

PRODUCT DESCRIPTION

BBDN is an Outside Plant (OSP) Broadband category cable. It is designed to provide an extension of the LAN beyond the premises or in situations where the NEC code requires an OSP-rated cable when it is in contact with earth, whether in a conduit or not. The cable consists of four (4) balanced twisted pairs surrounded by Superior Essex PFM™ gel that does not drip or flow, even in cell tower applications at elevated temperatures. The jacketed core is covered with dry block and an 8 mil aluminum tape shield providing exceptional Alien Crosstalk (AXT) performance. The outer jacket is OSP-grade black, polyethylene for superior sunlight and abrasion resistance. This shielded design is suitable for the following deployments: duct, underground conduit, tower, lashed aerial or open trench.

The BBDN is available in a variety of performances including CAT 5e, CAT 6 and CAT 6A. An optional Aluminum Interlock Armor with overjacket is also available (not suitable for tower deployment).

APPLICATIONS

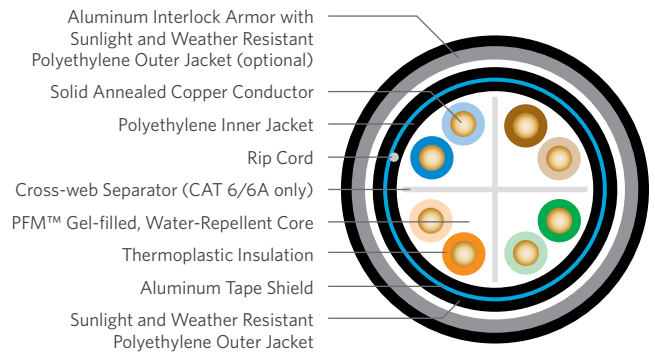
- CAT 6A: 10BASE-T through 10GBASE-T Ethernet; CAT 6/5e: 10BASE-T through 1000BASE-T Ethernet
- Power over Ethernet (PoE) - IEEE 802.3af
- PoE+ - IEEE 802.3at Type 1 and 2
- ATM and token ring

FEATURES

- Transmission performance characterized to 500 MHz for CAT 6A/6 and 350 MHz for CAT 5e
- 8 mil aluminum tape shield
- Dry block between shield and inner jacket
- PFM gel-filled core construction
- OSP-grade black polyethylene jacket
- ColorTip® circuit identification system
- Aluminum interlock armored construction

BENEFITS

- Assures ample overhead for reliable transmission in an OSP-rated cable allowing extension of the premises LAN
- Rugged shield provides protection against EMI/RFI
- Prevents water ingress between shield and inner cable preventing damage to equipment
- Prevents intrusion of moisture and easily wipes clean during installation
- Outside plant rated cable for years of reliable performance
- Easily identifiable conductor mates even in low-light environments
- Protects against mechanical stresses
- Installs faster and easier than EMT conduit and conventional wire



SPECIFICATIONS

Pair Count	4
Conductor	Solid annealed copper
Insulation	Polyolefin
Separator	CAT 6A/6: Polyolefin cross-web CAT 5e: none
Inner Shield	Electrically continuous 0.008 in (0.20 mm) polymer coated smooth aluminum tape shield, applied with an overlap
Dry Water Block	SAP powder
Jacket	Black, sunlight and weather resistant polyethylene
Optional Outer Armor	Interlocked aluminum armor covered with black, sunlight and weather resistant polyethylene jacket
Characteristic Impedance Ohms	100 ± 15
Nominal Velocity of Propagation %	CAT 6A/6: 68 CAT 5e: 65
Performance Compliance	ANSI/TIA-568-C.2 ANSI/ICEA S-107-704-2012 RoHS-compliant/RoHS 2-compliant REACH-compliant

ENVIRONMENTAL SPECIFICATIONS AND TESTS

Operation	-40°F to +167°F (-40°C to +75°C)
Installation	-40°F to +140°F (-40°C to +60°C)
ANSI/ICEA S-100-685-2009 Tested down to -67°F (-55°C)	Section 7.1: -4°F (-20°C) cold bend test Section 7.2: +14°F (-10°C) cold impact test Section 7.3: -40°F (-40°C) anvil test



TECHNICAL GUIDELINE

Special connectivity is required for these cable designs. Refer to the "Resources" section on our site for the Technical Guideline, "OSP Broadband Installation Guidelines," for more information.

PART NUMBERS AND PHYSICAL CHARACTERISTICS

Category	Part Number	Product Code	AWG (mm)	Nominal Diameter in (mm)	Approx. Weight lbs/kft (kg/km)	Package
CAT 6A	04-001-A4	BBDN6A	23 (0.57)	0.39 (9.8)	59 (88)	1,000' Plywood reel
CAT 6	04-001-64	BBDN6	23 (0.57)	0.39 (9.8)	59 (88)	1,000' Plywood reel
CAT 5e	04-001-54	BBDNe	24 (0.51)	0.36 (9.1)	49 (73)	1,000' Plywood reel

Additional part numbers, constructions and packaging available upon request.