

WR10 Waveguide Directional Coupler 75GHz - 110GHz



Note: The photo is for illustration purposes only.
Please refer to the outline drawing.

Product Description

RWGCP10SC is a WR10 waveguide directional coupler with a frequency range of 75 to 110GHz.

The power of this directional coupler is 10W. The nominal coupling is 10dB with a minimal directivity of 30dB.

The working temperature of this product is between - 40°C and + 85°C.

Features

- High power handling up to 10W
- Full band operation
- Low VSWR
- Rugged mechanical configuration

Typical Applications

- Wireless Infrastructure
- Military and Aerospace Applications
- Test Instrumentation
- Radar Systems
- 5G Wireless Communications
- Microwave Radio Systems
- TR Modules
- Research and Development
- Cellular Base Stations

Electrical Specifications, TA = +25°C

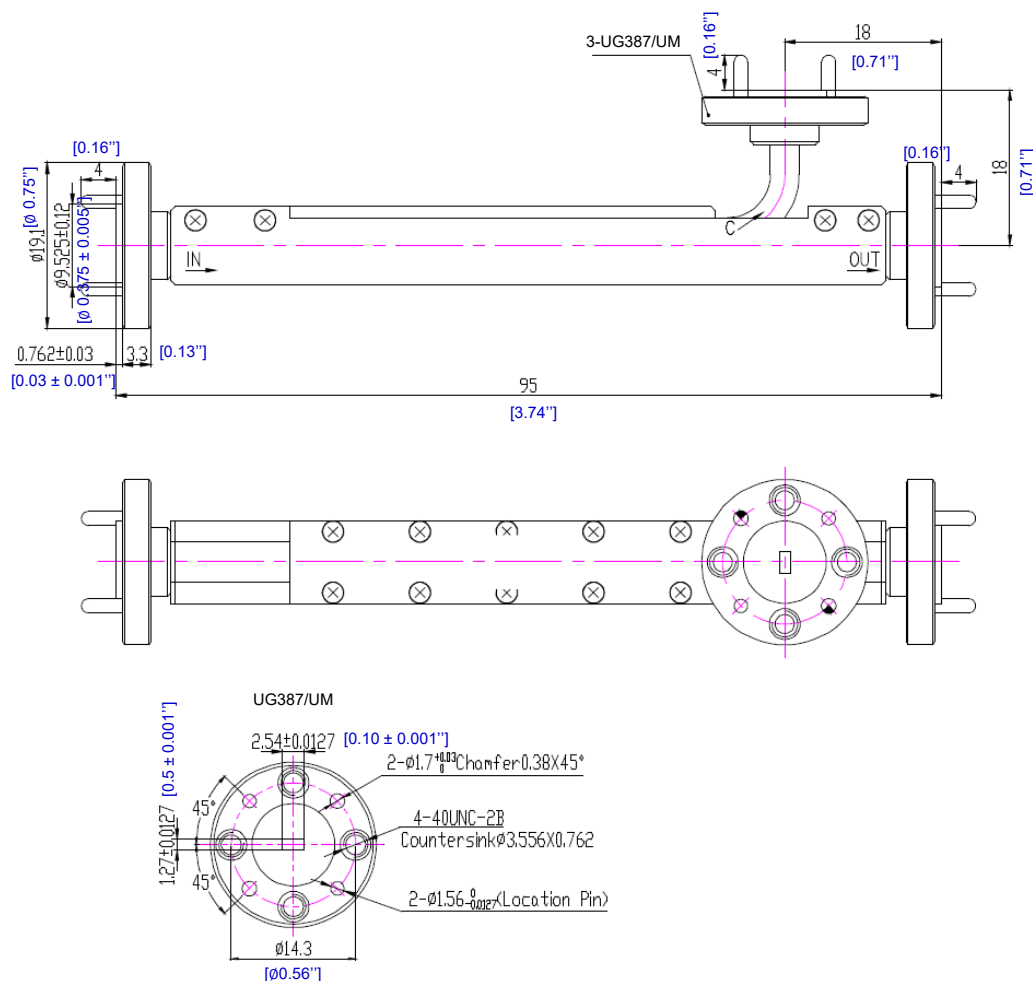
Parameter	Min	Typ	Max	Units
Frequency Range	75		110	GHz
Nominal Coupling		10		dB
Directivity	30			dB
VSWR Primary			1.15	: 1
VSWR Secondary			1.25	: 1
Power Handling (CW)		10		W
Waveguide Type		WR10		
Flange Type		UG387/UM		
Package	Epoxy Sealed (Standard)			
	Hermetically Sealed (Optional)			

Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-50°C to +105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
*Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
Shock	1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s 2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s 3. Total 18 times (6 directions, 3 repetitions per direction).
Altitude	Standard: 30,000 Ft (Epoxy Sealed Controlled Environment) Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)
Hermetically Sealed (Optional)	MIL-STD-883 (For Hermetically Sealed Units)

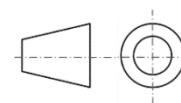
*For vibration testing details please see additional information section.

Outline Drawing



Notes:

1. Package Material: Copper/Brass
2. Finish: Gold Plated; Outside finish: Corrosion protected with grey paint.
3. All dimensions are in millimeters [inches].
4. Standard torque wrench must be used to secure RF connectors.
5. The tolerance noted is just for reference.



Additional Information

Documentation

Connector Torque Specifications

https://www.rflambda.com/pdf/Torque_Specifications.pdf

Random Vibration Test Standard

https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf

Webpage

Ordering Information

Part Number	Modification	Description
RWGCP10SC	WR10	75GHz-110GHz Waveguide Directional Coupler

Important Notice

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