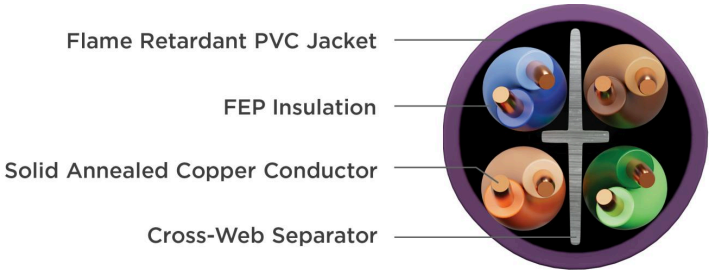
Premises Copper > Indoor > Category 6 > 4 Pairs > 23 AWG

DataGain® Category 6+ / Indoor / 4 Pairs / 23 AWG / CMP / Purple / 1K FT BrakeBox®

CMP

Part Number: 66-246-7B
Status: Available





MADE IN THE USA

RoHS

GENERAL SPECIFICATIONS

Jacket	LSPVC
Cable Configuration	Copper pairs separated by a cross-web separator and surrounded by an outer jacket
End User Application	LAN
Pairs	4
Conductor	Bare Copper
Conductor Type	Solid
Conductor Description	Solid annealed copper
Conductor Count	8
AWG (mm)	23 (0.57)
Insulation	FEP
Insulation Colors	ColorTip®: Pair 1: Light Blue / Blue Pair 2: Light Orange / Orange Pair 3: Light Green / Green Pair 4: Light Brown / Brown
Separator	Cross-Web
Characteristic Impedance (Ohms)	100 ± 15
Nominal Velocity of Propagation (%)	73
Temperature Rating	90°C

COMPLIANCE & SUSTAINABILITY

Standards Compliance	UL 444 CSA C22.2 No. 214-08 NFPA 262 ANSI/TIA-568.2-E ANSI/ICEA S-90-661-2012 Article 800, NEC (NFPA 70) RoHS-compliant
NRTL Programs	UL Verified CAT 6 UL, c(UL) Listed CMP
Sustainability	UL Certified EPD HPD™ Multi-Attribute Certification USGBC® Member

PHYSICAL CHARACTERISTICS

Nominal Diameter in (mm)	0.22 (5.5)
Nominal Weight lbs/kft (kg/km)	26 (39)
Pallet Quantity (ft)	27,000
Package Length	1,000
Package Type	BrakeBox®
Packages per Pallet	27
Standard Length ft (m)	1,000 (305)

Product Description

DataGain® cable provides the best value in Category 6+ cables on the market today. The innovative design, which utilizes a cross-web separator, yields exceptional performance that exceeds TIA/EIA CAT 6 specifications. DataGain® easily surpasses the performance of other cost-competitive CAT 6 cables. Part number 66-246-7B is the plenum-rated (CMP) purple version: a 4-pair, 23 AWG UTP construction with solid annealed copper conductors, FEP insulation, a cross-web separator and a flame-retardant, low smoke PVC jacket. Nominal diameter is 0.22 (5.5) in (mm) with an approximate weight of 26 (39) lbs/kft (kg/km), supplied in a 1,000 ft BrakeBox®.

Applications

- 10BASE-T through 5GBASE-T Ethernet
- Power-over-Ethernet (PoE) – IEEE 802.3bt Type 1 to 4
- ATM and token ring

Features

- UL Certified Environmental Product Declaration (EPD)

Benefits

- Contributes toward 1 LEED point under the Material and Resources credit (MRc)

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- Health Product Declaration™ (HPD™)
- Multi-Attribute Certification by GreenCircle Certified, LLC
- Guaranteed electrical performance to 400 MHz
- Guaranteed 5 dB margin in NEXT, PSNEXT, ELFEXT, PSELFEXT, ACR and PSACR
- Tested to 550 MHz
- Round design with cross-web separator
- Warranted with numerous connectivity manufacturers
- BrakeBox® payout control system
- CableID® alpha numeric code printed every 2 feet
- Contributes toward 1 LEED point under the MRc
- Offers an overview of the sustainability of a product, its packaging and manufacturing
- Greater assurance of exceptional overall channel performance at a great value
- "Future-proofs" the cable installation
- Assures ample bandwidth headroom
- Reduces installation time
- Offers flexibility in selection of connectivity solutions
- Adjustable tension control on reel prevents over spin and entangling of cable
- Allows both ends of a cable run to be easily identifiable without the need to separately label or tone the cable
- QuickCount® marking system in feet and meters
- ColorTip® circuit identification system
- Color coded box labels
- Provides remaining length of cable on reel
- Easily identifiable conductor mates even in low-light environments
- Easily identifies jacket colors

Technical Guideline

Technical Guideline TG029 "Premises Cable Temperature Guidelines" provides operating, storage and installation temperature ranges for premises cables. Click here for more information.

