



...Your form, fit, & function provider



PRODUCT OFFERING

Catalog & Handbook



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Your GIGAFLIGHT Team

GIGAFLIGHT Connectivity Inc was founded by Air Force veteran, Ben Hackett, on November 17, 2017, with the intent to provide high performance electronic cable and connector products, timely technical support, and old-fashioned customer service. Located in the heart of the Aerospace wire and cable community, GIGAFLIGHT has pulled together a team of highly recognized individuals in the industry.

Our current product lines are designed to be a drop-in replacement or suitable alternative for many of the popular lines in the industry today. GIGAFLIGHT will continue to design new and innovative products for future programs and systems.

- FAA PMA production approval holder – No. PQ04435CE
- ISO 9001: 2015 registered, AS9100: 2016 D registered
- Member, Aerospace Electronics Association
- Military, aerospace, corporate and other harsh environments such as aircraft, ground vehicles, transport, and Motor sport



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GIGALite™ RF Cables & Connectors

50 Ω Coaxial & Triaxial Cables & Avionics Cable Assemblies

GIGALite aircraft / avionics / aerospace coaxial, triax cables and cable assemblies are used in many major avionic / aircraft / aerospace systems and meet FAA Flammability requirements.

- **50 Ω Coaxial:** Flexible, lightweight, low loss, high-temperature cables. Advanced aerospace cables designed specifically for aircraft and other such harsh environments. Excellent protection against EMI. Laser markable and color option jackets. All cables are Skydrol resistant, will meet requirements of RoHS & REACH and meets the FAA flammability requirements of FAR.
- **50 Ω Triaxial:** Flexible, lightweight, low loss, high-temperature cables. Advanced aerospace cables designed specifically for aircraft systems and other such harsh environs. Excellent protection against EMI. Laser markable and color option jackets.
- **Markets & Applications:** Military, Aerospace and other Harsh Environments: Communications, TCAS and Navigation, SATCOM, Cellular, GPS, Marker Beacon, Mode S, ADS-B

CABLE COMPARISON

50Ω COAX CABLES & CONNECTORS

50 OHM CABLE COMPARISON - GIGAFLIGHT, CARLISLE & PIC

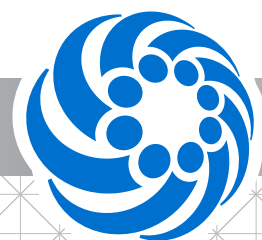
CABLE GROUPING	GIGAFLIGHT	CARLISLE	PIC
Cable Group A	GF5-71T	311501	S67163
Cable Group B	GF5-56T	311201	S55122
Cable Group C	GF5-124T	311901	S44193
		3C142B	S44191
Cable Group D	GF5-67T	--	S33141

50 OHM COAXIAL CONNECTOR & CABLE PARING

TYPE ON CONNECTOR	CABLE GROUP	GIGAFLIGHT'S P/N*	CARLISLE'S P/N*	PIC'S P/N**
TNC Straight Plug	Group A	GF5-TS71T	CTS922	190508
TNC 90° Plug		GF5-TA71T	CTR922	190509
TNC Bulkhead Jack		GF5-TB71T	BTS922	190521
BNC Straight Plug		GF5-BS71T	CBS922	190512
BNC 90° Plug		GF5-BA71T	CBR922	190513
N Straight Plug		GF5-NS71T	CNS922	190510
N 90° Plug		GF5-NA71T	CNR922	190511
N Bulkhead Jack		GF5-NB71T	BNS922	190522
SMA Straight Plug		GF5-SS71T	CSS922	190514
SMA 90° Plug		GF5-SA71T	CSR922	190515
SMA Bulkhead Jack		GF5-SB71T		111082
C 90° Plug		GF5-CA71T	CCR922	190507
TNC Straight Plug	Group B	GF5-TS56T	CTS122	190608
TNC 90° Plug		GF5-TA56T	CTR122	190609
TNC Bulkhead Jack		GF5-TB56T	BTS122	190621
BNC Straight Plug		GF5-BS56T	CBS122	190612
BNC 90° Plug		GF5-BA56T	CBR122	190613
N Straight Plug		GF5-NS56T	CNS122	190610
N 90° Plug		GF5-NA56T	CNR122	190611
N Bulkhead Jack		GF5-NB56T	BN3122	190622
SMA Straight Plug		GF5-SS56T	CSS122	190614
SMA 90° Plug		GF5-SA56T	CSR122	190615
SMA Bulkhead Jack		GF5-SB56T		
TNC Straight Plug	Group C	GF5-TS124T	CTS722	190108
TNC 90° Plug		GF5-TA124T	CTR722	190109
TNC Bulkhead Jack		GF5-TB124T	BTS722	190121
BNC Straight Plug		GF5-BS124T	CBS722	190112
BNC 90° Plug		GF5-BA124T	CBR722	190113
C 90° Plug		GF5-CA124T	CCR722	190107
N Straight Plug		GF5-NS124T	CNS722	190110
N 90° Plug		GF5-NA124T	CNR722	190111
N Bulkhead Jack		GF5-NB124T	BN3722	190122
SMA Straight Plug		GF5-SS124T	CSS722	190114
SMA 90° Plug		GF5-SA124T	CSR722	190115
SMA Bulkhead Jack		GF5-SB124T		

*Same tooling and strip lengths. **Different tooling and strip lengths.

CONTINUED ON BACK



50 OHM COAXIAL CONNECTOR & CABLE PARING				
TYPE ON CONNECTOR	CABLE GROUP	GIGAFLIGHT'S P/N*	CARLISLE'S P/N*	PIC'S P/N**
TNC Straight Plug	Group D	GF5-TS67T		190308
TNC 90° Plug		GF5-TA67T		190309
TNC Bulkhead Jack		GF5-TB67T		190321
BNC Straight Plug		GF5-BS67T		190312
BNC 90° Plug		GF5-BA67T		190313
N Straight Plug		GF5-NS67T		190310
N 90° Plug		GF5-NA67T		190311
N Bulkhead Jack		GF5-NB67T		190322
SMA Straight Plug		GF5-SS67T		190314
SMA 90° Plug		GF5-SA67T		190315
SMA Bulkhead Jack		GF5-SB67T		

**Same tooling and strip lengths. **Different tooling and strip lengths.*



GF5-56T

LOW-LOSS HIGH-PERFORMANCE COAX



GIVING YOU OPTIONS

GigaFlight's 50Ω coaxial cable, GF5-56T, is designed as a drop-in replacement to Carlisle's 311201 and PIC's S55122. Built with identical materials and matching electricals, GigaFlight has simplified your design in approvals. The connectors paired with this cable are identical to the XXX122 series connectors, which means electrical characteristics, strip dimensions and tooling are the same.

CABLE CONSTRUCTION

1	Center Conductor	12 AWG Stranded Silver-plated Copper
2	Dielectric	Low-density PTFE
3	Inner Shield	SPC Woven Strip
4	Interlayer	Aluminum Foil
5	Outer Shield	SPC Round Braid
6	Jacket	Clear FEP

ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.317"
Weight	86 lbs per 1000 ft
Operating Temperature	-55°C to +200°C
Minimum Bend Radius	1.59"

ELECTRICAL PROPERTIES

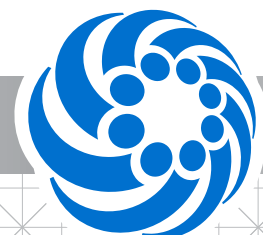
Impedance	50Ω	
Capacitance	25.5 pF per ft	
Velocity	80%	
DC Resistance	1.69Ω/1000 ft	
Time Delay	1.27 ns/ft	
Shield Effectiveness	>90 dB	
Attenuation (+25°C)	Frequency	dB/100 ft
	150 MHz	2.1
	1000 MHz	5.6
	1600 MHz	6.7
	2400 MHz	8.9
	5000 MHz	12.7

CONNECTORS

STYLE	P/N	STYLE	P/N
TNC Straight	GF5-TS56T	N Straight	GF5-NS56T
TNC 90°	GF5-TA56T	N 90°	GF5-NA56T
TNC Bulkhead	GF5-TB56T	N Bulkhead	GF5-NB56T
BNC Straight	GF5-BS56T	SMA Straight	GF5-SS56T
BNC 90°	GF5-BA56T	SMA 90°	GF5-SA56T
		SMA Bulkhead	GF5-SB56T

All tests performed in accordance with MIL-DTL-17

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), Appendix F part I (a)(3).



GF5-67T

LOW-LOSS HIGH-PERFORMANCE COAX



GIVING YOU OPTIONS

GIGAFLIGHT's 50Ω coaxial cable, GF5-67T is a suitable, electrical alternative to PIC's S33141. To save time in assembly builds and reduce cable weight—14% lighter than the S33141—GIGAFLIGHT uses a white, laser-markable Fluoropolymer jacket.

All of our connectors designed for the GF5-67T are interchangeable with PIC's 1903XX series connectors. For more information, please contact GIGAFLIGHT today.

CABLE CONSTRUCTION

1	Center Conductor	14 AWG Stranded Silver-plated Copper
2	Dielectric	Low-density PTFE
3	Inner Shield	SPC Woven Strip
4	Interlayer	Aluminum Foil
5	Outer Shield	SPC Round Braid
6	Jacket	White, laser-markable Fluoropolymer

ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.248" (6.299mm)
Weight	57 lbs/1000ft (84.83kg/1000m)
Operating Temperature	-55°C to +200°C
Minimum Bend Radius	1.25" (31.75mm)

ELECTRICAL PROPERTIES

Impedance	50Ω	
Capacitance	25 pF/ft (82.02 pF/m)	
Velocity	80.5%	
DC Resistance	2.9Ω/1000ft (9.51Ω/1000m)	
Time Delay	1.26ns/ft (4.13ns/m)	
Shield Effectiveness	>90 dB	
Attenuation (+25°C)	Frequency	dB/100ft (/100m)
	150 MHz	2.5 (8.2)
	1000 MHz	6.7 (21.9)
	1600 MHz	8.6 (28.2)
	2400 MHz	10.5 (34.5)
	5000 MHz	15.5 (50.9)

CONNECTORS

STYLE	P/N	STYLE	P/N
TNC Straight	GF5-TS67T	N Straight	GF5-NS67T
TNC 90°	GF5-TA67T	N 90°	GF5-NA67T
TNC Bulkhead	GF5-TB67T	N Bulkhead	GF5-NB67T
BNC Straight	GF5-BS67T	SMA Straight	GF5-SS67T
BNC 90°	GF5-BA67T	SMA 90°	GF5-SA67T
		SMA Bulkhead	GF5-SB67T

All tests performed in accordance with MIL-DTL-17

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), Appendix F part I (a)(3).



GF5-71T

LOW-LOSS HIGH-PERFORMANCE COAX



GIVING YOU OPTIONS

GigaFlight's 50Ω coaxial cable, GF5-71T, is designed as a drop-in replacement to Carlisle's 311501 and PIC's S67163. Built with identical materials and matching electricals, GigaFlight has simplified your design in approvals. The connectors paired with this cable are identical to the XXX922 series connectors, which means electrical characteristics, strip dimensions and tooling are the same.

In addition, the GF5-71T cable is considerably smaller, lighter weight, and lower loss than commonly used RG393 and RG214.

CABLE CONSTRUCTION

1	Center Conductor	15 AWG Solid Silver-plated Copper
2	Dielectric	Low-density PTFE
3	Inner Shield	SPC Woven Strip
4	Interlayer	Aluminum Foil
5	Outer Shield	SPC Round Braid
6	Jacket	Clear FEP

ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.229"
Weight	50 lbs per 1000 ft
Operating Temperature	-55°C to +200°C
Minimum Bend Radius	1.20" (installation)

ELECTRICAL PROPERTIES

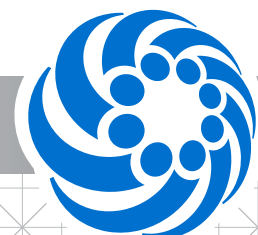
Impedance	50Ω	
Capacitance	25.5 pF per ft	
Velocity	80%	
DC Resistance	2.98Ω/1000 ft	
Time Delay	1.27 ns/ft	
Shield Effectiveness	>90 dB	
Attenuation (+25°C)	Frequency	dB/100 ft
	150 MHz	2.7
	1000 MHz	7.1
	1600 MHz	9.1
	2400 MHz	10.7
	5000 MHz	16.1

CONNECTORS

STYLE	P/N	STYLE	P/N
TNC Straight	GF5-TS71T	N Straight	GF5-NS71T
TNC 90°	GF5-TA71T	N 90°	GF5-NA71T
TNC Bulkhead	GF5-TB71T	N Bulkhead	GF5-NB71T
BNC Straight	GF5-BS71T	SMA Straight	GF5-SS71T
BNC 90°	GF5-BA71T	SMA 90°	GF5-SA71T
		SMA Bulkhead	GF5-SB71T

All tests performed in accordance with MIL-DTL-17

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), Appendix F part I (a)(3).



GF5-124T

LOW-LOSS HIGH-PERFORMANCE COAX



GIVING YOU OPTIONS

GigaFlight's 50Ω coaxial cable, GF5-124T, is designed as a drop-in replacement to Carlisle's 311901 and PIC's S44193. Built with identical materials and matching electricals, GigaFlight has simplified your design in approvals. The connectors paired with this cable are identical to the XXX722 series connectors, which means electrical characteristics, strip dimensions and tooling are the same.

CABLE CONSTRUCTION

1	Center Conductor	19 AWG SPCCS
2	Dielectric	Solid High Temp. Fluoropolymer
3	Inner Shield	SPC Woven Strip
4	Interlayer	Aluminum Foil
5	Outer Shield	SPC Round Braid
6	Jacket	Translucent Blue FEP

ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.195"
Weight	43 lbs per 1000 ft
Operating Temperature	-55°C to +200°C
Minimum Bend Radius	1.0" (installation)

ELECTRICAL PROPERTIES

Impedance	50Ω	
Capacitance	29.3 pF per ft	
Velocity	70%	
DC Resistance	19.5Ω/1000 ft	
Time Delay	1.46 ns/ft	
Shield Effectiveness	>90 dB	
Attenuation (+25°C)	Frequency	dB/100 ft
	150 MHz	4.3
	1000 MHz	12.2
	1600 MHz	15.8
	2400 MHz	18.6
	5000 MHz	30.0

CONNECTORS

STYLE	P/N	STYLE	P/N
TNC Straight	GF5-TS124T	N Straight	GF5-NS124T
TNC 90°	GF5-TA124T	N 90°	GF5-NA124T
TNC Bulkhead	GF5-TB124T	N Bulkhead	GF5-NB124T
BNC Straight	GF5-BS124T	SMA Straight	GF5-SS124T
BNC 90°	GF5-BA124T	SMA 90°	GF5-SA124T
		SMA Bulkhead	GF5-SB124T

All tests performed in accordance with MIL-DTL-17

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), Appendix F part I (a)(3).





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GIGAVideo™ Video Cables & Connectors

75 Ω Coaxial, Triaxial, & HDMI Cables & Avionics Cable Assemblies

Lightweight, High temperature, flexible, low loss, high-tech cables designed specifically for aircraft / avionics systems and other harsh environments. Laser markable jackets with multiple color options.

GIGAVideo 75 ohm aircraft video cables are designed to shield against EMI, provide low-loss transmission of video for applications including cabin security, in-flight entertainment and cockpit displays. Cables and cable assemblies used within key avionic systems for corporate, civil and military aircraft and to FAA flammability requirements.

- In-Flight Entertainment (IFE)
- Cockpit Displays
- Surveillance / Cabin Security Cameras
- RS170 Video
- SMPTE 292M Video
- SMPTE 424M Video
- Blu-Ray & High Definition Video
- 75 ohm RF & HDMI video cable solutions

CABLE COMPARISON

75Ω COAX CABLES & CONNECTORS

75 OHM CABLE COMPARISON - GIGAFLIGHT, PIC, & CARLISLE/ECS

DESCRIPTION	GIGAFLIGHT	PIC	CARLISLE/ECS
75 Ω Video Coax	GF7-303D	V76261*	–
75 Ω Video Coax	GF7-303D	V73263, V75268**	442501**
75 Ω Video Triax	GF7-TX303D	L7626TX*	–

75 OHM COAXIAL CONTACT CROSS REFERENCE - GIGAFLIGHT & PIC

TYPE ON CONNECTOR	GIGAFLIGHT'S P/N	PIC'S P/N
Size 8 Socket Contact 75 Ω Interface	GF7-8S303HD	190741-01*
Size 8 Pin Contact 75 Ω Interface	GF7-8P303HD	190740-01*
Size 12 Socket Contact 75 Ω Interface	GF7-12S303H	190767*
Size 12 Pin Contact 75 Ω Interface	GF7-12P303HD	190766*
BNC Straight Plug	GF7-BS303D	190712*
3 Lug TRB Straight Plug	GFSC-2009	110459*

*Drop-in replacement: GIGAFLIGHT's product is identical to another as far as materials, physical, and electrical characteristics.

**Suitable alternative: GIGAFLIGHT's product is comparable with slight variances. Please contact us to discuss your application.



GF7-303D

LOW-LOSS HD VIDEO CABLE



HIGH-DEFINITION VIDEO CABLE

The GF7-303D is a form, fit, and function drop-in replacement for a commonly used V76261. Meaning the electrical performance, size/weight, connector usage, and the applications are the same. The GF7-303D is not only recommended for use in SMPTE 259M, but also can be used in the SMPTE 292 and SMTPE 424 video applications.

This cable is currently available in two jacket colors, standard Laser Markable White and Flight Test Orange.

CABLE CONSTRUCTION

1	Center Conductor	26 AWG Stranded Silver-plated Copper
2	Dielectric	Foamed High-temp FEP
3	Inner Shield	Aluminum Composite Tape
4	Outer Shield	38 AWG Tin-plated Copper Braid
5	Jacket	White, laser-markable Tefzel

ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.120"
Weight	11 lbs per 1000 ft
Operating Temperature	-55°C to +150°C
Minimum Bend Radius	0.64" (installation)
Max Length SMPTE 292M HD-SDI Feet (M)	120 ft (36.6)
Max Length SMPTE 424M 3G-SDI Feet (M)	80 ft (24.4)

JACKET COLORS & APPLICATIONS

GF7-303D	White	Laser Markable
GF7-303D-3	Orange	Flight Test Data

ELECTRICAL PROPERTIES

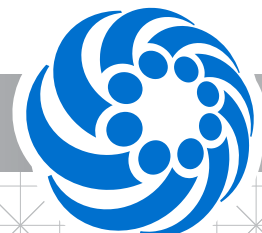
Impedance	75Ω	
Capacitance	16 pF per ft	
Velocity	80%	
DC Resistance	34.5Ω/1000 ft	
Time Delay	1.27 ns/ft	
Shield Effectiveness	>90 dB	
Attenuation (+25°C)	Frequency	dB/100 ft
	135 MHz	5.8
	180 MHz	6.7
	270 MHz	8.3
	360 MHz	9.7
	400 MHz	10.2
	750 MHz	14.2
	1500 MHz	20.6
	3000 MHz	30.6

CONNECTORS

STYLE	P/N
75Ω M39029 Size 8 Pin	GF7-8P303HD
75Ω M39029 Size 8 Socket	GF7-8S303HD
75Ω M39029 Size 12 Pin	GF7-12P303HD
75Ω M39029 Size 12 Socket	GF7-12S303HD
BNC Straight Plug	GF7-BS303D

All tests performed in accordance with MIL-DTL-17

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), Appendix F part I (a)(3).



GF7-TX303D

LOW-LOSS HD VIDEO CABLE


HIGH DEFINITION TRIAXIAL CABLE

The 75-ohm Triaxial cable GF7-TX303D is a form, fit, and function drop-in replacement for a commonly used Triaxial cable L7626TX. Meaning the electrical performance, size/weight, connector usage and the applications are the same. This cable is typically used in cabin entertainment video applications, where low levels of EMI cannot be tolerated. In most applications, the internal coax is terminated to the same connectors as GF7-303D and outer Triaxial shield tied to a specified ground point.

This cable is currently available in two jacket colors, standard Laser Markable White and Flight Test Orange.

CABLE CONSTRUCTION

1	Center Conductor	26 AWG Stranded Silver-plated Copper
2	Dielectric	Foamed High-temp FEP
3	Inner Shield	Aluminum Composite Tape
4	Outer Shield	38 AWG Tin-plated Copper Braid
5	Inner Jacket	White Tefzel
6	Outer Shield	38 AWG Tin-plated Copper Braid
7	Outer Jacket	White, laser markable Tefzel

ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.160"
Weight	22 lbs per 1000 ft
Operating Temperature	-55°C to +150°C
Minimum Bend Radius	0.80" (installation)
Max Length SMPTE 292M HD-SDI Feet (M)	120 ft (36.6)
Max Length SMPTE 424M 3G-SDI Feet (M)	80 ft (24.4)

All tests performed in accordance with MIL-DTL-17

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), Appendix F part I (a)(3).

JACKET COLORS & APPLICATIONS

GF7-TX303D	White	Laser Markable
GF7-TX303D-3	Orange	Flight Test Data

ELECTRICAL PROPERTIES

Impedance	75Ω	
Capacitance	16 pF per ft	
Velocity	80%	
DC Resistance	38.5Ω/1000 ft	
Time Delay	1.27 ns/ft	
Shield Effectiveness	>90 dB	
Attenuation (+25°C)	Frequency	dB/100 ft
	100 MHz	5.5
	400 MHz	11.2
	1450 MHz	21.6
	3000 MHz	31.6

CONNECTORS

STYLE	P/N
75Ω M39029 Size 8 Pin	GF7-8P303HD
75Ω M39029 Size 8 Socket	GF7-8S303HD
75Ω M39029 Size 12 Pin	GF7-12P303HD
75Ω M39029 Size 12 Socket	GF7-12S303HD
3 Lug TRB Straight Plug	GFSC-2009
BNC Straight Plug	GF7-BS303D



GF100-26HDMI

HIGH-DEFINITION MULTIMEDIA INTERFACE CABLE



READILY AVAILABLE AEROSPACE GRADE HDMI

The GF100-26HDMI is an aerospace, high-speed 2.0 HDMI cable designed to support 4K p60/59, 12Gbps images up to 15 ft, as well as, 4K p30/24, 6Gbps and 1080p 60Hz up to 50 ft. This cable is backward compatible to all current features pertinent to the HDMI specifications.

GIGAFLIGHT offers custom assemblies and test reports for assemblies built using HDMI, DVI-D, and HD26 Pin D-Subs with a typical lead-time of 2-3 days. See the current HDMI generic drawing templates listed in the table and contact GIGAFLIGHT to discuss your assembly requirements.

CABLE CONSTRUCTION

Five Shielded, Twisted Pairs

1	Conductor	26 AWG Stranded SPCA
	Inner Insulation	Solid Fluoropolymer
	Outer Insulation	Foamed Fluoropolymer
	Color Code	Pair 1: Blue, White; Pair 2: Red, White Pair 3: Green, White; Pair 4: Brown, White; Pair 5: Yellow, White
	Binder	Clear Mylar
	Drain Wire	26 AWG Tin-plated Copper
	Shield	Aluminum Composite Tape

Four Discrete Wires

2	Conductor	26 AWG Tin-plated Copper
	Insulation	Solid Fluoropolymer
	Color Code	Gray, Orange, Violet, Black
3	Shield 1	Aluminum Composite Tape
4	Drain Wire	26 AWG Tin-plated Copper
5	Shield 2	Tin-plated Copper
6	Jacket	Black Fluoropolymer

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ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.296"
Weight	68 lbs per 1000 ft
Operating Temperature	-55°C to +150°C
Minimum Bend Radius	1.5"

ELECTRICAL PROPERTIES

Impedance	100Ω	
Capacitance	14.5 pF per ft	
Velocity of Propagation	75%	
DC Resistance	43.9Ω/1000 ft max.	
Shield DCR	13.3Ω/1000 ft max.	
Dielectric Voltage Rating	1.5 kV RMS	
Attenuation (+25°C)	Frequency	dB/5 m
	300 MHz	2.5
	825 MHz	5.0
	4125 MHz	20.0
	5100 MHz	25.0

HDMI GENERIC ASSEMBLY DRAWING TEMPLATES

GFAHDMI-300-XXX	HDMI Plug to HDMI Plug
GFAHDMI-301-XXX	HDMI Plug to DVI-D Plug
GFAHDMI-302-XXX	HDMI Plug to HD26 pin D-Sub Plug
GFAHDMI-303-XXX	DVI-D Plug to DVI-I F/F Coupler
GFAHDMI-304-XXX	DVI-D Plug Assembly (one side only)
GFAHDMI-305-XXX	DVI-D Plug to DVI-D Plug





...Your form, fit, & function provider



GIGABite™ Data Cables & Connectors

Databus, High Speed Data, & Ethernet Cables & Avionics Cable Assemblies

High speed data communications cable solutions for Ethernet Communications Backbone, In-Flight Entertainment (IFE), Ground Vehicle Bus, Cabin Management and Avionics Networks.

The GIGABite range of products includes 1 pair, 2 pair, 4 pair, and Quadrax 100 Ω shielded Ethernet cables for high-speed data up to 10G performance, and are flexible, lightweight, low-loss, high temperature and laser markable and multiple color options, solutions for demanding high-speed data requirements!

