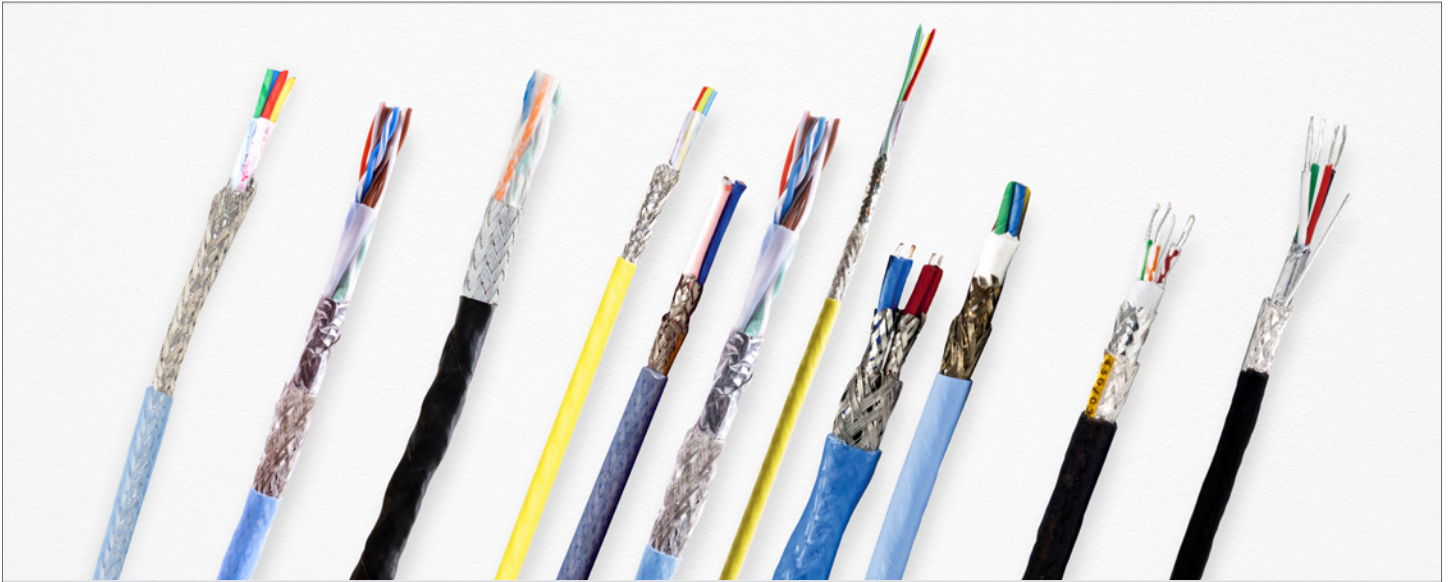


High-Speed Digital Data Cables

Gigabit, NETflight®, and Maxflite™ Series



Gigabit Series Ethernet Cables | NETflight® Series Ethernet Cables | Maxflite™ Series Cables

INTRODUCTION

We manufacture a wide variety of high-performance data cables designed to meet the needs of aerospace, defense, military, ground transportation, industrial, and RF communication applications like:

- » Ethernet Backbone
- » Avionics
- » High-Definition Video
- » Cabin Management Systems
- » IFEC
- » Bus

High-Speed Digital Data Cable Series:

Gigabit Ethernet cables have been developed in a wide variety of configurations to provide 1 and 10 Gb performance in the most demanding applications.

NETflight® Ethernet cables in single pair, dual pair, and quadrx configurations are widely used throughout the aerospace industry and provide superior electrical and mechanical performance.

Maxflite™ cables provide high-speed performance for the popular video and data bus protocols:

- » HDMI
- » DVI
- » USB
- » Firewire

In addition to the standard protocols, we also offer:

- » Custom Designs
- » Assembly Services

FEATURES & BENEFITS

- » Exceptional electrical and mechanical performance
- » Operating performance from -55 °C to as high as 200 °C
- » Meets the requirements of aerospace and other harsh environments including FAR 25.853 flammability and Boeing/Airbus smoke and toxicity requirements
- » Multiple configurations to meet the needs of almost any application
- » Lightweight versions to address weight and space requirements
- » Advanced technologies, including bonded pairs and an innovative X-Web, reduce crosstalk and ensure installable performance

