

# TCOM<sup>®</sup>-200 Low Loss Low Passive Intermod Coax

## Ideal for...

- -155 dBc Intermodulation Distortion
- Low Loss UHF/Microwave Interconnect
- Wireless Base Station Interconnect
- Flexible for Easy Routing



Part Description				
Part Number	Application	Jacket	Color	Stock Code
TCOM-200	Outdoor	PE	Black	55001
TCOM-200-FR	Indoor-Riser CMR	FRPE	Black	55022
TCOM-200-PUR-DB	Outdoor/ Watertight	PUR	Black	55042

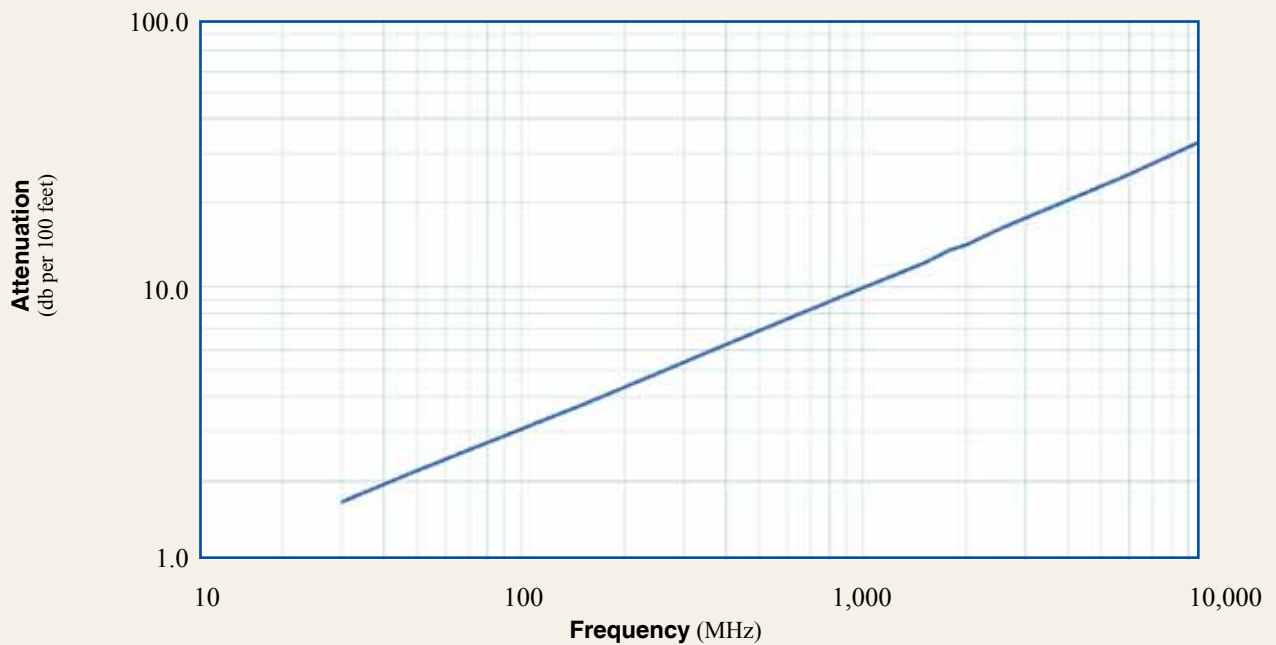
Environmental Specifications			
Performance Property	°F	°C	
Installation Temperature Range	-40/+185	-40/+85	
Storage Temperature Range	-94/+185	-70/+85	
Operating Temperature Range	-40/+185	-40/+85	

Construction Specifications				
Description	Material	In.	(mm)	
Inner Conductor	Solid BC	0.044	(1.12)	
Dielectric	Foam PE	0.116	(2.95)	
Outer Conductor	SPC Strip Braid	0.126	(3.20)	
Overall Braid	TC Braid over Al tape	0.154	(3.91)	
Jacket	(see table)	0.195	(4.95)	

Mechanical Specifications				
Performance Property	Units	US	(metric)	
Bend Radius: installation	in. (mm)	0.5	(12.7)	
Bend Radius: repeated	in. (mm)	2	(50.8)	
Bending Moment	ft-lb (N-m)	0.2	(0.27)	
Weight	lb/ft (kg/m)	0.040	(0.06)	
Tensile Strength	lb (kg)	40	(18.2)	
Flat Plate Crush	lb/in. (kg/mm)	15	(0.27)	