- CAT5 & CAT5e Ethernet Cables
- CAT6a/10Gbs Ethernet Cables
- Shielded & unshielded 100 Ω twisted pair cables
- ARINC 429 & ARINC 664
- 1553 Data Bus
- CAN-BUS
- Quadrax 100 & 1000 Base-T cables
- USB 2.0
- Application specific cables including IFE, SATNAV, EFB, TCAS, SATCOM

CABLE COMPARISON

DATABUS CABLES

DATABUS CABLE COMPARISON - GIGAFLIGHT, PIC, & CARLISLE/ECS			
DESCRIPTION	GIGAFLIGHT	PIC	CARLISLE/ECS
CAT6A 10Gb Ethernet, 24 AWG	GF100-24CAT6A	E6A6824**, E6A0824**, E6A3824**	MX10G-24**
CAT6A 10Gb Ethernet, 24 AWG	GF824B-6A	E6A6824**, E6A0824**, E6A3824**	–
CAT5E Ethernet, 4 pairs stranded, 24 AWG	GF824A-5E	E50824*	–
CAT5E Ethernet, 2 pairs stranded, 24 AWG	GF424A-5E	E10424*	–
CAT5E Ethernet, 1 pair stranded, 24 AWG	GF224A-5E	E10224*	–
CAT5 Ethernet, 2 pairs stranded, 24 AWG	GF100T-24CAT5	E10424**	392404*
Quadrx Ethernet, 24 AWG	GF100-24QUAD	E51424*	NF24Q100-01 **, 422404**
Quadrx Ethernet, 22 AWG	GF100-22QUAD	–	NF22Q100-01 **
USB 2.0, 24 AWG Data Pair 22 AWG PW	GF90-24USB2	USB2422*	–
120 Ω CAN Bus, 24 AWG	GF120T-24CANB	–	CAN24TST120 (CIT)**
100 Ω Shielded Twisted Pair, 22 AWG	GF100-22TWIN	E10222*	–
100 Ω Shielded Twisted Pair, 24 AWG	GF100-24TWIN-1	E10224**	NF24T100**
100 Ω Unshielded Twisted Pair, 24 AWG	GF100-24TPNS	E60224*	–
78 Ω Triaxial Twinax DataBus, 1 pair, 22 AWG	GF222A-TX78	D5102QX*	–
77 Ω 1553 DataBus LM Jacket, 24 AWG	GF77-241553	G771553**	–
70 Ω ARINC 429, 24 AWG	GF70-24A429	D620224**	422402*
70 Ω ARINC 429, 22 AWG	GF70-22A429	D620222*	–

*Drop-in replacement: GIGAFLIGHT's product is identical to another as far as materials, physical, and electrical characteristics.

**Suitable alternative: GIGAFLIGHT's product is comparable with slight variances. Please contact us to discuss your application.



GF100-24CAT6A

CATEGORY 6A ETHERNET CABLE



CAT6A 10Gb ETHERNET CABLE

The GF100-24CAT6A is designed to deliver 10 Gigabit performance in accordance to ANSI/TIA 568 Category 6A up to 246ft. The GF100-24CAT6A is a suitable electrical alternative to the PIC's E6A6824 and Carlisle's MX10G-24. With a 100% foil and a 90% round wire braided shield, this design provides ample protection against EMI in the vast majority of applications. This product is sold in bulk or CAT6A tested assemblies. Please contact GIGAFLIGHT for a quote.

If your project requires a specific jacket color that is called out in the table below, please contact us for availability.

CABLE CONSTRUCTION

1	Conductor	24 AWG Stranded Silver-plated Copper Alloy
2	Insulation	Fluoropolymer
	Color Codes	Pair 1: Blue, White/Blue Pair 2: Orange, White/Orange Pair 3: Green, White/Green Pair 4: Brown, White/Brown
3	Spline	Fluoropolymer
4	Binder	PTFE Tape
5	Shield 1	Foil
6	Shield 2	Tin-plated Copper Braid
7	Jacket	Fluoropolymer

CONNECTORS

STYLE	P/N
CAT 6A Shielded RJ45 Straight Plug	GFSC-2006
CAT 6A Shielded RJ45 Straight Plug	GFSC-2007
CAT 6A Shielded RJ45 Right Angle Plug	GFSC-2008

JACKET COLORS & APPLICATIONS

GF100-24CAT6A	Blue	Standard
GF100-24CAT6A-1	White	Laser Markable
GF100-24CAT6A-2	Red	Secure Data
GF100-24CAT6A-3	Orange	Flight Test Data
GF100-24CAT6A-5	Olive Drab	Covert Subdued

ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.28"
Weight	53 lbs per 1000 ft
Operating Temperature	-55°C to +150°C
Minimum Bend Radius	1.40"

ELECTRICAL PROPERTIES

Impedance	100Ω	
Capacitance	14.50 pF per ft	
Velocity of Propagation	70%	
DC Resistance	28.50 Ω/1000 ft max.	
Dielectric Voltage Rating	1.50 KV RMS	
Attenuation (+25°C)	Frequency	dB/100 ft
	10 MHz	2.2
	100 MHz	6.8
	250 MHz	10.9
	500 MHz	18.7

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), Appendix F part I (a)(3).



GF824B-6A

CATEGORY 6A ETHERNET CABLE



CAT6A 10Gb ETHERNET CABLE

The GF824B-6A is designed to deliver 10 Gigabit performance in accordance to ANSI/TIA 568 Category 6A up to 246ft. The GF824B-6A is a suitable electrical alternative to the E6A6824 and MX10G-24. With a 100% foil and a 90% round wire braided shield, this design provides ample protection against EMI in the vast majority of applications. Product is sold in bulk or CAT6A tested assemblies. Please contact GIGAFLIGHT for a quote.

If your project requires a specific jacket color that is called out in the jacket color table, please contact us for availability.

JACKET COLORS & APPLICATIONS

GF824B-6A	White	Standard
GF824B-6A-2	Red	Secure Data
GF824B-6A-3	Orange	Flight Test Data

ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.26"
Weight	44 lbs per 1000 ft
Operating Temperature	-55°C to +150°C
Minimum Bend Radius	1.30"

ELECTRICAL PROPERTIES

Impedance	100Ω	
Capacitance	14.50 pF per ft	
Velocity of Propagation	70%	
DC Resistance	28.50 Ω/1000 ft max.	
Dielectric Voltage Rating	1.50 kV RMS	
Attenuation (+25°C)	Frequency	dB/100 ft (m)
	10 MHz	2.3 (7.5)
	100 MHz	7.0 (23.0)
	250 MHz	11.4 (37.4)
	500 MHz	16.5 (58.1)

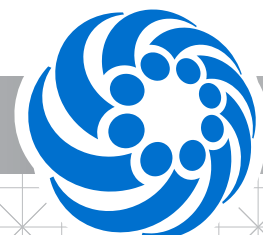
GigaFlight's aerospace cables are designed to be resistant to Skydrol, will meet requirements of RoHS & REACH, & meets Federal Aviation Regulations 14 CFR part 25.869 (a)(4), Appendix F part I (a)(3).

CABLE CONSTRUCTION

1	Conductor	24 AWG Stranded SPCA
2	Insulation	Fluoropolymer
	Color Codes	Pair 1: Blue, White/Blue Pair 2: Orange, White/Orange Pair 3: Green, White/Green Pair 4: Brown, White/Brown
3	Spline	Fluoropolymer
4	Binder	PTFE Tape
5	Shield 1	Foil
6	Shield 2	38 AWG Tin-plated Copper Braid
7	Jacket	Laser Markable ETFE

CONNECTORS

STYLE	P/N
CAT 6A Shielded RJ45 Straight Plug	GFSC-2006
CAT 6A Shielded RJ45 Straight Plug	GFSC-2007
CAT 6A Shielded RJ45 Right Angle Plug	GFSC-2008



GF824A-5E

AEROSPACE ETHERNET CABLE



1000BASE-T Gb 4-PAIR ETHERNET CABLE

The GF824A-5E is designed to deliver 1000Base-T Gigabit performance in accordance to ANSI/TIA-568-C.2 up to 268ft. The GF824A-5E is an identical alternative to PIC Wire's E50824. With a 100% foil and an 90% round wire braided shield, this design provides ample protection against EMI in the vast majority of applications. This product is sold in bulk or CAT5E tested assemblies. Please contact GIGAFLIGHT for a quote.

If your project requires a specific jacket color that is called out in the jacket color table, please contact us for availability.

CABLE CONSTRUCTION

1	Conductor	24 AWG Stranded SPC
2	Insulation	Fluoropolymer
	Color Codes	Pair 1: Blue, White/Blue Pair 2: Orange, White/Orange Pair 3: Green, White/Green Pair 4: Brown, White/Brown
3	Spline	Fluoropolymer
4	Binder	PTFE Tape
5	Shield 1	Foil
6	Shield 2	38 AWG Silver-plated Copper Braid
7	Jacket	Fluoropolymer (Translucent Blue)

CONNECTORS

STYLE	P/N
CAT 6A Shielded RJ45 Straight Plug	GFSC-2029
CAT 6A Shielded RJ45 Straight Plug	GFSC-2007
CAT 6A Shielded RJ45 Right Angle Plug	GFSC-2008

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), Appendix F part I (a)(3).

JACKET COLORS & APPLICATIONS

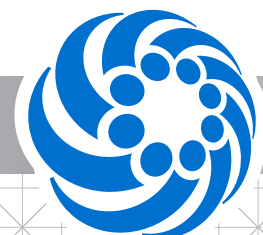
GF824A-5E	Translucent Blue	Standard
GF824A-5E-1	White	Laser Markable
GF824A-5E-2	Red	Secure Data
GF824A-5E-3	Orange	Flight Test Data
GF824A-5E-0	Black	Secure Data

ENVIRONMENTAL & MECHANICAL PROPERTIES

Shield Coverage	100% (Foil), 90% (Braid)
Outer Diameter	0.27" (6.86mm)
Weight	50 lbs/1000 ft (74 kg/1000m)
Operating Temperature	-55°C to +200°C
Minimum Bend Radius	1.40" (35.56mm)

ELECTRICAL PROPERTIES

Impedance	100Ω	
Capacitance	14.50 pF per ft	
Velocity of Propagation	70%	
DC Resistance	28.50 Ω/1000 ft max.	
Dielectric Voltage Rating	1.50 kV RMS	
Max. Distance	268ft (81.69m)	
Attenuation (+25°C)	Frequency	dB/100 ft (m)
	10 MHz	2.2 (7.2)
	100 MHz	6.8 (22.3)



GF424A-5E

AEROSPACE ETHERNET CABLE



10/100BASE-T 2-PAIR ETHERNET CABLE

The GF424A-5E is designed to deliver 10/100Base-T Gigabit performance in accordance to ANSI/TIA-568-C.2 up to 268ft. The GF424A-5E is an identical alternative to PIC Wire's E10424. With a 100% foil and a 90% round wire braided shield, this design provides ample protection against EMI in the vast majority of applications. Product is sold in bulk or CAT5E tested assemblies. Please contact GIGAFLIGHT for a quote.

If your project requires a specific jacket color that is called out in the jacket color table, please contact us for availability.

CABLE CONSTRUCTION

1	Conductor	24 AWG Stranded SPC
2	Insulation	Foamed High-temp. Fluoropolymer
	Color Codes	Pair 1: Blue, White Pair 2: Orange, Green
3	Shield 1	Foil
4	Shield 2	38 AWG Silver-plated Copper Braid
5	Jacket	Fluoropolymer (Translucent Blue)

CONNECTORS

STYLE	P/N
CAT5E Shielded RJ45 Straight Plug	GFSC-2025

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), Appendix F part I (a)(3).

JACKET COLORS & APPLICATIONS

GF424A-5E	Translucent Blue	Standard
GF424A-5E-1	White	Laser Markable
GF424A-5E-2	Red	Secure Data
GF424A-5E-3	Orange	Flight Test Data
GF424A-5E-0	Black	Secure Data

ENVIRONMENTAL & MECHANICAL PROPERTIES

Shield Coverage	100% (Foil), 90% (Braid)
Outer Diameter	0.21" (5.33mm)
Weight	33 lbs/1000 ft (49 kg/1000m)
Operating Temperature	-55°C to +200°C
Minimum Bend Radius	1.10" (27.94mm)

ELECTRICAL PROPERTIES

Impedance	100Ω	
Capacitance	13.0 pF/ft max. (42.7 pF/m)	
Velocity of Propagation	80%	
DC Resistance	28.50 Ω/1000 ft max.	
Dielectric Voltage Rating	1.50 kV RMS	
Max. Distance	268ft (81.69m)	
Attenuation (+25°C)	Frequency	dB/100 ft (m)
	10 MHz	2.2 (7.2)
	100 MHz	6.0 (19.7)



GF224A-5E

AEROSPACE 100Ω PAIR



10/100BASE-T 1-PAIR ETHERNET CABLE

The GF224A-5E is designed to deliver 10/100Base-T Gigabit performance in accordance to ANSI/TIA-568-C.2 up to 328ft. The GF224A-5E is an identical alternative to PIC Wire's E10224. With a 100% foil and a 90% round wire braided shield, this design provides ample protection against EMI in the vast majority of applications. Product uses industry standard 100 Twinax connectors. Please contact GIGAFLIGHT for a quote.

If your project requires a specific jacket color that is called out in the jacket color table, please contact us for availability.

CABLE CONSTRUCTION

1	Conductor	24 AWG Stranded SPC
2	Insulation	Foamed High temp. Fluoropolymer
	Color Codes	Blue, White
3	Shield 1	Foil
4	Shield 2	38 AWG Silver-plated Copper Braid
5	Jacket	Fluoropolymer (Translucent Blue)

JACKET COLORS & APPLICATIONS

GF224A-5E	Translucent Blue	Standard
GF224A-5E-1	White	Laser Markable
GF224A-5E-3	Orange	Flight Test Data

ENVIRONMENTAL & MECHANICAL PROPERTIES

Shield Coverage	100% (Foil), 90% (Braid)
Outer Diameter	0.16" (4.06mm)
Weight	22 lbs/1000 ft (32 kg/1000m)
Operating Temperature	-55°C to +200°C
Minimum Bend Radius	0.90" (22.86mm)

ELECTRICAL PROPERTIES

Impedance	100Ω	
Capacitance	13.0 pF/ft max. (42.7 pF/m)	
Velocity of Propagation	80%	
DC Resistance	28.50 Ω/1000 ft max.	
Dielectric Voltage Rating	1.50 kV RMS	
Max. Distance	328ft (100m)	
Attenuation (+25°C)	Frequency	dB/100 ft (m)
	10 MHz	1.8 (5.9)
	100 MHz	5.8 (19.0)

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), Appendix F part I (a)(3).



GF100T-24CAT5

HIGH SPEED DATABUS HSDB



TWO PAIR, CAT5 ETHERNET CABLE

The GF100T-24CAT5 is designed to meet ARINC 646 Local Area Network (LAN) applications as well as RS422, and RS485 application. This cable is a drop-in replacement for Carlisle cable, 392404, most commonly used as a Garmin Systems HSDB. The double shielded construction, 100% foil and 90% round wire braid shield, provides the necessary shielding effectiveness for vast majority of aerospace HSDB applications.

CABLE CONSTRUCTION

1	Conductor	24 AWG Stranded Tin-plated Copper Alloy
2	Insulation	High-temp. Fluoropolymer
	Color Codes	Pair 1: White/Blue, Blue/White Pair 2: White/Orange, Orange/White
3	Inner Shield	Aluminum Foil
4	Outer Shield	38 AWG Tin-plated Copper Braid
5	Jacket	White, laser-markable Tefzel

CONNECTORS

STYLE	P/N
CAT 5 RJ45 Connector Kit	GFSC-2025

ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.234"
Weight	30 lbs per 1000 ft
Operating Temperature	-55°C to +150°C
Minimum Bend Radius	1.2" (installation)

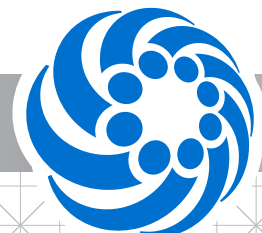
ELECTRICAL PROPERTIES

Impedance	100Ω	
Capacitance	12.4 pF per ft (max.)	
Velocity of Propagation	78% (nominal)	
Skew	12.8 ns/100 ft BUS	
Attenuation	Frequency	dB/100 ft (nominal)
	10 MHz	2.1

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), Appendix F part I (a)(3).

All values nominal.

414.488.6320 | info@gigaflightinc.com | www.gigaflightinc.com
 6180 Industrial Court, Greendale, WI 53129



GF100-24QUAD

100 BASE-T QUADRAx ETHERNET CABLE



GIVING YOU OPTIONS

The GF100-24QUAD is designed to meet the ARINC 664, 100 Base-T physical lay for Ethernet. This cable is a suitable alternative to Carlisle's NF24Q100-01 and a drop-in replacement for PIC's E51424. Any size 8 QuadraX contact designed for NF24Q100-01 or E51424 will also work with the GF100-24QUAD. GigaFlight also provides tested QuadraX assemblies per the customers specification and in many cases built with QuadraX contacts supplied by the customer. Please contact GigaFlight for details

Our QuadraX cable is available in different color jackets to accommodate your applications. Please call for availability.



CABLE CONSTRUCTION

1	Center Conductor	24 AWG Stranded Silver-plated Copper Alloy
2	Insulation	Foamed FEP
	Color Code	Pair 1: Red, Blue; Pair 2: Yellow, Green
3	Filler	White Fluoropolymer
4	Binder	PTFE Tape
5	Inner Shield	Tin-plated Copper Strip Braid
6	Outer Shield	38 AWG Tin-plated Copper Braid
7	Jacket	White ETFE-Laser Markable Tefzel

JACKET COLORS & APPLICATIONS

GF100-24QUAD	White	Laser Markable
GF100-24QUAD-2	Red	Secure Data
GF100-24QUAD-6	Blue	Standard Data
GF100-24QUAD-3	Orange	Flight Test Data
GF100-24QUAD-5	Olive Drab	Covert Subdued

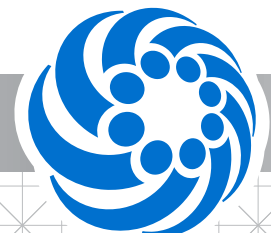
ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.160"
Weight	22 lbs per 1000 ft
Operating Temperature	-55°C to +150°C
Minimum Bend Radius	0.80" (installation)

ELECTRICAL PROPERTIES

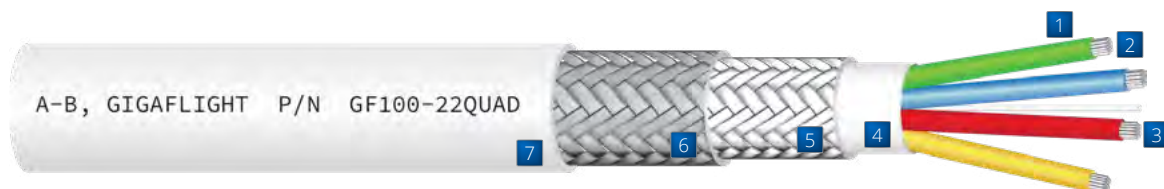
Impedance	100Ω	
Capacitance	13 pF per ft	
Velocity	80%	
DC Resistance	28.5Ω/1000 ft	
Attenuation	Frequency	dB/100 ft (m)
	10 MHz	2.3 (7.5)
	100 MHz	8.0 (26.2)

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), Appendix F part I (a)(3).



GF100-22QUAD

100BASE-T QUADRAx ETHERNET CABLE



GIVING YOU OPTIONS

The GF100-22QUAD is designed to meet the ARINC 664, 100Base-T physical layer for Ethernet. This cable is a suitable alternative to Carlisle's NF22Q100-01 and uses the same connectors that are available for the NF22Q100-01. GIGAFLIGHT also provides tested Quadrax assemblies per the customers specification and, in many cases, built with Quadrax contacts supplied by the customer.

The GF100-22QUAD is available in different color jackets to accommodate your application. Please contact GIGAFLIGHT for details and availability.



ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.190"
Weight	34.5 lbs per 1000 ft
Operating Temperature	-55°C to +150°C
Minimum Bend Radius	1.0"

ELECTRICAL PROPERTIES

Impedance	100Ω	
Capacitance	13 pF per ft	
Velocity	80%	
DC Resistance	16Ω/1000 ft max.	
Attenuation	Frequency	dB/100 ft (m)
	10 MHz	1.8 (5.8)
	100 MHz	6.4 (21)

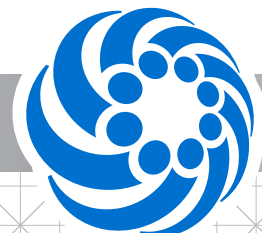
GigaFlight's aerospace cables are designed to be resistant to Skydrol, will meet requirements of RoHS & REACH, & meets Federal Aviation Regulations 14 CFR part 25.869 (a)(4), Appendix F part I (a)(3).

CABLE CONSTRUCTION

1	Center Conductor	22 AWG Stranded SPC
2	Insulation	Foamed FEP
	Color Code	Pair 1: Red, Blue; Pair 2: Yellow, Green
3	Filler	White Fluoropolymer
4	Binder	PTFE Tape
5	Inner Shield	Tin-plated Copper Strip Braid
6	Outer Shield	38 AWG Tin-plated Copper Braid
7	Jacket	White ETFE-Laser Markable Tefzel

JACKET COLORS & APPLICATIONS

GF100-22QUAD	White	Standard
GF100-22QUAD-2	Red	Secure Data
GF100-22QUAD-3	Orange	Flight Test Data



GF90-24USB2

AEROSPACE GRADE USB 2.0



USB 2.0 DATA CABLE

The GF90-24USB2 is designed to meet the requirements of USB 2.0 applications up to 18ft. With a 100% foil and an 80% round wire braided shield, this design provides ample protection against EMI in the vast majority of applications. The GF90-24USB2 is a drop-in replacement for a commonly used PIC's USB2422 cable. Contact GIGAFLIGHT if you're interested in having us build your USB cable assemblies.

If your project requires a specific jacket color that is called out in the table below, please contact us for availability.

CABLE CONSTRUCTION

Data Pair		
1	Conductors	24 AWG Stranded Silver-plated Copper Alloy
2	Insulation	Foamed High-temp FEP
	Color Code	Green, White
Power Wires		
3	Conductors	22 AWG Stranded Silver-plated Copper
4	Insulation	High-temp FEP
	Color Code	Red, Black
5	Binder	PTFE Tape
6	Inner Shield	Aluminum Foil
7	Drain Wire	28 AWG Tin-plated Copper
8	Outer Shield	38 AWG Tin-plated Copper Braid
9	Jacket	White, laser-markable, Tefzel

ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.180"
Weight	24 lbs per 1000 ft
Operating Temperature	-55°C to +150°C
Minimum Bend Radius	1.0" (installation)

ELECTRICAL PROPERTIES

Data Pair		
Impedance	90Ω	
Capacitance (cond to cond)	13 pF per ft	
Capacitance (cond to shield)	21 pF per ft	
Time Delay	1.39 ns/ft	
DC Resistance (Power Wires)	15.2Ω/1000 ft	
Attenuation (+25°C)	Frequency	dB/100 ft
	96 MHz	7.2
	200 MHz	10.5
	400 MHz	15.9

CONNECTORS

STYLE	P/N
USB 2.0 A Plug w/ LSZH Hood	GFSC-2010
USB 2.0 B Plug w/ LSZH Hood	GFSC-2011

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), Appendix F part I (a)(3).

JACKET COLORS & APPLICATIONS

GF90-24USB2	White	Laser Markable
GF90-24USB2-3	Orange	Flight Test Data
GF90-24USB2-5	Olive Drab	Covert Subdued



GF120T-24CANB

GARMIN APPROVED CAN BUS CABLE



INNOVATIVELY DESIGNED CAN BUS

The GF120T-24CANB is a laser wire markable, Aerospace-grade CAN Bus, approved by Garmin, for use with Garmin's CAN Bus System architectures. 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 using 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.

CABLE CONSTRUCTION

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

ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.142"
Weight	17.5 lbs per 1000 ft
Operating Temperature	-55°C to +150°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

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).



GF100-22TWIN

LASER-MARKABLE TWINAX CABLE



GIVING YOU OPTIONS

The GF100-22TWIN is an aerospace 100 Ohm twisted pair used in RS422, RS485, NTSC/PAL and RS170 data and video applications. In addition to the above, this cable is designed to meet 10/100 Base-T applications as specified in ARINC 664. The double shielded construction, 100% foil and 95% round wire braid shield, provides the necessary shielding effectiveness for vast majority of aerospace applications. This cable is a white jacketed laser markable alternative to commonly used PIC's E10222.

CABLE CONSTRUCTION

1	Conductor	22 AWG Stranded Tin-plated Copper
2	Insulation	Foamed Fluoropolymer
3	Shield 1	Aluminum Composite Tape
4	Shield 2	38 AWG TPC Round Braid
5	Jacket	White, laser-markable Tefzel

ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.19"
Weight	23 lbs per 1000 ft
Operating Temperature	-55°C to +150°C
Minimum Bend Radius	0.95"

ELECTRICAL PROPERTIES

Impedance	100Ω	
Capacitance	12.5 pF per ft	
Velocity of Propagation	78%	
DC Resistance	15.8Ω/1000 ft max.	
Dielectric Voltage Rating	0.90 kV RMS	
Attenuation (+25°C)	Frequency	dB/100 ft
	10 MHz	1.5
	100 MHz	5.4

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), Appendix F part I (a)(3).



GF100-24TWIN-1

LASER-MARKABLE TWINAX CABLE



GIVING YOU OPTIONS

The GF100-24TWIN-1 is an aerospace 100 Ohm twisted pair used in RS422, RS485, NTSC/PAL and RS170 data and video applications. In addition to the above, this cable is designed to meet 10/100 Base-T applications as specified in ARINC 664. The double shielded construction, 100% foil and 95% round wire braid shield, provides the necessary shielding effectiveness for vast majority of aerospace applications.

