

# DATA Sheet

## GigaFlex 2400 Cable Series Category 6



24566915 GigaFlex 2412 Cable, Riser



24567315 GigaFlex 2413 Cable, Plenum



24568005 GigaFlex 2424 Cable, LSZH

GigaFlex 2400 Cable Series consist of 4-pair UTP cables, that exceed Category 6 requirements per ANSI/TIA/EIA-568-B. When used as the horizontal cable in the Belden 2400, the channel provides at least 250 MHz of bandwidth.

### Features & Benefits

- > Increased bandwidth and signal-to-noise margin
- > Optimized balance of transmission performance for simultaneous parallel transmission protocols
- > Size minimized for compactness of installations
- > Materials selected to support 25 year performance warranties
- > Descending distance marking for cable length reduces waste
- > Matching tip and ring color code for ease of installation
- > Available in Spool-in-Box packaging for ease of installation, handling and inventory management.

### Applications

- > GigaFlex 2400 Cable Series is intended to be used for horizontal cable installations of high speed Local Area Networks (LANs) for transmission speeds of up to 2.4 Gb/s. Specific applications include:
  - > 1000BASE-T Ethernet, and other LAN protocols operating up to 2.4 Gb/s transmission speeds
  - > ATM at all speeds up to 2.4 Gb/s
  - > 100 Mb/s TP-PMD, 100 Mb/s Ethernet (100BASE-T)
  - > Broadband video (77 channels at 550 Mhz).

### Technical Specifications

- > Conductors: 24 AWG solid copper

### > Insulation:

CMR & LSOH: Polyolefin (PE)

CMP: Low Smoke Flame Retardant thermoplastic (FEP)

Color coding as per ANSI/TIA/EIA-568-B.

- > Cable Core: Four twisted pairs formed into a cable core, equipped with jacket splitting cord

### > Jacket:

CMR: PVC

CMP: LSPVC

LSZH: Low Smoke & Fume Zero Halogen Polymer Alloy

Jacket printed at intervals indicating cable code, AWG, listings (NEC Code), verification, date, manufacturing traceability code

Descending length markings start at highest number and end at 0.

### Transmission Characteristics

- > Values up to 300 MHz are minimum guaranteed values
- > Values above 300 MHz are for information only
- > DC Resistance @ 20°C, max.: 9.38 ohms/100 m
- > DC Resistance Unbalance, max.: 5%
- > Mutual Capacitance, max.: 5.6 nF/100 m
- > Capacitance Unbalance Pair to Ground, max.: 330 pF/100 m
- > Input Impedance: 100 ± 15 ohms from 1 to 100 MHz,
  - 100 ± 22 ohms from 101 to 200 MHz,
  - 100 ± 32 ohms from 201 to 300 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	1.8	77.0	75.0	75.2	73.2	73.0	70.0	19.7
1.0	2.0	75.3	73.3	73.3	71.3	70.8	67.8	20.0
4.0	3.7	66.3	64.3	62.6	60.6	58.8	55.8	23.0
8.0	5.2	61.8	59.8	56.6	54.6	52.7	49.7	24.5
10.0	5.8	60.3	58.3	54.5	52.5	50.8	47.8	25.0
16.0	7.4	57.2	55.2	49.9	47.9	46.7	43.7	25.0
20.0	8.3	55.8	53.8	47.5	45.5	44.8	41.8	25.0
25.0	9.3	54.3	52.3	45.1	43.1	42.8	39.8	24.3
31.25	10.4	52.9	50.9	42.5	40.5	40.9	37.9	23.6
62.5	15.0	48.4	46.4	33.4	31.4	34.9	31.9	21.5
100.0	19.3	45.3	43.3	26.0	24.0	30.8	27.8	20.1
200.0	28.3	40.8	38.8	12.5	10.5	24.8	21.8	18.0
250.0	32.1	39.3	37.3	7.3	5.3	22.8	19.8	17.3
300.0	35.6	38.1	36.1	2.6	0.5	21.3	18.3	16.8
350.0	38.9	37.1	35.1	-1.7	-3.7	19.9	16.9	16.3
400.0	42.0	36.3	34.3	-5.7	-7.7	18.8	15.8	15.9
450.0	45.0	35.5	33.5	-9.5	-11.5	17.7	14.7	15.5

