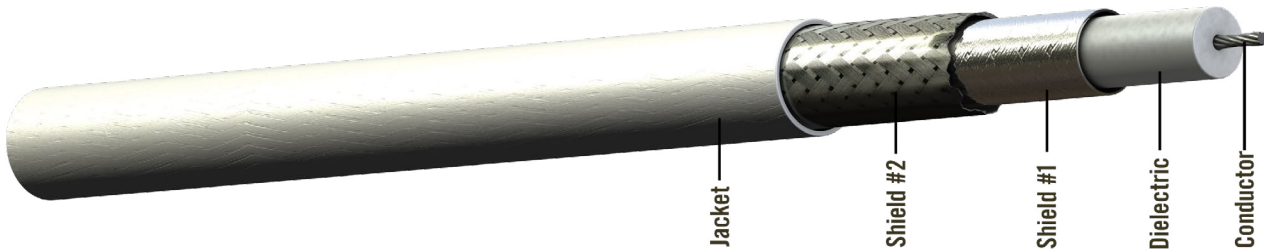


S31601



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper-Clad Steel

Dielectric: PTFE

Shield #1: Bonded Aluminum/Polyester Composite

Shield #2: Silver-Plated Copper Braid

Jacket: Extruded ETFE, White (Laser Markable)

S31601 is a 50 Ohm coaxial cable and the industry's workhorse, with decades of proven performance in the aerospace and defense markets. S31601 is equivalent in size as the standard Mil-Spec RG316 coax but slightly lower in loss due to the extra inner foil shield. The additional inner foil shield within the S31601 achieves -90 dB shielding effectiveness compared to only -50 dB for a standard RG316 coax cable.

PHYSICAL DATA

Conductor: 26 AWG Stranded SPCCS
Temperature Range: -55 to +200°C
Outer Diameter: in (mm) 0.102 (2.59)
Minimum Bend Radius: in (mm) 0.5 (12.7)
Weight: lbs/100 ft (kg/100 m) 1 (1.5)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ELECTRICAL DATA

Impedance: 50 ohms
Capacitance: pF/ft (m) 32 (105)
Velocity of Propagation: 69.5%
Time Delay: ns/ft (m) 1.45 (4.76)
Shielding Effectiveness: dB/min -90
DC Resistance: ohms/1000 ft (m) 84.1 (275.9)

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max dB/100 m
@0.4 GHz	16.0/19.0	(52.5/62.3)
@1.0 GHz	26.3/31.2	(86.3/102.4)
@1.6 GHz	34.2/40.5	(112.2/132.9)
@3.0 GHz	48.9/58.0	(160.4/190.3)

Formula for Attenuation:

$$(K1 \times \sqrt{F(\text{MHz})}) + (K2 \times F(\text{MHz}))$$

K Values (nom loss):

$$K1 = 0.75 \quad K2 = 0.0026$$

All values nominal, unless otherwise noted

S31601 50 OHM COAXIAL CABLE

CONTACTS/CONNECTORS FOR S31601

M39012 CONNECTORS

PART #	CONNECTOR TYPE
111128	BNC Straight Plug
111130	BNC 90° Plug
111132	BNC Bulkhead Jack
111134	BNC Inline Jack
110876	N Straight Plug
111136	N 90° Plug
111071	N Bulkhead Jack
111138	SMA Straight Plug
111140	SMA 90° Plug
111142	SMA Bulkhead Jack
111144	SMA Inline Jack

M39012 CONNECTORS

PART #	CONNECTOR TYPE
111161	TNC Straight Plug
110874	TNC 90° Plug
111165	TNC Bulkhead Jack
110983	TNC Inline Jack
111148	SMB Straight Plug
111150	SMB 90° Plug
111146	QMA Straight Plug
110980	QMA 90° Plug
110978	QMA Bulkhead Jack
111152	D-Sub Size 8 Socket
110786	ARINC Size 5 Pin
110928	ARINC Size 5 Socket
110981	ARINC 600 Size 12 Socket