GORE™ Coaxial Cable

OPTIMIZED RG400

SUMMARY

GORE™ Optimized RG400 Coaxial Cable is designed to be a direct replacement for RG400 cable. Gore's cable is 60% lighter weight and 30% smaller diameter compared to standard RG400 cable. The cable is suitable for use in commercial and military aircraft and is an ideal choice for aircraft electronics retrofits because it is small, flexible, and easy to route. Typical applications include navigation, communications, box-to-antenna, and in-flight entertainment.

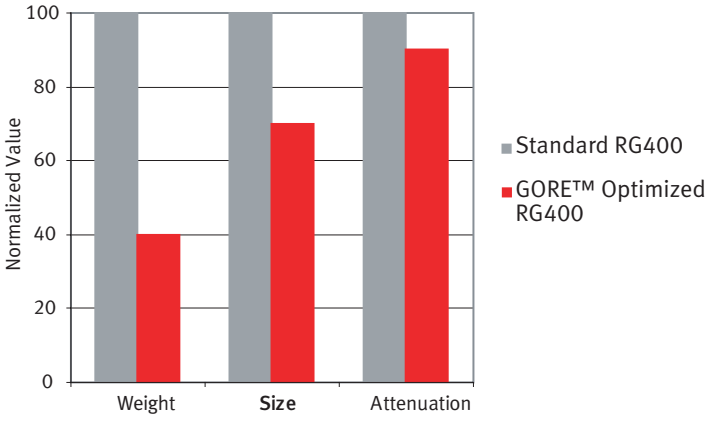
TECHNICAL SPECIFICATIONS

GORE™ Optimized RG400 Coaxial Cable meets the stringent requirements of both EN 4604-003 and FAR25.853. The 50 ohm cable meets and exceeds the electrical requirements of MIL-C-17. Designed for use in aircraft electrical systems, the cable has an operating temperature range of -65°C to +200°C. The maximum operating frequency is greater than 3 GHz and the outer jacket of the cable is UV-laser printable.

A special cable design provides enhanced performance allowing GORE™ Optimized RG400 Coaxial Cable to have 10% lower attenuation. Environmental protection is achieved with the use of a FEP outer jacket.

GORE™ Optimized RG400 Coaxial Cable offers significant weight savings. If the GORE™ Cable replaced all of the standard RG400 cable on a typical large cabin business jet, expectations of weight savings is approximately 42 lbs (19kg). When GORE™ Optimized RG400 Coaxial Cable replaced standard RG400 cable on the Airbus 330/340 in-flight entertainment system, the weight savings was 48 lbs (22 kg) from that one application.

GORE™ OPTIMIZED RG400 VS. STANDARD RG400



RG400 Cable

GORE™ Optimized RG400 Cable

GORE™ Optimized RG400 Coaxial Cable is 60% lighter and 30% smaller.

KEY FEATURES

- Lightweight
- Small size
- Low attenuation
- Superior shielding effectiveness
- Qualified to EN 4604-003 and FAR25.853

KEY BENEFITS

- Significant weight savings
- Less space required
- Increased electrical performance
- Easy to route

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OPTIMIZED RG400

ELECTRICAL CHARACTERISTICS

Maximum frequency	›3 GHz	
Impedance	50 ±2 Ω	
Capacitance- max.	88 pF/m	
Velocity of propagation- min.	75% Co	
Transfer impedance- max.	30 mΩ at 1 MHz to 3 GHz	
Attenuation at 200 MHz	0.17 dB/m nominal	0.19 dB/m maximum
Attenuation at 400 MHz	0.25 dB/m nominal	0.28 dB/m maximum
Attenuation at 1000 MHz	0.43 dB/m nominal	0.47 dB/m maximum
Attenuation at 3000 MHz	0.80 dB/m nominal	0.90 dB/m maximum
CW power handling- 50 MHz	1100 W	
CW power handling- 400 MHz	450 W	
CW power handling- 3000 MHz	150 W	

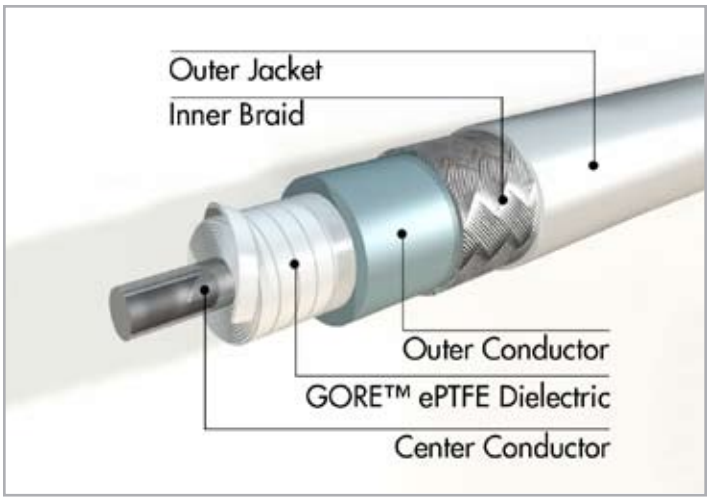
MECHANICAL CHARACTERISTICS

Outer diameter- nominal	3.5 mm (0.137 in)
Outer diameter- maximum	3.7 mm (0.146 in)
Weight- nominal	26 g/m or 17 lb/1000 ft
Weight - maximum	30 g/m or 20 lb/1000 ft
Minimum bend radius- static	35 mm (1.38 in)
Minimum bend radius- dynamic	100 mm (3.94 in)
Operating temperature	-65 °C to +200 °C
Outer jacket color	White

PART NUMBERS AND TESTING

Part Number	Test Specification
GSC-03-81748-00	Passes European Norm 4604-003
DXN400	Passes Federal Aviation Regulations (USA) 25.853

GORE™ OPTIMIZED RG400 CABLE SCHEMATIC



CONNECTOR OPTIONS

Connector Style	Part Number	Manufacturer
N straight plug	R 161 073 020	Radiall
N straight plug	172332	Amphenol
N right angle plug	R 161 173 020	Radiall
N bulkhead jack	R 161 342 020	Radiall
TNC straight plug	R 143 095 020	Radiall
TNC straight plug	122952	Amphenol
TNC right angle plug	R 143 182 020	Radiall
TNC bulkhead jack	R 143 342 020	Radiall
BNC straight plug	R 141 095 020	Radiall
BNC straight plug	112988	Amphenol
BNC right angle plug	R 141 195 020	Radiall
BNC bulkhead jack	R 141 325 020	Radiall
SMA straight plug	132374	Amphenol

Contact Gore for other connector options.

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