

# Quad FAKRA Code Z Cable Assembly

QZCAB Series - Quad Code Z to 4\* Code D Gen 1 FAKRA



#### **Product description**

Taoglas is a leading provider of advanced technology for a smarter world. Our solutions include advanced components and technologies and help OEMs, enterprises, and communities to resolve the complexities of bringing digital transformation solutions to market quickly and cost effectively. Focused on best-in-class, high-performance antenna and RF design with advanced positioning, imaging, audio and artificial intelligence technologies, Taoglas understands the importance of high-performance connections.

Taoglas Quad FAKRA Mini Coax connectors utilizes four metal SMB connectors embedded within a plastic enclosure. The modular system is intelligently colour coded and keyed for ease of identification and assembly. They save on weight and offer a space saving of up to 75% when compared to conventional FAKRA connectors and are designed for high-volume production assemblies. They are manufactured with the highest precision and are thoroughly tested to meet USCAR-2 and USCAR-17 standards and in turn provide superior performance.

All Taoglas connectors are RoHS & REACH compliant. The Water Blue Code Z connector is perfect for a diverse range of application but typically used for DSRC/ other connections and is available in both Jack and Plug and for multiple cable diameters.

#### **Cable Assemblies**

Taoglas offers an extensive and customisable range of cable assemblies for mutliple advanced components and IoT applications. This range also includes additional Quad FAKRA compatible with any of our gen 1 FAKRA connector catalogue and SMA catalogue.

Check out our full range of Quad Fakra cable assemblies

Quad FAKRA
Code A - Black
Code B - White
Code C - Blue
Code D - Bordeaux Violet
Code E - Green
Code F - Brown
Code Z - Water Blue



**Features** 

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Connector

RG-174 Cable

requirements

Quad FAKRA Cable Assembly

1x Code Z Water Blue FAKRA

RF performance up to 6GHz

4x Code D Connectors

RoHS & Reach Compliant

Fully compliant to USCAR



# **Quad FAKRA Code Z - Cable Assembly**









### **FKQRFZF Specifications**

	Electrical		
Impedance	50Ω Nominal		
Opearing Frequency	0 ~ 9000MHz		
	Mechanical		
Insertion Force	≤45N		
Withdraw Force	≥5N		
Latch force	≥110N		
Mating cycle	≥25		
Terminal Tensile Strength	≥30N		
Storage and Opeartional Tempeature Range	-40°C - 105°C		
	Cable Range		
Suitable Cables	RG-174, RG-316, TGC-1.5DS		
Conductor Range	0.61mm		



### **FK1FDDK Specifications**

Electrical				
Impedance	50Ω Nomir	nal		
Frequency Range	DC - 6000MHz			
VSWR (Return Loss)	0 ~ 3000MHz < 1.3 3000 ~ 6000MHz < 1.5			
D.W.V	800 VRMS, N	Min		
Insulation Resistance	≥100MΩ			
Mechanical				
Durability	25 Cycles M	<i>l</i> in		
Insertion Force	≤25N			
Withdraw Force	≥2N			
Locking Device Strength	≥80N			
Outer Contact Rentention Force in Housing	≥100N			
Suitable Cables	TGC-1.5DS, RG-174, RG	G-316, CFD200		
Storage and Opeartional Tempeature Range	-40°C - 105	°C		



## **Quad FAKRA Code Z - Cable Assembly**

### **RG-174 Cable**

# 2.8mm Diameter Coaxial Cable 303015A000096A

Jacket				
Shield			1992 99939	
Insulation				
Conductor	Conductor	Insulation	Shield	Jacket

Part Designation	Material	Outer Diameter
Conductor	Copper	0.51
Insulation	PE	1.48
Shield	Tinned-Coppper	1.91
Jacket	PVC	$2.8 \pm 0.08$

Mechanical Specifications					
Performance Property Spec.					
Minimum Bend Radius	25.4mm				
Cable Weight	0.013 kg/m				
Environment Specifiacations					
Storage Temperature Range	-40°C to +85°C				
Operating Temperature Range	-40°C to +85°C				

<b>Electrical Specifications</b>				
Performance Property	Spec.			
Impedance	50 Ω			
Capacitance	96.5 ± 3 pF/m			



Frequency MHz	30	50	100	146	440	1000	2400
Attentuation	18.04	21.65	28.87	42.65	82.02	98.42	246.06

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## **Quad FAKRA Code Z - Cable Assembly**

### **QZCAB Series Cable Assembly**



FK1FDDK - Gen 1 FAKRA Code D Female Jack

### **Mechanical Drawings**



Part Number	X (mm)	X (inch)	Description
QZCAB.001	152	6	FAKRA Quad Mini Z Plug to 152mm (6") RG-174 to 4x FAKRA Gen1 Code D Jack
QZCAB.002	305	12	FAKRA Quad Mini Z Plug to 305mm (12") RG-174 to 4x FAKRA Gen1 Code D Jack
QZCAB.003	610	24	FAKRA Quad Mini Z Plug to 610mm (24") RG-174 to 4 x FAKRA Gen 1 Code D Jack
QZCAB.004	915	36	FAKRA Quad Mini Z Plug to 915mm (36") RG-174 to 4x FAKRA Gen1 Code D Jack

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