High-Speed Digital Data Cables

Gigabit Series

| Gigabit Series | Gigabit-Flexx™ | | Gigabit-Plus™ | | | Gigabit-10-HP™ | Gigabit-10™ | | Gigabit-STP™ | |
|---|----------------|--------------|---------------|--------------|--------------|----------------|---------------|--------------|----------------|---------|
| | 24 AWG | 26 AWG | 24 AWG | | 26 AWG | 24 AWG | 24 AWG | 26 AWG | 26 AWG | |
| Part Number | MX10G-24FLX | MX10G-26FLX | MX10G-24 | MX10G-24-ALW | MX10G-26 | MX10G-24HP | NF24GB100-10 | NF26GB100-10 | NF26-GBSTP-100 | |
| Impedance | 100 Ω | | 100 Ω | | | 100 Ω | 100 Ω | | 100 Ω | |
| DC Resistance @ 100 ft | 2.76 Ω | 4.38 Ω | 2.76 Ω | 2.76 Ω | 4.38 Ω | 2.76 Ω | 2.43 Ω | 4.38 Ω | 4.38 Ω | |
| Velocity of Propagation | 70% | | 70% | | | 70% | 77% | | 77% | |
| Attenuation @ 100 m | @ 100 MHz | 26.4 dB | 31.6 dB | 24 dB | 24 dB | 29 dB | 22.0 dB | 24.1 dB | 27.2 dB | 38 dB |
| | @ 250 MHz | N/A | N/A | 40 dB | 40 dB | 48 dB | 32 dB | 39.2 dB | 44.3 dB | 62 dB |
| | @ 500 MHz | N/A | N/A | N/A | N/A | N/A | 48 dB | 57.2 dB | 64.6 dB | 90.6 dB |
| Weight lb/1000 ft (kg/1000 m) | 35 (52) | 28 (42) | 50 (74) | 45 (67) | 35 (52) | 55 (82) | 45 (66.6) | 33 (48.8) | 50 (74) | |
| Size in (mm) | 0.245 (6.22) | 0.195 (4.95) | 0.270 (6.86) | 0.270 (6.86) | 0.220 (5.59) | 0.290 (7.36) | 0.282 (7.16) | 0.232 (5.89) | 0.300 (7.62) | |
| Min. Bend Radius in (mm) | 1 (25.4) | 0.75 (19.05) | 2 (50.8) | 2 (50.8) | 1.75 (44.45) | 0.5 (12.7) | 2.82 (71.6) | 2.32 (58.9) | 3 (76.2) | |
| Operating Temp** | -55 to 200 °C | | -55 to 150 °C | | | -55 to 150 °C | -55 to 150 °C | | -55 to 150 °C | |
| ROHS Compliant | ✓ | | ✓ | | | ✓ | ✓ | | ✓ | |
| Meets FAR 25.853 Flammability Requirements | ✓ | | ✓ | | | ✓ | ✓ | | ✓ | |
| Meets Boeing/Airbus Smoke & Toxicity Requirements | ✓ | | ✓ | | | ✓ | ✓ | | ✓ | |

*Gigabit-10 cables are designed specifically for use with an Octax® connector. **Available at -65 °C. Contact us for details.

Gigabit-Flexx™



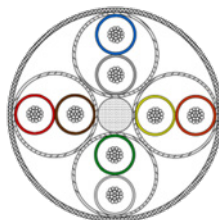
Gigabit-Plus™



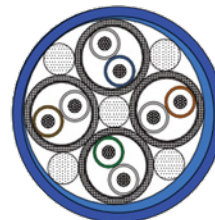
Gigabit 10-HP™



Gigabit-10



Gigabit-STP™



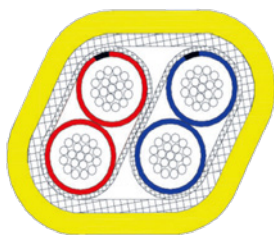
High-Speed Digital Data Cables

NETflight® Series

| NETflight® Series | 100 Base-T Shielded Twisted Pair | | 100 Base-T Shielded Quad | | | | | 100 Base-T Single Twisted Pair | | | |
|--------------------------------------|----------------------------------|-----------------------------|--------------------------|--------------|---------------|--------------------|--------------|--------------------------------|--------------|--------------|-----|
| | 22 AWG | 24 AWG | 22 AWG | 24 AWG | | 26 AWG | 22 AWG | 24 AWG | 26 AWG | | |
| Part Number | NF22P100 | NF24P100 | NF22Q100-01 | NF24Q100-01 | NF24Q100-01HP | NF24Q100-01-DL-ALW | NF26Q100-01 | NF22T100 | NF24T100 | NF26T100 | |
| Impedance | 100 Ω | | 100 Ω | | | | | 100 Ω | | | |
| Velocity of Propagation | 78% | | 78% | | | | | 78% | | | |
| Attenuation @ 100 MHz | Nom dB/100 ft | 5.6 | 6 | 6.4 | 8 | 8 | 8 | 9.3 | 5.8 | 6.6 | 8.5 |
| | Max dB/100 ft | 6.7 | 7.1 | 7.3 | 9.2 | 9.2 | 9.2 | 11 | 6.7 | 7.7 | 9.9 |
| Nom. Weight lb/1000 ft (kg/1000 m) | 42 (63) | 35 (51) | 35 (51) | 24.5 (37) | 24.5 (36.4) | 20.5 (30.5) | 19 (28) | 26 (38) | 18.5 (28) | 15.5 (23) | |
| Nom. Size in (mm) | 0.195 x 0.306 (4.95 x 7.37) | 0.175 x 0.276 (4.45 x 7.01) | 0.190 (4.83) | 0.160 (4.06) | 0.160 (4.06) | 0.160 (4.06) | 0.137 (3.45) | 0.180 (4.57) | 0.145 (3.68) | 0.132 (3.35) | |
| Bend Radius in (mm) | 1.95 (49.5) | 1.75 (44.5) | 1.90 (48.3) | 1.60 (40.6) | 1.60 (40.6) | 1.60 (40.6) | 1.37 (34.5) | 1.80 (45.7) | 1.45 (36.8) | 1.32 (33.5) | |
| Operating Temp** | -55 to 150 °C | | -55 to 150 °C | | -55 to 200 °C | -55 to 150 °C | | -55 to 150 °C | | | |
| Meets FAR 25.853 | ✓ | | ✓ | | | | | ✓ | | | |
| Meets Boeing/Airbus Smoke & Toxicity | ✓ | | ✓ | | | | | ✓ | | | |

