

ALPETH

BHBA, BHAA, BKMA and BKTA



Specifications

Conductor	Solid annealed copper
Insulation	Solid polyolefin in distinctive colors to facilitate pair identification
≤ 25-Pair Core	Pairs are combined into a cylindrical core
> 50-Pair Core	Multiples of 25-pair groups are assembled to form the final cable core; each group is identified by color coded non-hygroscopic binders; for 1,200-pair and larger, the color code is a Mirror Image design
Core Wrap	Non-hygroscopic dielectric material protects the core and helps provide core-to-shield dielectric strength
Shield	Corrugated bare 8 mil aluminum tape is applied longitudinally over the core wrap
Jacket	Black polyethylene
Shield/Jacket Options	If extra mechanical protection is desired, an additional outer steel armor and polyethylene jacket (UM) can be requested
Jacket Marking	Manufacturer's identification, pair count, AWG, product identification, sequential footage and a telephone handset printed at 2 foot intervals
Standards Compliance	Telcordia GR-421-CORE Issue 2 RoHS-compliant

Product Description

ALPETH Cable is a solid insulated, single jacket air core design intended for aerial installations. In this application, the cable must be attached to a support strand (messenger). ALPETH cable is not recommended for any buried or duct application, with or without air pressure.

Applications

- Lashed aerial

Features

- Tightly controlled individual conductor dimensions
- Specially designed pair twist lays
- Core wrap
- Bare aluminum tape shield
- Polyethylene jacket

Benefits

- Limits resistance unbalance of paired conductors
- Minimizes crosstalk and meets the capacitance unbalance requirements
- Protects core and provides improved mechanical and electrical characteristics
- Assures good electrical contact with non-piercing bonding clamps
- Provides a tough, flexible, protective covering that withstands exposure to sunlight, atmospheric temperatures and stresses expected in standard installations

Electrical Specifications

Number of Pairs	Average Mutual Capacitance @ 1000 Hz nF/mile (nF/km)	Capacitance Unbalance Pair to Pair @ 1 kHz		Capacitance Unbalance Pair to Ground @ 1 kHz	
		Maximum Individual pF @ 1 kft (pF @ 1 km)	Maximum RMS pF @ 1 kft (pF @ 1 km)	Maximum Individual pF @ 1 kft (pF @ 1 km)	Maximum Average pF @ 1 kft (pF @ 1 km)
Over 12	83 ± 4 (52 ± 2)	80 (145)	25 (45)	800 (2,625)	175 (574)

Conductor Size AWG (mm)	Minimum Insulation Resistance @ 68°F (20°C) gigohm-mile (gigohm-km)	Maximum Average Attenuation 772 kHz @ 68°F (20°C) dB/kft (dB/km)	Maximum Conductor Resistance @ 68°F (20°C) Ohms/sheath mile (km)	DC Resistance Unbalance Maximum %		Dielectric Strength DC Potential – Volts	
				Average	Individual Pair	Conductor to Conductor	Conductor to Shield
19 (0.90)	1.0 (1.6)	3.3 (10.8)	45 (28.0)	1.5	5.0	5,000	10,000
22 (0.64)	1.0 (1.6)	4.7 (15.4)	91 (56.5)	1.5	5.0	4,000	10,000
24 (0.51)	1.0 (1.6)	5.9 (19.4)	144 (89.5)	1.5	5.0	3,000	10,000
26 (0.40)	1.0 (1.6)	7.4 (24.3)	232 (144.2)	1.5	5.0	2,400	10,000

Minimum Near End Crosstalk (NEXT) @ 772 kHz

PSWUNEXT Mean (dB)	47
PSWUNEXT Worst Pair (dB)	42

Minimum Far End Crosstalk (FEXT) @ 772 kHz

Conductor Size (AWG)	19	22	24	26
PSELFEXT Mean (dB/kft)	51	49	49	47
PSELFEXT Worst Pair (dB/kft)	45	43	43	43

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Part Numbers and Physical Characteristics

