

DATA Sheet

GigaFlex 4800LX Cable Series Enhanced Category 6



24586985 Câble GigaFlex 4812LX, ascension



24587385 Câble GigaFlex 4813LX, plénum



24588085 Câble GigaFlex 4824LX, LSZH

The GigaFlex 4800LX Cable Series continues to set a performance benchmark that exceeds Category 6 requirements as per ANSI/TIA/EIA-568-B. When used as the horizontal cable in the Belden 4800LX, it provides 300 MHz of channel bandwidth and a data-rate of 4.8 Gb/s.

Available in plenum and non-plenum versions, the GigaFlex 4800LX Cable provides additional headroom for today's most demanding and critical applications.

Features & Benefits

- > Cross web design separates pairs and maintains stable pair position, thus improving NEXT and impedance performance
- > Stable pair position provides built-in resilience to installation
- > Improved attenuation ensures stronger signal power
- > Maximized bandwidth and signal-to-noise margin for mission-critical applications
- > Descending distance marking for cable length reduces waste
- > Matching tip and ring color code for ease of installation.

Applications

- > The GigaFlex 4800LX Cable Series is intended to be used for horizontal cable installations of high speed Local Area Networks (LANs) for transmission speeds up to 4.8 Gb/s. Specific applications include:

All UTP Ethernet protocols with data rates up to 4.8 Gb/s (e.g. 1000Base-T, 100Base-TX, 100Base-T4, 100Base-T2 and 10 Base-T)

All UTP ATM protocols with data rates up to 4.8 Gb/s

100 Mb/s TP-PMD

Broadband video (77 channels at 550 Mhz).

Technical Specifications

- > Conductors: 23 AWG solid copper
- > Insulation:
 - Plenum: 100% FEP
 - Non-Plenum: PE
 - Color coding as per ANSI/TIA/EIA-568-B.
- > Cable Core: Filler, Four twisted pairs, Rip Cord
- > Jacket:
 - Plenum: LSPVC
 - Non-Plenum: PVC
 - LSZH: Low Smoke & Fume Zero Halogen Polymer Alloy

Transmission Characteristics

- > Values up to 400 MHz are minimum guaranteed values
- > Values above 400 MHz are for information only
- > DC Resistance @ 20°C, max.: 6.6 ohms/100 m
- > DC Resistance Unbalance, max.: 3%
- > Mutual Capacitance, max.: 5.1 nF/100 m
- > Capacitance Unbalance Pair to Ground, max.: 50 pF/100 m
- > Input Impedance: 100 ± 15 ohms from 1 to 200 MHz,
100 ± 22 ohms from 200 to 400 MHz
- > Nominal Velocity of Propagation (NVP):
 - Plenum: 72% @ 10 MHz
 - Non-Plenum: 68% @ 10 MHz.
- > Propagation Delay (Skew), max.: 25 ns/100 m.

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FREQUENCY (MHz)	INSERTION LOSS (dB/100 m) (max.)	NEXT (dB) (min.)	PSNEXT (dB) (min.)	ACR (dB) (min.)	PSACR (dB) (min.)	ELFEXT (dB) (min.)	PSELFEXT (dB) (min.)	RETURN LOSS (dB) (min.)
0.772	1.7	82.0	80.0	80.3	78.3	77.0	74.0	—
1.0	1.8	80.3	78.3	78.5	76.5	74.8	71.8	20.0
4.0	3.4	71.3	69.3	67.9	65.9	62.7	59.7	23.0
8.0	4.8	66.8	64.8	62.0	60.0	56.7	53.7	25.0
10.0	5.3	65.3	63.3	60.0	58.0	54.8	51.8	25.0
16.0	6.8	62.3	60.3	55.5	53.5	50.7	47.7	25.0
20.0	7.6	60.8	58.8	53.2	51.2	48.7	45.7	25.0
25.0	8.5	59.3	57.3	50.8	48.8	46.8	43.8	24.6
31.25	9.6	57.9	55.9	48.3	46.3	44.9	41.9	24.2
62.5	13.8	53.4	51.4	39.6	37.6	38.8	35.8	23.0
100.0	17.8	50.3	48.3	32.5	30.5	34.8	31.8	22.1
200.0	26.2	45.8	43.8	19.6	17.6	28.7	25.7	20.9
250.0	29.7	44.3	42.3	14.6	12.6	26.8	23.8	20.5
300.0	33.0	43.2	41.2	10.2	8.2	25.2	22.2	20.2
350.0	36.1	42.2	40.2	6.1	4.1	23.9	20.9	19.9
400.0	39.0	41.3	39.3	2.3	0.3	22.7	19.7	19.7
450.0	41.8	40.5	38.5	-1.3	-3.3	21.7	18.7	19.5
500.0	44.5	39.8	37.8	-4.7	-6.7	20.8	17.8	19.3
550.0	47.1	39.2	37.2	-7.9	-9.9	19.9	16.9	19.1