This cable is a white jacketed laser markable alternative to commonly used PIC's E10224, and Carlisle's NF24T100. The cable can also be ordered with different color jackets to accommodate your application(s). See Jacket color table.

JACKET COLORS & APPLICATIONS

GF100-24TWIN-1	White	Laser Markable
GF100-24TWIN-2	Red	Secure Data
GF100-24TWIN-3	Blue	Standard Data
GF100-24TWIN-4	Orange	Flight Test Data
GF100-24TWIN-5	Olive Green	Covert Subdued

ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.142"
Weight	18 lbs per 1000 ft
Operating Temperature	-55°C to +200°C
Minimum Bend Radius	0.71"

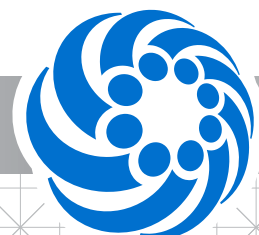
ELECTRICAL PROPERTIES

Impedance	100Ω	
Capacitance	12.5 pF per ft	
Velocity of Propagation	78%	
DC Resistance	28.4Ω/1000 ft max.	
Dielectric Voltage Rating	0.90 kV RMS	
Attenuation (+25°C)	Frequency	dB/100 ft
	10 MHz	1.9
	100 MHz	6.4

CABLE CONSTRUCTION

1	Conductor	24 AWG Stranded Silver-plated Copper Alloy
2	Insulation	Foamed Fluoropolymer
3	Shield 1	Aluminum Composite Tape
4	Shield 2	38 AWG SPC Round Braid
5	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), Appendix F part I (a)(3).



GF100-24TPNS

LASER-MARKABLE TWINAX CABLE



1-PAIR UNSHIELDED 100Ω 10/100BASE-T CABLE

The GIGAFLIGHT GF100-24TPNS is a 100 Ω High Speed, Single Twisted, Data Pair Cable, which is designed for In-Flight Entertainment systems (IFE) where an unshielded cable meets the installation requirement. This cable is used in RS422, RS485, NTSC/PAL, and RS170 data and video applications where it has been determined that an unshielded data pair can be used.

The GF100-24TPNS is a laser markable alternative to commonly used PIC E60224, with the added benefit of a silver-plated copper alloy (SPCA*) conductor.

Users of the new unshielded Twisted Pair Cable will all benefit from reduced weight and size, greater flexibility, smaller bend radius, much lower cost, and reduced installation time!

**The SPCA, 24 gauge conductor will meet the requirements of SAE International Aerospace Standard AS50881, which states in paragraph 3.8.8, "Use of size 24 gauge wires in a harness shall be limited to wires which have break strength of 20lbs minimum."*

ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.10" (2.54mm)
Weight	9 lbs/1000 ft (13 kg/1000m)
Operating Temperature	-55°C to +200°C
Minimum Bend Radius	0.60" (15.24mm)

ELECTRICAL PROPERTIES

Impedance	100Ω	
Capacitance	14.5 pF/ft (47.6 pf/m)	
Velocity of Propagation	70%	
DC Resistance	28.5Ω/1000ft max. (93.5Ω/1000m)	
Dielectric Voltage Rating	1.5 kV RMS	
Attenuation (+25°C)	Frequency	dB/100 ft
	10 MHz	1.9 (6.2)
	100 MHz	7.2 (23.6)

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), Appendix F part I (a)(3).

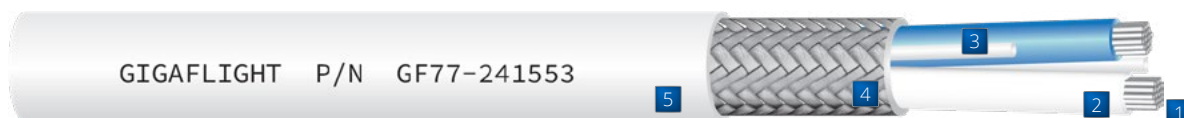
CABLE CONSTRUCTION

1	Conductor	24 AWG Stranded Silver-plated Copper Alloy
2	Insulation	Solid Fluoropolymer
3	Fillers	FEP
4	Jacket	White, laser-markable, Tefzel



GF77-241553

LASER MARKABLE 1553 DATABUS



WHITE JACKETED 1553 DATABUS

The GF77-241553 is designed to meet the electrical requirements of M17/176-00002, commonly referred to as 1553 data bus. The main difference between the GF77-241553 and the M17/176 is the GF77-241553 has a laser markable jacket and the M17/176 has a blue tint jacket. In the age of laser marking equipment, our design team feels that this slight alteration will become the standard. This cable is a suitable alternative to PIC's G771553.

The GF77-241553 is currently available in two jacket colors, standard Laser Markable White and Flight Test Orange.

JACKET COLORS & APPLICATIONS

GF77-241553	White	Laser Markable
GF77-241553-3	Orange	Flight Test Data

ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.125"
Weight	17 lbs per 1000 ft
Operating Temperature	-55°C to +200°C
Minimum Bend Radius	0.65"

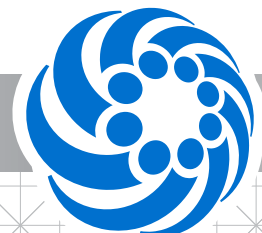
CABLE CONSTRUCTION

1	Conductors	24 AWG Stranded Silver-plated Copper Alloy
2	Inner Insulation	Solid Fluoropolymer
	Color Code	White, Blue
3	Filler	FEP
4	Outer Shield	38 AWG Silver-plated Copper Braid
5	Jacket	White, laser-markable, Tefzel

ELECTRICAL PROPERTIES

Impedance	77Ω	
Capacitance	24 pF per ft	
Velocity of Propagation	68%	
DC Resistance	28.4Ω/1000 ft max.	
Dielectric Voltage Rating	1.5 KV RMS	
Attenuation (+25°C)	Frequency	dB/100 ft
	1 MHz	1.4

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), Appendix F part I (a)(3).



GF70-24A429

LASER-MARKABLE ARINC 429 CABLE



24 AWG ARINC 429

The GF70-24A429 cable is designed per the ARINC 429 Data Bus specification. It is a suitable laser-markable alternative replacement for PIC's D620224, and drop-in replacement for Carlisle's 422402.

CABLE CONSTRUCTION

1	Conductor	24 AWG Stranded Tin-plated Copper
2	Insulation	High-temp Fluoropolymer
3	Shield	38 AWG TPC Round Braid
4	Jacket	White, laser-markable, Tefzel

JACKET COLORS & APPLICATIONS

GF70-24A429	White	Laser Markable
GF70-24A429-3	Orange	Flight Test Data

ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.14" (3.56mm)
Weight	17 lbs per 1000 ft (25kg/1000m)
Operating Temperature	-55°C to +150°C
Minimum Bend Radius	0.70" (17.78mm)

ELECTRICAL PROPERTIES

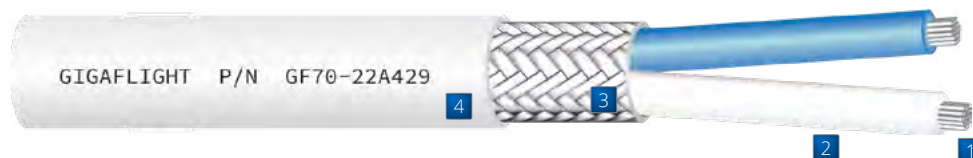
Impedance	70Ω	
Capacitance	30 pF/ft (98.4 pF/m)	
Velocity of Propagation	70%	
DC Resistance	26.2Ω/1000 ft max. (86Ω/1000m)	
Dielectric Voltage Rating	1.5 kV RMS	
Attenuation (+25°C)	Frequency	dB/100 ft
	1 MHz	1.4 (4.6)

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), Appendix F part I (a)(3).



GF70-22A429

LASER-MARKABLE ARINC 429 CABLE



22 AWG ARINC 429

The GF70-22A429 cable is designed per the ARINC 429 Data Bus specification. It is a drop-in replacement for PIC's D620222. To save you time in cable fab, we use a white laser markable jacket.

CABLE CONSTRUCTION

1	Conductor	22 AWG Stranded Tin-plated Copper
2	Insulation	Fluoropolymer
3	Shield	38 AWG TPC Round Braid
4	Jacket	White, laser-markable, Tefzel

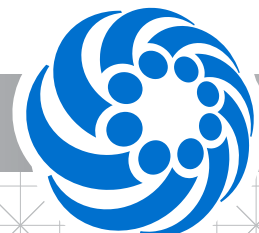
ENVIRONMENTAL & MECHANICAL PROPERTIES

Outer Diameter	0.16"
Weight	20 lbs per 1000 ft
Operating Temperature	-55°C to +150°C
Minimum Bend Radius	0.80"

ELECTRICAL PROPERTIES

Impedance	70Ω	
Capacitance	24 pF per ft	
Velocity of Propagation	70%	
DC Resistance	15.8Ω/1000 ft max.	
Dielectric Voltage Rating	1.5 (kV RMS)	
Attenuation (+25°C)	Frequency	dB/100 ft
	1 MHz	1.2 (nom.)

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), Appendix F part I (a)(3).





...Your form, fit, & function provider



GIGACore™ Composite Cables

Mixed Data & Discrete Wire, Shielded Composite Cables & Assemblies

If your application has multiple wires running from point A to point B – including any combination of data pairs, discrete wires, power wire, EMP hardened or EMI hardened – consider using GIGACore composite cables, which typically feature GIGAFLIGHT cables as the core component.

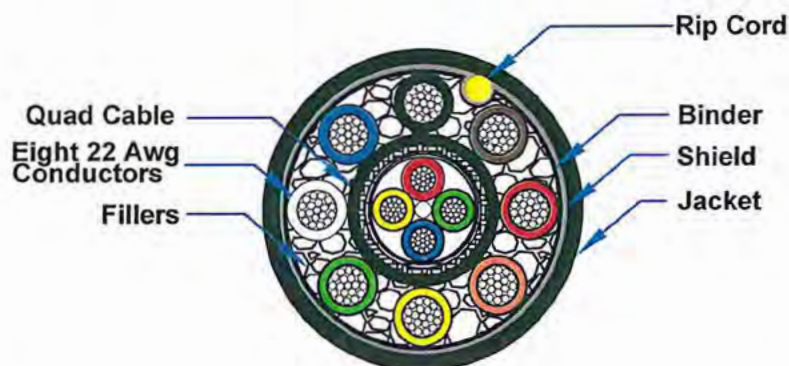
GIGACore Composite Cable Advantages:

- Save time and money in assembly build up
- Repeatable EMI performance results
- Repeatable EMP performance results
- High temp insulated wires stand up to heat guns in assembly builds
- High temp Fluoropolymer jackets for aerospace applications
- Flexible Polyurethane jackets for ground base applications
- Color coding of wire, eliminates the need for wire marking
- Prototype runs of 500 to 1000 feet are offered
- Lead time of 4 to 6 weeks for new designs and production builds
- Competitive pricing

Contact a GIGAFLIGHT engineer to get your new composite design started today. Please see some examples on the following pages.

REVISIONS				
ECN	REVISION	DESCRIPTION OF CHANGE	APPROVED	DATE
237	NR	INITIAL RELEASE	<i>CMK</i>	3-16-2020

GigaFlight P/N 1QU80-PO



CONSTRUCTION:

Quadrax Cable: See GF100-24QUAD-PO or ALT P/N GF100S-24QUAD-PO

8 Conductors: M22759/16-22-0, M22759/16-22-1, M22759/16-22-2
M22759/16-22-3, M22759/16-22-4, M22759/16-22-5
M22759/16-22-6, M22759/16-22-9

Fillers: Crushed Propylene as required to make round

Binder: Clear Mylar

Shield: 36 AWG Tin-plated copper braid
95% min. coverage

Rip Cord: Kevlar

Jacket: Matted Black Polyurethane, 0.355 O.D. nominal

Marking: Jacket marked with:
GIGAFLIGHT P/N 1QU80-PO

PHYSICAL:

Bend Radius: 1.8 inch

Temperature Range: -40° to 115° C

Environmental:

Fungus, water and UV resistant and meets UL94 V-0 Flammability rating.

DESIGNED BY: DATE:	CHECKED BY:	DATE:	APPROVED BY:	DATE:
C CHAPMAN 3/16/2020	<i>R. K. Kevlar</i>	3-16-2020	<i>C. Chapman</i>	3-16-2020



DESCRIPTION:
CUSTOMER SPECIFICATION
COMPOSITE CABLE 1QU80-PO

6180 Industrial Ct. Greendale WI, 53129
Tel: 414-488-6320 Fax: 414-433-9041

CAGE CODE: 8A8D5 PART NUMBER: 1QU80-PO

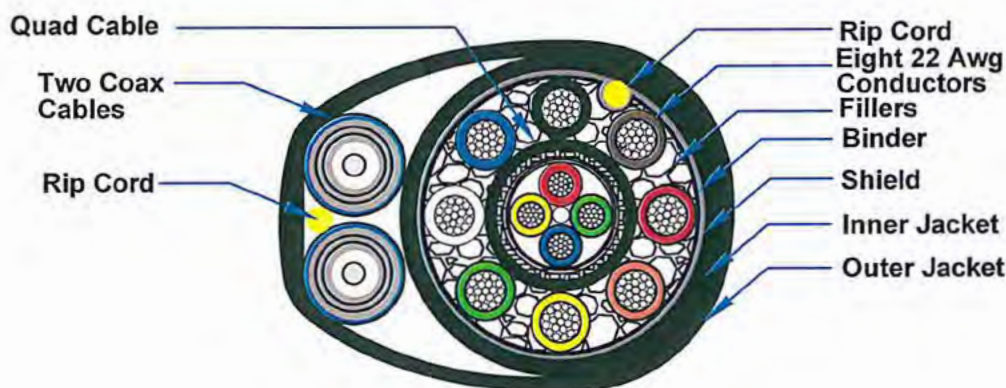
SHEET: 1 OF 1



UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN INCHES.
ALL DIMENSIONS ARE FOR REFERENCE ONLY.

REVISIONS				
ECN	REVISION	DESCRIPTION OF CHANGE	APPROVED	DATE
237	NR	INITIAL RELEASE	<i>Kim R</i>	3-16-2020

GigaFlight P/N 1QU802CX-PO



CONSTRUCTION:

1QU80-PO	Quadrax Cable:	See GF100-24QUAD-PO or ALT P/N GF100S-24QUAD-PO
	8 Conductors:	M22759/16-22-0, M22759/16-22-1, M22759/16-22-2 M22759/16-22-3, M22759/16-22-4, M22759/16-22-5 M22759/16-22-6, M22759/16-22-9
	Fillers:	Crushed Propylene as required to make round
	Binder:	Clear Mylar
	Shield:	36 AWG Tin-plated copper braid 95% min. coverage
	Rip Cord:	Kevlar
	Jacket:	Matted Black Polyurethane, 0.355 O.D. nominal
	2 Coax Cables:	See GF5-124T
	Rip Cord:	Kevlar
	Jacket:	Matted Black Polyurethane, 0.600 O.D. nominal
	Marking:	Jacket marked with: GIGAFLIGHT P/N 1QU802CX-PO

PHYSICAL:

Bend Radius: 3 inch

Temperature Range: -40° to 115° C

Environmental:

Fungus, water and UV resistant and meets UL94 V-0 Flammability rating.

DESIGNED BY: C CHAPMAN	DATE: 3/16/2020	CHECKED BY: <i>Kim Kevs</i>	DATE: 3-16-2020	APPROVED BY: <i>C Chapman</i>	DATE: 3-16-2020
					
DESCRIPTION: CUSTOMER SPECIFICATION COMPOSITE CABLE 1QU802CX-PO					
CAGE CODE: 8A8D5		PART NUMBER: 1QU802CX-PO		SHEET: 1 OF 1	

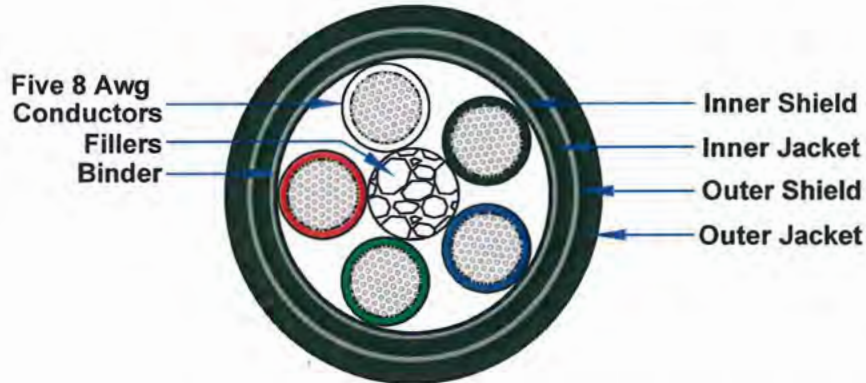


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6180 Industrial Ct. Greendale WI, 53129
Tel: 414-488-6320 Fax: 414-433-9041

REVISIONS				
ECN	REVISION	DESCRIPTION OF CHANGE	APPROVED	DATE
265	NR	INITIAL RELEASE	KMK	5/6/2020
286	A	CHANGED CONDUCTORS TO CABLED AROUND FILLERS	KMK	6-25-2020

GigaFlight P/N TXPW50-PO



CONSTRUCTION:

5 Conductors: M22759/16-8-0, M22759/16-8-2, M22759/16-8-5
M22759/16-8-6, M22759/16-8-9

Fillers: Crushed Propylene as required to keep round

Binder: Clear Mylar

Inner Shield: 36 AWG Tin-plated copper braid
95% min. coverage

Inner Jacket: Matted Black Polyurethane, 0.620 O.D. nominal

Outer Shield: 36 AWG Tin-plated copper braid
95% min. coverage

Outer Jacket: Matted Black Polyurethane, 0.700 O.D. nominal

Marking: Jacket marked with:
GIGAFLIGHT P/N TXPW50-PO


PHYSICAL:

Bend Radius: 3.5 inch

Temperature Range: -40° to 115° C

Environmental:

Fungus, water and UV resistant and meets UL94 V-0 Flammability rating.
Cable is designed to be EMP and EMI hardened.

DESIGNED BY: C CHAPMAN	DATE: 5/4/2020	CHECKED BY: K KRUEGER	DATE: 5/6/2020	APPROVED BY: C CHAPMAN	DATE: 5/6/2020
			DESCRIPTION: CUSTOMER SPECIFICATION COMPOSITE CABLE TXPW50-PO		
6180 Industrial Ct. Greendale WI, 53129 Tel: 414-488-6320 Fax: 414-433-9041			CAGE CODE: 8A8D5	PART NUMBER: TXPW50-PO	SHEET: 1 OF 1



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...Your form, fit, & function provider



RF Connectors, Contacts, & Adapters

50 Ω & 75 Ω Coaxial Connectors, Contacts, & Adapters

GIGAFLIGHT offers a variety of RF coaxial connectors designed to be paired with our coaxial cables and can be used as a drop-in replacement for similar cables for aerospace, UAVs, military, rail, and motor sport applications.

Benefits of using GIGAFLIGHT's connectors:

- Same strip dimensions
- Utilizes standard MilSpec crimp dies
- Center contacts can be soldered or crimped
- Contact captivation to ensure correct contact height



GIGAFLIGHT®
C O N N E C T I V I T Y I N C .

...Your form, fit & function provider

50 Ω COAX CABLE

CONNECTOR TOOLING

50 Ω COAX CONNECTOR & CABLE PAIRING CROSS REFERENCE

CABLE GROUPING		GIGAFLIGHT	CARLISLE
Cable Group A		GF5-71T	311501
Cable Group B		GF5-56T	311201
Cable Group C		GF5-124T	311901 / 3C142B

50 Ω COAXIAL CONNECTOR & CABLE PAIRING												
		GIGAFLIGHT'S TOOLING					CARLISLE'S TOOLING					
Connector Type	Cable Group	GF P/N	Military P/N	DMC P/N	A Hex/Length	B Hex/Length	Carlisle's P/N	Military P/N	DMC P/N	A Hex/Length	B Hex/Length	
TNC Straight Plug	Group A	GF5-TS71T	M22520/5-59	Y208P	.255/.400	.100/.120	CTS922	M22520/5-59	Y208P	.255/.400	.100/.120	
TNC 90 Plug		GF5-TA71T	M22520/5-59	Y208P	.255/.400	.100/.120	CTR922	M22520/5-13	Y206P	.255/.400	.068/.093	
TNC Bulkhead Jack		GF5-TB71T	M22520/5-59	Y208P	.255/.400	.100/.120	BT5922	M22520/5-59	Y208P	.255/.400	.100/.120	
BNC Straight Plug		GF5-BS71T	M22520/5-59	Y208P	.255/.400	.100/.120	CB5922	M22520/5-59	Y208P	.255/.400	.100/.120	
BNC 90 Plug		GF5-BA71T	M22520/5-59	Y208P	.255/.400	.100/.120	CBR922	M22520/5-13	Y206P	.255/.400	.068/.093	
N Straight Plug		GF5-NS71T	M22520/5-59	Y208P	.255/.400	.100/.120	CNS922	M22520/5-59	Y208P	.255/.400	.100/.120	
N 90 Plug		GF5-NA71T	M22520/5-59	Y208P	.255/.400	.100/.120	CNR922	M22520/5-59	Y208P	.255/.400	.100/.120	
N Bulkhead Jack		GF5-NB71T	M22520/5-59	Y208P	.255/.400	.100/.120	BNS922	M22520/5-59	Y208P	.255/.400	.100/.120	
SMA Straight Plug		GF5-SS71T	M22520/5-13	Y206P	.255/.400	.068/.093	CS5922	M22520/5-13	Y206P	.255/.400	.068/.093	
SMA 90 Plug		GF5-SA71T	M22520/5-59	Y208P	.255/.400	.100/.120	CSR922	M22520/5-13	Y206P	.255/.400	.068/.093	
SMA Bulkhead Jack	GF5-SB71T	M22520/5-13	Y206P	.255/.400	.068/.093	-	-	-	-	-	-	
TNC Straight Plug	Group B	GF5-TS56T	M22520/5-57 (Contact)	Y209P	.359/.400 (Ferrule)	.100/.120	CTS122	M22520/5-57 (Contact)	Y209P	.359/.400 (Ferrule)	.100/.120 (Contact)	
TNC 90 Plug		GF5-TA56T	M22520/5-57 (Contact)	Y209P	.359/.400 (Ferrule)	.100/.120	CTR122	M22520/5-57 (Contact)	Y209P	.359/.400 (Ferrule)	.100/.120 (Contact)	
TNC Bulkhead Jack		GF5-TB56T	M22520/5-47 (Ferrule)	Y144	.359/.400 (Ferrule)	.100/.120	BTS122	M22520/5-47 (Ferrule)	Y209P	.359/.400 (Ferrule)	.100/.120 (Contact)	
BNC Straight Plug		GF5-BS56T	M22520/5-57 (Contact)	Y209P	.359/.400 (Ferrule)	.100/.120	CB5122	M22520/5-57 (Contact)	Y209P	.359/.400 (Ferrule)	.100/.120 (Contact)	
BNC 90 Plug		GF5-BA56T	M22520/5-47 (Ferrule)	Y144	.359/.400 (Ferrule)	.100/.120	CBR122	M22520/5-47 (Ferrule)	Y209P	.359/.400 (Ferrule)	.100/.120 (Contact)	
N Straight Plug		GF5-NS56T	M22520/5-57 (Contact)	Y209P	.359/.400 (Ferrule)	.100/.120	CNS122	M22520/5-57 (Contact)	Y209P	.359/.400 (Ferrule)	.100/.120 (Contact)	
N 90 Plug		GF5-NA56T	M22520/5-47 (Ferrule)	Y144	.359/.400 (Ferrule)	.100/.120	CNR122	M22520/5-47 (Ferrule)	Y209P	.359/.400 (Ferrule)	.100/.120 (Contact)	