Part Number	Product Code	Pair Count	AWG (mm)	Nominal Diameter in (mm)	Approx. Weight lbs/kft (kg/km)	Standard Length ft (m)	Approx. Shipping Weight lbs (kg)	Steel Reel Size F x T x D in
120-031-42	BHBA	25	19 (0.90)	0.76 (19)	310 (460)	10,000 (3,048)	3,895 (1,765)	83 x 40 x 42
120-034-42	BHBA	50	19 (0.90)	1.00 (25)	570 (850)	10,000 (3,048)	6,495 (2,945)	83 x 40 x 42
120-038-42	BHBA	100	19 (0.90)	1.34 (34)	1,070 (1,590)	5,000 (1,524)	6,145 (2,785)	83 x 40 x 42
120-042-42	BHBA	200	19 (0.90)	1.85 (47)	2,075 (3,090)	2,500 (762)	5,985 (2,715)	83 x 40 x 42
120-044-42	BHBA	300	19 (0.90)	2.23 (57)	3,065 (4,560)	2,000 (610)	6,925 (3,140)	83 x 40 x 42
120-046-42	BHBA	400	19 (0.90)	2.73 (69)	4,172 (6,215)	1,260 (384)	5,997 (2,723)	83 x 40 x 42
120-062-42	BHAA	25	22 (0.64)	0.60 (15)	180 (270)	15,000 (4,572)	3,495 (1,585)	83 x 40 x 42
120-065-42	BHAA	50	22 (0.64)	0.77 (20)	315 (470)	15,000 (4,572)	5,520 (2,505)	83 x 40 x 42
120-069-42	BHAA	100	22 (0.64)	1.02 (26)	580 (865)	10,000 (3,048)	6,595 (2,990)	83 x 40 x 42
120-073-42	BHAA	200	22 (0.64)	1.38 (35)	1,090 (1,620)	5,000 (1,524)	6,245 (2,835)	83 x 40 x 42
120-075-42	BHAA	300	22 (0.64)	1.66 (42)	1,600 (2,380)	3,300 (1,006)	6,075 (2,755)	83 x 40 x 42
120-077-42	BHAA	400	22 (0.64)	1.89 (48)	2,110 (3,140)	2,500 (762)	6,070 (2,755)	83 x 40 x 42
120-081-42	BHAA	600	22 (0.64)	2.28 (58)	3,115 (4,635)	2,000 (610)	7,025 (3,185)	83 x 40 x 42
120-083-42	BHAA	900	22 (0.64)	2.76 (70)	4,625 (6,885)	1,100 (335)	5,885 (2,670)	83 x 40 x 42
120-097-42	BKMA	25	24 (0.51)	0.51 (13)	125 (185)	20,000 (6,096)	3,295 (1,495)	83 x 40 x 42
120-100-42	BKMA	50	24 (0.51)	0.64 (16)	215 (320)	20,000 (6,096)	5,095 (2,310)	83 x 40 x 42
120-104-42	BKMA	100	24 (0.51)	0.83 (21)	380 (565)	13,300 (4,054)	5,850 (2,655)	83 x 40 x 42
120-108-42	BKMA	200	24 (0.51)	1.12 (28)	710 (1,055)	8,000 (2,438)	6,475 (2,935)	83 x 40 x 42
120-110-42	BKMA	300	24 (0.51)	1.33 (34)	1,035 (1,540)	5,700 (1,737)	6,695 (3,035)	83 x 40 x 42
120-112-42	BKMA	400	24 (0.51)	1.52 (39)	1,355 (2,015)	4,400 (1,341)	6,755 (3,065)	83 x 40 x 42
120-116-42	BKMA	600	24 (0.51)	1.82 (46)	1,995 (2,970)	3,100 (945)	6,980 (3,165)	83 x 40 x 42
120-118-42	BKMA	900	24 (0.51)	2.19 (56)	2,950 (4,390)	2,200 (671)	7,285 (3,305)	83 x 40 x 42
120-120-42	BKMA	1,200	24 (0.51)	2.50 (64)	3,905 (5,810)	1,600 (488)	7,045 (3,195)	83 x 40 x 42
120-121-42	BKMA	1,500	24 (0.51)	2.79 (71)	4,860 (7,235)	1,250 (381)	6,870 (3,115)	83 x 40 x 42
120-124-42	BKMA	1,800	24 (0.51)	3.05 (78)	5,810 (8,645)	1,140 (347)	7,420 (3,365)	83 x 40 x 42
120-145-42	BKTA	300	26 (0.40)	1.07 (27)	675 (1,005)	8,000 (2,438)	6,195 (2,810)	83 x 40 x 42
120-147-42	BKTA	400	26 (0.40)	1.23 (31)	875 (1,300)	6,600 (2,012)	6,570 (2,980)	83 x 40 x 42
120-151-42	BKTA	600	26 (0.40)	1.47 (37)	1,290 (1,920)	5,000 (1,524)	7,245 (3,285)	83 x 40 x 42
120-153-42	BKTA	900	26 (0.40)	1.75 (45)	1,890 (2,815)	3,300 (1,006)	7,030 (3,190)	83 x 40 x 42
120-155-42	BKTA	1,200	26 (0.40)	2.00 (51)	2,495 (3,715)	2,200 (671)	6,285 (2,850)	83 x 40 x 42
120-156-42	BKTA	1,500	26 (0.40)	2.25 (57)	3,100 (4,615)	2,000 (610)	6,995 (3,175)	83 x 40 x 42
120-157-42	BKTA	1,800	26 (0.40)	2.45 (62)	3,695 (5,500)	1,600 (488)	6,705 (3,040)	83 x 40 x 42
120-158-42	BKTA	2,100	26 (0.40)	2.65 (67)	4,305 (6,405)	1,140 (347)	5,705 (2,585)	83 x 40 x 42
120-161-42	BKTA	2,700	26 (0.40)	2.97 (75)	5,495 (8,180)	1,050 (320)	6,565 (2,980)	83 x 40 x 42
120-162-42	BKTA	3,000	26 (0.40)	3.13 (80)	6,090 (9,065)	800 (244)	5,665 (2,570)	83 x 40 x 42