

# DS-3 and DS-4 Interconnect and Cross-connect Cable

## 735A\* Series

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Cond.	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
				Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	Stand. Signal (Mb/s)	MHz	dB/ 100 Ft.

**26 AWG Solid .016" (.40mm) Silver-plated Copper Conductor(s) • Beldfoil® + Tinned Copper Braid Shield (93% Coverage)**

**Foam HDPE Insulation • Overall Gray PVC Jacket (Multiple coaxes feature inner Gray PVC jackets w/printed nos. for circuit ID)**

	<b>735A1</b>	NEC: CMR CEC: CMG FT4	1	500 1000	152.4 304.8	6.5 12.0	2.9 5.5	26 AWG (solid) .016" SPC 41.0Ω/M' 134.5Ω/km	.077	1.96	Beldfoil + 93% TC Braid 5.3Ω/M' 17.4Ω/km	.129	3.38	75	76%	17.7	58.0	2	1.0	.6	2.0
	For Plenum version see 735A1P.																				
	<b>735A1T</b>	NEC: CMR CEC: CMG FT4	1 w/T	500 1000	152.4 304.8	7.5 13.0	3.4 6.0	same as above	.077	1.96	same as above	.129 x .203	3.28 x 5.16								
	PVC insulated tracer.																				
	<b>73502T</b> <small>new</small>	NEC: CMR CEC: CMG	2 w/T	500 1000	152.4 304.8	20.0 44.0	9.1 20.0	26 AWG (solid) .017" SPC 41.0Ω/M' 134.5Ω/km	.077	1.96	same as above	.179 x .308	4.55 x 7.82								
	22 AWG stranded (7x30) tinned copper PVC insulated tracer.																				
	<b>735A2</b>	NEC: CMR CEC: CMG FT4	2	500† 1000†	152.4 304.8	14.0 26.0	6.4 11.8	26 AWG (solid) .016" SPC 41.0Ω/M' 134.5Ω/km	.077	1.96	same as above	.129 x .258	3.28 x 6.55								
	Siamese versions bonded in parallel, feature zip cord design with printing on one leg. Suitable for Outdoor applications.																				
	<b>735A3</b>	NEC: CMR CEC: CMG FT4	3	500† 1000†	152.4 304.8	27.0 52.0	12.0 23.6	same as above	.077	1.96	same as above	.309	7.85								
	Coax OD: .129 3.28																				
	<b>735A6</b>	NEC: CMR CEC: CMG FT4	6	500 1000	152.4 304.8	47.0 95.0	21.3 43.1	same as above	.077	1.96	same as above	.399	10.14								
	Coax OD: .129 3.28																				
	<b>735A8</b>	NEC: CMR CEC: CMG FT4	8	500† 1000	152.4 304.8	64.5 125.0	29.3 56.7	same as above	.077	1.96	same as above	.447	11.35								
	Coax OD: .129 3.28																				
	<b>735A9</b>	NEC: CMR CEC: CMG FT4	9	500† 1000†	152.4 304.8	77.0 133.0	34.9 60.5	same as above	.077	1.96	same as above	.484	12.29								
	Coax OD: .129 3.28																				
	<b>735A12</b>	NEC: CMR CEC: CMG FT4	12	500 1000	152.4 304.8	94.5 187.0	43.0 85.0	same as above	.077	1.96	same as above	.581	14.76								
	Coax OD: .129 3.28																				
	<b>735A16</b>	NEC: CMR CEC: CMG FT4	16	500 1000	152.4 304.8	126.5 257.0	57.4 116.6	same as above	.077	1.96	same as above	.636	16.15								
	Coax OD: .129 3.28																				
	<b>735A24</b>	NEC: CMR CEC: CMG FT4	24	1000†	304.8	416.0	188.7	same as above	.077	1.96	same as above	.870	22.10								
	Coax OD: .129 3.28																				

100% Sweep tested.  
RL: 30dB min. at 15 MHz to 95 MHz.  
Non-plenum versions comply with Telcordia Specification GR-139-CORE.

### Plenum • Foam FEP Insulation • Gray Flamarrest® Jacket




	<b>735A1P</b>	NEC: CMP CEC: CMP FT6	1	500 1000	152.4 304.8	7.5 14.0	3.4 6.4	same as above	.077	1.96	same as above	.129	3.28	75	76%	17.7	58.1				(same as above)
	100% Sweep tested. RL: 30 dB min. at 15 MHz to 95 MHz.																				

