

## LMR<sup>®</sup>-200-LLPX Flexible Low Loss Plenum Coax

### Ideal for...

- Indoor/Outdoor Plenum Feeder runs
- UL/NEC/CSA rated CMP/FT6 (listed under UL file # E-170516)
- 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 No.	Application	Jacket Color	Stock Code
LMR-200-LLPX	Indoor/Outdoor Plenum CMP/FT6	Fluoropolymer Red	54458

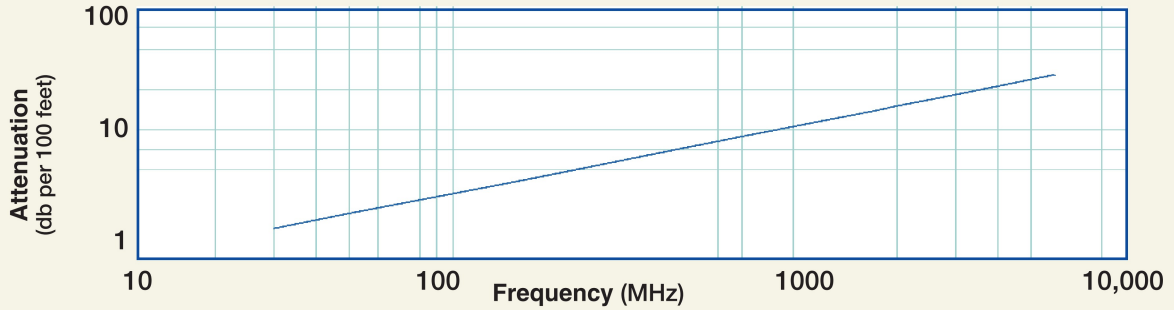
Environmental Specifications		
Performance Property	°F	°C
Installation Temperature Range	-40/+257	-40/+125
Storage Temperature Range	-40/+257	-40/+125
Operating Temperature Range	-40/+257	-40/125

Construction Specifications			
Description	Material	In.	(mm)
Inner Conductor	Solid Bare Copper	0.040	(1.02)
Dielectric	Low density PTFE	0.118	(3.00)
Outer Conductor	Aluminum Tape	0.123	(3.12)
Overall Braid	Tinned Copper	0.146	(3.71)
Jacket	Red Fluoropolymer	0.175	(4.45)

Mechanical Specifications			
Performance Property	Units	US	(metric)
Bend Radius: installation	in. (mm)	0.5	(12.7)
Bend Radius: repeated	in. (mm)	2.0	(50.8)
Weight	lb/ft (kg/m)	0.030	(0.05)
Tensile Strength	lb (kg)	30	(13.6)
Flat Plate Crush	lb/in. (kg/mm)	65	(1.16)

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)	6.5	(21.3)
Outer Conductor	ohms/1000ft (/km)	4.9	(16.1)
Voltage Withstand	Volts DC	1000	
Jacket Spark	Volts RMS	3000	
Peak Power	kW	2.5	

**Attenuation vs. Frequency (typical)**



Frequency (MHz)	30	50	150	220	450	900	1500	1800	2000	2500	3400	5800	8000
Attenuation dB/100 ft	1.8	2.3	4.1	4.9	7.1	10.0	13.0	14.3	15.1	16.0	19.8	26.1	31.3
Attenuation dB/100 m	5.9	7.7	13.3	16.1	23.2	32.9	42.7	48.9	49.5	55.5	65.0	85.7	102.8
Avg. Power kW	1.7	0.13	0.76	0.62	0.43	0.30	0.23	0.21	0.20	0.18	0.16	0.11	0.08

Calculate Attenuation =  $(0.329080) \cdot \sqrt{\text{FMHz}} + (0.00018) \cdot \text{FMHz}$  (interactive calculator available at [http://www.timesmicrowave.com/cable\\_calculators](http://www.timesmicrowave.com/cable_calculators))  
 VSWR = 1.0, Ambient = +40C; Jacket = +75C (167F); Sea Level; dry air; atmospheric pressure; no solar loading



**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)
1. BNC Male	Straight Plug	TC-200-BM	3190-225	<1.25:1 (2.5)	Knurl	Solder	Crimp	S/G	1.7 (43.2)	0.56 (14.2)	0.045 (20.4)
2. Mini-UHF	Straight Plug	TC-200-MUHF	3190-444	<1.25:1 (2.5)	Knurl	Solder	Crimp	NG	1.1 (27.9)	0.45 (11.4)	0.015 (6.8)
3. N Male	Straight Plug	TC-200-NM	3190-224	<1.25:1 (2.5)	Knurl	Solder	Crimp	S/G	1.5 (38.1)	0.75 (19.1)	0.073 (33.1)
4. N Male	Reverse Polarity	TC-200-NM-RP	3190-959	<1.25:1 (2.5)	Knurl	Solder	Crimp	N/G	1.5 (38.0)	0.75 (19.1)	0.073 (33.1)
5. TNC Male	Straight Plug	TC-200-TMC	3190-240	<1.25:1 (2.5)	Knurl	Solder	Clamp	S/G	1.7 (43.2)	0.59 (15.0)	0.045 (20.4)
6. TNC Female	Straight Jack	TC-200-TF	3190-263	<1.25:1 (2.5)	NA	Solder	Crimp	N/G	1.3 (33.0)	0.57 (14.5)	0.033 (15.0)
7. SMA-Male	Straight plug	TC-200-SM	3190-612	<1.25:1 (8)	Hex	Solder	Crimp	SS/G	1.0 (25.4)	0.32 (8.1)	0.015 (6.8)
8. SMA-Rev. Polarity	Straight Plug	TC-200-SM-RP	3190-327	<1.25:1 (2.5)	Hex	Solder	Crimp	SS/G	1.0 (25.4)	0.32 (8.1)	0.015 (6.8)

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

**Hardware Accessories**



Type	Part Number	Stock Code	Description
Ground Kit	GK-S200TT	GK-S200TT	Standard Ground Kit (each)



**Install Tools**

Type	Part Number	Stock Code	Description
Crimp Tool	CT-240/200/195/100	3190-667	Crimp tool for LMR-100, 195, 200 and 240 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-195/200	3192-102	Combination prep tool for LMR-195/200
Replacement Blade	RB-02	3192-166	Replacement blade for cutting tool
Replacement Blade Kit	RB-CST	3192-086	Replacement Kit for all CST strip tools