

# DS-3/4 Interconnect Cables

Approved for AT&T

Catalog # 735xxS Non-Plenum Series

NEC/CEC: CMR (UL) c(UL)

Connector and Tooling information can be found on page 2 of this specification.

## CONSTRUCTION for 73501S and Sub-Units:

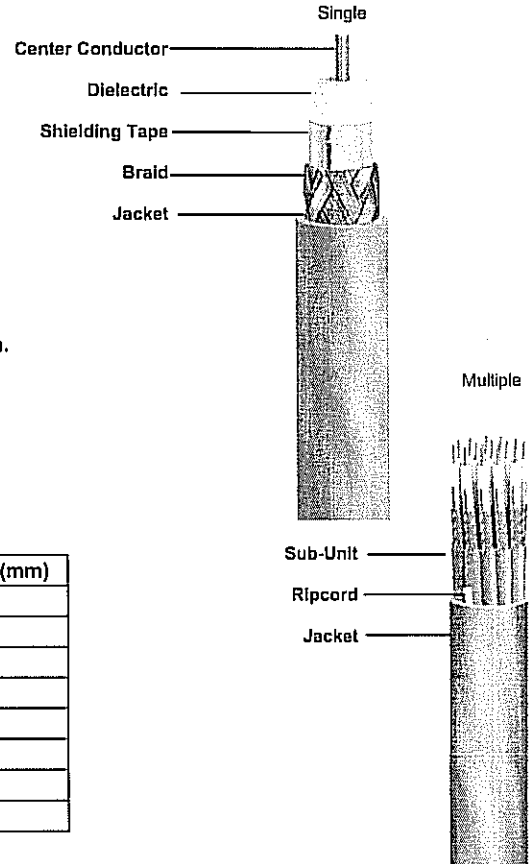
**CENTER CONDUCTOR:** 26 AWG Silver Plated Solid Copper  
 Conductor Diameter: 0.0161" +/- 0.0002" (.409 +/- .005mm)

**DIELECTRIC:** Foamed Polyethylene (FPE)  
 Diameter Over Dielectric: 0.077" (2.0 mm) Nom.  
 Wall Thickness: 0.030" (.76 mm) Nom.

**SHIELD:** Foil: Aluminum/Poly Tape (Bonded)  
 100% Coverage  
 Diameter Over Foil: 0.082" +/- 0.003" (2.1 +/- .08 mm) Nom.  
 Braid: 36 AWG Tinned Copper  
 95% Coverage Minimum  
 Diameter Over Braid: 0.108" +/- 0.003" (2.74 +/- .08 mm) Nom.

**JACKET:** Gray Polyvinylchloride (PVC)  
 Diameter Over Jacket: 0.134" +/- 0.003" (3.4 +/- .08 mm)  
 Coax Jacket Thickness: 0.013" (.33 mm) Nom.

**OVERALL JACKET:** Gray Polyvinylchloride (PVC)  
 Jacket Thickness: 0.022" (.56 mm) Nom.



Part Number	# Conductors	Jkt Wall Thk Nom. in. (mm)	Cable Nom OD in. (mm)
73501S	1	.013 (.33)	.134 (3.4)
73503S	3	.022 (.56)	.326 (8.28)
73506S	6	.022 (.56)	.444 (11.3)
73508S	8	.022 (.56)	.514 (13.1)
73509S	9	.022 (.56)	.534 (13.6)
73512S	12	.022 (.56)	.604 (15.3)
73515S	15	.022 (.56)	.675 (17.2)
73516S	16	.022 (.56)	.725 (18.4)

\*Sequential Footage Marks are printed on the outer jacket every two feet.  
 For Multi-unit cables, each coaxial cable is sequentially numbered (i.e. 1 ONE 1 ONE)