DCR = DC Resistance • FEP = Fluorinated Ethylene Propylene • HDPE = High-density Polyethylene • SPC = Silver-plated Copper • TC = Tinned Copper  
See chart on page 6.58 for maximum transmission distances.

\*Lucent Technologies reference specification. Belden equivalent. Minimum Return Loss @ 55 MHz to 95 MHz = -35dB.  
†Final put-ups may vary ±10% from length shown for spools or reels and ±5% for UnReel® cartons.

**DS-3 and DS-4 Interconnect and Cross-connect Cable**

734A\* Series

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Cond.	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
				Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	Stand. Signal (Mb/s)	MHz	dB/100 Ft.
<b>20 AWG Solid .032" (.81mm) Bare Copper Conductor(s) • Beldfoil® (100% Coverage) + Tinned Copper Braid Shield (85% Coverage)</b>																				
<b>Gas-injected FHDPE Insulation • Overall Gray PVC Jacket</b> (Multiple coaxes feature inner Gray PVC jackets w/printed nos. for circuit ID)																				
	<b>734A1</b>	NEC: CMR CEC: CMG FT4	1	500 1000	152.4 304.8	16.0 35.0	7.3 15.9	20 AWG (solid) .032" BC 10.0Ω/M' 32.8Ω/km	.148 3.76	3.76	Beldfoil + 85% TC Braid 2.4Ω/M' 7.9Ω/km	.235 5.97	5.97	75	80%	16.8	55.1	2	CEPT-1 CEPT-2 10 20 CEPT-3 DS-3 STS-1 89.472 100 Telcordia Specification GR-139-CORE.	1.0 .3 1.0 4.2 .5 1.6 5.0 .6 2.0 10.0 .8 2.6 17.2 1.0 3.3 22.4 1.1 3.6 25.9 1.2 3.9 44.7 1.6 5.3 50.0 1.7 6.6 69.6 2.0 6.5 77.8 2.1 6.9 200 100.0 2.5 8.2 DS-4 137.1 2.9 9.5 400 200.0 3.6 11.8
	<b>734A6</b>	NEC: CMR CEC: CMG FT4	6	500 1000	152.4 304.8	142.5 293.0	64.6 132.9	same as above	.148 Coax OD: .235	3.76	same as above	.772 19.61	19.61	100% Sweep tested. RL: 30dB min. at 15 MHz to 95 MHz. Non-plenum versions comply with Telcordia Specification GR-139-CORE.	80%	17.3	55.1	2		
	<b>734A12</b>	NEC: CMR CEC: CMG FT4	12	500 1000	152.4 304.8	282.5 551.0	128.1 250.5	same as above	.148 Coax OD: .235	3.76	same as above	1.026 26.06	26.06		80%	17.3	56.8	2	(same as above)	
<b>Plenum • Foam FEP Insulation • Gray Flamarrest® Jacket</b>																				
	<b>734A1P</b>	NEC: CMP CEC: CMP FT6	1	500 1000	152.4 304.8	16.5 36.0	7.5 16.3	same as above	.148 3.76	3.76	same as above	.215 5.46	5.46	75	80%	17.3	56.8	2	100% Sweep tested. RL: 30dB min. at 15 MHz to 95 MHz.	

BC = Bare Copper • DCR = DC Resistance • FEP = Fluorinated Ethylene Propylene • FHDPE = Foam High-density Polyethylene • TC = Tinned Copper  
See chart on page 6.58 for maximum transmission distances.


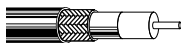
\*Lucent Technologies reference specification. Belden equivalent.

**DS-3 and DS-4 Interconnect and Cross-connect Cable****734D\* Series**


Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Cond.	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. of Prop. (Ω)	Nom. Vel. of Prop. pF/Ft. pF/m	Nominal Capacitance	Nominal Attenuation		
				Ft.	m	Lbs.	kg		Inch	mm		Inch	mm				Stand. Signal (Mb/s)	MHz	dB/ 100 Ft.

