

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, Amphenol CIT 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.

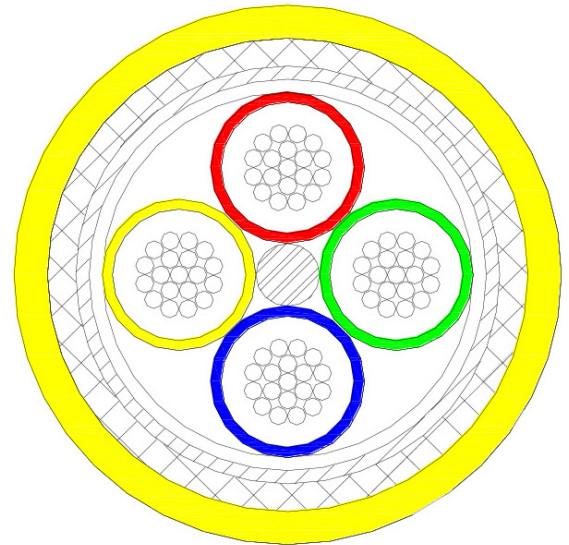
FEATURES	BENEFITS
Optimized weight for aerospace applications	• Weight savings of 16% over standard quad cables
Ease of termination	• Designed for compatibility with existing connectors and ability to use in high-temperature applications
Meets speeds up to 100 MHz	• Equivalent electrical performance 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-AWL Cable Cross Section