Lightweight 100 Base-T Ethernet Quad Cables NETflight® Series

INTRODUCTION

NF24Q100-01-DL-ALW Lightweight 100 Base-T Ethernet Quad Cable

Since the aerospace market is always looking to reduce weight on aircrafts, Carlisle Interconnect Technologies (CarlisleIT) NPD Engineering has developed a new 100 Ω quad Ethernet cable to minimize weight. By using an aluminum round shield in place of the standard tin shield, the new cable design allows for a substantial weight savings, without sacrificing temperature rating or electrical performance.
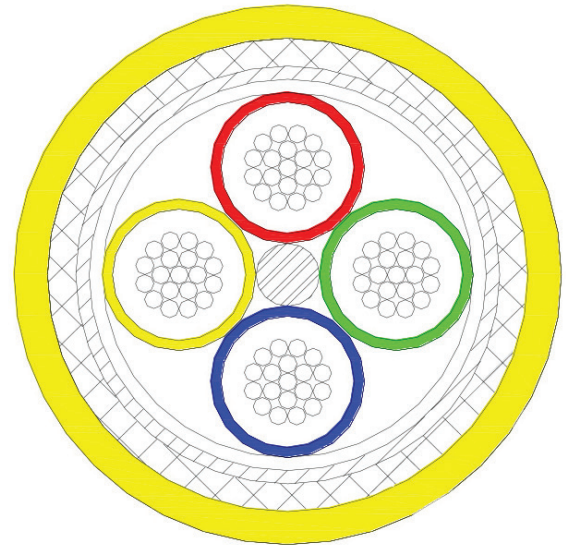
FEATURES	BENEFITS
Optimized weight for aerospace applications	• Weight savings of 16% over standard quad cables
Ease of termination	• Designed for compabillity with existing connectors and ability to use in high-temperature applications
Meets speeds up to 100 MHz	• Equivalent electrical performance of higher weight quads
Extruded primary wire and jackets	• Allows for ease of stripping and termination
Identification marking on jacket	• Readable identification for installers
Laser-markable jacket	• Ease of identification for assembly builder

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SPECIFICATIONS & PERFORMANCE

100 Base-T Ethernet Quad Cable	
Part Number	NF24Q100-01-DL-AWL
AWG Size (Stranding)	24 (19/36)
Nominal Outer Diameter	4.06 mm (0.160")
Typical Weight	30.5 kg/km (20.5 lb/1000 ft)
Mechanical	
Jacket Material	Extruded FEP
Jacket Color	Yellow
Conductor	Silver-Coated Copper Alloy
Conductor Color Coding	Red, Blue, Yellow, Green
Dielectric	Extruded Fluoropolymer
Flat Shield	Tin-coated copper
Round Shield Material	Silver-Plated Copper-Coated Aluminum
Temperature Range	-65 to 150 °C
Electrical	
Standard Impedance	100 +/- 10 Ω
Nominal Capacitance	13 pF/ft
Nominal Velocity of Propagation	80%
Minimum Near-End Crosstalk (NEXT)	35 dB
SRL	16 dB
Typical Insertion Loss	@ 10 MHz	2.2 dB/30 m 2.2 dB/100 ft
	@ 62.5 MHz	5.9 dB/30 m 5.9 dB/100 ft
	@ 100 MHz	8.0 dB/30 m 8.0 dB/100 ft

NF24Q100-01-DL-ALW Cable Cross Section

See our complete line of High-Speed Digital Data Cables at:
CarlisleIT.com/products/wire-cable/high-speed-digital-data-cables

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