Mechanical Characteristics

- Minimum Recommended Installation Temperature: 5°C (40°F)
- Temperature Rating: 60°C (140°F).

4-PAIR, 23 AWG	NOMINAL O.D.	MIN. BEND RADIUS	WEIGHT (CABLE ONLY)
4812LX Cable, CMR	6.22 mm (0.245 in.)	24.88 mm (0.980 in.)	4.3 kg/100 m (29.1 lb/kft)
4813LX Cable, CMP	5.81 mm (0.229 in.)	23.66 mm (0.920 in.)	4.6 kg/100 m (30.7 lb/kft)
4824LX Cable, LSZH	6.10 mm (0.246 in.)	24.37 mm (0.960 in.)	4.7 kg/100 m (31.1 lb/kft)

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Qualifications

- Meets or exceeds Category 6 requirements per ANSI/TIA/EIA-568-B
- Exceeds the Category 5e requirements per ANSI/TIA/EIA-568-A.5 or ANSI/TIA/EIA-568-B
- Exceeds the Category 5 requirements per ANSI/TIA/EIA-568-A, CSA T529-95 and ISO/IEC 11801-1995
- Exceeds the Category 5 requirements per NEMA Standard WC 63.1-1996
- Exceeds the Category 5 requirements of ICEA S-90-661-1997
- Non-Plenum: ITS/ETL Certified as CMR, and listed as NEC Type CMR per UL Standard 444
- Plenum: ITS/ETL Certified as CMP, and listed as NEC Type CMP per UL Standard 444
- LSOH: ISO/IEC 332-1, 754-2 and 1034-2.

For More Information

For any other product information call: 1-800-BELDEN-1 or visit us at www.Belden.com

All information is subject to change without notice, since Belden reserves the right to change its products as progress in engineering and manufacturing methods or other circumstances may warrant.

Ordering Information

GigaFlex 4812LX Cable, 4-pair, 23 AWG, CMR, Cat 6

COLOR	LENGTH	PACKAGING	NO. OF PACK PER PALLET	TOTAL PER PALLET	ORDERING NUMBER
White	305 m (1000 ft.)	11-3/4N Spool	36 spools/pallet	10980 m (36000 ft.)	24586385
Blue	305 m (1000 ft.)	11-3/4N Spool	36 spools/pallet	10980 m (36000 ft.)	24586985
White	762 m (2500 ft.)	18N Spool	15 spools/pallet	10980 m (36000 ft.)	24586356
Blue	762 m (2500 ft.)	18N Spool	15 spools/pallet	10980 m (36000 ft.)	24586956

GigaFlex 4813LX Cable, 4-pair, 23 AWG, CMP, Cat 6

White	305 m (1000 ft.)	11-3/4N Spool	36 spools/pallet	10980 m (36000 ft.)	24587385
Blue	305 m (1000 ft.)	11-3/4N Spool	36 spools/pallet	10980 m (36000 ft.)	24587985
White	762 m (2500 ft.)	16N Spool	18 spools/pallet	13716 m (45000 ft.)	24587336
Blue	762 m (2500 ft.)	16N Spool	18 spools/pallet	13716 m (45000 ft.)	24587936

GigaFlex 4824LX Cable, 4-pair, 23 AWG, LSZH, Cat 6

Purple	305 m (1000 ft.)	11-3/4N Spool	36 spools/pallet	10980 m (36000 ft.)	24588085
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