**20 AWG Solid .032" (.81mm) Silver-plated Copper Conductor(s) • Beldfoil® (100% Coverage) + Tinned Copper Braid Shield (85% Coverage)**


**Gas-injected FHDPE Insulation • Overall Gray PVC Jacket** (Multiple coaxes feature inner Gray PVC jackets w/printed nos. for circuit ID)

	<b>734D1</b>	NEC: CMR CEC: CMG FT4	1	500 1000	152.4 304.8	16.0 36.0	7.3 16.3	20 AWG (solid) .032" SPC 10.0Ω/M' 32.8Ω/km	.148	3.76	Beldfoil + 85% TC Braid 2.4Ω/M' 7.9Ω/km	.235	5.97	75	80%	16.8	55.1	2	1.0	.3	1.0		
	<b>734D1T</b>	NEC: CMR CEC: CMG FT4	1 w/T	500 1000	152.4 304.8	17.5 39.0	7.9 17.7	same as above	.148	3.76	same as above	.235	5.97	x x	x x					CEPT-1	1.0	.3	1.0
	<b>734D2</b>	NEC: CMR CEC: CMG FT4	2	500 1000	152.4 304.8	35.5 66.0	16.1 29.9	same as above	.148	3.76	same as above	.235	5.97	x x	x x					CEPT-2	4.2	.5	1.6
	<b>734D2T</b>	NEC: CMR CEC: CMG FT4	2 w/T	500 † 1000 †	152.4 † 304.8 †	37.5 † 73.0 †	17.0 † 33.1 †	same as above	.148	3.76	same as above	.235	5.97	x x	x x					10	5.0	.6	2.0
																				20	10.0	.8	2.6
																				CEPT-3	17.2	1.0	3.3
																				DS-3	22.4	1.1	3.6
																				STS-1	25.9	1.2	3.9
																				89.472	44.7	1.6	5.3
																				100	50.0	1.7	5.6
																				CEPT-4	69.6	2.0	6.6
																				STS-3	77.8	2.1	6.9
																				200	100.0	2.5	8.2
																				DS-4	137.1	2.9	9.5
																				400	200.0	3.6	11.8

Siamese versions bonded in parallel, feature zip cord design with printing on one leg.

	<b>734D2T</b>	NEC: CMR CEC: CMG FT4	2 w/T	500 † 1000 †	152.4 † 304.8 †	37.5 † 73.0 †	17.0 † 33.1 †	same as above	.148	3.76	same as above	.235	5.97	x x	x x								
	<b>734D6</b>	NEC: CMR CEC: CMG FT4	6	500 † 1000 †	152.4 † 304.8 †	141.0 † 290.0 †	64.1 † 131.8 †	same as above	.148 Coax OD: .235	3.76 5.97	same as above	.772	19.61										

Siamese versions bonded in parallel, feature zip cord design with printing on one leg and PVC insulated tracer.

	<b>734D6</b>	NEC: CMR CEC: CMG FT4	6	500 † 1000 †	152.4 † 304.8 †	141.0 † 290.0 †	64.1 † 131.8 †	same as above	.148 Coax OD: .235	3.76 5.97	same as above	.772	19.61										
	<b>734D12</b>	NEC: CMR CEC: CMG FT4	12	500 1000	152.4 304.8	284.5 555.0	129.3 252.3	same as above	.148 Coax OD: .235	3.76 5.97	same as above	1.026	26.06										

**Plenum • Foam FEP Insulation • Gray Flamarrest® Jacket**

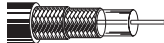
	<b>734D1P</b>	NEC: CMP CEC: CMP FT6	1	500 1000	152.4 304.8	17.0 37.0	7.7 16.8	same as above	.148	3.76	same as above	.215	5.46	75	80%	17.3	56.7					(same as above)

BC = Bare Copper • DCR = DC Resistance • FEP = Fluorinated Ethylene Propylene • FHDPE = Foam High-density Polyethylene • SPC = Silver-plated Copper • TC = Tinned Copper  
See chart on page 6.58 for maximum transmission distances.

\*Lucent Technologies reference specification. Belden equivalent. †Final put-ups may vary ±10% from length shown for spools or reels and ±5% for UnReel® cartons.

