

#### **CONSTRUCTION DETAILS**

Conductor: 8 AWG stranded silver-plated copper Dielectric: High temperature fluoropolymer Shield 1: Flat silver-plated copper braid Shield 2: Aluminum foil Shield 3: 36 AWG silver-plated copper braid Jacket: Clear high temperature fluoropolymer

#### **ENVIRONMENTAL DETAILS**

- » ECS avionics cables are designed to meet, or exceed, burn requirements as set forth in Federal Aviation Regulations 14 CFR Part 25.869(a)(4) Amdt 25-113, Appendix F Part I(a)(3).
- » They are manufactured with materials which, when subjected to flames or high temperatures, will not outgas deadly hydrogen chloride produced by conventional PVC cables.

#### **PHYSICAL CHARACTERISTICS**

Outer Diameter: 0.452 in. nominal Bend Radius: 2.26 in. nominal Weight: 19 lbs/100 ft. nominal Temperature Range: -55° to +200°C Skydrol Resistant: Yes

#### **ELECTRICAL CHARACTERISTICS**

Impedance: 50.0 Ohms nominal Capacitance: 25.5 pF/ft. nominal DC Resistance: 0.67 Ohms/1000 ft. nominal Time Delay: 1.25 ns/ft. nominal Velocity of Propagation: 81% nominal Shield Effectiveness: >90 dB Attenuation: 1.3 dB/100 ft. @ 150 MHz (nominal) 3.6 dB/100 ft. @ 1000 MHz 4.6 dB/100 ft. @ 1600 MHz 6.5 dB/100 ft. @ 2400 MHz 8.5 dB/100 ft. @ 5000 MHz

#### **CONNECTOR TYPES FOR CABLE 310801**

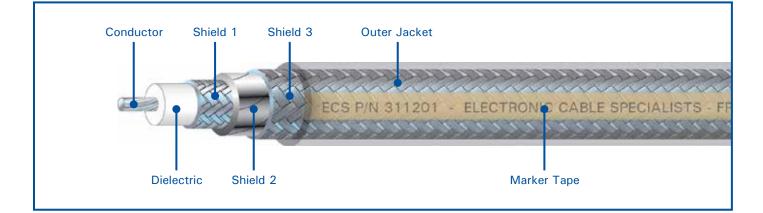
Connector Type	Connector P/N	Connector Type	Connector P/N	Connector Type
TNC 90°	CTRO22	BNC 90°	CBR022	ARINC 404 Size 1
TNC 90° Extended	N/A	BNC 90° Extended	N/A	ARINC 600 Size 1
TNC 90° Long	N/A	BNC 90° Long	N/A	ARINC 600 Size 1RF
TNC Straight	CTSO22	BNC Straight	CBSO22	ARINC 600 Size 5
TNC Panel Mount	N/A	BNC Bulkhead	N/A	SMA 90°
TNC Bulkhead	BTSO22	N 90°	CNR022	SMA Straight
C 90°	CCR022	N Straight	CNSO22	HN 90°
C Straight	CCSO22	N Bulkhead	BNSO22	ARINC 600 Size 8



Connector P/N
LM022
L0122
M0122
N/A
N/A
N/A
N/A
CHR022
N/A







#### **CONSTRUCTION DETAILS**

Conductor: 12 AWG stranded silver-plated copper Dielectric: High temperature fluoropolymer Shield 1: Flat silver-plated copper braid Shield 2: Aluminum foil Shield 3: 36 AWG silver-plated copper braid Jacket: Clear high temperature fluoropolymer

#### **ENVIRONMENTAL DETAILS**

- » ECS avionics cables are designed to meet, or exceed, burn requirements as set forth in Federal Aviation Regulations 14 CFR Part 25.869(a)(4) Amdt 25-113, Appendix F Part I(a)(3).
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#### **PHYSICAL CHARACTERISTICS**

Outer Diameter: 0.317 in. nominal Bend Radius: 1.59 in. nominal Weight: 8.6 lbs/100 ft. nominal Temperature Range: -55° to +200°C Skydrol Resistant: Yes

#### **ELECTRICAL CHARACTERISTICS**

Impedance: 50.0 Ohms nominal Capacitance: 25.5 pF/ft. nominal DC Resistance: 1.69 Ohms/1000 ft. nominal Time Delay: 1.27 ns/ft. nominal Velocity of Propagation: 80% nominal Shield Effectiveness: >90 dB Attenuation: 2.1 dB/100 ft. @ 150 MHz (nominal) 5.6 dB/100 ft. @ 1000 MHz 6.7 dB/100 ft. @ 1600 MHz 8.9 dB/100 ft. @ 2400 MHz 12.7 dB/100 ft. @ 5000 MHz

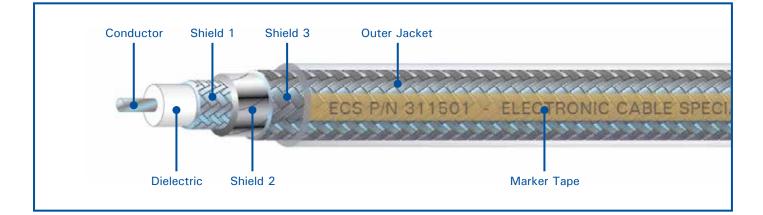
#### **CONNECTOR TYPES FOR CABLE 311201**

