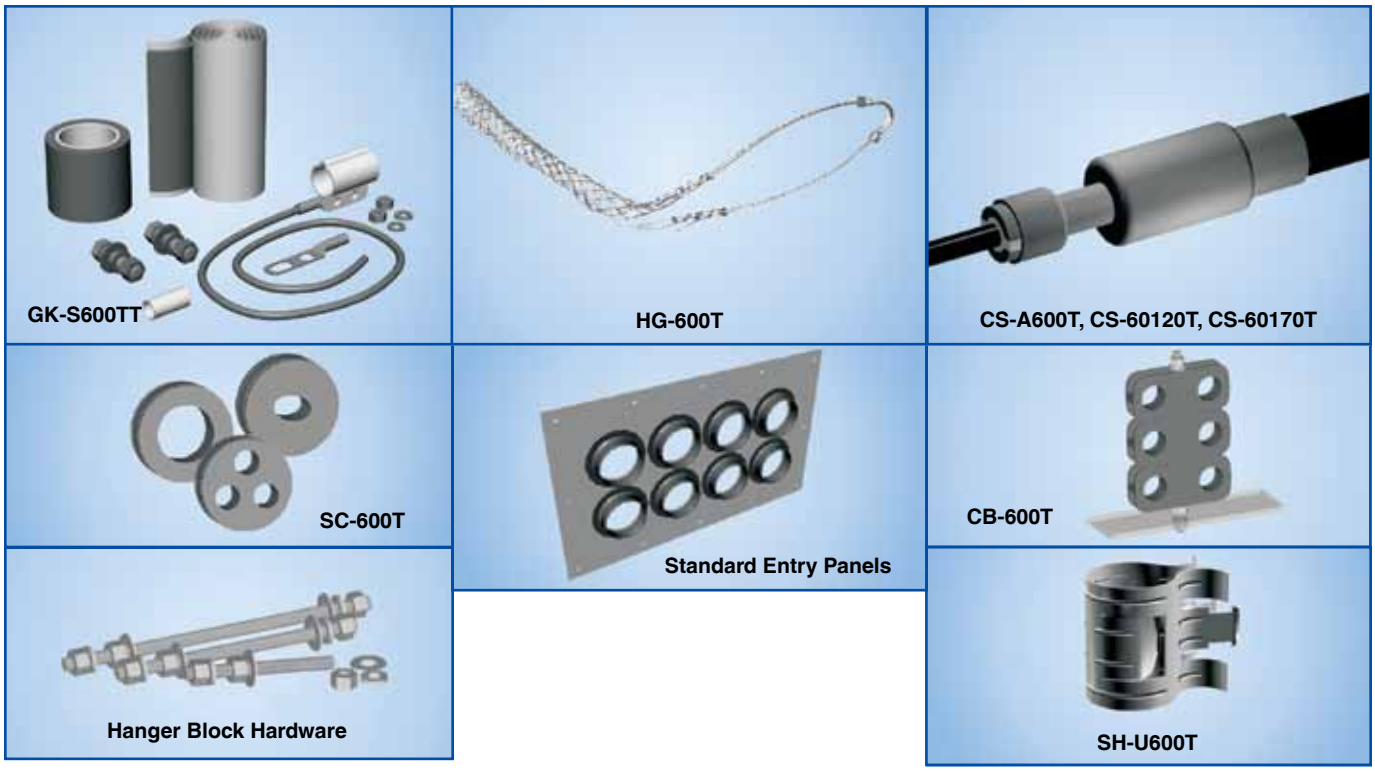

GST-600A


CCT-01


TK-600EZ

Install Tools

Type	Part Number	Stock Code	Description
Crimp Tool	HX-4	3190-200	Crimp Handle
Crimp Dies	Y1720	3190-203	.610" Hex Dies
Crimp Rings	CR-600	3190-831	Crimp Rings for TC/EZ-600 connectors (pkg of 10)
Strip Tool	ST-600-75	3192-085	Strip tool for LMR-600-75 crimp and clamp style
Deburr Tool	DBT-U	3192-001	Removes center conductor rough edges
Midspan Strip Tool	GST-600A	3190-1051	For ground strap attachment
Cutting Tool	CCT-01	3190-1544	Cable end flush cut tool
Replacement Blade	RB-01	3190-1609	Replacement blade for cutting tool
Replacement Blade	RB-CST	3192-086	Replacement blade for all CST strip tools
Tool Kit	TK-600EZ	660-0085	Tool kit for LMR-600 Crimp Connectors (includes CCT-01, ST-600-75, HX-4, Y1720, Tool Pouch)



Hardware Accessories

Type	Part Number	Stock Code	Description
Ground Kit	GK-S600TT	GK-S600TT	Standard Grounding Kit (each)
Hoisting Grip	HG-600T	HG-600T	Split/Laced Type (each)
Cold Shrink	CS-A600T	CS-A600T	Cable to Antenna Junction (each)
Cold Shrink	CS-60120T	CS-60120T	LMR-600 to -1200 Junction (each)
Cold Shrink	CS-60170T	CS-60170T	LMR-600 to -1700 Junction (each)
Stand. Entry Port Cushion	SC-600T-3	SC-600T-3	Three Cables (each)
Standard Entry Panels			Full Range of Port Styles/Combinations Available
Hanger Blocks	CB-600T	CB-600T	Dual Cable Support Block (kit of 10)
Hanger Block Supporting Hardware			Complete Range of Supporting Hardware & Adapters Available
Snap-In Hangers	SH-U600T	SH-U600T	Snap-In Hangers (Kit of 10)

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