### Mechanical Characteristics

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

4-PAIR, 24 AWG	NOMINAL O.D.	MIN. BEND RADIUS	WEIGHT (CABLE ONLY)
2412 Cable, CMR	5.44 mm (0.214 in.)	22.15 mm (0.872 in.)	3.9 kg/100 m (26.0 lb/kft)
2413 Cable, CMP	5.33 mm (0.210 in.)	21.04 mm (0.828 in.)	3.6 kg/100 m (24.0 lb/kft)
2424 Cable, LSZH	5.44 mm (0.214 in.)	23.28 mm (0.916 in.)	4.2 kg/100 m (28.0 lb/kft)

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### Qualifications

- 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: EN50288-6-1, 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](http://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 2412 Cable, 4-pair, 24 AWG, CMR, Cat 6

COLOR	LENGTH	PACKAGING	NO. OF PACK PER PALLET	TOTAL PER PALLET	ORDERING NUMBER
White	305 m (1000 ft.)	Spool-in-Box	45 boxes/pallet	13725 m (45000 ft.)	24566315
Yellow	305 m (1000 ft.)	Spool-in-Box	45 boxes/pallet	13725 m (45000 ft.)	24566715
Blue	305 m (1000 ft.)	Spool-in-Box	45 boxes/pallet	13725 m (45000 ft.)	24566915
White	305 m (1000 ft.)	11-3/4N Spool	36 spools/pallet	10980 m (36000 ft.)	24566345
Yellow	305 m (1000 ft.)	11-3/4N Spool	36 spools/pallet	10980 m (36000 ft.)	24566745
Blue	305 m (1000 ft.)	11-3/4N Spool	36 spools/pallet	10980 m (36000 ft.)	24566945
White	762 m (2500 ft.)	14N Spool	27 spools/pallet	20574 m (67500 ft.)	24566336
Yellow	762 m (2500 ft.)	14N Spool	27 spools/pallet	20574 m (67500 ft.)	24566736
Blue	762 m (2500 ft.)	14N Spool	27 spools/pallet	20574 m (67500 ft.)	24566936

### GigaFlex 2413 Cable, 4-pair, 24 AWG, CMP, Cat 6

White	305 m (1000 ft.)	Spool-in-Box	45 boxes/pallet	13725 m (45000 ft.)	24567315
Yellow	305 m (1000 ft.)	Spool-in-Box	45 boxes/pallet	13725 m (45000 ft.)	24567715
Blue	305 m (1000 ft.)	Spool-in-Box	45 boxes/pallet	13725 m (45000 ft.)	24567915
White	305 m (1000 ft.)	11N Spool	60 spools/pallet	18300 m (60000 ft.)	24567345
Yellow	305 m (1000 ft.)	11N Spool	60 spools/pallet	18300 m (60000 ft.)	24567745
Blue	305 m (1000 ft.)	11N Spool	60 spools/pallet	18300 m (60000 ft.)	24567945
White	762 m (2500 ft.)	14N Spool	27 spools/pallet	20574 m (67500 ft.)	24567336
Yellow	762 m (2500 ft.)	14N Spool	27 spools/pallet	20574 m (67500 ft.)	24567736
Blue	762 m (2500 ft.)	14N Spool	27 spools/pallet	20574 m (67500 ft.)	24567936

### GigaFlex 2424 Cable, 4-pair, 24 AWG, LSZH, Cat 6

Purple	305 m (1000 ft.)	11-3/4N Spool	36 spools/pallet	10980 m (36000 ft.)	24568005
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