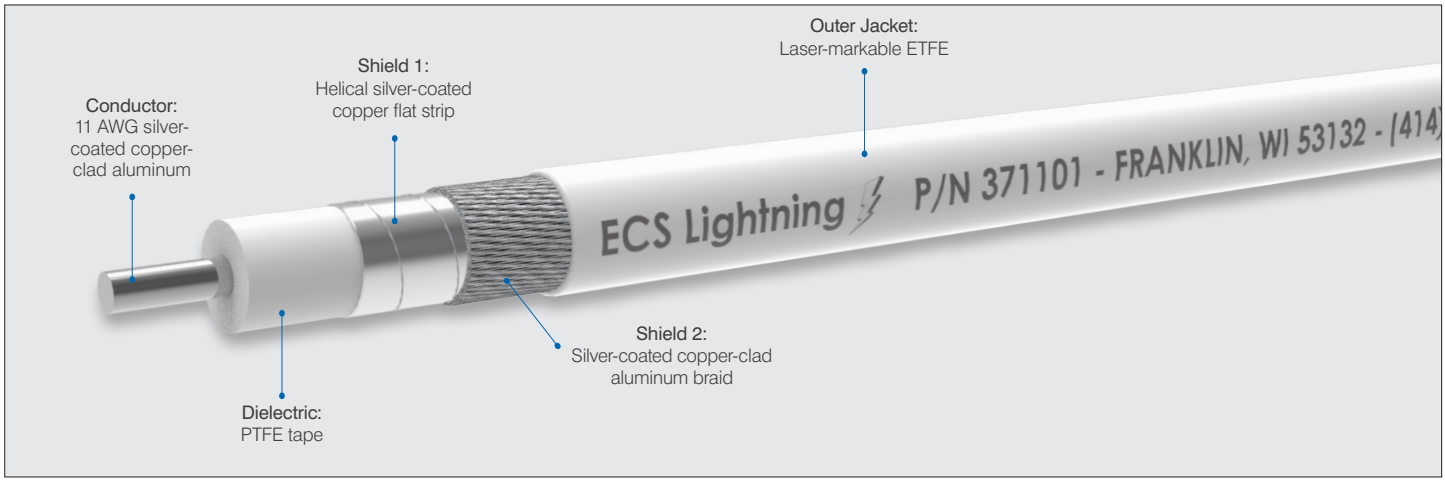
ECS Avionics RF Cables Lightning Series

P/N 371101 | 50 Ω Coaxial



INTRODUCTION

An exceptionally lightweight, extremely low-loss, and high-velocity RF cable solution for avionics systems, our Lightning series avionics RF cables are designed to meet the performance and weight demands of all modern aircraft. The innovative use of silver-plated copper-clad aluminum conductors and shields not only makes this cable remarkably light but also easy to use. And with laser-markable jacketing for easy identification, very high shield effectiveness and signal integrity, and minimal attenuation, our Lightning series cables offer a unique combination of form, function, and performance that is unmatched in the market.

FEATURES	BENEFITS
Light weight	• Lower mass means more payload, more range, and lower operating cost
Low attenuation	• More signal at a given cable size means better reliability and the opportunity to take even more mass out of the aircraft
Resistant to common aircraft fluids	• Long reliable life
RoHS compliant	• No RoHS-limited materials in the construction
Flame Resistant	• Meets OEM and regulatory requirements for fire safety on passenger aircraft
Excellent shield effectiveness	• Shielding prevents interference with adjacent cables, systems and the environment
Laser markable jacket	• Easy wire processing for cable to include customized marking

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SPECIFICATIONS & PERFORMANCE

Construction Details		
Conductor		11 AWG silver-coated copper-clad aluminum
Dielectric		PTFE tape
Shield 1		Helical silver-coated copper flat strip
Shield 2		Silver-coated copper-clad aluminum braid
Jacket		Laser-markable ETFE
Electrical Characteristics		
Impedance		50 Ω
Capacitance (Nom.)		23.6 pF/ft
DC Resistance (Nom.)		2.0 Ω /1,000 ft
Time Delay (Nom.)		1.18 ns/ft
Velocity of Propagation (Nom.)		86%
Shield Effectiveness (Min.)		-110 dB
Attenuation (dB/100 ft)	@ 400 MHz	3.1
	@ 1000 MHz	5.0
	@ 1600 MHz	6.4
	@ 2400 MHz	7.2
	@ 5000 MHz	11.7
Physical Characteristics		
Outer Diameter (Nom.)		0.279 in
Static Bend Radius (Min.)		1.6 in
Weight (Nom.)		4.28 lbs/100 ft
Temp. Range		-55 to +200 °C
Environmental Details		
Burn Resistance		Meets or exceeds FAR 14 CFR Part 25.869(a)(4) Amdt 25-113, Appendix F Part I(a)(3) burn requirements
Outgassing		Manufactured with materials which, when subjected to flames or high temperatures, will not outgas deadly hydrogen chloride produced by conventional PVC cables

CONNECTOR OPTIONS

Type	P/N
Bulkhead N	BN3122
Bulkhead TNC	BTS122
Bulkhead BNC	N/A
SMA 90°	CSR122
SMA Straight	CSS122
HN 90°	CHR122
N 90°	CNR122
N Straight	CNS122
C 90°	CCR122
C Straight	CCS122
BNC 90°	CBR122
BNC 90° Extended	N/A
BNC 90° Long	N/A
BNC Straight	CBS122
TNC 90°	CTR122
TNC 90° Self-Locking	CLTR122
TNC 90° Extended	N/A
TNC 90° Long	N/A
TNC Straight	CTS122
TNC Straight Self-Locking	CLTS122
ARINC 404 Size 1	LM122
ARINC 600 Size 1	L1122
ARINC 600 Size 1 Modified	M1122
ARINC 600 Size 5	P122