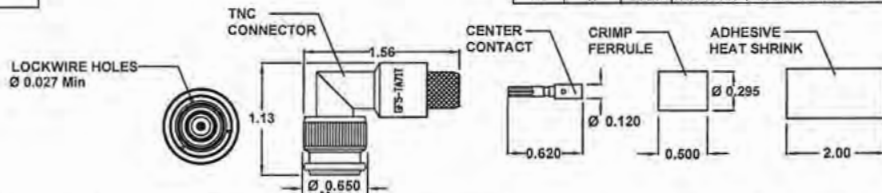


50 Ω COAXIAL CONNECTOR & CABLE PAIRING											
GIGAFLIGHT'S TOOLING				CARLISLE'S TOOLING							
Connector Type	Cable Group	GF P/N	Military P/N	DMC P/N	A Hex/Length	B Hex/Length	Carlisle's P/N	Military P/N	DMC P/N	A Hex/Length	B Hex/Length
N Bulkhead Jack	Group B	GF5-NB56T	M22520/5-57 (Contact) M22520/5-47 (Ferrule)	Y209P Y144	.359/.400 (Ferrule)	.100/.120 (Contact)	BN3122	M22520/5-57 (Contact) M22520/5-47 (Ferrule)	Y209P Y144	.359/.400 (Ferrule)	.100/.120 (Contact)
SMA Straight Plug		GF5-SS56T	M22520/5-57 (Contact) M22520/5-47 (Ferrule)	Y209P Y144	.359/.400 (Ferrule)	.100/.120 (Contact)	CSS122	M22520/5-57 (Contact) M22520/5-47 (Ferrule)	Y209P Y144	.359/.400 (Ferrule)	.100/.120 (Contact)
SMA 90 Plug		GF5-SA56T	M22520/5-57 (Contact) M22520/5-47 (Ferrule)	Y209P Y144	.359/.400 (Ferrule)	.100/.120 (Contact)	CSR122	M22520/5-57 (Contact) M22520/5-47 (Ferrule)	Y209P Y144	.359/.400 (Ferrule)	.100/.120 (Contact)
SMA Bulkhead Jack		GF5-SB56T	M22520/5-57 (Contact) M22520/5-47 (Ferrule)	Y209P Y144	.359/.400 (Ferrule)	.100/.120 (Contact)	-	-	-	-	-
TNC Straight Plug		GF5-TS124T	M22520/5-57	Y209P	.213/.400	.100/.120	CTS722	M22520/5-57	Y209P	.213/.400	.100/.120
TNC 90 Plug	Group C	GF5-TA124T	M22520/5-57	Y209P	.213/.400	.100/.120	CTR722	M22520/5-11	Y205P	.213/.400	.068/.093
TNC Bulkhead Jack		GF5-TB124T	M22520/5-57	Y209P	.213/.400	.100/.120	BT5722	M22520/5-57	Y209P	.213/.400	.100/.120
BNC Straight Plug		GF5-BS124T	M22520/5-57	Y209P	.213/.400	.100/.120	CBS722	M22520/5-57	Y209P	.213/.400	.100/.120
BNC 90 Plug		GF5-BA124T	M22520/5-57	Y209P	.213/.400	.100/.120	CBR722	M22520/5-11	Y205P	.213/.400	.068/.093
BNC Bulkhead Jack		-	-	-	-	-	BBS722	M22520/5-57	Y209P	.213/.400	.100/.120
N Straight Plug		GF5-NS124T	M22520/5-57	Y209P	.213/.400	.100/.120	CNS722	M22520/5-57	Y209P	.213/.400	.100/.120
N 90 Plug		GF5-NA124T	M22520/5-57	Y209P	.213/.400	.100/.120	CNR722	M22520/5-57	Y209P	.213/.400	.100/.120
N Bulkhead Jack		GF5-NB124T	M22520/5-57	Y209P	.213/.400	.100/.120	BN3722	M22520/5-57	Y209P	.213/.400	.100/.120
SMA Straight Plug	Group D	GF5-SS124T	M22520/5-11	Y205P	.213/.400	.068/.093	CSS722	M22520/5-11	Y205P	.213/.400	.068/.093
SMA 90 Plug		GF5-SA124T	M22520/5-57	Y209P	.213/.400	.100/.120	CSR722	M22520/5-11	Y205P	.213/.400	.068/.093
SMA Bulkhead Jack		GF5-SB124T	M22520/5-11	Y205P	.213/.400	.068/.093	-	-	-	-	-



GF5-TA71T is a drop in replacement for Carlisle's CTR922 and is suitable alternative to PIC's 190509

REVISIONS				APPROVED	DATE
ECN	REVISION	ZONE	DESCRIPTION OF CHANGE		
100	IR	-	INITIAL RELEASE	CAC	2/13/19
161	A	06/88	ADDED NOTE, FERRULE FINISH ADDED ALBALOY Tri-M3	L.H.K.	9-25-19



1.0 PERFORMANCE

- 1.1 Frequency range: DC - 11 GHz
- 1.2 Nominal impedance: 50 Ohms
- 1.3 VSWR: 1.2:1 Max DC - 2 GHz
- 1.4 Insertion loss: 1dB Max DC - 2 GHz
- 1.5 Working voltage: 500Vrms @ sea level
- 1.6 DWV: 1500Vrms @ sea level
- 1.7 Insulation resistance: 5000 Megaohms @ 500 volts DC

2.0 MATERIALS

- 2.1 Body: Brass per ASTM-B-16
- 2.2 Contact: Brass per ASTM-B-16
- 2.3 Dielectric: PTFE per ASTM-D-1710, type I, GR. 1, CLA
- 2.4 Outer contact: BeCu per ASTM-B-196
- 2.5 Ferrule: Brass per ASTM-B-16
- 2.6 Gasket: Silicone rubber per ZZ-R-765 GR 50, Red
- 2.7 Heat shrink: ATUM PER MIL-I-23053/4, Class 3

3.0 FINISHES

- 3.1 Body, Outer contact, Coupling Nut: Nickel per QQ-N-290
- 3.2 Ferrule: Nickel per QQ-N-290 or Albaloy (Tri-M3)
- 3.3 Contact: Gold per MIL-PRF-39012

4.0 MECHANICAL

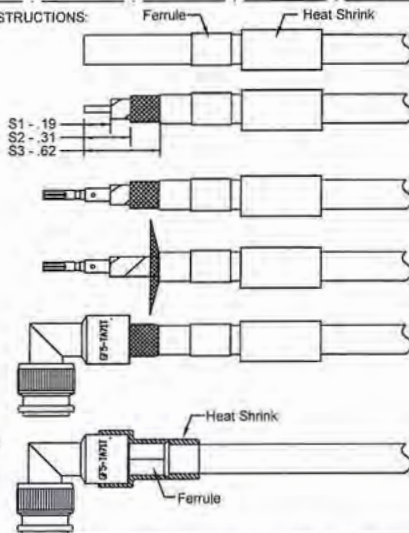
- 4.1 Interfaces: MIL-STD-348 figure 313-1
- 4.2 Termination style: Cable contact-solder or crimp, Crimp ferrule
- 4.3 Cable retention: 40 LBS


5.0 ENVIRONMENTAL

- 5.1 Temperature range: -65/+165 °C
- 5.2 Vibration: MIL-STD-202, Method 204, COND B
- 5.3 Shock: MIL-STD-202, Method 213, COND I
- 5.4 Thermal shock: MIL-STD-202, Method 107, COND B
- 5.5 Corrosion: MIL-STD-202, Method 101, COND. B
- 5.6 Moisture resistance: MIL-STD-202, Method 106

- 1) Slide heat shrink and ferrule over end of cable prior to stripping cable. Ensure cable end is cut square.
- 2) When using automated stripping equipment, strip cable to dimensions shown. If automated stripping equipment is not available strip S1 and S3 only and trim excess shield at step 5. Care should be taken not to nick the center conductor and shield.
- 3) Install contact onto cable conductor flush with dielectric. Contact can be crimped or soldered. When crimping use M22520/5-59 or Y208P die (0.100 B hex) with hand tool M22520/5-01 or equivalent.
- 4) Fold all shields back perpendicular to cable using a tweezers. You may need to slit the aluminum foil before folding back.
- 5) Slide the connector onto the cable until the contact snaps into the dielectric lock of the connector. Fold all shields back over the end of the connector.
- 6) Slide the ferrule over the shield until it is against the connector body. Trim any excess shield. Crimp the ferrule using M22520/5-59 or Y208P die (0.255 hex) with hand tool M22520/5-01 or equivalent. After crimping ferrule apply adhesive heat shrink.

TERMINATION INSTRUCTIONS:



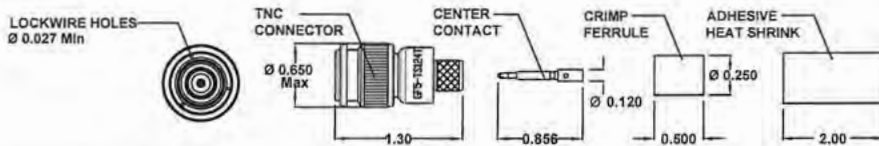
DESIGNED BY: C CHAPMAN	DATE: 2/13/19	CHECKED BY: K KRUEGER	DATE: 2/13/19	APPROVED BY: B HACKETT	DATE: 2/13/19
		DESCRIPTION: TNC RIGHT ANGLE PLUG FOR GIGAFLIGHT CABLE GF5-71T			
6180 Industrial Ct. Greendale WI, 53129 Tel: 414-488-6320 Fax: 414-433-9041		CAGE CODE: 8ABD5		PART NUMBER: GF5-TA71T	
					SHEET: 1 OF 1

*RoHS/REACH Compliant

UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN INCHES.
ALL DIMENSIONS ARE FOR REFERENCE ONLY.

GF5-TS124T is a drop in replacement for Carlisle's CTS722 and is suitable alternative to PIC's 190108

REVISIONS				APPROVED	DATE
ECN	REVISION	ZONE	DESCRIPTION OF CHANGE		
111	NR	-	INITIAL RELEASE	CAC	6/6/19
161	A	06/88	ADDED NOTE, FERRULE FINISH ADDED ALBALOY Tri-M3	L.H.K.	9-23-19



1.0 PERFORMANCE

- 1.1 Frequency range: DC - 11 GHz
- 1.2 Nominal impedance: 50 Ohms
- 1.3 VSWR: 1.2:1 Max DC - 2 GHz
- 1.4 Insertion loss: 1dB Max DC - 2 GHz
- 1.5 Working voltage: 500Vrms @ sea level
- 1.6 DWV: 1500Vrms @ sea level
- 1.7 Insulation resistance: 5000 Megaohms @ 500 volts DC

2.0 MATERIALS

- 2.1 Body: Brass per ASTM-B-16
- 2.2 Contact: Brass per ASTM-B-16
- 2.3 Dielectric: PTFE per ASTM-D-1710, type I, GR. 1, CLA
- 2.4 Outer contact: BeCu per ASTM-B-196
- 2.5 Ferrule: Brass per ASTM-B-16
- 2.6 Gasket: Silicone rubber per ZZ-R-765 GR 50, Red
- 2.7 Heat shrink: ATUM PER MIL-I-23053/4, Class 3

3.0 FINISHES

- 3.1 Body, Outer contact, Coupling Nut: Nickel per QQ-N-290
- 3.2 Ferrule: Nickel per QQ-N-290 or Albaloy (Tri-M3)
- 3.3 Contact: Gold per MIL-PRF-39012

4.0 MECHANICAL

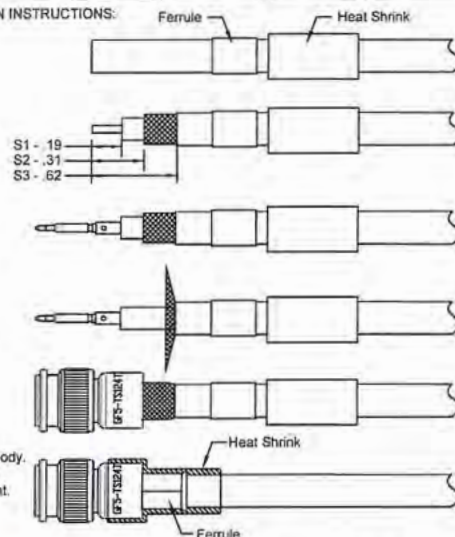
- 4.1 Interfaces: MIL-STD-348 figure 313-1
- 4.2 Termination style: Cable contact-solder or crimp, Crimp ferrule
- 4.3 Cable retention: 30 LBS


5.0 ENVIRONMENTAL

- 5.1 Temperature range: -65/+165 °C
- 5.2 Vibration: MIL-STD-202, Method 204, COND B
- 5.3 Shock: MIL-STD-202, Method 213, COND I
- 5.4 Thermal shock: MIL-STD-202, Method 107, COND B
- 5.5 Corrosion: MIL-STD-202, Method 101, COND. B
- 5.6 Moisture resistance: MIL-STD-202, Method 106

- 1) Slide heat shrink and ferrule over end of cable prior to stripping cable. Ensure cable end is cut square.
- 2) When using automated stripping equipment, strip cable to dimensions shown. If automated stripping equipment is not available strip S1 and S3 only and trim excess shield at step 5. Care should be taken not to nick the center conductor and shield.
- 3) Install contact onto cable conductor flush with dielectric. Contact can be crimped or soldered. When crimping use M22520/5-57 or Y209P die (0.100 B hex) with hand tool M22520/5-01 or equivalent.
- 4) Fold all shields back perpendicular to cable using a tweezers. You may need to slit the aluminum foil before folding back.
- 5) Slide the connector onto the cable until the contact snaps into the dielectric lock of the connector. Fold all shields back over the end of the connector.
- 6) Slide the ferrule over the shield until it is against the connector body. Trim any excess shield. Crimp the ferrule using M22520/5-57 or Y209P die (0.213 A hex) with hand tool M22520/5-01 or equivalent. After crimping ferrule apply adhesive heat shrink.

TERMINATION INSTRUCTIONS:



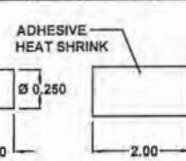
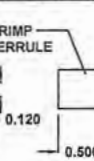
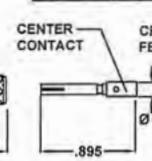
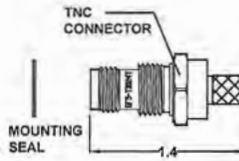
DESIGNED BY: C CHAPMAN	DATE: 6/6/19	CHECKED BY: L. Krueger	DATE: 9-23-19	APPROVED BY: B Hackett	DATE: 9-23-19
 GIGAFLIGHT CONNECTIVITY INC.					
DESCRIPTION: TNC STRAIGHT PLUG FOR GIGAFLIGHT CABLE GF5-124T					
6180 Industrial Ct. Greendale WI, 53129 Tel: 414-488-6320 Fax: 414-433-9041		CAGE CODE: 8ABD5		PART NUMBER: GF5-TS124T	
				SHEET: 1 OF 1	

*RoHS/REACH Compliant

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GF5-TB124T is a drop in replacement for Carlisle's BTS722 and is suitable alternative to PIC's 190121

ECN	REVISION	ZONE	REVISIONS		APPROVED	DATE
			DESCRIPTION OF CHANGE	INITIAL RELEASE		
122	NR	-			CAC	6/12/19
161	A	D6/B6	ADDED NOTE, FERRULE FINISH ADDED ALBALOY Tri-M3		KML	7-23-19



1.0 PERFORMANCE

- 1.1 Frequency range: DC - 11 GHz
- 1.2 Nominal impedance: 50 Ohms
- 1.3 VSWR: 1.2:1 Max DC - 2 GHz
- 1.4 Insertion loss: 1dB Max DC - 2 GHz
- 1.5 Working voltage: 500Vrms @ sea level
- 1.6 DWV: 1500Vrms @ sea level
- 1.7 Insulation resistance: 5000 Megaohms @ 500 volts DC

2.0 MATERIALS

- 2.1 Body: Brass per ASTM-B-16
- 2.2 Nut, Washer: Brass per ASTM-B-16
- 2.3 Dielectric: PTFE per ASTM-D-1710, type I, GR.1, CLA
- 2.4 Contact: BeCu per ASTM-B-196
- 2.5 Ferrule: Brass per ASTM-B-16
- 2.6 Gasket: Silicone rubber per ZZ-R-765 GR 50, Red
- 2.7 Heat shrink: ATUM PER MIL-I-23053/4, Class 3

3.0 FINISHES

- 3.1 Body: Nickel per QQ-N-290
- 3.2 Ferrule: Nickel per QQ-N-290 or Albaloy (Tri-M3)
- 3.3 Contact: Gold per MIL-PRF-39012

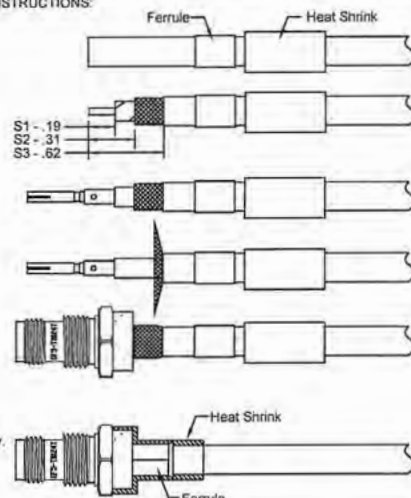
4.0 MECHANICAL

- 4.1 Interfaces: MIL-STD-348 figure 313-2
- 4.2 Termination style: Cable contact-solder or crimp, Crimp ferrule
- 4.3 Cable retention: 30 LBS

5.0 ENVIRONMENTAL

- 5.1 Temperature range: -65/+165 °C
- 5.2 Vibration: MIL-STD-202, Method 204, COND B
- 5.3 Shock: MIL-STD-202, Method 213, COND I
- 5.4 Thermal shock: MIL-STD-202, Method 107, COND B
- 5.5 Corrosion: MIL-STD-202, Method 101, COND B
- 5.6 Moisture resistance: MIL-STD-202, Method 106

- 1) Slide heat shrink and ferrule over end of cable prior to stripping cable. Ensure cable end is cut square.
- 2) When using automated stripping equipment, strip cable to dimensions shown. If automated stripping equipment is not available strip S1 and S3 only and trim excess shield at step 5. Care should be taken not to nick the center conductor and shield.
- 3) Install contact onto cable conductor flush with dielectric. Contact can be crimped or soldered. When crimping use M22520/5-57 or Y209P die (0.100 B hex) with hand tool M22520/5-01 or equivalent.
- 4) Fold all shields back perpendicular to cable using a tweezers. You may need to slit the aluminum foil before folding back.
- 5) Slide the connector onto the cable until the contact snaps into the dielectric lock of the connector. Fold all shields back over the end of the connector.
- 6) Slide the ferrule over the shield until it is against the connector body. Trim any excess shield. Crimp the ferrule using M22520/5-57 or Y209P die (0.213 hex) with hand tool M22520/5-01 or equivalent. After crimping ferrule apply adhesive heat shrink.



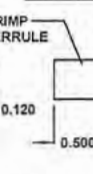
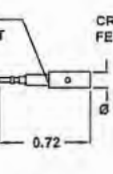
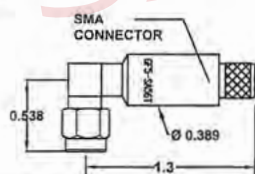
*RoHS/REACH Compliant

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DESIGNED BY: C CHAPMAN	DATE: 6/12/19	CHECKED BY: K KRUEGER	DATE: 6/12/19	APPROVED BY: C CHAPMAN	DATE: 6/12/19
6180 Industrial Ct. Greendale WI, 53129 Tel: 414-488-6320 Fax: 414-433-9041			DESCRIPTION: TNC BULKHEAD JACK FOR GIGAFLIGHT CABLE GF5-124T		
CAGE CODE: 8A8D5			PART NUMBER: GF5-TB124T		
			SHEET: 1 OF 1		

GF5-SA56T is a drop in replacement for Carlisle's CSR122 and is suitable alternative to PIC's 190615

ECN	REVISION	ZONE	REVISIONS		APPROVED	DATE
			DESCRIPTION OF CHANGE	INITIAL RELEASE		
121	NR	-			CAC	6/11/19
162	A	D6/B6	ADDED NOTE, FERRULE FINISH ADDED ALBALOY Tri-M3		KML	7-25-19



1.0 PERFORMANCE

- 1.1 Frequency range: DC - 18 GHz
- 1.2 Nominal impedance: 50 Ohms
- 1.3 VSWR: 1.05 + .05(FGHz) Max
- 1.4 Insertion loss: .03NFGHz dB Max
- 1.5 Working voltage: 500Vrms @ sea level
- 1.6 DWV: 1000Vrms @ sea level
- 1.7 Insulation resistance: 5000 Megaohms @ 500 volts DC

2.0 MATERIALS

- 2.1 Body: SS 303 PER ASTM-A-582
- 2.2 Cube: Brass per ASTM-B-16
- 2.3 Interface Contact: BeCu Per ASTM-B-196
- 2.4 Cable Contact: Brass per ASTM-B-16
- 2.5 Dielectric: PTFE per ASTM-D-1710, type I, GR.1, CLA
- 2.6 Ferrule: Brass per ASTM-B-16
- 2.7 Gasket: Silicone rubber per ZZ-R-765 GR 50, Red
- 2.8 Heat shrink: ATUM PER MIL-I-23053/4, Class 3

3.0 FINISHES

- 3.1 Body, Coupling nut: Passivated ASM-QQ-P-35
- 3.2 Ferrule: Nickel per QQ-N-290 or Albaloy (Tri-M3)
- 3.3 Contact: Gold per MIL-PRF-39012

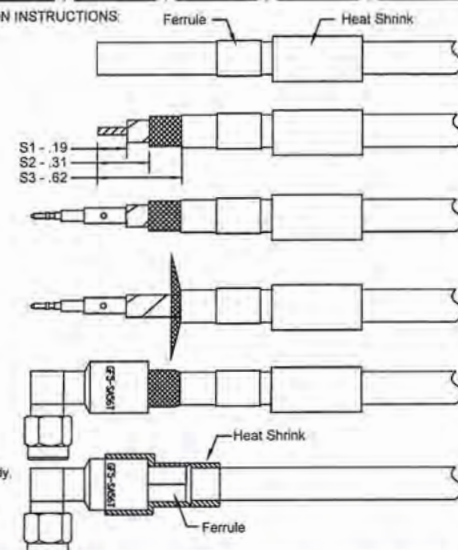
4.0 MECHANICAL

- 4.1 Interfaces: MIL-STD-348 figure 310-1
- 4.2 Termination style: Cable contact-solder or crimp, Crimp ferrule
- 4.3 Cable retention: 50 LBS

5.0 ENVIRONMENTAL

- 5.1 Temperature range: -65/+165 °C
- 5.2 Vibration: MIL-STD-202, Method 204, COND B
- 5.3 Shock: MIL-STD-202, Method 213, COND I
- 5.4 Thermal shock: MIL-STD-202, Method 107, COND B
- 5.5 Corrosion: MIL-STD-202, Method 101, COND B
- 5.6 Moisture resistance: MIL-STD-202, Method 106

- 1) Slide heat shrink and ferrule over end of cable prior to stripping cable. Ensure cable end is cut square.
- 2) When using automated stripping equipment, strip cable to dimensions shown. If automated stripping equipment is not available strip S1 and S3 only and trim excess shield at step 5. Care should be taken not to nick the center conductor and shield.
- 3) Install contact onto cable conductor flush with dielectric. Contact can be crimped or soldered. When crimping use M22520/5-57 or Y209P die (0.100 B hex) with hand tool M22520/5-01 or equivalent.
- 4) Fold all shields back perpendicular to cable using a tweezers. You may need to slit the aluminum foil before folding back.
- 5) Slide the connector onto the cable until the contact snaps into the dielectric lock of the connector. Fold all shields back over the end of the connector.
- 6) Slide the ferrule over the shield until it is against the connector body. Trim any excess shield. Crimp the ferrule using M22520/5-47 or Y144P die(0.359 hex) with hand tool M22520/5-01 or equivalent. After crimping ferrule apply adhesive heat shrink.



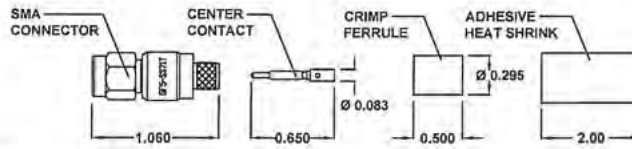
*RoHS/REACH Compliant

UNLESS OTHERWISE SPECIFIED:
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ALL DIMENSIONS ARE FOR REFERENCE ONLY.

DESIGNED BY: C CHAPMAN	DATE: 6/11/19	CHECKED BY: K KRUEGER	DATE: 6/11/19	APPROVED BY: B HACKETT	DATE: 6/11/19
6180 Industrial Ct. Greendale WI, 53129 Tel: 414-488-6320 Fax: 414-433-9041			DESCRIPTION: SMA RIGHT ANGLE PLUG FOR GIGAFLIGHT CABLE GF5-56T		
CAGE CODE: 8A8D5			PART NUMBER: GF5-SA56T		
			SHEET: 1 OF 1		

GF5-SS71T is a drop in replacement for Carlisle's CSS922 and is suitable alternative to PIC's 190514

ECN	REVISION	ZONE	REVISIONS		APPROVED	DATE
			DESCRIPTION OF CHANGE	INITIAL RELEASE		
100	IR	-	INITIAL RELEASE	CAC	2/13/19	
162	A	06/06	ADDED NOTE, FERRULE FINISH ADDED ALBALOY Tri-M3	KML	2-25-17	



1.0 PERFORMANCE

- 1.1 Frequency range: DC - 18 GHz
- 1.2 Nominal impedance: 50 Ohms
- 1.3 VSWR: 1.05 + .05(FGHz) Max
- 1.4 Insertion loss: 0.3V/FGHz dB Max
- 1.5 Working voltage: 500Vrms @ sea level
- 1.6 DWV: 1500Vrms @ sea level
- 1.7 Insulation resistance: 5000 Megaohms @ 500 volts DC

2.0 MATERIALS

- 2.1 Body: SS 303 PER ASTM-A-582
- 2.2 Contact: Brass per ASTM-B-16
- 2.3 Dielectric: PTFE per ASTM-D-1710, type I, GR. 1, CLA
- 2.4 Ferrule: Brass per ASTM-B-16
- 2.5 Gasket: Silicone rubber per ZZ-R-765 GR 50, Red
- 2.6 Heat shrink: ATUM PER MIL-I-23053/4, Class 3

3.0 FINISHES

- 3.1 Body Coupling nut: Passivated ASM-QQ-P-35
- 3.2 Ferrule: Nickel per QQ-N-290 or Albaloy (Tri-M3)
- 3.3 Contact: Gold per MIL-PRF-39012

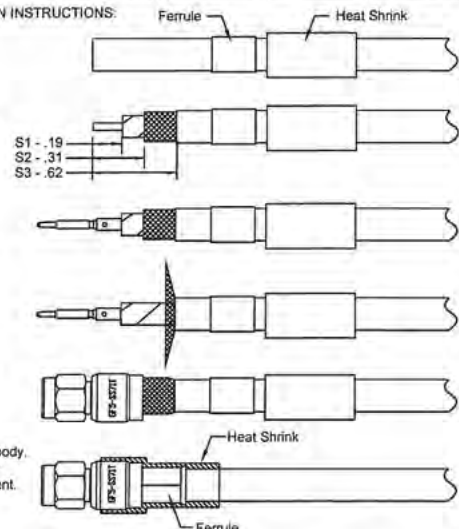
4.0 MECHANICAL

- 4.1 Interfaces: MIL-STD-348 figure 310-1
- 4.2 Termination style: Cable contact-solder or crimp, Crimp ferrule
- 4.3 Cable retention: 40 LBS

5.0 ENVIRONMENTAL

- 5.1 Temperature range: -65/+165 °C
- 5.2 Vibration: MIL-STD-202, Method 204, COND B
- 5.3 Shock: MIL-STD-202, Method 213, COND I
- 5.4 Thermal shock: MIL-STD-202, Method 107, COND B
- 5.5 Corrosion: MIL-STD-202, Method 101, COND B
- 5.6 Moisture resistance: MIL-STD-202, Method 106

- TERMINATION INSTRUCTIONS:**
- 1) Slide heat shrink and ferrule over end of cable prior to stripping cable. Ensure cable end is cut square.
 - 2) When using automated stripping equipment, strip cable to dimensions shown. If automated stripping equipment is not available strip S1 and S3 only and trim excess shield at step 5. Care should be taken not to nick the center conductor and shield.
 - 3) Install contact onto cable conductor flush with dielectric. Contact can be crimped or soldered. When crimping use M22520/5-13 or Y206P die (0.068 B hex) with hand tool M22520/5-01 or equivalent.
 - 4) Fold all shields back perpendicular to cable using a tweezers. You may need to slit the aluminum foil before folding back.
 - 5) Slide the connector onto the cable until the contact snaps into the dielectric lock of the connector. Fold all shields back over the end of the connector.
 - 6) Slide the ferrule over the shield until it is against the connector body. Trim any excess shield. Crimp the ferrule using M22520/5-13 or Y206P die(0.255 A hex) with hand tool M22520/5-01 or equivalent. After crimping ferrule apply adhesive heat shrink.