Connector Type	Connector P/N	Connector Type	Connector P/N
TNC 90°	CTR122	BNC 90°	CBR122
TNC 90° Extended	N/A	BNC 90° Extended	N/A
TNC 90° Long	N/A	BNC 90° Long	N/A
TNC Straight	CTS122	BNC Straight	CBS122
TNC Panel Mount	N/A	BNC Bulkhead	N/A
TNC Bulkhead	BTS122	N 90°	CNR122
C 90°	CCR122	N Straight	CNS122
C Straight	CCS122	N Bulkhead	BNS122









#### **CONSTRUCTION DETAILS**

Conductor: 15 AWG solid silver-plated copper Dielectric: High temperature fluoropolymer Shield 1: Flat silver-plated copper braid Shield 2: Aluminum foil Shield 3: 38 AWG silver-plated copper braid Jacket: Clear high temperature fluoropolymer

#### **ENVIRONMENTAL DETAILS**

- » ECS avionics cables are designed to meet, or exceed, burn requirements as set forth in Federal Aviation Regulations 14 CFR Part 25.869(a)(4) Amdt 25-113, Appendix F Part I(a)(3).
- » They are manufactured with materials which, when subjected to flames or high temperatures, will not outgas deadly hydrogen chloride produced by conventional PVC cables.

#### **PHYSICAL CHARACTERISTICS**

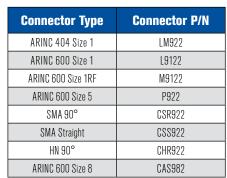
Outer Diameter: 0.229 in. nominal Bend Radius: 1.2 in. nominal Weight: 5.1 lbs/100 ft. nominal Temperature Range: -55° to +200°C Skydrol Resistant: Yes

#### **ELECTRICAL CHARACTERISTICS**

Impedance: 50.0 Ohms nominal Capacitance: 25.5 pF/ft. nominal DC Resistance: 2.98 Ohms/1000 ft. nominal Time Delay: 1.27 ns/ft. nominal Velocity of Propagation: 80% nominal Shield Effectiveness: >90 dB Attenuation: 2.7 dB/100 ft. @ 150 MHz (nominal) 7.1 dB/100 ft. @ 1600 MHz 9.1 dB/100 ft. @ 1600 MHz 10.7 dB/100 ft. @ 2400 MHz 16.1 dB/100 ft. @ 5000 MHz

#### **CONNECTOR TYPES FOR CABLE 311501**

Connector Type	Connector P/N	Connector Type	Connector P/N
TNC 90°	CTR922	BNC 90°	CBR922
TNC 90° Extended	CTRE922	BNC 90° Extended	CBRE922
TNC 90° Long	CTRL922	BNC 90° Long	CBRL922
TNC Straight	CTS922	BNC Straight	CBS922
TNC Panel Mount	RTS922	BNC Bulkhead	N/A
TNC Bulkhead	BTS922	N 90°	CNR922
C 90°	CCR922	N Straight	CNS922
C Straight	CCS922	N Bulkhead	BNS922







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2 Conductors: 22 AWG stranded tin plated copper Insulation: High temperature flouropolymer Color Code: White, Blue Shield 1: Aluminum/Polyester foil Shield 2: 36 AWG tin plated copper braid Inner Jacket: White high temperature flouropolymer Shield 3: 36 AWG tin plated copper braid Outer Jacket: White high temperature flouropolymer (laser markable)

#### Physical Characteristics Outer Diameter: 0.274 inches nominal Bend Radius: 1.40 inches nominal Weight: 2.50 lbs/100 feet nominal Temperature Range: -55° to +150° C Skydrol Resistant: Yes

## **Electrical Characteristics**

Impedance: 78 Ohms nominal Capacitance: 19.2 pF/ft maximum Attenuation: 1 MHz 1.0 dB/100 ft nominal

## **Applications**

ARINC 453, ARINC 708 Weather Radar, General Purpose

## Environmental:

- ECS data bus cables are designed to meet, or exceed, burn requirements as set forth in Federal Aviation Regulations 14 CFR Part 25.869(a)(4) Amdt 25-113, Appendix F Part I(a)(3).
- They are manufactured with materials which, when subjected to flames or high temperatures, will not outgas deadly hydrogen chloride produced by conventional PVC cables.

Cage Code: 66197 • Issue Date: 9/2109

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# Construction

ltem	Material	Diameter		
item	Material	(Inch)	(mm)	
Inner Conductor	Stranded; Tinned Copper	19/0.0071 ±0.002	19/0.18 ±0.05	
Dielectric	Solid PE	0.116 ±0.004	2.95 ±0.1	
Shield	95% Tinned Copper Braid	0.14 ±0.004	3.55 ±0.1	
Jacket	PVC	0.195 ±0.004	4.95 ±0.1	

# **Electrical Characteristics**

Impedance	: 50Ω ±2Ω
Capacitance	: 101pF/m
Velocity of Propagation	: 66%
Max. Operating Frequency	: 1GHz
Max. Operating Voltage	: 1900Vrms
Corona Extinction Voltage	: 1900Vrms
Voltage Withstand	: 5000Vrms
Spark Test	: 5000Vrms
Operating Temp. Range	: -40°C to +85°C

### Attenuation (@20°C)

Frequency (MHz)	Max. Attenuation (dB/100ft)	Max. Attenuation (dB/100m)
10	1.5	4.9
50	3.3	10.9
100	4.7	15.5
200	7.5	24.5
400	10.6	34.8
600	12.1	39.6
860	17.2	56.4
1000	18.4	60.5

# Part Number Table

Description	Length	Part Number
Coaxial Cable, RG58 C/U, PVC, Black	Per Meter or 100 Meter	RG58C/U

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