

CABLE CONSTRUCTION

1. Fluoropolymer Jacket (Red)
2. Tin-Plated Copper
3. Foamed Fluoropolymer Dielectric
4. Silver-Plated Copper



This coaxial cable has been designed for 75 ohm applications such as cabin entertainment analog and digital video. Compared with M17/94-RG179, this cable is substantially stronger (more than twice the tensile strength) and has better attenuation characteristics.

At the heart of V75268 is a silver-plated copper center conductor nearly 60% larger than in RG179 — yet the overall diameter of the cable increases by only 22%. To achieve the correct impedance in this proportionately-smaller diameter, a foamed fluoropolymer dielectric having a high velocity of propagation is employed to surround the center conductor. The cable is 95% (minimum) shielded with a braid of tin-plated copper. A distinctive red fluoropolymer jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

It is Skydrol resistant, RoHS compliant and meets the FAA flammability requirements of FAR Part 23 and 25, Appendix F; complies with MIL-C-17 as applicable.

Because of the critical effect of impedance-matched terminations, a comprehensive family of 75 ohm connectors is available.

RECOMMENDED MAX TRANSMISSION LENGTHS:

- SMPTE 259M (SD-SDI Component): 461'
- SMPTE 259M (SD-SDI Widescreen): 394'

(Max length based on 30 dB max. Contact system OEM to verify max loss allowed)

PHYSICAL DATA

• Conductor	26 AWG Stranded SPC
• Tensile Strength: lbs (kg) Approx.	8.1 (3.6)
• Operating Temperature	-55° to +150°C
• Outer Diameter: in (mm)	0.12 (3.10)
• Minimum Bend Radius: in (mm)	0.60 (15.24)
• Weight: lbs/100 ft (kg/100 m)	1.3 (1.9)

ELECTRICAL DATA

• Impedance: ohms	75	
• Capacitance: pF/ft (m)	16.0 (52.5)	
• Velocity of Propagation: %	80.0	
• Time Delay: ns/ft (m)	1.27 (4.17)	
• RF Shielding Effectiveness: dB/min	-50	
• DC Resistance: ohms/1000 ft (m)	34.5 (113.2)	
• Attenuation: Nom / Max	dB/100 ft	(dB/100 m)
• @135 MHz	5.9 / 6.5	(19.4 / 21.3)
• @180 MHz	6.9 / 7.6	(22.6 / 24.9)
• @270 MHz	8.6 / 9.5	(28.2 / 31.2)
• @360 MHz	10.1 / 11.1	(33.1 / 36.4)
• K Values (nom loss):	K1 = 0.478, K2 = 0.0029	
• Formula for Attenuation:	$(K1 * \sqrt{F(MHz)}) + (K2 * F(MHz))$	

All values nominal unless otherwise noted

ARINC

PIC P/N	CONNECTOR TYPE	PIC P/N	CONNECTOR TYPE
190703	Size 5 Socket 50 ohm	190730	Size 16 Socket
190733	Size 5 Socket 75 ohm	110237	Mil-C-81659 Size 9 Socket
190729	Size 8 Socket 50 ohm		
190732	Size 8 Socket 75 ohm		

D-SUB

PIC P/N	CONNECTOR TYPE	PIC P/N	CONNECTOR TYPE
110235	Size 8 Pin 50 ohm	110236	Size 8 Socket 50 ohm
190763	Size 8 Pin 75 ohm	190764	Size 8 Socket 75 ohm

M39029 for MIL-C-38999 Connector

PIC P/N	CONNECTOR TYPE	PIC P/N	CONNECTOR TYPE
190738	Size 8 Pin 50 ohm	190739	Size 8 Socket 50 ohm
190738-01	Size 8 Pin 50 ohm w/seal	190741	Size 8 Socket 75 ohm
190740	Size 8 Pin 75 ohm	190741-01	Size 8 Socket 75 ohm w/seal
190740-01	Size 8 Pin 75 ohm w/seal	190767	Size 12 Socket
190766	Size 12 Pin	190734	Size 16 Socket
190735	Size 16 Pin		

M39012

PIC P/N	CONNECTOR TYPE	PIC P/N	CONNECTOR TYPE
190712	BNC Straight Plug	110218	RCA Straight Plug
110717	BNC HD Straight Plug	190736	SMB 75 ohm Socket
110249	BNC 90° Plug	110285	SMC 75 ohm Female Plug
190745	BNC Mini Straight Plug	190768	SMC 75 ohm 90° Female Plug
110532	BNC Mini 90° Plug	190748	SMZ 75 ohm Straight Plug
190727	BNC Inline Jack	190714	SMA Straight Plug
190728	BNC Bulkhead Jack	190708	TNC Straight Plug
110677	F Straight Plug	190721	TNC Bulkhead Jack

*Die Sets Available On Loan Or For Purchase From PIC
Refer To Connector Drawing For Tooling
Call PIC For Availability*