

## LMR<sup>®</sup>-300-LLPL Flexible Low Loss Plenum Coax

### Ideal for...

- Indoor Plenum Feeder runs
- UL/NEC/CSA rated CMP/FT6
- Any wireless application (e.g. LMDS, MMDS, WLL, GPS, LMR, WLAN, WISP, WiMax, SCADA, Cellular, PCS, Paging) requiring an easily routed, low loss RF cable for in-building systems



Part Description				
Part Number	Application	Jacket Color		Stock Code
LMR-300-LLPL	Indoor/Outdoor Plenum CMP/FT6	FRPVC Orange		54175

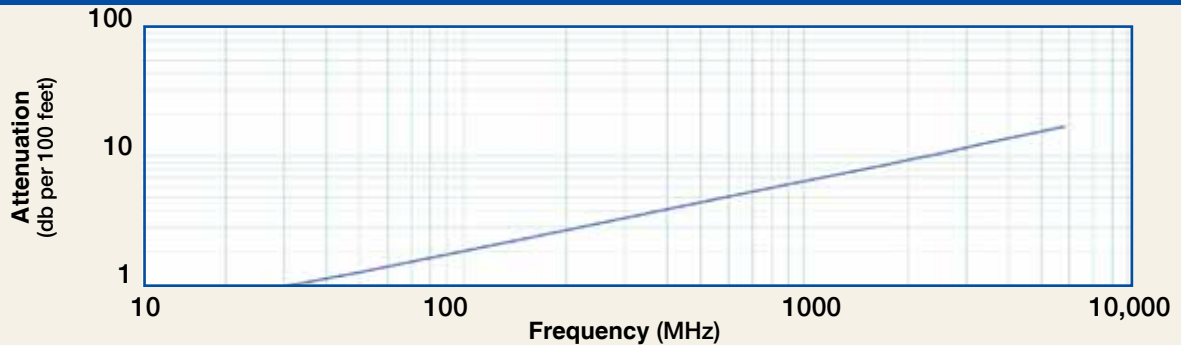
Environmental Specifications			
Performance Property		°F	°C
Installation Temperature Range		+23/+167	-5/+75
Storage Temperature Range		+23/+167	-5/+75
Operating Temperature Range		+23/+167	-5/+75

Construction Specifications			
Description	Material	In.	(mm)
Inner Conductor	Solid Bare Copper	0.063	(1.60)
Dielectric	Low density PTFE	0.190	(4.83)
Outer Conductor	Aluminum Tape	0.196	(4.98)
Overall Braid	Tinned Copper	0.225	(5.72)
Jacket	Orange FRPVC	0.300	(7.62)

Mechanical Specifications			
Performance Property	Units	US	(metric)
Bend Radius: installation	in. (mm)	0.88	(22.2)
Bend Radius: repeated	in. (mm)	3.0	(76.2)
Bending Moment	ft-lb (N-m)	0.38	(0.52)
Weight	lb/ft (kg/m)	0.055	(0.08)
Tensile Strength	lb (kg)	120	(54.5)
Flat Plate Crush	lb/in. (kg/mm)	30	(0.54)

