

Airborne Series

Airborne
Microwave Cable
Assembly



GigaLane GLA & GULA cable assemblies have been developed and produced for aircraft and cover broad frequency ranges from DC to 18 GHz. These high qualities, low loss cable assemblies deliver a low VSWR of 1.35:1, feature a self-locking connector and are protected by a Nomex and Kevlar jacket, which offers abrasion resistance.

As required by the aircraft sector, the GLA & GULA cable assemblies must be lightweight, small in size and not sacrifice performance. All cables are designed to meet statutory aircraft requirements and are in compliance with MIL-T-81490, which enables the cable to withstand harsh environments over a long period of time.

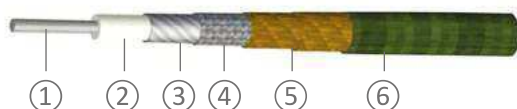
The GLA & GULA cable assemblies have been developed to meet stringent communication standards with a cable design that is crushproof and hermetically sealed. Another advantage is that the cable assemblies also enable the connection of an ant rotation connector which is used in high vibration environment applications. GLA & GULA cable assemblies are also applicable to Helicopter, Trainer, UAV, Military, communication, aircraft antenna systems, Radar Systems, and satellite communications systems.

GLA210 & GULA320 Cable

► Features and benefits

- Frequency ranges from DC to 18 GHz
- Hermetically sealed (vapor sealed)
- Compliance with MIL-T-81490
- Lightweight
- Anti rotation connector

► Cable Design



Description		Diameter (mm)	
		GLA210	GULA320
① Center conductor	GLA210 : Silver-plated copper wire, Solder GULA320 : Silver-plated copper clad Aluminum	-	-
② Dielectric	GLA210 : Low density PTFE GULA320 : Ultra low density PTFE	-	-
③ Inner shield	Silver-plated copper tape	-	-
④ Outer shield	Silver-plated copper braid	-	-
⑤ Vapor layer	High temperature tape	-	-
⑥ Jacket	Nomex & Kevlar	5.90	8.00

Electrical

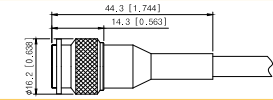
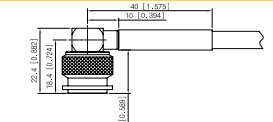
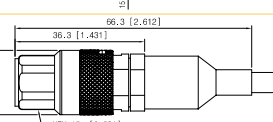
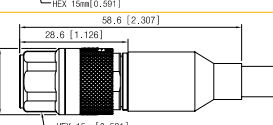
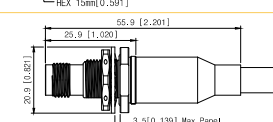
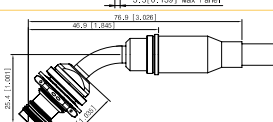
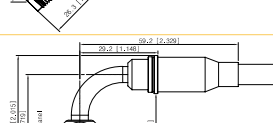
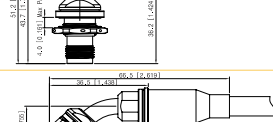
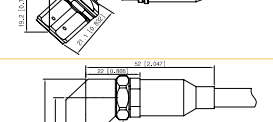
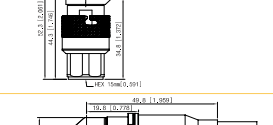
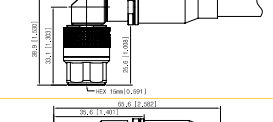
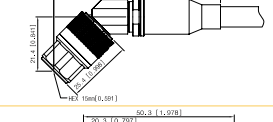

	GLA210	GULA320
Impedance	50 Ω	50 Ω
Operating frequency	18 GHz	18 GHz
Capacitance	86 pF/m	78 pF/m
Velocity of propagation	77% nom.	84% nom.
Time delay	4.35 ns/m	3.95 ns/m
RF leakage (dB)	-100	-100
Dielectric constant	1.7	1.4

Mechanical & Environmental

GUL180C		
Minimum bend radius (mm)	29.2	44
Weight (g/m)	60	95
Temperature	-55°C to + 200 °C	-55°C to + 200°C

Suitable Connectors

Cable selection		Standard Connector selection								
		SMA type		TNCA type		N type		TNC type		Drawing Page
P/N	Frequency	Straight	R/A	Straight	R/A	Straight	R/A	Straight	R/A	
GLA210	3 GHz	-	-	-	-	-	-	TMS401M	TMR401M	84p
	18 GHz	-	-	TAMS420M	-	-	-	-	-	84p
GULA320	3 GHz	-	-	TAMS403M TAFS401M (Jack, Bulkead)	TAFRA401M(45°)(Jack, Bulkead)	-	NAMRA401M	-	-	84p
					TAFRA402M(90°)(Jack, Bulkead)					
					TMR402M(45°)					
TAMRA401M(90°)										
					TAMRA402M(90°)					
					TAMRA403M(45°)					
	18 GHz	SMS401M	-	TAMS401M	-	-	-	-	-	84p

Cable			Connector		Connector Drawings
Groups	P/N	Frequency	Description	P/N	
Airborne	GLA210	3 GHz	Straight TNC PLUG	TMS401M	
			Right Angle TNC PLUG	TMR401M	
		18 GHz	Anti-Rotation Straight Self-locking TNCA PLUG (Hermetically Sealed)	TAMS402M	
	GULA320	3 GHz	Anti-Rotation Straight Self-locking TNCA PLUG (Hermetically Sealed)	TAMS403M	
			Bulkhead Straight TNCA JACK (Hermetically Sealed)	TAFS401M	
			Bulkhead Right Angle 45°C TNCA JACK (Hermetically Sealed)	TAFAR401M	
			Bulkhead Right Angle 90°C TNCA JACK (Hermetically Sealed)	TAFRA402M	
			Right Angle 45°C TNCA PLUG (Hermetically Sealed)	TMR402M	
			Anti-Rotation Right Angle 90°C TNCA PLUG (Hermetically Sealed)	TAMRA401M	
		18 GHz	Anti-Rotation Right Angle 90°C TNCA PLUG (Hermetically Sealed)	TAMRA402M	
			Right Angle 45°C TNCA PLUG (Hermetically Sealed)	TAMRA403M	
			Right Angle 90°C N PLUG (Hermetically Sealed)	NAMRA401M	
			Anti-Rotation Straight Self-locking SMA PLUG (Hermetically Sealed)	SMS401M	
			Anti-Rotation Straight Self-locking TNCA PLUG (Hermetically Sealed)	TAMS401M	