



Radio Frequency Systems



DRAGONSKIN™ 1/2" FIRE-RESISTANT UL 2196 CERTIFIED STANDALONE COAXIAL CABLE, MEETS NFPA 72 & NFPA 1221 SURVIVABILITY, MAINTAINS IN-BUILDING COMMUNICATIONS DURING FIRES, MADE IN THE USA

Standalone coaxial cable that is certified to meet the UL 2196 Standard for Fire Test for Circuit Integrity of Fire-Resistive Power, Instrumentation, Control and Data Cables.



FEATURES/BENEFITS

FIRST STANDALONE COMMUNICATIONS CABLE MEETING NFPA 72 SURVIVABILITY STANDARD

VERIFIES THE CABLE SURVIVES 2 HOURS AT TEMPERATURES UP TO 1,850 DEGREES F AND THE WATER SPRAY TEST WITHOUT CONDUIT OR ADDITIONAL WRAPPING

ENABLES CELLULAR AND PUBLIC SAFETY RADIO COMMUNICATIONS TO AND FROM ALL FLOORS OF A BURNING BUILDING

ENSURES EMERGENCY RESPONDERS AND BUILDING OCCUPANTS HAVE RELIABLE ACCESS TO COMMUNICATIONS DURING SEVERE FIRES

CATVP PLENUM-CERTIFIED

MEETS CERTIFICATION FOR USE IN THE ENVIRONMENTAL AIR HANDLING SPACE IN BUILDINGS

NO CONDUIT OR CABLE WRAPPING REQUIRED

REDUCES CABLE SIZE AND WEIGHT; SIMPLIFIES INSTALLATION

MAINTAINS MINIMUM BENDING RADIUS AT ALL TIMES

ACCELERATES INSTALLATIONS, ESPECIALLY IN SMALLER SPACES AND OLDER BUILDINGS

USES STANDARD RFS CONNECTORS AND INSTALLATION TECHNIQUES

ELIMINATES THE NEED FOR SPECIALIZED PARTS OR EXPERTISE

TECHNICAL FEATURES

APPLICATIONS		
APPLICATIONS		Ideal for public safety applications with the most stringent fire codes
STRUCTURE		
Cable Type		Air-Dielectric, Corrugated
Size		1/2"
Inner Conductor	mm (in)	4.8 (0.19) Copper Wire
Dielectric	mm (in)	11.81 (0.465)
Outer Conductor	mm (in)	13.8 (0.54) Corrugated Copper
Jacket	mm (in)	18 (0.71) Plenum-Rated / Color Red
ELECTRICAL SPECIFICATIONS		
Impedance	Ω	50 +/-2
Maximum Frequency	GHz	1 (RFS will extend it to a higher frequency during the next phase)
Velocity	%	85
Capacitance	pF/m (pF/ft)	70.6 (21.5)
Inductance	μ H/m (μ H/ft)	0.19 (0.058)
Peak Power Rating	kW	40
RF Peak Voltage	Volts	2000
Jacket Spark	Volt RMS	8000
Inner Conductor dc Resistance	Ω /1000 m (Ω /1000 ft)	0.96 (0.29)
Outer Conductor dc Resistance	Ω /1000 m (Ω /1000 ft)	1.31 (0.4)
Maximum Return Loss	dB (VSWR)	14 (1.5)
MECHANICAL SPECIFICATIONS		
Cable Weight, Nominal	kg/m (lb/ft)	0.51 (0.34)
Minimum Bending Radius, Single Bend	mm (in)	178 (7)
Minimum Bending Radius, Repeated Bends	mm (in)	254 (10)
Bending Moment	Nm (lb*ft)	8.7 (6.4)
Tensile Strength	N (lb)	890 (200)
Clamp Spacing	m (ft)	0.61 (2.0)
Crush Strength	kg/cm (lb/in)	31.25 (175.0)

*Patent-Pending



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ATTENUATION AND POWER RATING

FREQUENCY [MHZ]	ATTENUATION [DB/100FT]	ATTENUATION [DB/100M]	AVERAGE POWER [KW]
150	0.93	3.05	2.36
450	1.73	5.68	1.27
700	2.25	7.39	0.97
800	2.44	8.01	0.90
900	2.63	8.64	0.83
1000	2.79	9.16	0.78

Attenuation at 20°C (68°F) Cable Temperature; Tolerance +/- 5% max.

TESTING AND ENVIRONMENTAL

Fire Performance	Flame Retardant, Plenum-rated, CATVP, UL2196 (2hours).
Flame Retardant Jacket Specifications	Meets/Exceeds Steiner Tunnel Test Method NFPA-262. NEC820-53 (a), CATVP, UL2196 (2hours).
Regulatory Compliance	NEC Article 820 CATVP Cable to UL1655, Circuit integrity UL Listed to UL2196, CATVP, NFPA-262, NFPA130, NFPA 72, Canadian CSA C.22.2/FT6, UL R40176, E239351, UL System FHIT 1250
Installation Temperature	-20 to 60 (-4 to 140) °C (°F)
Storage Temperature	-40 to 75 (-40 to 167) °C (°F)
Operation Temperature	-40 TO 75 (-40 TO 167) °C (°F)

*Patent-Pending. All values nominal unless tolerances provided; information contained in the present datasheet is subject to confirmation at time of ordering. Contact RFS for inquiries outside of North America. © 2020 Radio Frequency Systems. DragonSkin™ is a trademark and RFS® is a registered trademark of Radio Frequency Systems.

VEX FILES: [DOWNLOAD](#)



Gap Wireless
8 & 9 – 2880 Argentia Road
Mississauga, Ontario L5N 7X8

Toll-Free: 1.855.826.3781

Email: quotes@gapwireless.com

Gapwireless.com/tech/dragonskin-cable | Gapwireless.com | Gapwirelessonline.com

www.rfsworld.com