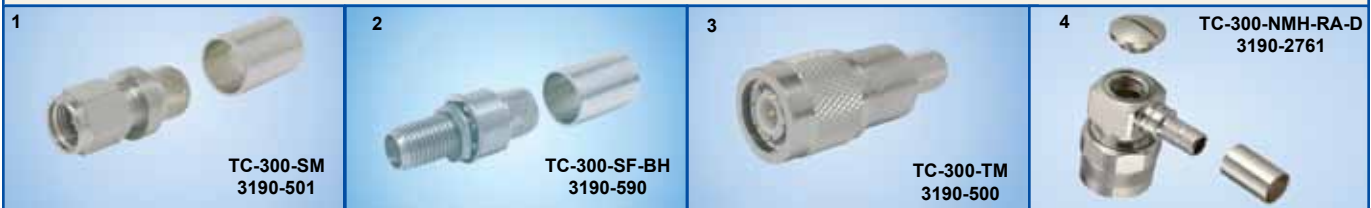
Electrical Specifications			
Performance Property	Units	US	(metric)
Velocity of Propagation	%		76
Dielectric Constant	NA		1.73
Time Delay	nS/ft (nS/m)	1.34	(4.40)
Impedance	ohms		50
Capacitance	pF/ft (pF/m)	26.7	(87.6)
Inductance	uH/ft (uH/m)	0.067	(0.22)
Shielding Effectiveness	dB		>90
DC Resistance			
Inner Conductor	ohms/1000ft (/km)	2.61	(8.6)
Outer Conductor	ohms/1000ft (/km)	2.21	(7.3)
Voltage Withstand	Volts DC		2000
Jacket Spark	Volts RMS		5000
Peak Power	kW		10

**Attenuation vs. Frequency (typical)**



Frequency (MHz)	30	50	150	220	450	900	1500	1800	2000	2500	3400	5800	8000
Attenuation dB/100 ft	1.1	1.4	2.5	3.0	4.3	6.2	8.1	8.9	9.4	10.5	12.3	16.4	19.8
Attenuation dB/100 m	3.6	4.7	8.2	9.9	14.3	20.3	26.4	29.1	30.7	34.5	40.5	53.7	65.0
Avg. Power kW	1.72	1.33	0.77	0.63	0.44	0.31	0.24	0.21	0.20	0.18	0.15	0.11	0.11

Calculate Attenuation =  $(0.200950) \cdot \sqrt{\text{FMHz}} + (0.000183) \cdot \text{FMHz}$  (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; Jacket = +75°C (167°F);  
 Sea Level; dry air; atmospheric pressure; no solar loading



**Connectors**

Interface	Description	Part Number	Stock Code	VSWR Freq.	Coupling (GHz)	Nut	Inner Contact Attach	Outer Contact Attach	Finish* /Pin	Length in	Length (mm)	Width in	Width (mm)	Weight lb	Weight (g)
1. SMA Male	Straight Plug	TC-300-SM	3190-501	<1.25:1	(2.5)	Hex	Solder	Crimp	SS/G	1.0	(25)	0.35	(8.9)	0.018	(8.2)
2. SMA Female	Bulkhead Jack	TC-300-SF-BH	3190-590	<1.25:1	(2.5)	NA	Solder	Crimp	SS/G	1.1	(28)	0.31	(7.9)	0.022	(10.0)
3. TNC Male	Straight Plug	TC-300-TM	3190-500	<1.25:1	(2.5)	Knurl	Solder	Crimp	N/S	1.7	(43)	0.59	(15.0)	0.050	(22.7)
4. N Male	Right Angle	TC-300-NMH-RA-D	3190-2761	<1.30:1	(2.5)	Hex/Knurl	Solder	Crimp	N/S	1.4	(35)	1.41	(35.8)	0.130	(59.0)

\* Finish metals: N=Nickel, S=Silver, G=Gold, SS=Stainless Steel, A=Alballoy \*\*VSWR spec based on 3 foot cable with a connector pair

**Hardware Accessories**



Type	Part Number	Stock Code	Description
Ground Kit	GK-S300TT	GK-S300TT	Standard Ground Kit (each)



**Install Tools**

Type	Part Number	Stock Code	Description
Crimp Tool	CT-400/300	3190-666	Crimp tool for LMR 300 connectors
Deburr Tool	DBT-U	3192-001	Removes center conductor rough edges
Cutting Tool	CCT-02	3192-165	Cable end flush cut tool
Strip Tool	CST-300	3192-084	Combination prep tool for LMR-300
Replacement Blade	RB-02	3192-166	Replacement blade for cutting tool
Replacement Blade Kit	RB-CST	3192-086	Replacement blade kit for all strip tools

