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## 6.9.1-A IBDN GigaFlex 4812LX Cable

## 6.9.1-B IBDN GigaFlex 4813LX Cable

## 6.9.1-C IBDN GigaFlex 4824LX Cable



24586985 IBDN GigaFlex 4812LX Cable, Riser



24587385 IBDN GigaFlex 4813LX Cable, Plenum



24588085 IBDN GigaFlex 4824LX Cable, LSOH

## DESCRIPTION

The IBDN GigaFlex 4800LX cable sets a new performance benchmark that exceeds Category 6 requirements per TIA/EIA-568-B. When used as the horizontal cable in the IBDN System 4800LX, they provide 300 MHz of channel bandwidth.

Available in plenum and non-plenum versions, the IBDN GigaFlex 4800LX cable is the next generation of cable technology providing additional headroom for today's most demanding and critical applications.

## FEATURES &amp; 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 IBDN 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

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

Description	Nominal O.D.	Min. Bend Radius	Weight (Cable only)
IBDN GigaFlex 4812LX Cable, 4-pair 23 AWG, <b>CMR</b>	6.22 mm (0.245 in.)	24.88 mm (0.980 in.)	4.3 kg/100 m (29.1 lb/kft)
IBDN GigaFlex 4813LX Cable, 4-pair 23 AWG, <b>CMR</b>	5.81 mm (0.229 in.)	23.66 mm (0.920 in.)	4.6 kg/100 m (30.7 lb/kft)
IBDN GigaFlex 4824LX Cable, 4-pair 23 AWG, <b>LSOH</b>	6.10 mm (0.246 in.)	24.37 mm (0.960 in.)	4.7 kg/100 m (31.1 lb/kft)

## Physical Characteristics

## Construction

- 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
  - LSOH: 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 Ω/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 Ω from 1 MHz to 200 MHz ; 100 ± 22 Ω from 200 MHz 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.

FREQUENCY (MHz)	INSERTION LOSS (dB/100m) (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

**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.

**ORDERING INFORMATION**

The IBDN GigaFlex 4800LX cables are available in a standard wooden spool. Alternative colors and packaging are also available, subject to Minimum Order Quantities. Please check with customer service for availability.

**6.9.1-A IBDN GigaFlex 4812LX Cable**

DETAIL	COLOR	LENGTH	PACKAGING	NO OF PACKS PER PALLET	TOTAL PER PALLET	UPC	ORDERING NUMBER
4-pair, 23 AWG, CMR, Cat 6	White	305 m (1000 ft.)	11-3/4N Spool	36 spools/pallet	10980 m (36000 ft.)	628575015177	24586385
4-pair, 23 AWG, CMR, Cat 6	Blue	305 m (1000 ft.)	11-3/4N Spool	36 spools/pallet	10980 m (36000 ft.)	628575015269	24586985
4-pair, 23 AWG, CMR, Cat 6	White	762 m (2500 ft.)	18N Spool	15 spools/pallet	10980 m (36000 ft.)	628575015146	24586356
4-pair, 23 AWG, CMR, Cat 6	Blue	762 m (2500 ft.)	18N Spool	15 spools/pallet	10980 m (36000 ft.)	628575015238	24586956

**6.9.1-B IBDN GigaFlex 4813LX Cable**

DETAIL	COLOR	LENGTH	PACKAGING	NO OF PACKS PER PALLET	TOTAL PER PALLET	UPC	ORDERING NUMBER
4-pair, 23 AWG, CMP, Cat 6	White	305 m (1000 ft.)	11-3/4N Spool	36 spools/pallet	10980 m (36000 ft.)	628575015382	24587385
4-pair, 23 AWG, CMP, Cat 6	Blue	305 m (1000 ft.)	11-3/4N Spool	36 spools/pallet	10980 m (36000 ft.)	628575015535	24587985
4-pair, 23 AWG, CMP, Cat 6	White	762 m (2500 ft.)	16N Spool	18 spools/pallet	13716 m (45000 ft.)	628575015368	24587336
4-pair, 23 AWG, CMP, Cat 6	Blue	762 m (2500 ft.)	16N Spool	18 spools/pallet	13716 m (45000 ft.)	628575015511	24587936

**6.9.1-C IBDN GigaFlex 4824LX Cable**

DETAIL	COLOR	LENGTH	PACKAGING	NO OF PACKS PER PALLET	TOTAL PER PALLET	UPC	ORDERING NUMBER
4-pair, 23 AWG, LSOH, Cat 6	Purple	305 m (1000 ft.)	11-3/4N Spool	36 spools/pallet	10980 m (36000 ft.)	628575015580	24588085