**Available at -65 °C. Contact us for details.

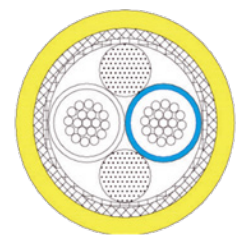
100 Base-T Shielded Twisted Pair



100 Base-T Shielded Quad



100 Base-T Single Twisted Pair



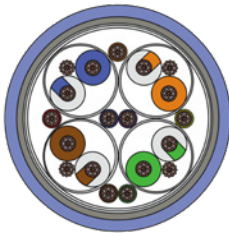
High-Speed Digital Data Cables

Maxflite™ Series

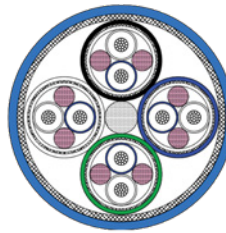
| Maxflite™ Series | HDMI (1.3) | HDMI (2.0) | DVI | IEEE 1394 Firewire | USB 2.0 26/22 AWG | USB 3.0 24/26/22 AWG + Drain | USB 3.1 |
|--------------------------------------|------------------------|----------------------|--------------------|------------------------|---------------------|------------------------------|----------------------|
| Part Number | 1586-305 | 26453/1K017LX-15-DL | 24463/05099X-8(LD) | 24483/03063LX-6(LD) | NF26/22USB(A) | USB3.0/24(AM) | 26443/1K016LX-16-DL |
| Nom. Impedance | 100 Ω | 100 Ω | 100 Ω | 110 Ω | 90 Ω | 90 Ω | 90 Ω |
| Nom. Velocity of Propagation | 70% | 75% | 75% | 79% | 70% | 70% | 75% |
| Nom. Attenuation | 17 dB/100 ft @ 300 MHz | 30 dB/100 ft @ 1 GHz | N/A | 11 dB/100 ft @ 200 MHz | 2 dB/5m @ 100 GHz | 1.4 dB/m @ 1.25 GHz | 4.9 dB/3m @ 1.25 GHz |
| | 42 dB/100 ft @ 1.6 GHz | 50 dB/100 ft @ 2 GHz | | 17 dB/100 ft @ 400 MHz | 3.2 dB/5m @ 200 MHz | 2.4 dB/m @ 2.5 GHz | 6.9 dB/3m @ 2.5 GHz |
| | 70 dB/100 ft @ 4.1 GHz | 70 dB/100 ft @ 3 GHz | | 24 dB/100 ft @ 800 MHz | 5.8 dB/5m @ 400 MHz | 4.1 dB/3m @ 5 GHz | 10.8 dB/3m @ 5 GHz |
| Nom. Weight lbs/1000 ft (kg/1000 m) | 72 (107) | 64 (95.1) | 105 (156) | 78 (116) | 19 (28) | 50 (74.41) | 73 (108.8) |
| Nom. Diameter in (mm) | 0.315 (8) | 0.295 (7.49) | 0.4 (10.16) | 0.34 (8.64) | 0.133 (3.4) | 0.27 (6.8) | 0.295 (7.49) |
| Min. Bend Radius in (mm) | 1.89 (48) | 1.5 (38.1) | 4 (102) | 3.4 (86) | 1.3 (33) | 2.7 (68.6) | 1.5 (38.1) |
| Operating Temp** | -55 to 150 °C | -55 to 135 °C | -55 to 150 °C | -55 to 150 °C | -55 to 150 °C | -55 to 150 °C | -55 to 200 °C |
| Meets FAR 25.853 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Meets Boeing/Airbus Smoke & Toxicity | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

**Available at -65 °C. Contact us for details.

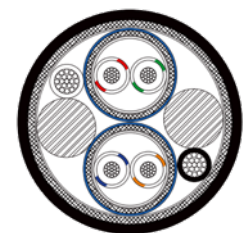
HDMI



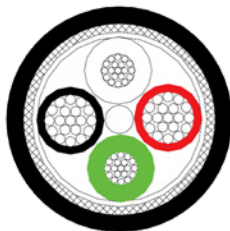
DVI



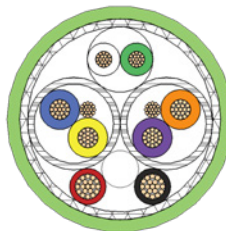
IEEE 1394 Firewire



USB 2.0



USB 3.0



USB 3.1