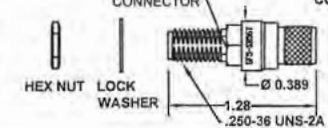
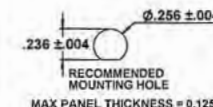


DESIGNED BY: C CHAPMAN	DATE: 2/13/19	CHECKED BY: K KRUEGER	DATE: 2/13/19	APPROVED BY: B HACKETT	DATE: 2/13/19
GIGAFLIGHT CONNECTIVITY INC.		DESCRIPTION: SMA STRAIGHT PLUG FOR GIGAFLIGHT CABLE GF5-71T		SHEET: 1 OF 1	
6180 Industrial Ct. Greendale WI, 53129 Tel: 414-488-6320 Fax: 414-433-0041		CAGE CODE: 8A8D5		PART NUMBER: GF5-SS71T	

*RoHS/REACH Compliant

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SAMPLE



1.0 PERFORMANCE

- 1.1 Frequency range: DC - 18 GHz
- 1.2 Nominal impedance: 50 Ohms
- 1.3 VSWR: 1.05 + .05(FGHz) Max
- 1.4 Insertion loss: 0.3V/FGHz dB Max
- 1.5 Working voltage: 500Vrms @ sea level
- 1.6 DWV: 1000Vrms @ sea level
- 1.7 Insulation resistance: 5000 Megaohms @ 500 volts DC

2.0 MATERIALS

- 2.1 Body: SS 303 PER ASTM-A-582
- 2.2 Contact: Brass per ASTM-B-16
- 2.3 Dielectric: PTFE per ASTM-D-1710, type I, GR. 1, CLA
- 2.4 Ferrule: Brass per ASTM-B-16
- 2.5 Lock Washer: SS 400 per ASTM-A-582
- 2.6 Hex Nut: SS 303 per ASTM-A-582
- 2.7 Heat shrink: ATUM PER MIL-I-23053/4, Class 3

3.0 FINISHES

- 3.1 Body, Hex Nut, Lock Washer: Passivated ASM-QQ-P-35
- 3.2 Ferrule: Nickel per QQ-N-290 or Albaloy (Tri-M3)
- 3.3 Contact: Gold per MIL-PRF-39012

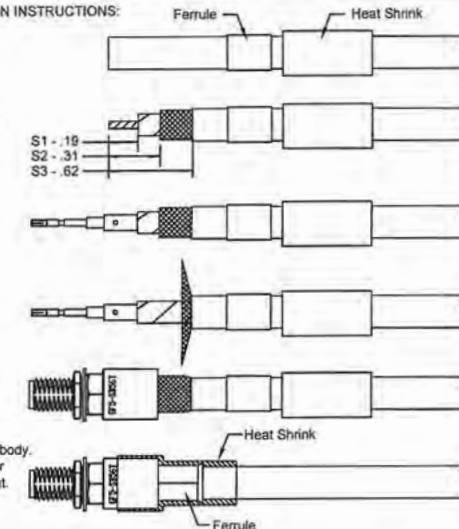
4.0 MECHANICAL

- 4.1 Interfaces: MIL-STD-348 figure 310-2
- 4.2 Termination style: Cable contact-solder or crimp, Crimp ferrule
- 4.3 Cable retention: 50 LBS

5.0 ENVIRONMENTAL

- 5.1 Temperature range: -65/+165 °C
- 5.2 Vibration: MIL-STD-202, Method 204, COND B
- 5.3 Shock: MIL-STD-202, Method 213, COND I
- 5.4 Thermal shock: MIL-STD-202, Method 107, COND B
- 5.5 Corrosion: MIL-STD-202, Method 101, COND B
- 5.6 Moisture resistance: MIL-STD-202, Method 106

- TERMINATION INSTRUCTIONS:**
- 1) Slide heat shrink and ferrule over end of cable prior to stripping cable. Ensure cable end is cut square.
 - 2) When using automated stripping equipment, strip cable to dimensions shown. If automated stripping equipment is not available strip S1 and S3 only and trim excess shield at step 5. Care should be taken not to nick the center conductor and shield.
 - 3) Install contact onto cable conductor flush with dielectric. Contact can be crimped or soldered. When crimping use M22520/5-57 or Y209P die (0.100 B hex) with hand tool M22520/5-01 or equivalent.
 - 4) Fold all shields back perpendicular to cable using a tweezers. You may need to slit the aluminum foil before folding back.
 - 5) Slide the connector onto the cable until the contact snaps into the dielectric lock of the connector. Fold all shields back over the end of the connector.
 - 6) Slide the ferrule over the shield until it is against the connector body. Trim any excess shield. Crimp the ferrule using M22520/5-47 or Y144P die(0.359 hex) with hand tool M22520/5-01 or equivalent. After crimping ferrule apply adhesive heat shrink.



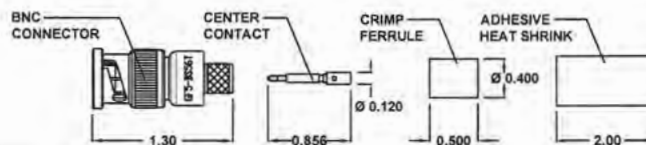
DESIGNED BY: C CHAPMAN	DATE: 6/5/19	CHECKED BY: K KRUEGER	DATE: 6/5/19	APPROVED BY: B HACKETT	DATE: 6/5/19
GIGAFLIGHT CONNECTIVITY INC.		DESCRIPTION: SMA BULKHEAD JACK FOR GIGAFLIGHT CABLE GF5-SB56T		SHEET: 1 OF 1	
6180 Industrial Ct. Greendale WI, 53129 Tel: 414-488-6320 Fax: 414-433-0041		CAGE CODE: 8A8D5		PART NUMBER: GF5-SB56T	

*RoHS/REACH Compliant

UNLESS OTHERWISE SPECIFIED:
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ALL DIMENSIONS ARE FOR REFERENCE ONLY.

GF5-BS56T is a drop in replacement for Carlisle's CBS122 and is suitable alternative to PIC's 190612

REVISIONS					
ECN	REVISION	ZONE	DESCRIPTION OF CHANGE	APPROVED	DATE
146	NR	-	INITIAL RELEASE	CAC	7/31/19
165	A	D8/B8	ADDED NOTE, FERRULE FINISH ADDED ALBALOY TH-M3	CAC	7/31/19



1.0 PERFORMANCE

- 1.1 Frequency range: DC - 4 GHz
- 1.2 Nominal impedance: 50 Ohms
- 1.3 VSWR: 1.2:1 Max DC - 2 GHz
- 1.4 Insertion loss: 1dB Max DC - 2 GHz
- 1.5 Working voltage: 500Vrms @ sea level
- 1.6 DWW: 1500Vrms @ sea level
- 1.7 Insulation resistance: 5000 Megaohms @ 500 volts DC

2.0 MATERIALS

- 2.1 Body: Brass per ASTM-B-16
- 2.2 Contact: Brass per ASTM-B-16
- 2.3 Dielectric: PTFE per ASTM-D-1710, type I, GR.1, CLA
- 2.4 Outer contact: BeCu per ASTM-B-196
- 2.5 Ferrule: Brass per ASTM-B-16
- 2.6 Gasket: Silicone rubber per ZZ-R-765 GR 50, Red
- 2.7 Heat shrink: ATUM PER MIL-I-23053/4, Class 3

3.0 FINISHES

- 3.1 Body, Outer contact, Coupling nut: Nickel per QQ-N-290
- 3.2 Ferrule: Nickel per QQ-N-290 or Albaloy (Tri-M3)
- 3.3 Contact: Gold per MIL-PRF-39012

4.0 MECHANICAL

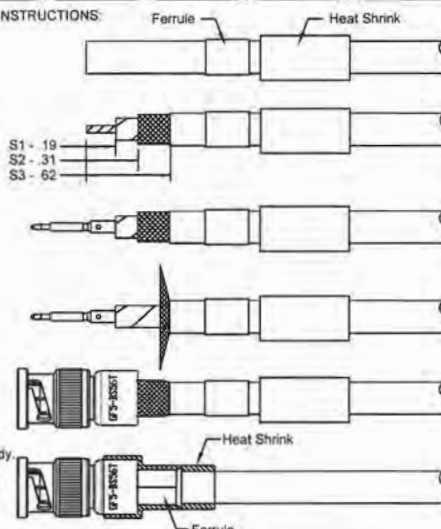
- 4.1 Interfaces: MIL-STD-348 figure 301-1
- 4.2 Termination style: Cable contact-solder or crimp, Crimp ferrule
- 4.3 Cable retention: 50 LBS

5.0 ENVIRONMENTAL

- 5.1 Temperature range: -65/+165 °C
- 5.2 Vibration: MIL-STD-202, Method 204, COND B
- 5.3 Shock: MIL-STD-202, Method 213, COND I
- 5.4 Thermal shock: MIL-STD-202, Method 107, COND B
- 5.5 Corrosion: MIL-STD-202, Method 101, COND. B
- 5.6 Moisture resistance: MIL-STD-202, Method 106

- 1) Slide heat shrink and ferrule over end of cable prior to stripping cable. Ensure cable end is cut square.
- 2) When using automated stripping equipment, strip cable to dimensions shown. If automated stripping equipment is not available strip S1 and S3 only and trim excess shield at step 5. Care should be taken not to nick the center conductor and shield.
- 3) Install contact onto cable conductor flush with dielectric. Contact can be crimped or soldered. When crimping use M22520/5-59 or Y208P die (0.100 B hex) with hand tool M22520/5-01 or equivalent.

- 4) Fold all shields back perpendicular to cable using a tweezers. You may need to slit the aluminum foil before folding back.
- 5) Slide the connector onto the cable until the contact snaps into the dielectric lock of the connector. Fold all shields back over the end of the connector.
- 6) Slide the ferrule over the shield until it is against the connector body. Trim any excess shield. Crimp the ferrule using M22520/5-47 or Y144 die (0.359 A hex) with hand tool M22520/5-01 or equivalent. After crimping ferrule apply adhesive heat shrink.



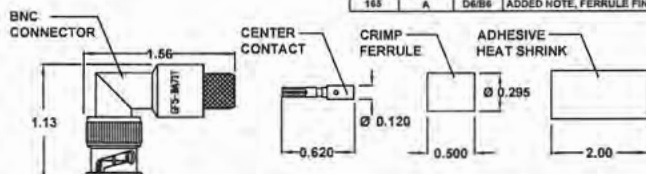
*RoHS/REACH Compliant

UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN INCHES.
ALL DIMENSIONS ARE FOR REFERENCE ONLY.

DESIGNED BY: C CHAPMAN	DATE: 7/31/19	CHECKED BY: K KRUEGER	DATE: 7/31/19	APPROVED BY: C CHAPMAN	DATE: 7/31/19
GIGAFLIGHT COMMUNICATIONS, INC.			DESCRIPTION: BNC STRAIGHT PLUG FOR GIGAFLIGHT CABLE GF5-56T		
6180 Industrial Ct. Greendale WI, 53129 Tel: 414-488-6320 Fax: 414-433-9041			CAGE CODE: 8ABD5	PART NUMBER: GF5-BS56T	SHEET: 1 OF 1

GF5-BA71T is a drop in replacement for Carlisle's CBR922 and is suitable alternative to PIC's 190513

REVISIONS					
ECN	REVISION	ZONE	DESCRIPTION OF CHANGE	APPROVED	DATE
111	NR	-	INITIAL RELEASE	CAC	5/8/19
165	A	D8/B8	ADDED NOTE, FERRULE FINISH ADDED ALBALOY TH-M3	CAC	7/31/19



1.0 PERFORMANCE

- 1.1 Frequency range: DC - 4 GHz
- 1.2 Nominal impedance: 50 Ohms
- 1.3 VSWR: 1.2:1 Max DC - 2 GHz
- 1.4 Insertion loss: 1dB Max DC - 2 GHz
- 1.5 Working voltage: 500Vrms @ sea level
- 1.6 DWW: 1500Vrms @ sea level
- 1.7 Insulation resistance: 5000 Megaohms @ 500 volts DC

2.0 MATERIALS

- 2.1 Body: Brass per ASTM-B-16
- 2.2 Contact: Brass per ASTM-B-16
- 2.3 Dielectric: PTFE per ASTM-D-1710, type I, GR.1, CLA
- 2.4 Outer contact: BeCu per ASTM-B-196
- 2.5 Ferrule: Brass per ASTM-B-16
- 2.6 Gasket: Silicone rubber per ZZ-R-765 GR 50, Red
- 2.7 Heat shrink: ATUM PER MIL-I-23053/4, Class 3

3.0 FINISHES

- 3.1 Body, Outer contact, Coupling nut: Nickel per QQ-N-290
- 3.2 Ferrule: Nickel per QQ-N-290 or Albaloy (Tri-M3)
- 3.3 Contact: Gold per MIL-PRF-39012

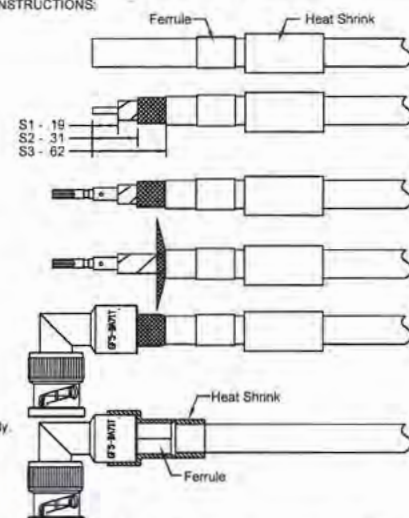
4.0 MECHANICAL

- 4.1 Interfaces: MIL-STD-348 figure 301-1
- 4.2 Termination style: Cable contact-solder or crimp, Crimp ferrule
- 4.3 Cable retention: 40 LBS

5.0 ENVIRONMENTAL

- 5.1 Temperature range: -65/+165 °C
- 5.2 Vibration: MIL-STD-202, Method 204, COND B
- 5.3 Shock: MIL-STD-202, Method 213, COND I
- 5.4 Thermal shock: MIL-STD-202, Method 107, COND B
- 5.5 Corrosion: MIL-STD-202, Method 101, COND. B
- 5.6 Moisture resistance: MIL-STD-202, Method 106

- 1) Slide heat shrink and ferrule over end of cable prior to stripping cable. Ensure cable end is cut square.
- 2) When using automated stripping equipment, strip cable to dimensions shown. If automated stripping equipment is not available strip S1 and S3 only and trim excess shield at step 5. Care should be taken not to nick the center conductor and shield.
- 3) Install contact onto cable conductor flush with dielectric. Contact can be crimped or soldered. When crimping use M22520/5-59 or Y208P die (0.100 B hex) with hand tool M22520/5-01 or equivalent.
- 4) Fold all shields back perpendicular to cable using a tweezers. You may need to slit the aluminum foil before folding back.
- 5) Slide the connector onto the cable until the contact snaps into the dielectric lock of the connector. Fold all shields back over the end of the connector.
- 6) Slide the ferrule over the shield until it is against the connector body. Trim any excess shield. Crimp the ferrule using M22520/5-59 or Y208P die (0.255 hex) with hand tool M22520/5-01 or equivalent. After crimping ferrule apply adhesive heat shrink.

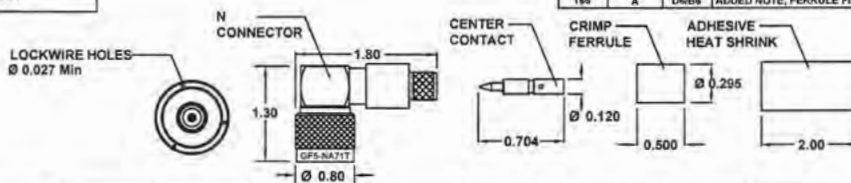


*RoHS/REACH Compliant

UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN INCHES.
ALL DIMENSIONS ARE FOR REFERENCE ONLY.

DESIGNED BY: C CHAPMAN	DATE: 5/8/19	CHECKED BY: K KRUEGER	DATE: 5/8/19	APPROVED BY: B HACKETT	DATE: 5/8/19
GIGAFLIGHT COMMUNICATIONS, INC.			DESCRIPTION: BNC RIGHT ANGLE PLUG FOR GIGAFLIGHT CABLE GF5-71T		
6180 Industrial Ct. Greendale WI, 53129 Tel: 414-488-6320 Fax: 414-433-9041			CAGE CODE: 8ABD5	PART NUMBER: GF5-BA71T	SHEET: 1 OF 1

GF5-NA71T is a drop in replacement for Carlisle's CNR922 and is suitable alternative to PIC's 190511



1.0 PERFORMANCE

- 1.1 Frequency range: DC - 11 GHz
- 1.2 Nominal impedance: 50 Ohms
- 1.3 VSWR: 1.2:1 Max DC - 2 GHz
- 1.4 Insertion loss: -1dB Max DC - 2 GHz
- 1.5 Working voltage: 500Vrms @ sea level
- 1.6 DWV: 2000Vrms @ sea level
- 1.7 Insulation resistance: 5000 Megaohms @ 500 volts DC

2.0 MATERIALS

- 2.1 Body: Brass per ASTM-B-16
- 2.2 Contact: Brass per ASTM-B-16
- 2.3 Dielectric: PTFE per ASTM-D-1710, type I, GR.1, CLA
- 2.4 Outer contact: Brass per ASTM-B-16
- 2.5 Ferrule: Brass per ASTM-B-16
- 2.6 Gasket: Silicone rubber per ZZ-R-765 GR 50, Red
- 2.7 Heat shrink: ATUM PER MIL-I-23053/4, Class 3

3.0 FINISHES

- 3.1 Body, Outer contact, Coupling nut: Nickel per QQ-N-290
- 3.2 Ferrule: Nickel per QQ-N-290 or Albaloy (Tri-M3)
- 3.3 Contact: Gold per MIL-PRF-39012

4.0 MECHANICAL

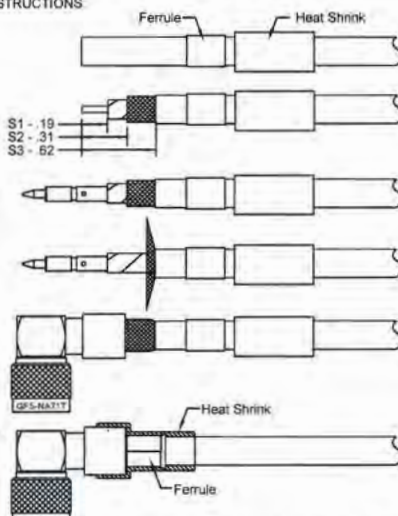
- 4.1 Interfaces: MIL-STD-348 figure 304-1
- 4.2 Termination style: Cable contact-solder or crimp, Crimp ferrule
- 4.3 Cable retention: 40 LBS

5.0 ENVIRONMENTAL

- 5.1 Temperature range: -65/+165 °C
- 5.2 Vibration: MIL-STD-202, Method 204, COND B
- 5.3 Shock: MIL-STD-202, Method 213, COND I
- 5.4 Thermal shock: MIL-STD-202, Method 107, COND B
- 5.5 Corrosion: MIL-STD-202, Method 101, COND. B
- 5.6 Moisture resistance: MIL-STD-202, Method 106

TERMINATION INSTRUCTIONS

- 1) Slide heat shrink and ferrule over end of cable prior to stripping cable. Ensure cable end is cut square.
- 2) When using automated stripping equipment, strip cable to dimensions shown. If automated stripping equipment is not available strip S1 and S3 only and trim excess shield at step 5. Care should be taken not to nick the center conductor and shield.
- 3) Install contact onto cable conductor flush with dielectric. Contact can be crimped or soldered. When crimping use M22520/5-59 or Y208P die (0.100 B hex) with hand tool M22520/5-01 or equivalent.
- 4) Fold all shields back perpendicular to cable using a tweezers. You may need to slit the aluminum foil before folding back.
- 5) Slide the connector onto the cable until the contact snaps into the dielectric lock of the connector. Fold all shields back over the end of the connector.
- 6) Slide the ferrule over the shield until it is against the connector body. Trim any excess shield. Crimp the ferrule using M22520/5-59 Y208P die (0.255 hex) with hand tool M22520/5-01 or equivalent. After crimping ferrule apply adhesive heat shrink.

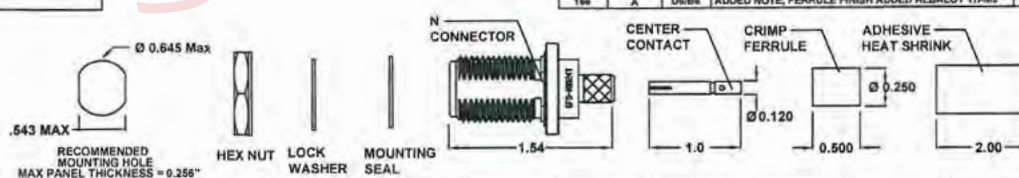


DESIGNED BY:	DATE:	CHECKED BY:	DATE:	APPROVED BY:	DATE:
C CHAPMAN	7/30/19	K KRUEGER	7/30/19	C CHAPMAN	7/30/2019
GIGAFLIGHT DESCRIPTION: N RIGHT ANGLE PLUG FOR GIGAFLIGHT CABLE GF5-71T CAGE CODE: 8ABD5 PART NUMBER: GF5-NA71T SHEET: 1 OF 1					

*RoHS/REACH Compliant

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GF5-NB124T is a drop in replacement for Carlisle's BN3722 and is suitable alternative to PIC's 190122



1.0 PERFORMANCE

- 1.1 Frequency range: DC - 11 GHz
- 1.2 Nominal impedance: 50 Ohms
- 1.3 VSWR: 1.2:1 Max DC - 2 GHz
- 1.4 Insertion loss: -1dB Max DC - 2 GHz
- 1.5 Working voltage: 500Vrms @ sea level
- 1.6 DWV: 1500Vrms @ sea level
- 1.7 Insulation resistance: 5000 Megaohms @ 500 volts DC

2.0 MATERIALS

- 2.1 Body: Brass per ASTM-B-16
- 2.2 Nut, Washer: Brass per ASTM-B-16
- 2.3 Dielectric: PTFE per ASTM-D-1710, type I, GR.1, CLA
- 2.4 Contact: BeCu per ASTM-B-196
- 2.5 Ferrule: Brass per ASTM-B-16
- 2.6 Gasket: Silicone rubber per ZZ-R-765 GR 50, Red
- 2.7 Heat shrink: ATUM PER MIL-I-23053/4, Class 3

3.0 FINISHES

- 3.1 Body, Outer contact, Coupling nut: Nickel per QQ-N-290
- 3.2 Ferrule: Nickel per QQ-N-290 or Albaloy (Tri-M3)
- 3.3 Contact: Gold per MIL-PRF-39012

4.0 MECHANICAL

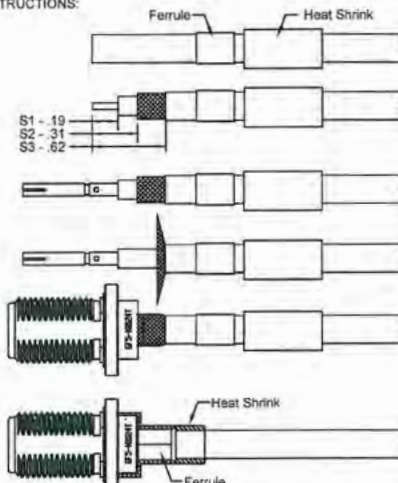
- 4.1 Interfaces: MIL-STD-348 figure 304-2
- 4.2 Termination style: Cable contact-solder or crimp, Crimp ferrule
- 4.3 Cable retention: 30 LBS

5.0 ENVIRONMENTAL

- 5.1 Temperature range: -65/+165 °C
- 5.2 Vibration: MIL-STD-202, Method 204, COND B
- 5.3 Shock: MIL-STD-202, Method 213, COND I
- 5.4 Thermal shock: MIL-STD-202, Method 107, COND B
- 5.5 Corrosion: MIL-STD-202, Method 101, COND. B
- 5.6 Moisture resistance: MIL-STD-202, Method 106

TERMINATION INSTRUCTIONS:

- 1) Slide heat shrink and ferrule over end of cable prior to stripping cable. Ensure cable end is cut square.
- 2) When using automated stripping equipment, strip cable to dimensions shown. If automated stripping equipment is not available strip S1 and S3 only and trim excess shield at step 5. Care should be taken not to nick the center conductor and shield.
- 3) Install contact onto cable conductor flush with dielectric. Contact can be crimped or soldered. When crimping use M22520/5-57 or Y209P die (0.100 B hex) with hand tool M22520/5-01 or equivalent.
- 4) Fold all shields back perpendicular to cable using a tweezers. You may need to slit the aluminum foil before folding back.
- 5) Slide the connector onto the cable until the contact snaps into the dielectric lock of the connector. Fold all shields back over the end of the connector.
- 6) Slide the ferrule over the shield until it is against the connector body. Trim any excess shield. Crimp the ferrule using M22520/5-57 or Y209P die (0.213 hex) with hand tool M22520/5-01 or equivalent. After crimping ferrule apply adhesive heat shrink.



