

OSP Broadband Category 6



Product Description

BBD6 is Superior Essex's Outside Plant unshielded Broadband Category 6 cable. The cable has guaranteed transmission performance out to 250 MHz. The cable consists of a core of four (4) balanced twisted pairs held in place by a cross web separator and surrounded by a filling compound to prevent water ingress. The core is jacketed with a sunlight and abrasion resistant black polyethylene outer jacket. All designs are suitable for buried applications.

Features

- Fully filled core
- Category 6 transmission performance characterized to 650MHz
- Black polyethylene outer jacket

BBD6

- Unshielded
- Small, robust design for unshielded applications

BBDN6

- Aluminum Tape Shield
- Protection against EMI/RFI

BBDG6

- Copper-clad armor shield
- Protection against EMI/RFI and provides rodent resistance

Benefits

- Prevents water ingress that can affect electrical performance
- Outside Plant rated cable provides connections for work area and extension of the LAN
- Sunlight and weather resistant

Applications

- 10BASE-T through 1000BASE-T Ethernet
- ATM and Token Ring

Part Numbers and Physical Characteristics

Name	Part #	Shield	Pair Count	AWG (mm)	Nom. Dia. inches (mm)	Approx. Weight lbs/kft (kg/km)	Package
BBD6	04-001-68	None	4	23 (0.57)	0.30 (7.6)	36 (58)	1000' Reel
	04-002-68	None	4	23 (0.57)	0.30 (7.6)	36 (58)	2500' Reel
	04-003-68	None	4	23 (0.57)	0.30 (7.6)	36 (58)	5000' Reel
	04-601-68	None	4	23 (0.57)	0.30 (7.6)	36 (58)	Cut to Length
BBDN6	04-001-64	Coated Aluminum	4	23 (0.57)	0.37 (9.4)	59 (88)	1000' Reel
	04-002-64	Coated Aluminum	4	23 (0.57)	0.37 (9.4)	59 (88)	2500' Reel
	04-003-64	Coated Aluminum	4	23 (0.57)	0.37 (9.4)	59 (88)	5000' Reel
	04-601-64	Coated Aluminum	4	23 (0.57)	0.37 (9.4)	59 (88)	Cut to Length
BBDG6	04-001-65	Copper Clad	4	23 (0.57)	0.38 (9.7)	75 (112)	1000' Reel
	04-002-65	Copper Clad	4	23 (0.57)	0.38 (9.7)	75 (112)	2500' Reel
	04-003-65	Copper Clad	4	23 (0.57)	0.38 (9.7)	75 (112)	5000' Reel
	04-601-65	Copper Clad	4	23 (0.57)	0.38 (9.7)	75 (112)	Cut to Length

Physical Description

- Conductor/Cable Core: 23 AWG (0.57 mm) Solid Annealed Bare Copper • Insulation: Solid Polyolefin • Core Filling Compound: 80°C ETPR (extended thermoplastic rubber)
- **BBD6**: No shield • Black polyethylene outer jacket
- **BBDN6**: Inner polyethylene jacket • Electrically continuous 0.008 in (0.2 mm) polymer coated smooth aluminum tape, applied with an overlap, black polyethylene outer jacket
- **BBDG6**: Inner polyethylene jacket • Electrically continuous 0.005 in (0.13 mm) corrugated copper-clad armor, applied with an overlap shield flooded with a flooding compound • Black polyethylene outer jacket