## ELECTRICAL PROPERTIES:

**SPARKER TEST:** 2000 VAC (73501S) & 6000 VAC (73503S-73516S)  
**DIELECTRIC STRENGTH:** Conductor to Shield: 3 Sec. @ 2500 VDC  
 Shield to Shield: 1200 VDC  
**CAPACITANCE:** 18.0 pF/ft. (59.1 +/- .7 pF/m)  
**IMPEDANCE:** 75.0 +/- 2.0 Ohms (5 - 150 MHz)  
**VELOCITY OF PROPAGATION:** 78% Nom.  
**DCR:**  
 Conductor: 40 Ohms/1000 ft. (130 Ohms/km) Max  
 SRL: 73501S 35 dB Min. (5 - 150 MHz) 100% Swept Tested  
 73503S - 73516S 32 dB Min. (5 - 150 MHz) 100% Swept Tested

## MECHANICAL PROPERTIES:

**RECOMMENDED MINIMUM BEND RADIUS:**  
 Installation (Under Load): 20 times cable OD  
 Fixed (Unloaded): 10 times cable OD

## ENVIRONMENTAL PROPERTIES:

**JACKET TEMPERATURE RATING:** 75°C

## ATTENUATION:

dB/100 Ft. (Max)	@ Frequency MHz
0.5 dB	1 MHz
1.1 dB	5 MHz
1.5 dB	10 MHz
2.30 dB	22.5 MHz
3.40 dB	50 MHz
4.99 dB	100 MHz
6.0 dB	150 MHz

Drawings not to Scale  
 Specifications subject to change  
 Revision: 06/05/07



\*Meets or exceeds GR-139-CORE

# DS-3/4 Plenum Interconnect and Cross Connect 75 Ohm Coaxial Cable

Catalog # 735xxP Series  
NEC/CEC: CMP (ETL) c(ETL)



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**CABLE CONSTRUCTION CHART:**

Part Number	# Cond./Tracer	Jkt Nom. Wall (in.)	Jkt. Nom OD (in.)
73501P	1/0	.013"	.126
735T1P	1/1	.013"	.125H x .197W
73502P	2/0	.015"	.157H x .284W
735Z2P	2/0	.013"	.127H x .265W
735T2P	2/1	.015"	.158H x .364W
73503P	3/0	.015"	.300
73506P	6/0	.016"	.412

**ELECTRICAL PROPERTIES:**

**SPARKER TEST:** 2000 VAC (73501/T1/Z2) & 6000 VAC (73503-73506)  
**DIELECTRIC STRENGTH:** Conductor to Shield: 3 Sec. @ 2500 VDC  
 Shield to Shield: 1200 VDC  
**CAPACITANCE:** 17.2 pF/ft. Nom.  
**IMPEDANCE:** 75.0 +/- 3.0 Ohms  
**VELOCITY OF PROPAGATION:** 80% Nom.  
**DCR:**  
 Conductor 40.5 Ohms/1000 ft.  
**SRL:** 30 dB Min. (15 - 90 MHz) 100% Swept Tested

**MECHANICAL PROPERTIES:**

**MINIMUM BEND TEST:**  
 Loaded: 20 times cable OD  
 Unloaded: 10 times cable OD  
**CABLE TEMP. RATING:**  
 PVDF TEMP: 125°C

**ATTENUATION:**

dB/100 Ft. (Nom.)	@ Frequency MHz
.52 dB	1 MHz
.52 dB	1.024 MHz (CEPT-1)
.99 dB	4.224 MHz (CEPT-2)
1.06 dB	5 MHz
1.49 dB	10 MHz
1.96 dB	17.184 MHz (CEPT-3)
2.25 dB	22.368 MHz (DS-3)
2.44 dB	25.920 MHz (STS-1)
3.49 dB	50 MHz
4.14 dB	69.632 MHz (CEPT-4)
4.37 dB	77.760 MHz (STS-3)
5.01 dB	100 MHz
5.93 dB	137.088 MHz (DS-4)
7.28 dB	200 MHz

