



## TerraWave Solutions® TWS-400FR-M (Fire-Retardant) Coaxial Cable

TerraWave's **TWS-400FR-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: 384674  
TerraWave Part Number: TWS-400FR-M

Construction Specifications		
	Material	Diameter
Inner Conductor	Solid Copper Clad Steel	0.108" ± 0.001"
Dielectric	Solid Polyethylene	0.285" ± 0.005"
Outer Conductor	Un-Bonded Aluminum Foil + Tinned Copper Braid	Nominal 0.320"
Jacket	Black Polyethylene	0.40" ± 0.008

Electrical Characteristics	
Capacitance	23.9 pF/ft
Impedance	50 Ohms
Inductance	0.060 µH/ft
Velocity	85%
Inner Conductor DC Resistance	< 1.39 (Ω/1000 ft)
Outer Conductor DC Resistance	< 1.65 (Ω/1000 ft)
Shielding Effectiveness	> 90 dB
Jacket Spark	5000 VAC
Voltage Withstand	2500 V
Cut off Frequency	16.2 GHz
Peak Power	16.0 kW

Mechanical and Environmental Characteristics	
Min. Bend Radius	2.008"
Storage Temperature	-58° 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 for Indoor, Non-Plenum Use

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



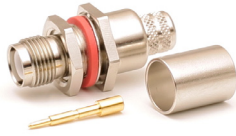
Attenuation and Avg. Power (68° F)			
Frequency MHz	Typical Attenuation dB/100 ft	Max Attenuation dB/100 ft	Average Power kW
30	0.7	0.86	2.91
50	0.9	1.05	2.21
150	1.5	1.7	1.28
220	1.9	2.1	1.05
450	2.7	3	0.72
900	3.9	4.5	0.5
1500	5.1	5.8	0.38
1800	5.7	6.1	0.34
2000	6	6.5	0.33
2500	6.8	7.7	0.29
5800	10.8	12.2	0.18

**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: 3.0

TerraWave Solutions® TWS-400FR-M Coaxial Cable (continued)  
**Connectors for TWS-400FR-M Series Cable**



TWS-400 Series  
RPTNC Bulkhead Jack (F)



TWS 400-Series  
RPSMA Plug



TWS-400 Series  
N-Style Plug

TESSCO SKU	TerraWave Part Number	Description	TESSCO SKU	TerraWave Part Number	Description
440939	CON-01-400	RPTNC Jack (F)	498921	CON-10-400	RP N-Style Plug (M)
416952	CON-02-400	RPTNC Plug (M)	488953	CON-11-400	BNC Jack (F)
452950	CON-03-400	RPTNC BH Jack (F)	443916	CON-12-400	BNC Plug (M)
493911	CON-04-400	TNC Jack (F)	499992	CON-13-400	RPBNC Jack (F)
415903	CON-05-400	TNC Plug (M)	466931	CON-14-400	RPBNC Plug (M)
422933	CON-06-400	N-Style Jack (F)	430910	CON-15-400	RPBNC BH Jack (F)
462958	CON-07-400	N-Style Plug (M)	479910	CON-17-400	SMA Jack (F)
436949	CON-07-400-RA	RA N-Style Plug (M)	451992	CON-18-400	SMA Plug (M)
483983	CON-08-400	N-Style BH Jack (F)	432923	CON-19-400	RPSMA Jack (F)
452992	CON-09-400	RP N-Style Jack (F)	464918	CON-20-400	RPSMA Plug (M)

**Crimping and Stripping Tools for TWS-400FR-M Series Cable**

TESSCO SKU	TerraWave Part Number	Description
316485	HT-106L	Crimp Tool for TWS-400 Series Cable
435904	HT-322S3	Stripping Tool for TWS-400 Series Cable



TWS-400 Series  
Crimp Tool



TWS-400 Series  
Stripping Tool

**Connector Adapters for TWS-400FR-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



RA RPTNC Jack (F)  
to RPTNC Plug

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