SUSTAINABILITY CERTIFICATIONS

ELECTRICAL SPECIFICATIONS

Frequency MHz	Insertion Loss @ 20°C Maximum dB/100 m			NEXT Minimum dB/100 m			ACR Minimum dB/100 m			PSNEXT Minimum dB/100 m		
	TIA-568.2-E	Superior Essex		TIA-568.2-E	Superior Essex		TIA-568.2-E	Superior Essex		TIA-568.2-E	Superior Essex	
	Specified	Guaranteed	Typical	Specified	Guaranteed	Typical	Calculated	Guaranteed	Typical	Specified	Guaranteed	Typical
1	2.0	2.0	1.7	74.3	79.3	90.6	72.3	77.3	88.9	72.3	77.3	88.2
4	3.8	3.8	3.4	65.3	70.3	80.9	61.5	66.5	77.5	63.3	68.3	78.6
10	6.0	5.9	5.4	59.3	64.3	74.4	53.3	58.4	69.0	57.3	62.3	72.1
16	7.6	7.5	6.9	56.2	61.2	71.4	48.6	53.7	64.5	54.2	59.2	69.1
20	8.5	8.4	7.8	54.8	59.8	70.1	46.3	51.4	62.4	52.8	57.8	67.8
25	9.5	9.4	8.7	53.3	58.3	68.4	43.8	48.9	59.7	51.3	56.3	66.1
31.25	10.7	10.6	9.8	51.9	56.9	67.2	41.2	46.3	57.3	49.9	54.9	64.8
62.5	15.4	15.3	14.1	47.4	52.4	62.5	32.0	37.1	48.4	45.4	50.4	60.3
100	19.8	19.7	18.1	44.3	49.3	59.7	24.5	29.6	41.5	42.3	47.3	57.3
200	29.0	28.8	26.4	39.8	44.8	54.5	10.8	16.0	28.3	37.8	42.8	52.3
250	32.8	32.6	29.8	38.3	43.3	53.5	5.5	10.7	23.0	36.3	41.3	50.8
400	-	42.7	38.9	-	36.3	48.2	-	-	9.2	-	34.3	45.6
500	-	-	44.2	-	-	45.4	-	-	1.2	-	-	43.0
550	-	-	47.2	-	-	44.0	-	-	-	-	-	42.1

Frequency MHz	PSACR Minimum dB/100 m			Return Loss Minimum dB/100 m			ELFEXT (ACRF) Minimum dB/100 m			PSELFEXT (PSACRF) Minimum dB/100 m		
	TIA-568.2-E	Superior Essex		TIA-568.2-E	Superior Essex		TIA-568.2-E	Superior Essex		TIA-568.2-E	Superior Essex	
	Calculated	Guaranteed	Typical	Specified	Guaranteed	Typical	Specified	Guaranteed	Typical	Specified	Guaranteed	Typical
1	70.3	75.3	85.6	20.0	20.0	28.5	67.8	72.7	82.6	64.8	69.8	80.6
4	59.5	64.5	74.3	23.0	23.0	33.8	55.8	60.7	70.7	52.8	57.8	68.8
10	51.3	56.5	65.7	25.0	25.0	36.1	47.8	52.7	62.9	44.8	49.8	60.9
16	46.6	51.7	61.3	25.0	25.0	36.2	43.7	48.6	58.9	40.7	45.7	56.9
20	44.3	49.4	59.2	25.0	25.0	35.9	41.8	46.7	57.0	38.8	43.8	54.9
25	41.8	46.9	56.5	24.3	24.3	36.0	39.8	44.7	55.2	36.8	41.8	53.0
31.25	39.2	44.3	54.2	23.6	23.6	35.7	37.9	42.8	53.3	34.9	39.9	51.1
62.5	30.0	35.1	45.3	21.5	21.5	33.2	31.9	36.8	47.5	28.9	33.9	45.2
100	22.5	27.6	38.5	20.1	20.1	32.2	27.8	32.7	43.6	24.8	29.8	41.3
200	8.8	14.0	25.2	18.0	18.0	30.2	21.8	26.7	37.7	18.8	23.8	35.4
250	3.5	8.7	20.4	17.3	17.3	30.1	19.8	24.7	35.7	16.8	21.8	33.4
400	-	6.2	-	-	15.9	27.0	-	17.8	30.2	-	12.8	28.8
500	-	-	-	-	-	25.5	-	-	28.2	-	-	25.9
550	-	-	-	-	-	24.6	-	-	26.6	-	-	24.5

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