

GF120-24CANB-1

GARMIN APPROVED CAN BUS



INNOVATIVELY DESIGNED CAN BUS

The GF120-24CANB-1 is an Aerospace-grade CAN Bus approved by Garmin for use with Garmin's CAN Bus System architecture. CAN Bus is designed to be a 120 ohm Twinax, which means the insulation thickness is increased to achieve 120 ohms between the conductors. The increased thickness creates an issue with contact extraction because the insulation OD is larger than the contact. With GigaFlight's CAN Bus, we have solved this issue by utilizing a dual wall insulation design. The first layer of insulation is a thinner wall high temp PFA with a finished diameter less than the contact OD. The second layer of insulation is a foamed FEP that provides the separation between the wires to maintain a 120 ohms-controlled impedance throughout. A section of the foamed insulation is removed in the termination process to provide access for contact removal.

An added benefit of a dual wall construction is that the solid insulation eliminates insulation creep back, a common issue with an all foam insulation design. The silver-plated woven strip braid provides superior shielding effectiveness, enhanced insertion loss and improves solder flow over tin-plated braid alternatives.

ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.142"
Weight	17.5 lbs per 1000 ft
Operating Temperature	-55°C to +200°C
Minimum Bend Radius	0.76"

ELECTRICAL PROPERTIES

Impedance	120Ω	
Capacitance	11.5 pF per ft	
Velocity of Propagation	75%	
DC Resistance	28.1Ω/1000 ft max.	
Shield DCR	13.3 Ω/1000 ft	
Dielectric Voltage Rating	1.5 KV RMS	
Attenuation (+25°C)	Frequency	dB/100 ft
	1 MHz	1.0
	6 MHz	2.0
	10 MHz	2.7
	100 MHz	7.4

CABLE CONSTRUCTION

1	Conductors	24 AWG Stranded Silver-plated Copper Alloy
2	Inner Insulation	Solid Fluoropolymer
3	Outer Insulation	Foamed Fluoropolymer
	Color Code	Blue, White
4	Filler	FEP
5	Binder	PTFE Tape
6	Shield	SPC Woven Strip, 92% Min Coverage
7	Jacket	White, laser-markable, Tefzel

GigaFlight's aerospace cables are designed to be resistant to Skydrol, will meet requirements of RoHS & REACH, & meets Federal Aviation Regulations 14 CFR part 25.869 (a)(4), Amendment 25-113, Appendix F part I (a)(3).

