

AAF-78-ST

7/8" Standard Cable



Electrical Characteristics												
Impedance		50Ω ± 2Ω										
Max Operating Frequency		5 GHz										
Cut-off Frequency		5.2 GHz										
Relative Velocity of Propagation		88% ± 2%										
Capacitance (1 kHz)		74 ± 2 nF/km (22.56±0.079 nF/1000ft)										
Maximum Operating Power		87 kW										
Test Voltage	Wire/Screen rms 50Hz 1 min	10 kV										
	Screen/Jacket rms	8 kV										
Resistance	Inner Conductor	≤ 2.14 Ω/km (0.65 Ω/1000ft)										
	Outer Conductor	≤ 1.79 Ω/km (0.55 Ω/1000ft)										
	Insulation	≥ 10 GΩ·km (32.8 GΩ·1000ft)										
Return Loss / VSWR (typical)	800-1000 MHz	23 dB / 1.15										
	1700-2700 MHz	23 dB / 1.15										
Screening attenuation		≥ 120 dB										
Inductance		0.195 μH/m (0.059 μH/ft)										
Frequency (MHz)		100	450	800	900	1000	1800	1900	2200	2500	2700	3000
Attenuation (typical)	at 100 m	1.11 dB	2.44 dB	3.32 dB	3.54 dB	3.75 dB	5.19 dB	5.35 dB	5.81 dB	6.25 dB	6.53 dB	6.97 dB
	at 100 ft	0.3 dB	0.7 dB	1.0 dB	1.1 dB	1.1 dB	1.6 dB	1.6 dB	1.8 dB	1.9 dB	2.0 dB	2.1 dB
Mean Power at 40° C		9.1 kW	3.9 kW	2.8 kW	2.6 kW	2.4 kW	1.7 kW	1.64 kW	1.5 kW	1.38 kW	1.31 kW	1.22 kW
Mechanical and Environmental Characteristics												
Minimum Bend Radius		275 mm										
Minimum Number of Bends		15										
Bending Moment		15 N·m										
Tensile Strength		1200 N										
Cable Weight (approx.)		370 kg/km (248 lb/1000 ft)										
Flat Plate Crush Strength		14 N/mm										
Operating Temperature		-40° C to +70° C (-40° F to +158° F)										
Installation Temperature		-20° C to +60° C (-4° F to +140° F)										
Storage Temperature		-40° C to +70° C (-40° F to +158° F)										
Standards	Conductor/Screen Material	DIN EN 13602 CU										
	Jacket Material	DIN EN 50290										
Recommended Hangar Spacing		1 m										
Construction		Material							Diameter			
Inner Conductor		Copper Tube							9.45 mm ± 0.1 mm			
Dielectric		Foamed Polyethylene (PE) with Skin							22.4 mm ± 0.5 mm			
Outer Conductor		Copper-Tape, Longitudinal Welded Annular Corrugation							25.4 mm ± 0.3 mm			
Jacket		Black Polyethylene, PE (wall thickness approx. 1.2 mm)							27.8 mm ± 0.3 mm			

Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to products may be made without notice.