DESIGNED BY:	DATE:	CHECKED BY:	DATE:	APPROVED BY:	DATE:
C CHAPMAN	6/20/19	K KRUEGER	6/24/19	C CHAPMAN	6/24/2019
GIGAFLIGHT DESCRIPTION: N BULKHEAD JACK FOR GIGAFLIGHT CABLE GF5-124T CAGE CODE: 8ABD5 PART NUMBER: GF5-NB124T SHEET: 1 OF 1					

*RoHS/REACH Compliant

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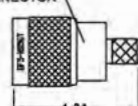
GF5-NS56T is a drop in replacement for Carlisle's CNS122 and is suitable alternative to PIC's 190610

REVISIONS				APPROVED	DATE
ECN	REVISION	ZONE	DESCRIPTION OF CHANGE	CAC	
128	NR	-	INITIAL RELEASE		6/24/19
166	A	D6B6	ADDED NOTE, FERRULE FINISH ADDED ALBALOY TH-M3	R.M.K.	8-25-19

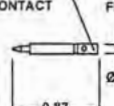
LOCKWIRE HOLES
Ø 0.027 Min



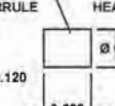
N CONNECTOR



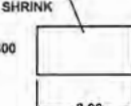
CENTER CONTACT



CRIMP FERRULE



ADHESIVE HEAT SHRINK



1.0 PERFORMANCE

- 1.1 Frequency range: DC - 11 GHz
- 1.2 Nominal impedance: 50 Ohms
- 1.3 VSWR: 1.2:1 Max DC - 2 GHz
- 1.4 Insertion loss: 1dB Max DC - 2 GHz
- 1.5 Working voltage: 500Vrms @ sea level
- 1.6 DWV: 1500Vrms @ sea level
- 1.7 Insulation resistance: 5000 Megohms @ 500 volts DC

2.0 MATERIALS

- 2.1 Body: Brass per ASTM-B-16
- 2.2 Contact: Brass per ASTM-B-16
- 2.3 Dielectric: PTFE per ASTM-D-1710, type I, GR. 1, CLA
- 2.4 Outer contact: Brass per ASTM-B-16
- 2.5 Ferrule: Brass per ASTM-B-16
- 2.6 Gasket: Silicone rubber per ZZ-R-765 GR 50, Red
- 2.7 Heat shrink: ATUM PER MIL-I-23053/4, Class 3

3.0 FINISHES

- 3.1 Body, Outer contact, Coupling nut: Nickel per QQ-N-250
- 3.2 Ferrule: Nickel per QQ-N-250 or Albaloy (Tri-M3)
- 3.3 Contact: Gold per MIL-PRF-39012

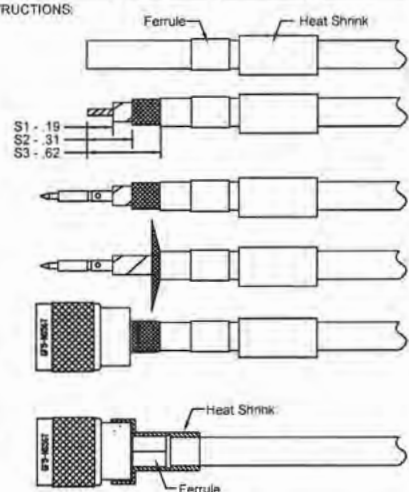
4.0 MECHANICAL

- 4.1 Interfaces: MIL-STD-348 figure 304-1
- 4.2 Termination style: Cable contact-solder or crimp, Crimp ferrule
- 4.3 Cable retention: 50 LBS

5.0 ENVIRONMENTAL

- 5.1 Temperature range: -65/+165 °C
- 5.2 Vibration: MIL-STD-202, Method 204, COND B
- 5.3 Shock: MIL-STD-202, Method 213, COND I
- 5.4 Thermal shock: MIL-STD-202, Method 107, COND B
- 5.5 Corrosion: MIL-STD-202, Method 101, COND. B
- 5.6 Moisture resistance: MIL-STD-202, Method 106

- 1) Slide heat shrink and ferrule over end of cable prior to stripping cable. Ensure cable end is cut square.
- 2) When using automated stripping equipment, strip cable to dimensions shown. If automated stripping equipment is not available strip S1 and S3 only and trim excess shield at step 5. Care should be taken not to nick the center conductor and shield.
- 3) Install contact onto cable conductor flush with dielectric. Contact can be crimped or soldered. When crimping use M22520/5-59 or Y208P die (0.100 B hex) with hand tool M22520/5-01 or equivalent.
- 4) Fold all shields back perpendicular to cable using a tweezers. You may need to slit the aluminum foil before folding back.
- 5) Slide the connector onto the cable until the contact snaps into the dielectric lock of the connector. Fold all shields back over the end of the connector.
- 6) Slide the ferrule over the shield until it is against the connector body. Trim any excess shield. Crimp the ferrule using M22520/5-47 or Y144P die (0.359 hex) with hand tool M22520/5-01 or equivalent. After crimping ferrule apply adhesive heat shrink.



DESIGNED BY: C CHAPMAN	DATE: 6/20/19	CHECKED BY: K KRUEGER	DATE: 6/24/19	APPROVED BY: C CHAPMAN	DATE: 6/24/2019
GIGAFLIGHT		DESCRIPTION: N STRAIGHT PLUG FOR GIGAFLIGHT CABLE GF5-56T			
6180 Industrial Ct, Greendale WI, 53129		CAGE CODE: 8A8D5		PART NUMBER: GF5-NS56T	
Tel: 414-488-6320 Fax: 414-433-9041				SHEET: 1 OF 1	

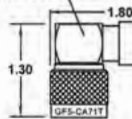
*RoHS/REACH Compliant

UNLESS OTHERWISE SPECIFIED:
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ALL DIMENSIONS ARE FOR REFERENCE ONLY.

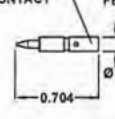
GF5-CA71T is a drop in replacement for Carlisle's CCR922 and is suitable alternative to PIC's 190507

REVISIONS				APPROVED	DATE
ECN	REVISION	ZONE	DESCRIPTION OF CHANGE		
284	NR	-	INITIAL RELEASE		10-6-2019

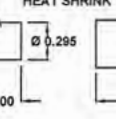
C CONNECTOR



CENTER CONTACT



CRIMP FERRULE



ADHESIVE HEAT SHRINK



1.0 PERFORMANCE

- 1.1 Frequency range: DC - 11 GHz
- 1.2 Nominal impedance: 50 Ohms
- 1.3 VSWR: 1.2:1 Max DC - 2 GHz
- 1.4 Insertion loss: 1dB Max DC - 2 GHz
- 1.5 Working voltage: 500Vrms @ sea level
- 1.6 DWV: 1500Vrms @ sea level
- 1.7 Insulation resistance: 5000 Megohms @ 500 volts DC

2.0 MATERIALS

- 2.1 Body: Brass per ASTM-B-16
- 2.2 Contact: BeCu per ASTM-B-196
- 2.3 Dielectric: PTFE per ASTM-D-1710, type I, GR. 1, CLA
- 2.4 Outer contact: Brass per ASTM-B-16
- 2.5 Ferrule: Brass per ASTM-B-16
- 2.6 Gasket: Silicone rubber per ZZ-R-765 GR 50, Red
- 2.7 Heat shrink: ATUM PER MIL-I-23053/4, Class 3

3.0 FINISHES

- 3.1 Body, Outer contact, Coupling nut: Nickel per QQ-N-250
- 3.2 Ferrule: Nickel per QQ-N-250 or Albaloy (Tri-M3)
- 3.3 Contact: Gold per MIL-PRF-39012

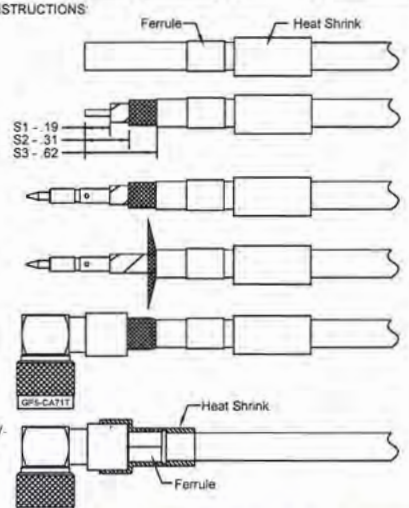
4.0 MECHANICAL

- 4.1 Interfaces: MIL-STD-348 figure 302-1
- 4.2 Termination style: Cable contact-solder or crimp, Crimp ferrule
- 4.3 Cable retention: 40 LBS

5.0 ENVIRONMENTAL

- 5.1 Temperature range: -65/+105 °C
- 5.2 Vibration: MIL-STD-202, Method 204, COND B
- 5.3 Shock: MIL-STD-202, Method 213, COND I
- 5.4 Thermal shock: MIL-STD-202, Method 107, COND B
- 5.5 Corrosion: MIL-STD-202, Method 101, COND. B
- 5.6 Moisture resistance: MIL-STD-202, Method 106

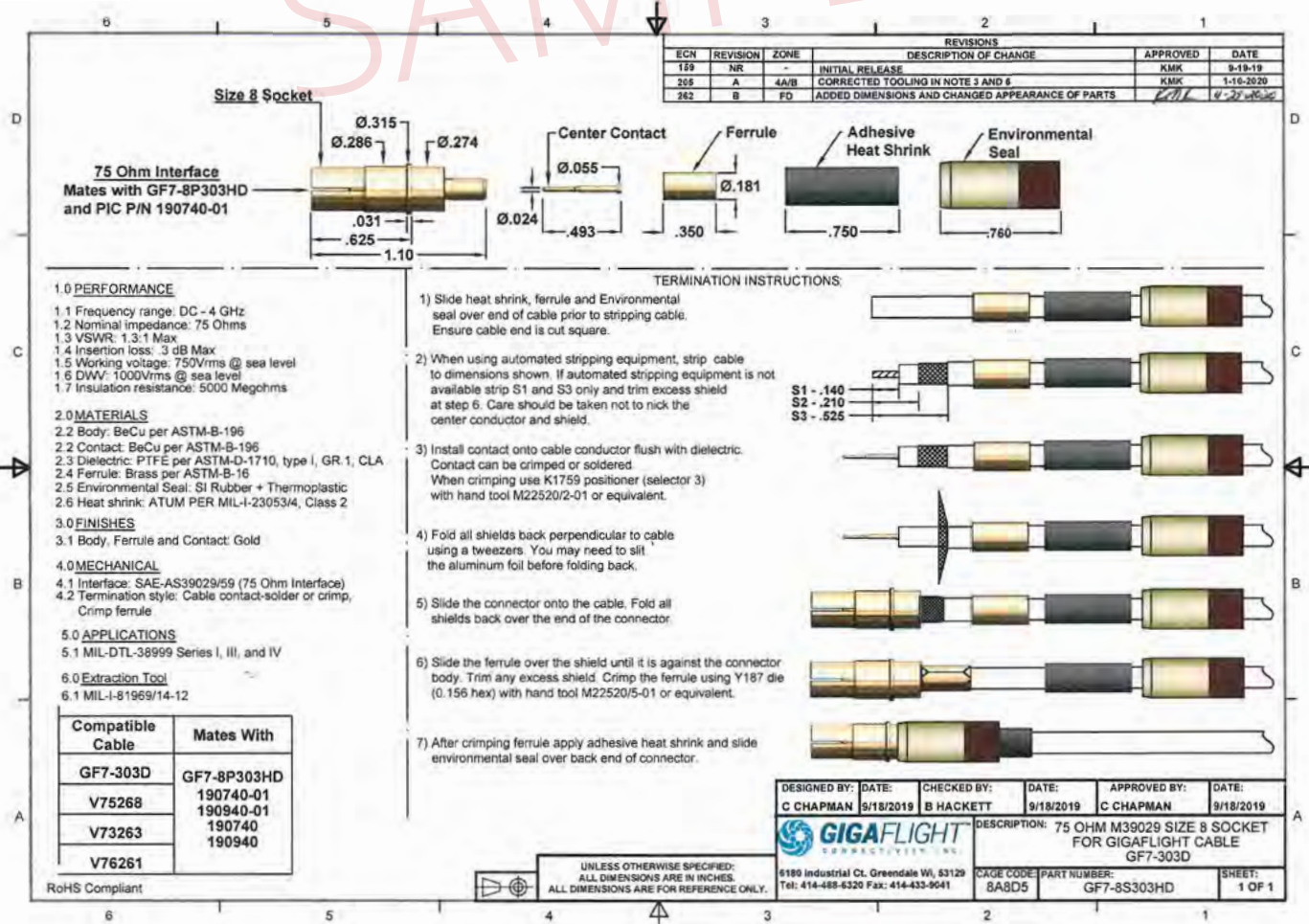
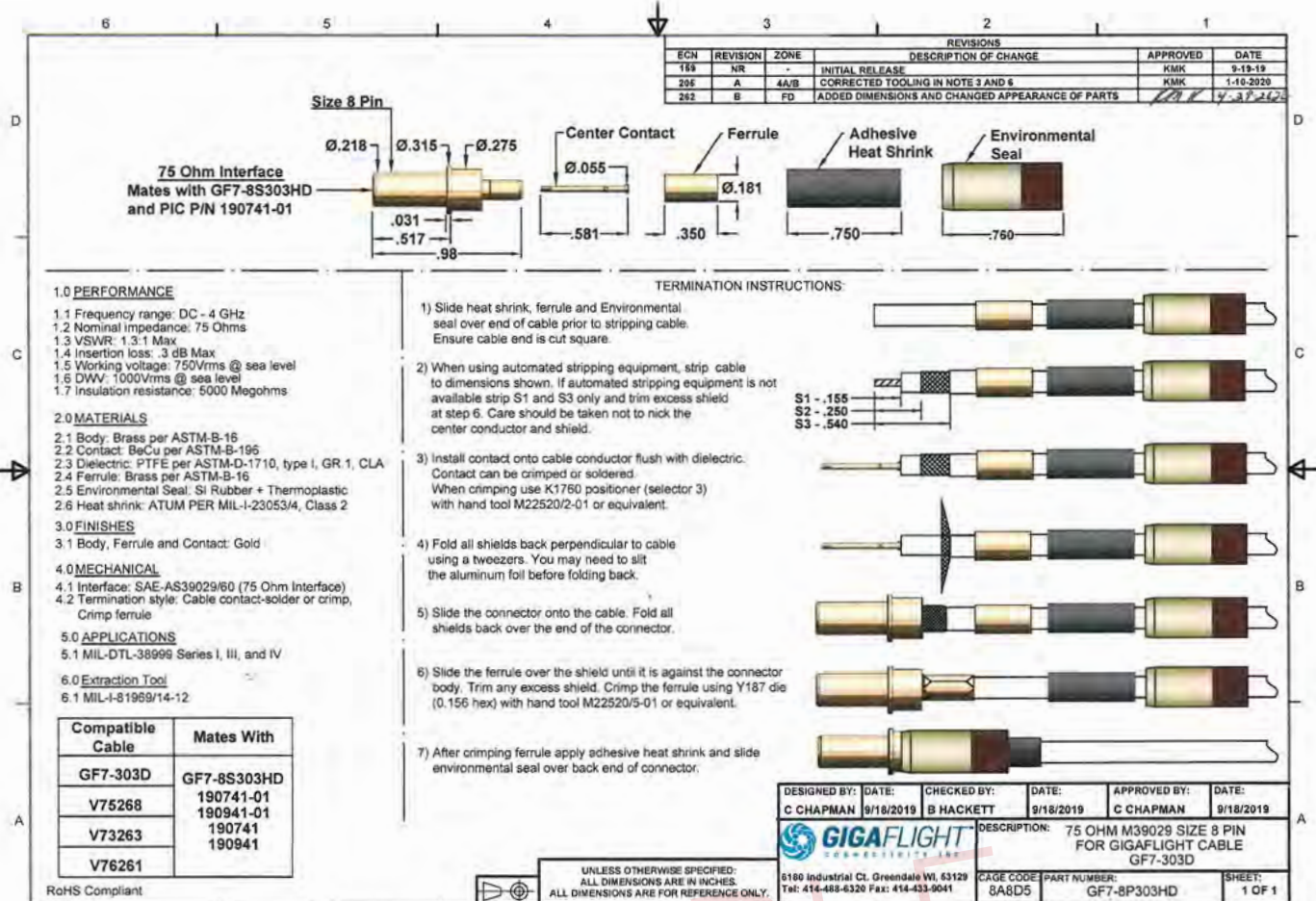
- 1) Slide heat shrink and ferrule over end of cable prior to stripping cable. Ensure cable end is cut square.
- 2) When using automated stripping equipment, strip cable to dimensions shown. If automated stripping equipment is not available strip S1 and S3 only and trim excess shield at step 5. Care should be taken not to nick the center conductor and shield.
- 3) Install contact onto cable conductor flush with dielectric. Contact can be crimped or soldered. When crimping use M22520/5-59 or Y208P die (0.100 B hex) with hand tool M22520/5-01 or equivalent.
- 4) Fold all shields back perpendicular to cable using a tweezers. You may need to slit the aluminum foil before folding back.
- 5) Slide the connector onto the cable until the contact snaps into the dielectric lock of the connector. Fold all shields back over the end of the connector.
- 6) Slide the ferrule over the shield until it is against the connector body. Trim any excess shield. Crimp the ferrule using M22520/5-59 Y208P die (0.255 hex) with hand tool M22520/5-01 or equivalent. After crimping ferrule apply adhesive heat shrink.

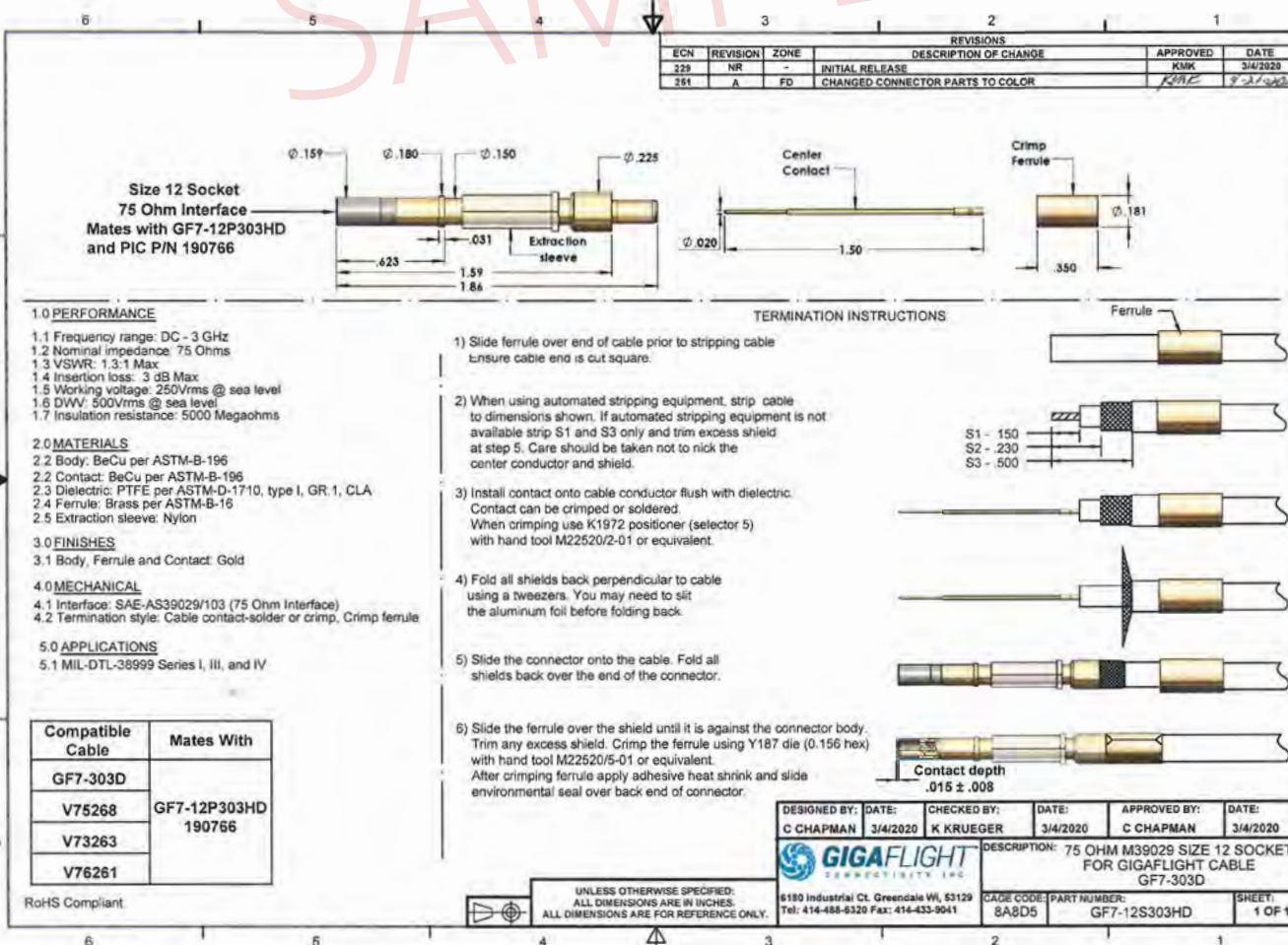
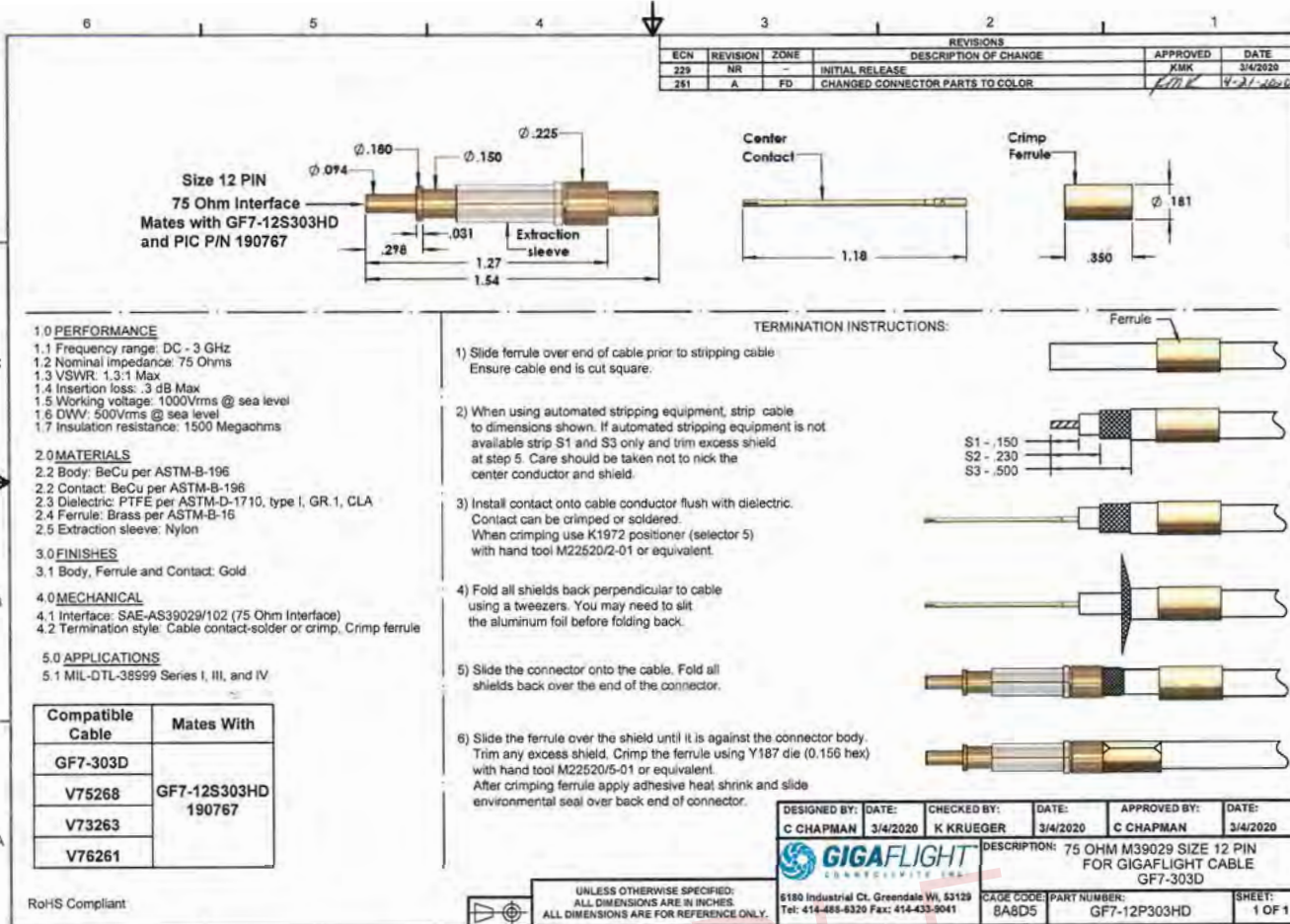