**DS-3 and DS-4 Interconnect and Cross-connect Cable**

728A\* and 720A\* Series

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Cond.	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. of Prop. ( $\Omega$ )	Nominal Capacitance pF/ft. pF/m	Nominal Attenuation			
				Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			Stand. Signal (Mb/s)	MHz	dB/ 100 Ft.	dB/ 100m
<b>20 AWG Solid .031" Bare Copper Conductor • Tinned Copper/Bare Copper Double Braid Shield (98% Coverage)</b>																			
<b>Polyethylene Insulation • Gray PVC Jacket</b>																			
Double Braid 60°C VW-1	<b>9231</b> (728A*)	NEC: CMH CEC: CMH FT1	1	500 1000	152.4 304.8	39.0 76.0	17.7 34.5	20 AWG (solid) .031" BC 9.9 $\Omega$ /M' 32.5 $\Omega$ /km	.198 5.03		TC Double Braid 98% Shield Coverage 1.1 $\Omega$ /M' 3.6 $\Omega$ /km	.305 7.75	75 66%	21.0 68.9	2	1.0 .3 1.0 4.2 .5 1.6 5.0 .6 2.0 10.0 .8 2.6 17.2 1.0 3.3 22.4 1.1 3.6 25.9 1.2 3.9 44.7 1.4 4.6 50.0 1.5 4.9 69.6 2.0 6.6 77.8 2.2 7.2 100.0 2.7 8.9 137.1 3.1 10.2 200.0 3.7 12.1	CEPT-1 CEPT-2 10 20 CEPT-3 DS-3 STS-1 89.472 100 CEPT-4 STS-3 200 DS-4 400	1.0 .3 1.0 4.2 .5 1.6 5.0 .6 2.0 10.0 .8 2.6 17.2 1.0 3.3 22.4 1.1 3.6 25.9 1.2 3.9 44.7 1.4 4.6 50.0 1.5 4.9 69.6 2.0 6.6 77.8 2.2 7.2 100.0 2.7 8.9 137.1 3.1 10.2 200.0 3.7 12.1	1.0 .3 1.0 1.6 2.0 2.6 3.3 3.6 3.9 4.6 4.9 6.6 7.2 8.9 10.2 12.1
																			
100% Sweep tested. RL: 30dB min. at 15 MHz to 95 MHz. Non-plenum versions comply with Telcordia Specification GR-139-CORE.																			
Non-contaminating PVC jacket. Suitable for Outdoor applications and Aerial when supported by a Messenger wire.																			

**720A\* Series** Belden 720A Coaxial Cable Series is available by special request.  
Contact the Belden Customer Service Department for quotes. 1-800-BELDEN-1.

BC = Bare Copper • DCR = DC Resistance • TC = Tinned Copper

See table below for maximum transmission distances.

\*Lucent Technologies reference specification. Belden equivalent.

**Maximum Transmission Distances for DS-3 and DS-4 Cable**

Data Rates:	DS-3 (44.736 Mb/s)		STS-1 (51.86 Mb/s)		DS-4Na (CEPT-4) (139.264 Mb/s)		STS-3 (155.520 Mb/s)		DS-4 (274.176 Mb/s)	
	Belden Part No.	Interconnect	X-Connect	Interconnect	X-Connect	Interconnect	X-Connect	Interconnect	X-Connect	Interconnect
<b>735A Series and 7351AP</b>	225 ft. (68.6m)	21 ft. (6.4m)	210 ft. (64.0m)	20 ft. (6.1m)	125 ft. (38.1m)	13 ft. (4.0m)	120 ft. (36.6m)	11 ft. (3.4m)	90 ft. (27.4m)	8 ft. (2.4m)
<b>734A and 734D Series</b>	450 ft. (137.2m)	43 ft. (13.1m)	420 ft. (128.0m)	40 ft. (12.2m)	250 ft. (76.2m)	24 ft. (7.3m)	240 ft. (73.2m)	22 ft. (6.7m)	180 ft. (54.9m)	17 ft. (5.2m)
<b>734A1P and 734D1P</b>	435 ft. (132m)	43 ft. (13m)	410 ft. (125m)	40 ft. (12m)	240 ft. (73m)	24 ft. (7m)	225 ft. (68m)	22 ft. (8m)	170 ft. (52m)	17 ft. (5m)
<b>728A</b>	425 ft. (129.5m)	—	380 ft. (115.8m)	—	220 ft. (67.1m)	—	210 ft. (64.0m)	—	155 ft. (47.2m)	—
<b>720A Series</b>	225 ft. (68.6m)	25 ft. (7.6m)	230 ft. (70.1m)	23 ft. (7.0m)	140 ft. (42.7m)	14 ft. (4.3m)	130 ft. (39.6m)	13 ft. (4.0m)	100 ft. (30.5m)	9 ft. (2.7m)

DS = Digital Signal • STS = Synchronous Transmission Signal • CEPT = European Conference of Postal and Telecommunications Administrations

Please note: The signal loss budget for individual installations will affect the exact transmission distance.