Electrical Specifications				
Performance Property	Units	US	(metric)	
Velocity of Propagation	%	83		
Dielectric Constant	NA	1.45		
Time Delay	nS/ft (nS/m)	1.22	(4.02)	
Impedance	ohms	50		
Capacitance	pF/ft (pF/m)	24.5	(80.3)	
Inductance	uH/ft (uH/m)	0.061	(0.20)	
Shielding Effectiveness	dB	>100		
DC Resistance				
Inner Conductor	ohms/1000ft (/km)	5.36	(17.6)	
Outer Conductor	ohms/1000ft (/km)	3.84	(12.6)	
Voltage Withstand	Volts DC	1000		
Jacket Spark	Volts RMS	3000		
Peak Power	kW	2.5		
Passive Intermod	dBc	-155		

**Attenuation vs. Frequency (typical)**



Frequency (MHz)	30	50	150	220	450	900	1500	1800	2000	2500	5800	10,000
<b>Attenuation dB/100 ft</b>	1.7	2.2	3.8	4.6	6.6	9.4	12.3	13.5	14.2	16.0	25.0	33.7
<b>Attenuation dB/100 m</b>	5.5	7.1	12.4	15.0	21.6	30.9	40.2	44.2	46.7	52.5	82.2	110.5
<b>Avg. Power kW</b>	1.08	0.84	0.48	0.39	0.27	0.19	0.15	0.13	0.13	0.11	0.07	0.05

Calculate Attenuation =  $(0.303670) \cdot \sqrt{\text{FMHz}} + (0.000331) \cdot \text{FMHz}$  (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

# TCOM-200

## Low Loss Low Passive Intermod Coax



### 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	EZ-200-NMH-X	3190-2886	<1.25:1 (8)	Knurl	Spring Fit	Crimp	S/G	1.5 (38.1)	0.75 (19.1)	0.073 (33.1)
4. N Male	Straight Plug	EZ-200-NMH-D	3190-1918	<1.25:1 (8)	Hex/Knurl	Spring Fit	Crimp	A/G	1.5 (38.1)	0.75 (19.1)	0.073 (33.1)
5. 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)
6. N Male	Reverse Polarity	TC-200-NM-RP	3190-959	<1.25:1 (2.5)	Knurl	Solder	Crimp	N/G	1.5 (38.1)	0.75 (19.1)	0.073 (33.1)
7. SMA Male	Straight Plug	TC-200-SM-SS-X	3190-2881	<1.25:1 (8)	Hex	Solder	Crimp	SS/G	1.0 (25.4)	0.32 (8.1)	0.015 (6.8)
8. SMA Male	Reverse Polarity	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)
9. SMA Male	Right Angle	EZ-200-SM-RA-SS-X	3190-6006	<1.30:1 (6)	Hex	Spring Finger	Crimp	A/G	1.0 (24.7)	0.70 (17.7)	0.019 (8.6)
10. SMA Female	Straight Jack	EZ-200-SF-SS-X	3190-6007	<1.25:1 (6)	NA	Spring Finger	Crimp	A/G	0.9 (23.2)	0.40 (10.0)	0.019 (8.6)
11. 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)
12. TNC Female	Reverse Polarity	EZ-200-TF-RP	3190-793	<1.25:1 (2.5)	NA	Spring Fit	Crimp	A/G	1.3 (33.0)	0.57 (14.5)	0.033 (15.0)
13. TNC Male	Right Angle	EZ-200-TM-RA-X	3190-6008	<1.25:1 (6)	Hex	Spring finger	Crimp	A/G	1.1 (27.5)	1.10 (28.8)	0.091 (41.7)
14. TNC Male	Straight Plug	EZ-200-TM	3190-1266	<1.25:1 (2.5)	Knurl	Spring Fit	Crimp	S/G	1.4 (35.6)	0.59 (15.0)	0.045 (20.4)
15. 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)
16. TNC Male	Reverse Polarity	EZ-200-TM-RP	3190-792	<1.25:1 (2.5)	Knurl	Spring Fit	Crimp	A/G	1.4 (35.6)	0.32 (8.1)	0.045 (20.4)

\* 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-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	3190-165	Cable end flush cut tool
Replacement Blade	RB-02	3192-166	Replacement blade for cutting tool
Strip Tool	CST-195/200	3192-102	Combination prep tool for LMR-195 and LMR-200
Replacement Blade Kit	RB-CST	3192-086	Replacement blade kit for all strip tools