



## TerraWave Solutions® TWS-195FR-M (Fire Retardant) Coaxial Cable

TerraWave's **TWS-195FR-M** series is non-halogenated, low smoke, fire retardant cable that is designed for easy installation with maximum flexibility where curves, bends and twists rule out the use of standard hard-line transmission cables. This cable has the added benefit of being MSHA tested and approved for safe and reliable use in underground mining applications where critical safety standards apply. Designed for any indoor, non-plenum application requiring high-quality, flexible cabling such as WLL, GPS, WLAN, WISP, WiMax, SCADA and mobile applications. TerraWave's cable is compatible with a wide variety of connectors and is ideal for any off-the-shelf or customized cable assembly. Visit [www.terrawave.com](http://www.terrawave.com) for additional information.



TESSCO SKU: 344479  
TerraWave Part Number: TWS-195FR-M

Construction Specification		
	Material	Diameter
Inner Conductor	Solid Copper	0.037" ± 0.001"
Dielectric	Physical Foam Polyethylene	0.110" ± 0.006"
Outer Conductor	Bonded Aluminum Foil + Tinned Copper Braid	Nominal 0.139"
Jacket	Black Polyethylene	0.195" ± 0.006"

Electrical Characteristics	
Capacitance	25.4 pF/ft
Impedance	50 Ω
Inductance	0.066 μH/ft
Velocity	80%
Inner Conductor DC Resistance	< 7.6 (Ω/1000 ft)
Outer Conductor DC Resistance	< 4.9 (Ω/1000 ft)
Shielding Effectiveness	> 90 dB
Jacket Spark	5000 VAC
Cut off Frequency	41 GHz
Peak Power	2.5 kW

Mechanical and Environmental Characteristics	
Min. Bend Radius	0.984"
Storage Temperature	-70° F to +185° F
Installation Temperature	-40° F to +185° F
Operating Temperature	-40° F to +185° F

General Information	
Warranty	7 Years
Life Expectancy	20 Years When Not Exposed to Fire

U.S. DEPARTMENT OF LABOR  
**MSHA CERTIFIED**  
P-07-KA080017-MSHA  
MINE SAFETY & HEALTH ADMINISTRATION



Attenuation and Avg. Power (68° F)			
Frequency MHz	Typical Attenuation dB/100 ft	Max Attenuation dB/100 ft	Average Power kW
30	2.0	2.2	0.89
50	2.5	2.75	0.68
150	4.4	4.84	0.39
220	5.4	5.94	0.32
450	7.8	8.58	0.22
900	11.1	12.21	0.16
1500	14.5	16.0	0.12
1800	16.0	17.6	0.11
2000	16.9	18.6	0.10
2500	19.0	20.9	0.09
5800	29.9	33	0.06

**TerraWave TWS-400FR-M is RoHS Compliant and MSHA Certified P-07-KA080017-MSHA.**

For detailed product information and to purchase product, please contact a TerraWave wireless networking solutions sales engineer at 210-375-8482, 800-851-4965, [sales@terrawave.com](mailto:sales@terrawave.com) or visit [www.terrawave.com](http://www.terrawave.com).

Version: 2.5



**TerraWave Solutions® TWS-195FR-M Coaxial Cable (continued)  
Connectors for TWS-195FR-M Series Cable**



TESSCO SKU	TerraWave Part Number	Product Description
488984	CON-01-195	RPTNC Jack (F)
463990	CON-02-195	RPTNC Plug (M)
487973	CON-03-195	RPTNC BH Jack (F)
496905	CON-04-195	TNC Jack (F)
423926	CON-05-195	TNC Plug (M)
466951	CON-06-195	N-Style Jack (F)
430967	CON-07-195	N-Style Plug (M)
451950	CON-08-195	N-Style BH Jack (F)
493983	CON-09-195	RP N-Style Jack (F)
469946	CON-10-195	RP N-Style Plug (M)
431978	CON-11-195	BNC Jack (F)
362963	CON-11-195-BH	BNC BH Jack (F)

TESSCO SKU	TerraWave Part Number	Product Description
415977	CON-12-195	BNC Plug (M)
481989	CON-13-195	RPBNC Jack (F)
442956	CON-14-195	RPBNC Plug (M)
499977	CON-15-195	RPBNC BH Jack (F)
486992	CON-17-195	SMA Jack (F)
488957	CON-18-195	SMA Plug (M)
419972	CON-18-195-RA	RA SMA Plug (M)
475930	CON-19-195	RPSMA Jack (F)
444926	CON-19-195-RA	RA RPSMA Jack (F)
432900	CON-20-195	RPSMA Plug (M)
453939	CON-23-195	SMA BH Jack (F)
303878	CON-30-195	RPSMA BH Jack (F)

**Crimping and Stripping Tools for TWS-195FR-M Series Cable**

TESSCO SKU	TerraWave Part Number	Product Description
452919	HT-336P1	Crimp Tool (RG 58, 59, 62, 6)
487941	HT-336A	Crimp Tool (RG 58, 59, 62)
411972	HT-322S	2 Blade Strip Tool
490947	HT-312B	3 Blade Strip Tool



**TWS-195 Series  
HT-336P1 Crimp Tool**



**TWS-195 Series  
HT-312B Strip Tool**

**Connector Adapters for TWS-195FR-M Connectors**

SKU	TerraWave Part Number	Product Description
323264	RARPTNCJ-RPTNCP	RA RPTNC Jack (F) to RPTNC Plug (M)
467986	RPTNCJACK -NPLUG	RPTNC Jack (F) to N-Style Plug (M)
413999	RPTNCP-NJ	RPTNC Plug (M) to N-Style Jack (F)
424971	RPTNCP-NP	RPTNC Plug (M) to N-Style Plug (M)
315485	RPTNCP-RPSMAJ	RPTNC Plug (M) to RPSMA Jack (F)
424995	NJACK-NJACK	N-Style Jack (F) to N-Style Jack (F)
485981	NM-NM	N-Style Plug (M) to N-Style Plug (M)
312060	SMAP-TNCJ	SMA Plug (M) to TNC Jack (F)
437905	AXA-SMSM	SMA Jack (F) to SMA Jack (F)



**N-Style Plug (M) to N-Style  
Plug (M)**



**RA RPTNC Jack (F) to RPTNC  
Plug (M)**



**TerraWave TWS-400FR-M is RoHS Compliant and MSHA Certified P-07-KA080017-MSHA.**

For detailed product information and to purchase product, please contact a TerraWave wireless networking solutions sales engineer at 210-375-8482, 800-851-4965, sales@terrawave.com or visit [www.terrawave.com](http://www.terrawave.com).

Version: 2.5