DESIGNED BY: C CHAPMAN	DATE: 6/18/2020	CHECKED BY: K KRUEGER	DATE: 6/24/2019	APPROVED BY: C CHAPMAN	DATE: 6/24/2019
GIGAFLIGHT		DESCRIPTION: C RIGHT ANGLE PLUG FOR GIGAFLIGHT CABLE GF5-71T			
6180 Industrial Ct, Greendale WI, 53129		CAGE CODE: 8A8D5		PART NUMBER: GF5-CA71T	
Tel: 414-488-6320 Fax: 414-433-9041				SHEET: 1 OF 1	

*RoHS/REACH Compliant

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Cable Assemblies

50 Ω & 75 Ω , HDMI, QUADRIX & Ethernet

Custom coaxial assembly shipsets available for a variety of different systems on defense and commercial aviation platforms.*

- Cable assembly worksheets- RF & high speed data cables / connectors*
- High speed data cable assemblies – HDMI, Ethernet, Quadrix, USB
- Custom / bespoke cable assemblies*
- Avionics cable assemblies
- RF cable assemblies & assembly kits*
- Expert assembly team
- Prototyping and system evaluation
- Validation Testing – capabilities per system requirements
- Custom specialty cable assemblies turn-around within 1-2 days*
- High quality cable assemblies backed by the knowledge and technical services you need for a successful install

**Contact GIGAFLIGHT for more information.*



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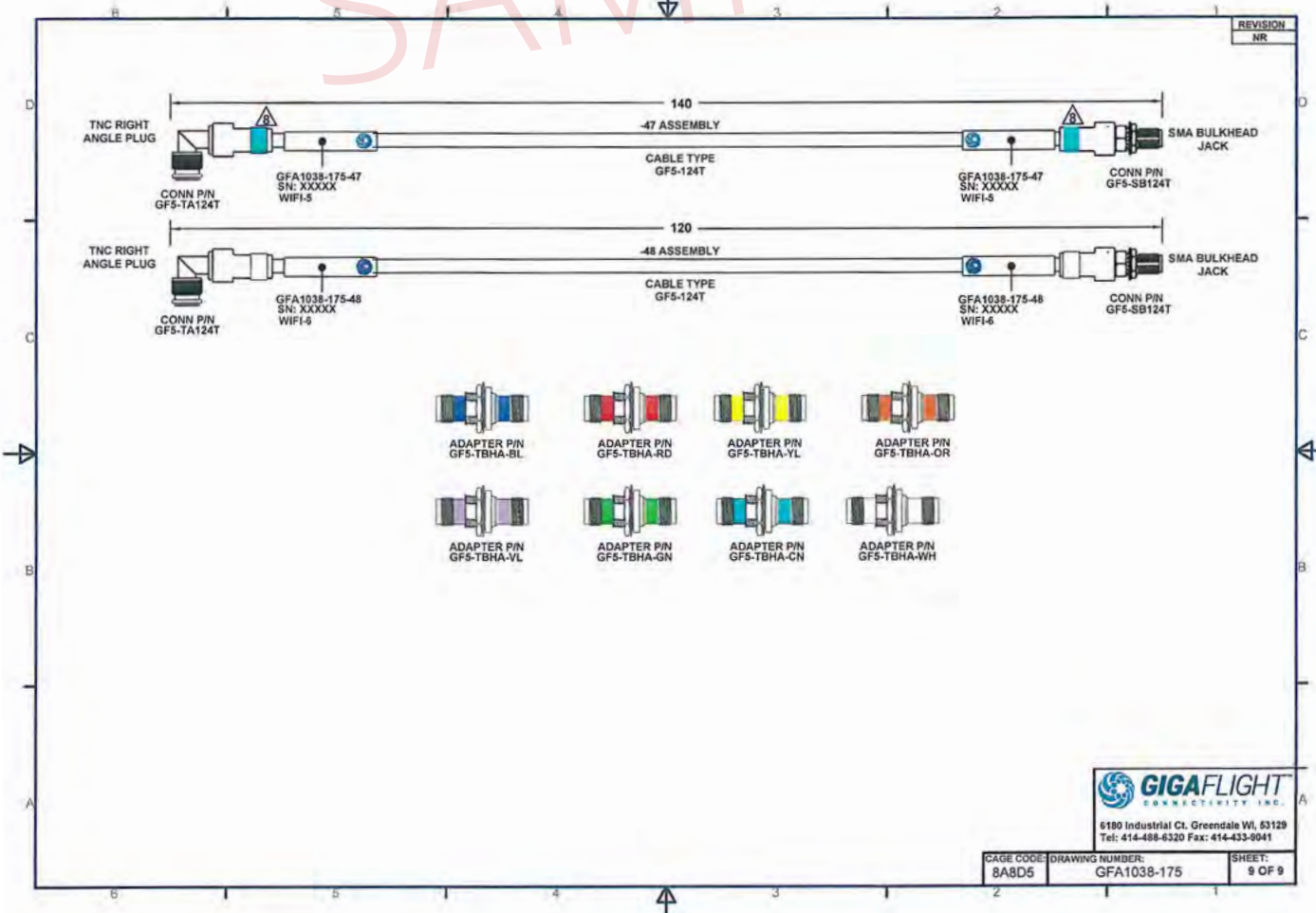
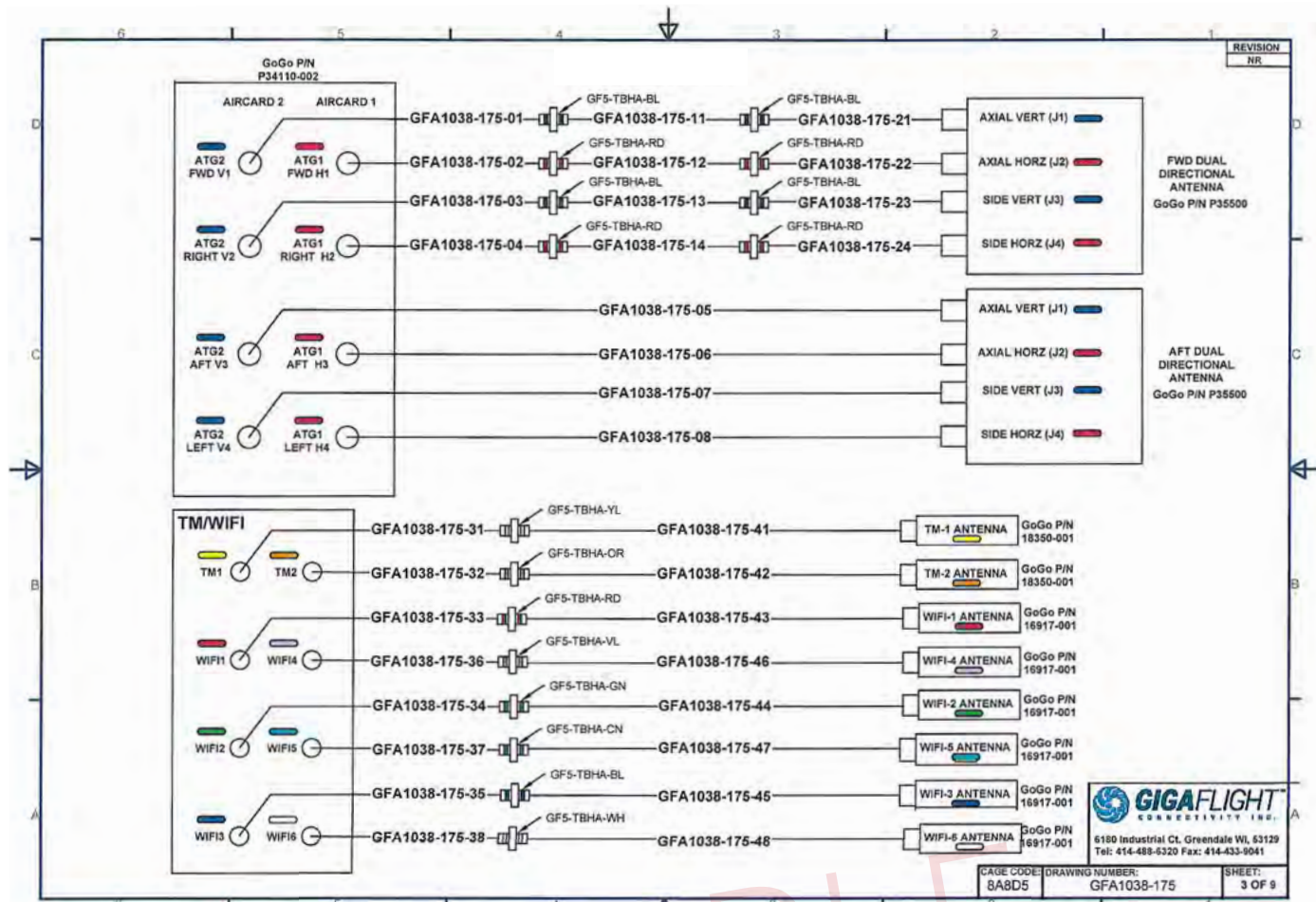
GIGALite™ 50Ω Assemblies

50 Ω Cable Assemblies per Customer Specifications

GIGAFLIGHT has an expert team of design engineers and production specialists who will build your RF cable assemblies, provide custom assembly drawings, and validate all electrical requirements.

- Cable assembly drawings – RF cables / connectors*
- Custom / bespoke cable assemblies*
- RF cable assemblies & assembly kits*
- Prototyping and system evaluation
- Validation Testing – capabilities per system requirements
- Custom specialty cable assemblies turn-around within 1-2 days*
- High quality cable assemblies backed by the knowledge and technical services you need for a successful install

**Contact GIGAFLIGHT for more information.*



Notes:

1) Terminate connectors per manufactures assembly instructions. Install colored heat shrink over the end of adhesive heat shrink. Locate labels within one inch of adhesive heat shrink.

2) Length tolerance: $\begin{matrix} < 20 \\ +0.5/-0 \end{matrix}$ $\begin{matrix} > 20-300 \\ +2.0/-0 \end{matrix}$

3) Test -100 kit (-01 thru -08, -11 thru -18 and -25 thru -28 cables and adapters) with markers set at 1030 and 1090 MHz. Attenuation: 1.7 - 2.5 dB for antenna run. VSWR: < 1.35:1 for each antenna run.

4) Test -101 kit (-01 thru -08 cables) with markers set at 1030 and 1090 MHz. Attenuation: < 0.4 dB for each cable. VSWR: < 1.35:1 for each cable.

5) Test -102 kit (-11 thru -18 and -25 thru -28 cables) with markers set at 1030 and 1090 MHz. The test will include TNC bulkhead adapters. Attenuation: ≤ 2.0 dB for -11 thru -14 cables. Attenuation: ≤ 2.0 dB for -15 and -25 cables combined. Attenuation: ≤ 2.0 dB for -16 and -26 cables combined. Attenuation: ≤ 2.0 dB for -17 and -27 cables combined. Attenuation: ≤ 2.0 dB for -18 and -28 cables combined. VSWR: < 1.35:1 for each cable and pair.

6) Include test results with each shipment.

ECN	REVISION	ZONE	SHEET	DESCRIPTION OF CHANGE	APPROVED	DATE
139	NR	-	-	INITIAL RELEASE	CAC	8/1/19
167	A	PD	214/5	CHANGED -31 THRU -28 LENGTH FROM 15 TO 18 INCHES	<i>Lin K</i>	7-30-19

3	-	-	3	GF5-TBHA-RD	HERMETICALLY SEALED TNC BULKHEAD ADAPTER WITH RED HS	29
3	-	-	3	GF5-TBHA-BL	HERMETICALLY SEALED TNC BULKHEAD ADAPTER WITH BLUE HS	28
3	-	-	3	GF5-TBHA-BK	HERMETICALLY SEALED TNC BULKHEAD ADAPTER WITH BLACK HS	27
3	-	-	3	GF5-TBHA-YL	HERMETICALLY SEALED TNC BULKHEAD ADAPTER WITH YELLOW HS	25
-	1	-	1	GFA1082-125-28	TRFC BTM CABIN AFT RED COAX ASSEMBLY	24
-	1	-	1	GFA1082-125-27	TRFC BTM CABIN AFT BLU COAX ASSEMBLY	23
-	1	-	1	GFA1082-125-26	TRFC BTM CABIN AFT YEL COAX ASSEMBLY	22
-	1	-	1	GFA1082-125-25	TRFC BTM CABIN AFT YEL COAX ASSEMBLY	21
-	1	-	1	GFA1082-125-18	TRFC BTM CABIN FWD RED COAX ASSEMBLY	20
-	1	-	1	GFA1082-125-17	TRFC BTM CABIN FWD BLU COAX ASSEMBLY	19
-	1	-	1	GFA1082-125-16	TRFC BTM CABIN FWD BLK COAX ASSEMBLY	18
-	1	-	1	GFA1082-125-15	TRFC BTM CABIN FWD YEL COAX ASSEMBLY	17
-	1	-	1	GFA1082-125-14	TRFC TOP CABIN RED COAX ASSEMBLY	16
-	1	-	1	GFA1082-125-13	TRFC TOP CABIN BLU COAX ASSEMBLY	15
-	1	-	1	GFA1082-125-12	TRFC TOP CABIN BLK COAX ASSEMBLY	14
-	1	-	1	GFA1082-125-11	TRFC TOP CABIN YEL COAX ASSEMBLY	13
-	-	1	1	GFA1082-125-08	TRFC BTM NOSE RED COAX ASSEMBLY	12
-	-	1	1	GFA1082-125-07	TRFC BTM NOSE BLU COAX ASSEMBLY	11
-	-	1	1	GFA1082-125-06	TRFC BTM NOSE BLK COAX ASSEMBLY	10
-	-	1	1	GFA1082-125-05	TRFC BTM NOSE YEL COAX ASSEMBLY	9
-	-	1	1	GFA1082-125-04	TRFC TOP NOSE RED COAX ASSEMBLY	8
-	-	1	1	GFA1082-125-03	TRFC TOP NOSE BLU COAX ASSEMBLY	7
-	-	1	1	GFA1082-125-02	TRFC TOP NOSE BLK COAX ASSEMBLY	6
-	-	1	1	GFA1082-125-01	TRFC TOP NOSE YEL COAX ASSEMBLY	5
-	-	-	-	GFA1082-125-103	TEXTRON MODEL 560XL GARMIN GTS TRFC RF ADAPTER KIT	4
-	-	-	-	GFA1082-125-102	TEXTRON MODEL 560XL GARMIN GTS TRFC COAX CABIN KIT	3
-	-	-	-	GFA1082-125-101	TEXTRON MODEL 560XL GARMIN GTS TRFC COAX NOSE KIT	2
-	-	-	-	GFA1082-125-100	TEXTRON MODEL 560XL GARMIN GTS TRFC COAX/ADAPTER KIT	1
QTY	QTY	QTY	QTY	PART NUMBER	DESCRIPTION	ITEM #
-103	-102	-101	-100			
KIT	KIT	KIT	KIT			

KIT BILL OF MATERIALS

DESIGNED BY:

C CHAPMAN

DATE:

7/31/2019

CHECKED BY:

K KRUEGER

DATE:

8/1/2019

APPROVED BY:

B HACKETT

DATE:

8/1/2019

GIGAFLIGHT

CONNECTIVITY INC.

6180 Industrial Ct. Greendale WI, 53129

Tel: 414-488-6320 Fax: 414-433-9041

CAGE CODE:

8ABD5

DRAWING NUMBER:

GFA1082-125

SHEET:

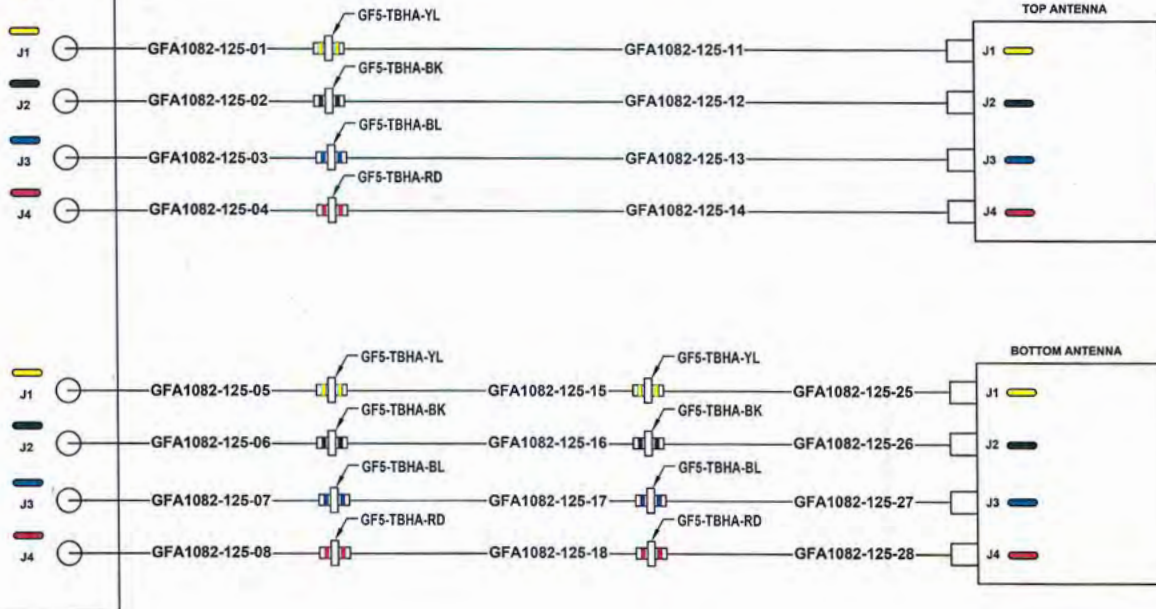
1 OF 7

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GARMIN GTS8000

REVISION
A

GTS8000



GIGAFLIGHT
CONNECTIVITY INC.

6180 Industrial Ct. Greendale WI, 53129

Tel: 414-488-6320 Fax: 414-433-9041

CAGE CODE:

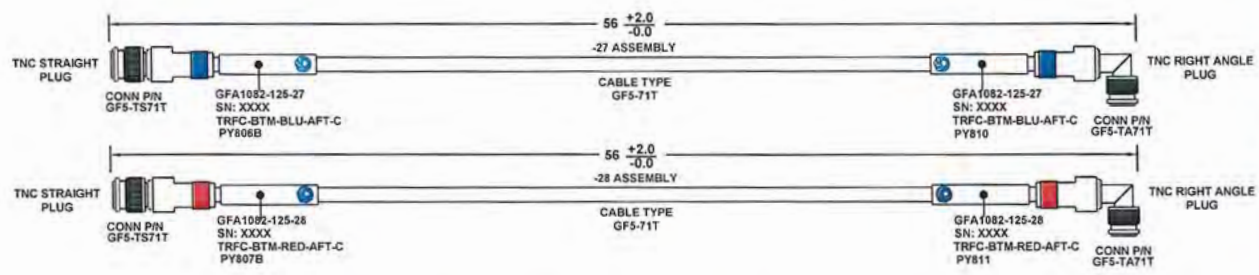
8ABD5

DRAWING NUMBER:

GFA1082-125

SHEET:

3 OF 7



GIGAFLIGHT
CONNECTIVITY INC.
5180 Industrial Ct. Greendale WI, 53129
Tel: 414-488-6320 Fax: 414-433-9041

CAGE CODE: 8A8D5	DRAWING NUMBER: GFA1082-125	SHEET: 7 OF 7
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SAMPLE



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GIGAVideo™ HDMI & 75Ω Assemblies

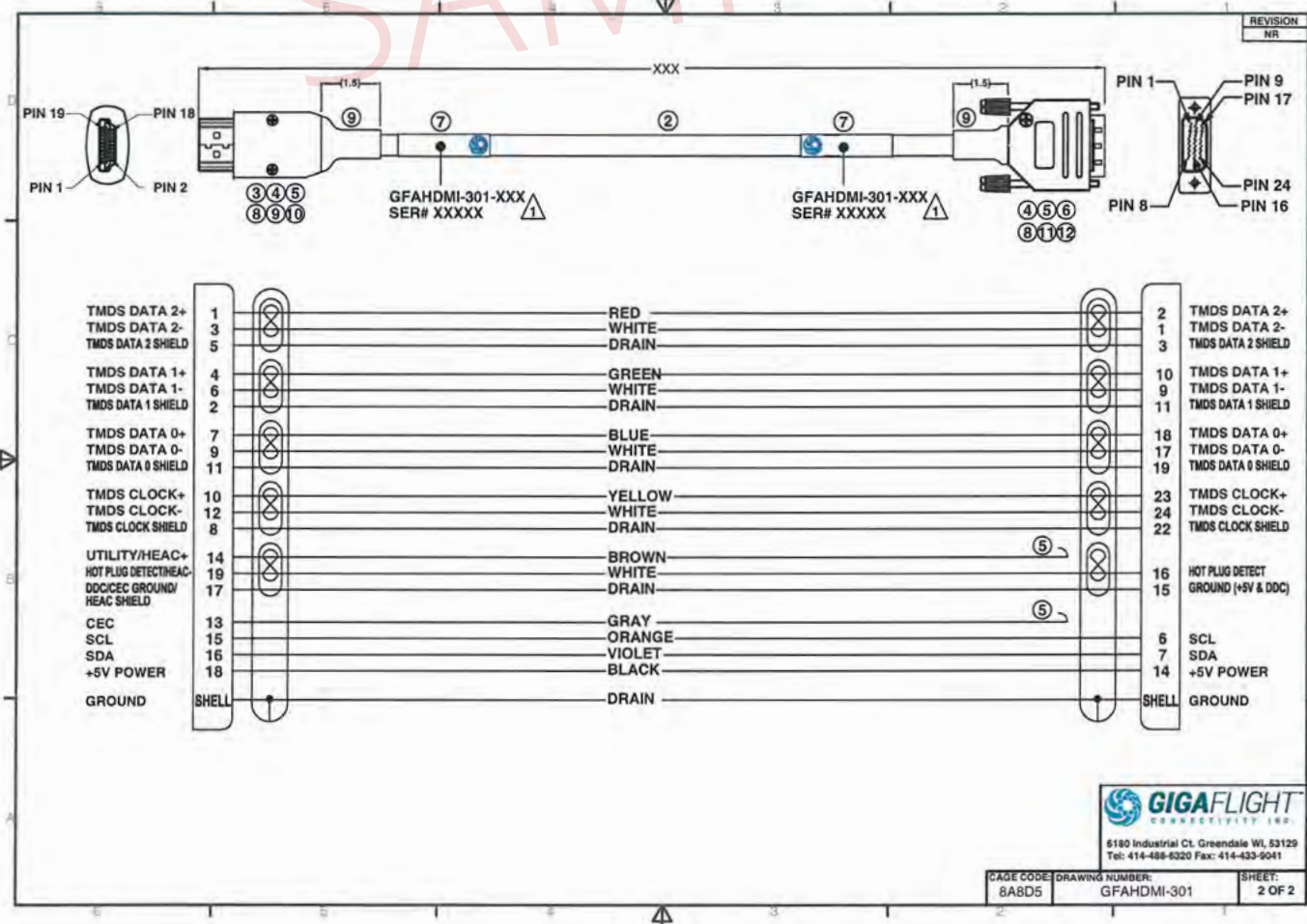
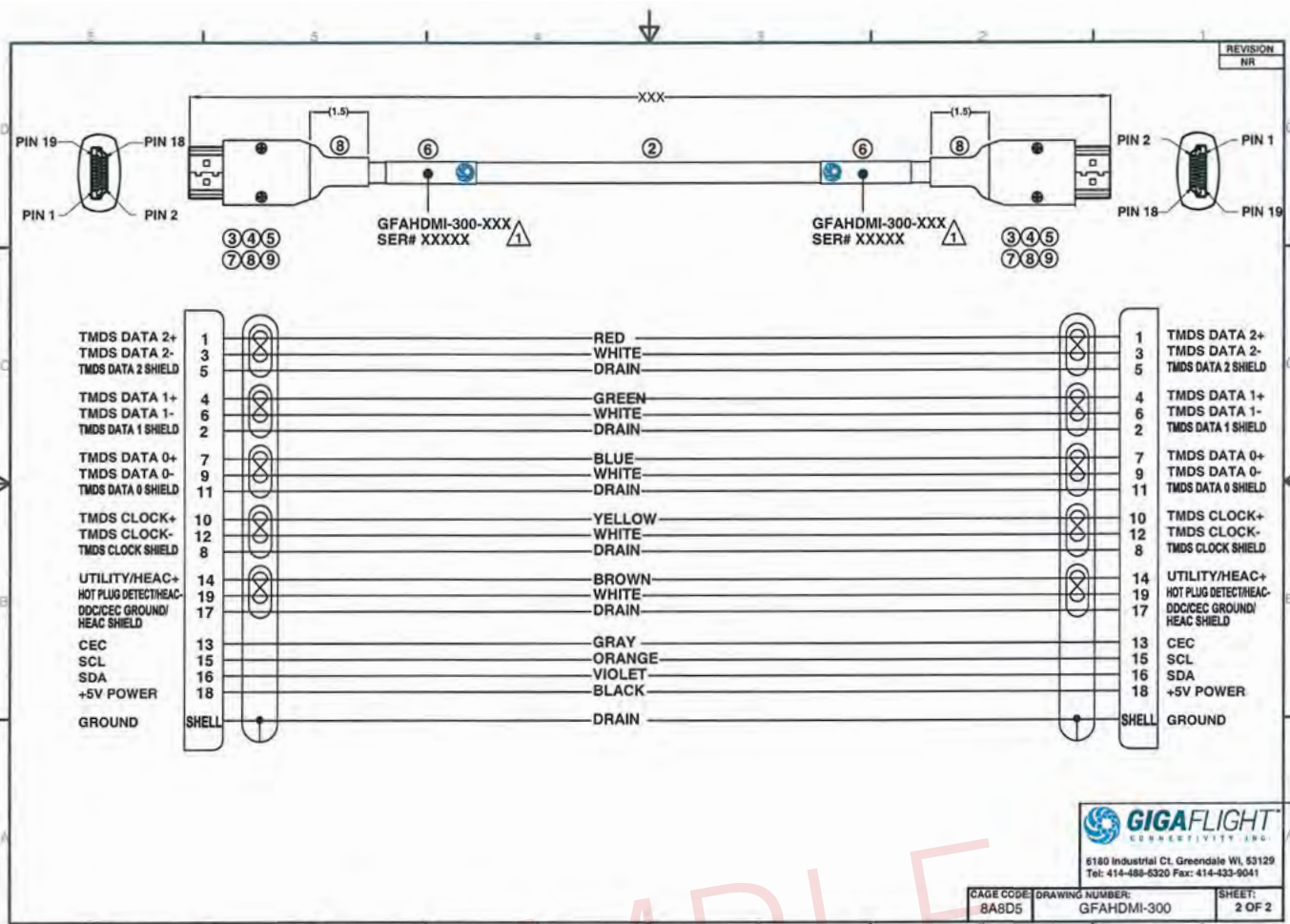
High Definition Multimedia Interface Custom Cable Assemblies