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Electrical Performance								
Frequency MHz	Attenuation (dB/100m) @ 20°C Maximum		NEXT (dB/100m) Minimum		ACR (dB/100m) Minimum		PS-NEXT (dB/100m) Minimum	
	TIA 568-B.2	Superior Essex	TIA 568-B.2	Superior Essex	TIA 568-B.2	Superior Essex	TIA 568-B.2	Superior Essex
	Specified	Typical	Specified	Typical	Calculated	Typical	Specified	Typical
1	2.0	1.7	74.3	87.6	72.3	86.2	72.3	84.8
4	3.8	3.3	65.3	79.9	61.5	76.7	63.3	78.0
8	5.3	4.7	60.8	78.0	55.4	73.2	58.8	75.9
10	6.0	5.2	59.3	74.3	53.3	69.2	57.3	72.8
16	7.6	6.7	56.2	70.9	48.7	64.6	54.2	69.2
20	8.5	7.5	54.8	71.1	46.3	62.8	52.8	68.9
25	9.5	8.4	53.3	71.0	43.8	62.8	51.3	69.2
31.25	10.7	9.4	51.9	68.6	41.2	58.5	49.9	66.1
62.5	15.4	13.5	47.4	60.9	32.0	48.1	45.4	60.8
100	19.8	17.2	44.3	61.4	24.5	44.4	42.3	59.9
155	25.2	21.7	41.4	58.0	16.3	38.1	39.4	57.5
200	29.0	24.8	39.8	58.1	10.8	32.3	37.8	55.0
250	32.8	28.0	38.3	56.4	5.5	28.9	36.3	54.2
300		30.8		52.3		22.3		51.6
350		33.6		53.6		20.8		51.9
400		36.1		52.4		16.3		49.9
450		38.4		51.3		13.5		49.1
500		40.6		51.1		11.7		49.0
550		42.9		50.2		9.2		48.4
600		45.1		49.2		4.7		46.6
650		47.7		45.0		-2.0		43.0

Electrical Performance (Continued)								
Frequency MHz	PS-ACR (dB/100m) Minimum		Return Loss (dB/100m) Minimum		ELFEXT (dB/100m) Minimum		PS-ELFEXT (dB/100m) Minimum	
	TIA 568-B.2	Superior Essex	TIA 568-B.2	Superior Essex	TIA 568-B.2	Superior Essex	TIA 568-B.2	Superior Essex
	Calculated	Typical	Specified	Typical	Specified	Typical	Specified	Typical
1	70.3	83.2	20.0	27.8	67.8	77.8	64.8	76.2
4	59.5	74.8	23.0	30.3	55.8	66.6	52.8	64.9
8	53.4	71.3	24.5	36.8	49.7	60.7	46.7	59.0
10	51.3	67.7	25.0	30.4	47.8	58.8	44.8	57.1
16	46.7	62.8	25.0	35.0	43.7	55.2	40.7	53.1
20	44.3	61.6	25.0	33.1	41.8	53.4	38.8	51.2
25	41.8	60.9	24.3	29.8	39.8	51.4	36.8	49.2
31.25	39.2	56.7	23.6	34.0	37.9	49.3	34.9	47.2
62.5	30.0	47.6	21.5	33.2	31.9	45.4	28.9	43.3
100	22.5	43.1	20.1	32.3	27.8	43.1	24.8	41.0
155	14.3	36.1	18.8	29.4	24.0	39.9	21.0	38.5
200	8.8	30.5	18.0	26.8	21.8	35.0	18.8	32.9
250	3.5	27.3	17.3	26.0	19.8	33.0	16.8	31.8
300		21.3		24.4		31.9		30.4
350		19.2		23.2		33.2		30.8
400		14.3		22.2		28.8		27.1
450		11.5		21.1		25.5		24.4
500		8.6		20.7		25.6		23.6
550		6.0		18.9		23.2		21.5
600		2.0		18.7		22.3		20.6
650		-3.8		17.6		21.0		19.1

Input Impedance (Ohms) Maximum	Delay Skew (ns/100m) Maximum	Velocity of Propagation (%) Nominal	DC Resistance (Ohms/100m) Maximum	DC Resistance Unbalance (%) Maximum
100+/-15 @ 1-100MHz 100+/-22 @ 100-250MHz	45	57	9.38	3

Applicable Standards

ANSI/TIA/EIA-B.2-1, ANSI/ICEA/S-86-634, RoHS Compliant

Toll Free 800.551.8948 — Fax 770.657.6807
www.superioressex.com



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