GIGAFLIGHT has an aerospace-grade High-Definition Multimedia Interface (HDMI) custom cable assembly and can provide it to our customers in record time! Our new HDMI cable enables a higher resolution for increased clarity whether you are viewing data and video during critical missions or using IFE during travel. Uses include:

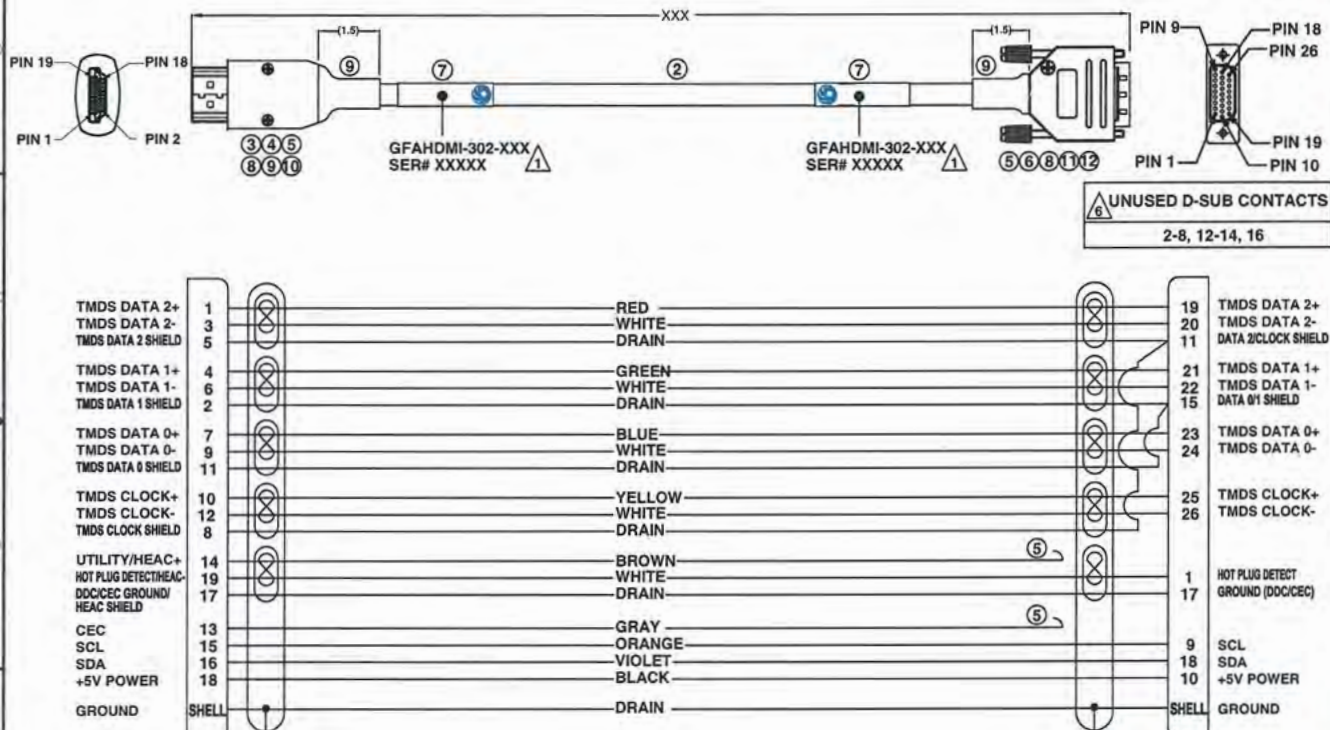
- Flight management, Digital video, EFB, IFE, Blu-Ray, HDMI VIP custom refits, Electronic devices, Glass cockpit, Weather and terrain mapping

The lightweight design meets industry requirement for high data rates on airborne digital networks / systems and is small enough to fit into tight spaces and light enough to save weight on aircraft. It allows the user to view critical video and data as clearly as possible on high definition and high quality displays, delivering a reliable signal transmission without fail. Specifications include:

- 4K p60/59, 12 Gbps cable assemblies up to 15ft
- 4K p30/24, 6 Gbps cable assemblies up to 50 ft
- Each assembly is tested per GIGAFLIGHT's Acceptance Test Procedure (ATP)
- Test report included with each serialized assembly
- HDMI to HDMI, HDMI to DVI, or HDMI to HD 26 pin D-Subs

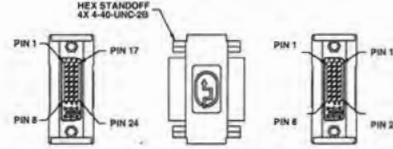
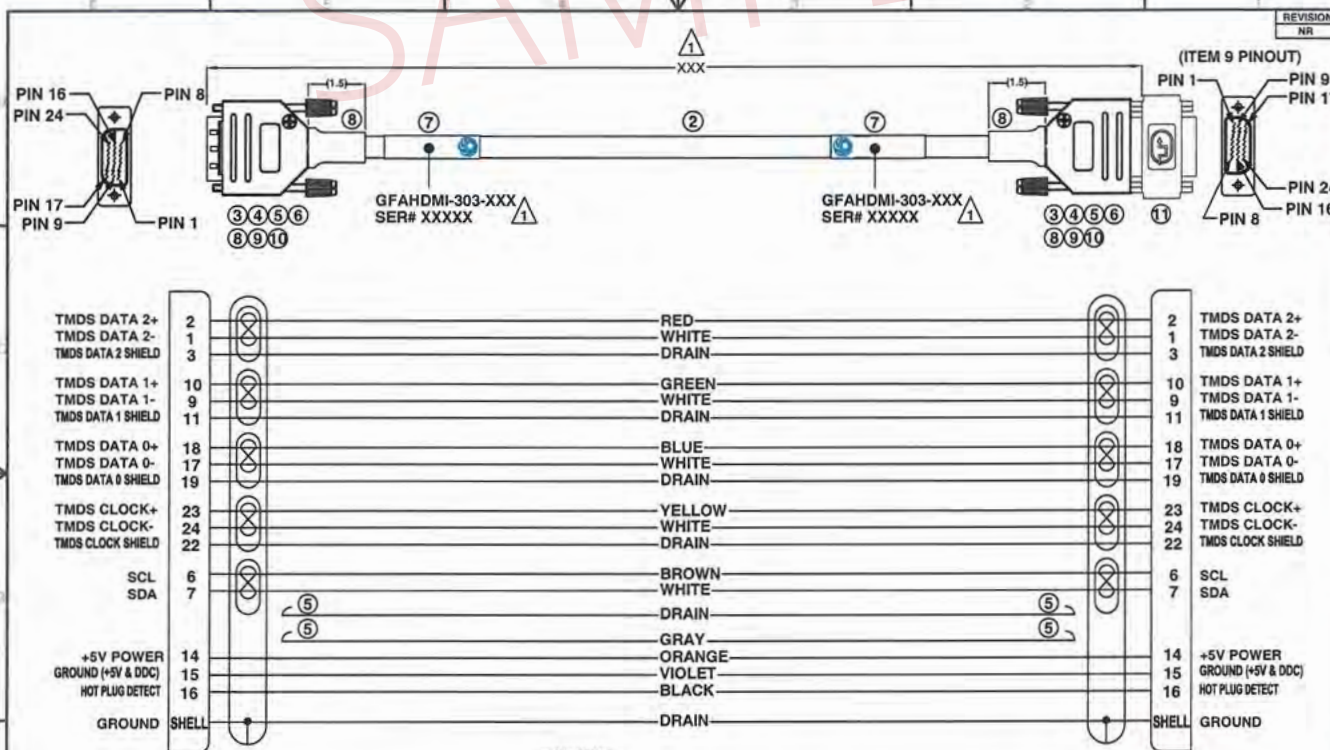


REVISION
NR



8180 Industrial Ct. Greendale WI, 53129
Tel: 414-488-6320 Fax: 414-433-9041

CAGE CODE: 8ABD5 DRAWING NUMBER: GFAHDMI-302 SHEET: 2 OF 2



8180 Industrial Ct. Greendale WI, 53129
Tel: 414-488-6320 Fax: 414-433-9041

CAGE CODE: 8ABD5 DRAWING NUMBER: GFAHDMI-303 SHEET: 2 OF 2



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GIGABite™ QUADRIX & Ethernet Assemblies

GIGAFLIGHT Custom-Built QUADRIX & Ethernet Assemblies

The GIGAFLIGHT Quadrix cable assemblies are designed to meet ARINC 664 for airborne high-speed data applications, 100Base-T physical lay for Ethernet. A wide variety of commercially available connector options for four and two pair Ethernet cable assemblies. All assemblies built and tested per your requirements.

- Lightweight, flexible, low-loss cable
- Superior EMI performance
- Suitable alternative to Carlisle (Tensolite) NF24Q100-01, it is also a drop-in replacement for the PIC E51424
- Any size 8 QUADRIX contact designed for NF24Q100-01 or E51424 will also work with the GIGAFLIGHT GF100-24QUAD
- A variety of RJ45 connectors & industry standard 10Gb connector options available
- Jacket protects the cable against the environment and is very flexible, making installation much easier
- High Temperature GIGAFLIGHT QUADRIX cable is laser markable and is available in different color jackets to suit your application
- All QUADRIX & Ethernet cable assemblies are tested with a Fluke meter to ensure the assembly meets the system requirements
- Test reports validate performance to 100Base-T, 1000Base-T, or 10 Gbs connectivity

Notes:

- 1) Items 2 and 5 on sheet 2 in BOM are customer supplied parts.
- 2) Terminate connectors per manufactures assembly instructions.
- 3) locate labels approximately 4 inches from front of connector .
- 4) Length tolerance +3/-0.
- 5) Test assemblies for continuity and cross continuity using HT113B.
- 6) Sheets 3 thru 8 show the A or B configuration for each Quadrax contact.



1	GFA1028-221-16	2EFI008A24 QUADRAX ASSEMBLY	17
1	GFA1028-221-15	1EFI008A24 QUADRAX ASSEMBLY	16
1	GFA1028-221-14	2DCU006A24 QUADRAX ASSEMBLY	15
1	GFA1028-221-13	1DCU006A24 QUADRAX ASSEMBLY	14
1	GFA1028-221-12	2DCU005A24 QUADRAX ASSEMBLY	13
1	GFA1028-221-11	1DCU005A24 QUADRAX ASSEMBLY	12
1	GFA1028-221-10	4EFI007A24 QUADRAX ASSEMBLY	11
1	GFA1028-221-09	3EFI007A24 QUADRAX ASSEMBLY	10
1	GFA1028-221-08	4EFI006A24 QUADRAX ASSEMBLY	9
1	GFA1028-221-07	3EFI006A24 QUADRAX ASSEMBLY	8
1	GFA1028-221-06	2EFI007A24 QUADRAX ASSEMBLY	7
1	GFA1028-221-05	2ECDU010A22 QUADRAX ASSEMBLY	6
1	GFA1028-221-04	1EFI007A24 QUADRAX ASSEMBLY	5
1	GFA1028-221-03	2EFI006A24 QUADRAX ASSEMBLY	4
1	GFA1028-221-02	1EFI006A24 QUADRAX ASSEMBLY	3
1	GFA1028-221-01	1ECDU010A22 QUADRAX ASSEMBLY	2
	GFA1028-221-100	UNIVERSAL AVIONICS QUADRAX CABLE KIT	1
QTY	PART NUMBER	DESCRIPTION	ITEM #

KIT BILL OF MATERIALS

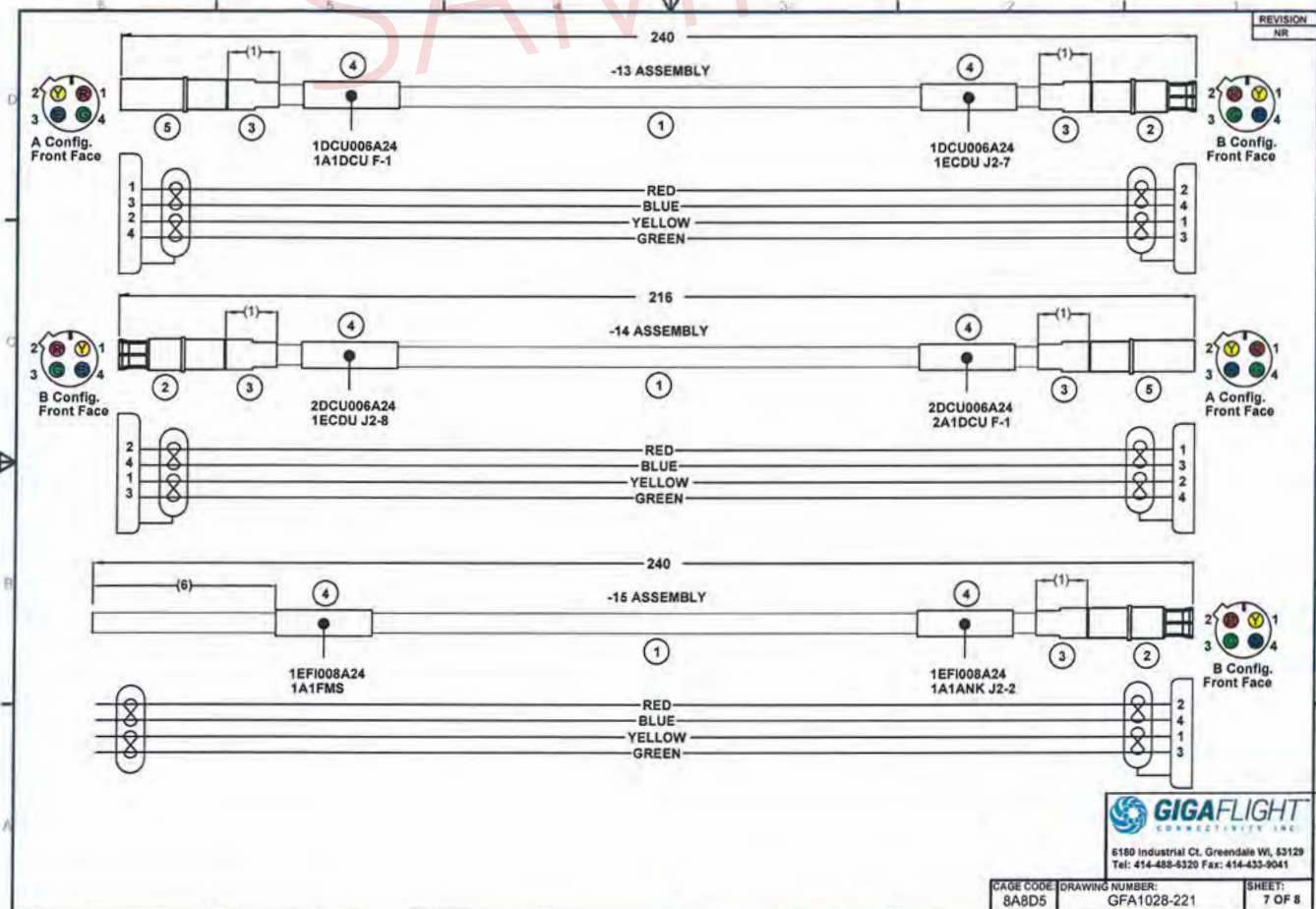
DESIGNED BY: C CHAPMAN DATE: 7/29/2020 CHECKED BY: Kim Keweenaw DATE: 8-11-2020 APPROVED BY: C Chapman DATE: 8-12-2020

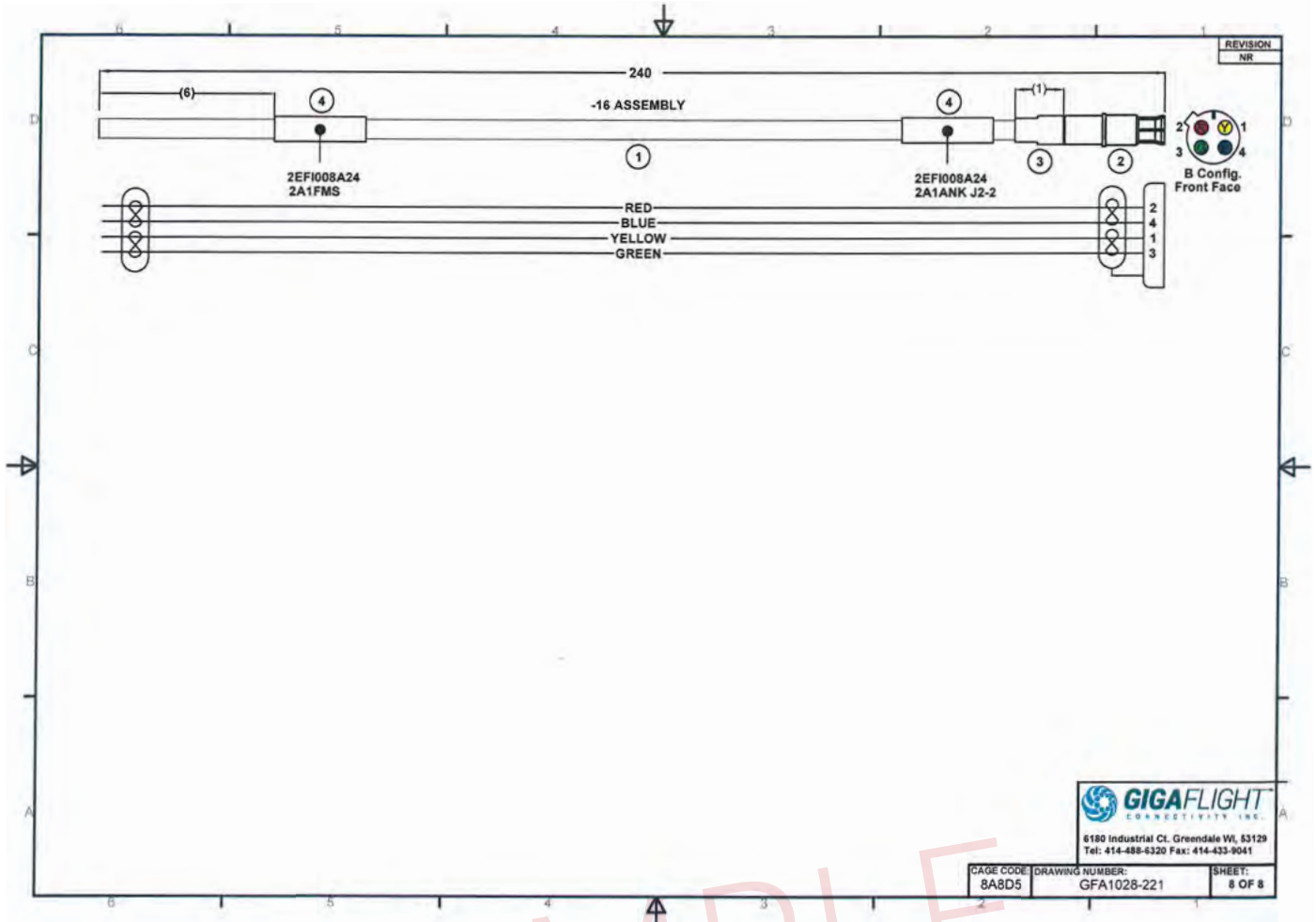


6180 Industrial Ct. Greendale WI, 53129
Tel: 414-488-8320 Fax: 414-433-9041

CAGE CODE: 8ABD5 DRAWING NUMBER: GFA1028-221 SHEET: 1 OF 8

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Notes:

1. Terminate connectors per manufactures assembly instructions. Locate labels within one inch of adhesive heat shrink.
2. Length tolerance +3/-0 inches.
3. The XXXX of the serial number on labels will be replaced with numbers from the serial number on the work order.
4. The XXX in the part number is the length of the assembly in inches.
5. Test cables with Fluke CableIQ tester for continuity, cross continuity and 1000 BaseT.
6. Include test results with each shipment.

ECN	REVISION	ZONE	SHEET	DESCRIPTION OF CHANGE	APPROVED	DATE
314	NR	-	-	INITIAL RELEASE	<i>[Signature]</i>	10-21-2020

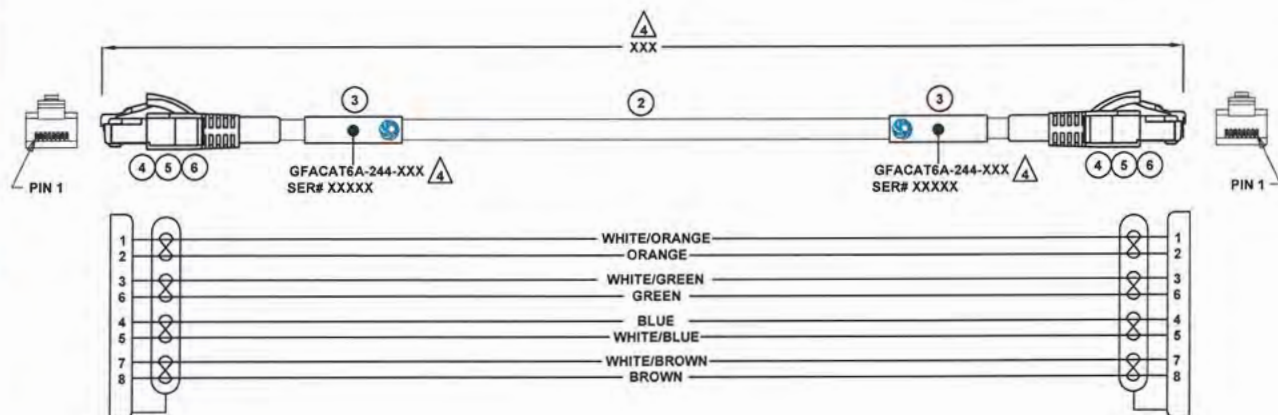
2	M23053/4-303-0	.470 INCH BLACK ADHESIVE HEAT SHRINK	6
2	B0051-V0	RJ45 BLACK BOOT	5
2	111S08080090H34	CATEGORY 6A RJ45 STRAIGHT PLUG	4
2	3PS-375-2-WT	.375 INCH WHITE HEAT SHRINK LABEL	3
A/R	GF100-24CAT6A	CATEGORY 6A ETHERNET CABLE	2
4	GFACAT6A-244-XXX	CATEGORY 6A ETHERNET ASSEMBLY	1
QTY	PART NUMBER	DESCRIPTION	ITEM #
-XXX			
ASSY			

BILL OF MATERIALS

DESIGNED BY: C CHAPMAN	DATE: 10/20/2020	CHECKED BY: <i>[Signature]</i>	DATE: 10-21-2020	APPROVED BY: <i>[Signature]</i>	DATE: 10-21-2020
		DESCRIPTION: ETHERNET CABLE ASSEMBLY			
6180 Industrial Ct. Greendale WI, 53129 Tel: 414-488-6320 Fax: 414-433-9041		CAGE CODE: 8A8D5	DRAWING NUMBER: GFACAT6A-244	SHEET: 1 OF 2	

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GFACAT6A-244-XXX



CAGE CODE: 8A8D5	DRAWING NUMBER: GFACAT6A-244	SHEET: 2 OF 2
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Contact Us

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Email info@gigaflightinc.com

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