

QLNA-18-40-06039 / 26 - 40GHz Low Noise Amplifier

Parameter		Units	Specification	Comments
Frequency Range:		GHz	18 - 40	
Small Signal Gain:		dB	27 - 31dB	
Gain Flatness:		dB	+/-2.0 max.	
Noise Figure:		dB	3.5 max.	3.0 typical
Output Power (P1DB)		dBm	+11 min.	
IP3:		dBm	+20 min.	
VSWR	Input	Ratio :1	2.5:1	
	Output	Ratio :1	1.8:1	
Input Power Handling		dBm	-1dBm Max.	
Supply Voltage (LDO Reg)		Volts	+5Vdc	Range: +4.8 to +20Vdc
Current		mA	150 Max.	120mA. Typical
Operating Temperature		deg C	-40 to +70C	
Storage Temperature		deg C	-54 to +125C	
Case Type			MM3	Optional mount available for antenna
Environment			Outdoor	IP67 compliant
Connector Type		In	2.92mm Male	
		Out	2.92mm Female	
		Dc	Solder Connect	Optional: USB or Micro-D

Notes

1) Specifications guaranteed at +25°C

Design guidelines

Mil-STD-883F Hybrid Micro-circuit

Inspection System: Mil-I-45208A

Finish And Labeling:

Mil-Spec Paint - Company Green, Label to include P/N, Customer P/N, Serial Number, Date Code, Input/Output and Supply Voltage.

Final Acceptance Testing

All units to be provided with our Standard Acceptance Data: Gain, Noise figure, Power, VSWR In/Out , and Current at +25 deg C.

*Certificate of Compliance provided.



26 - 40 GHz Vertically Polarised Omnidirectional Antenna fitted with a K type Connector and Radome

Catalogue number **QOM-SL-26-40-K-SG-R**

Steatite reference **QMS-00954**

Contents **Summary**
Typical Gain / Antenna Factor
Typical Beamwidth / Patterns

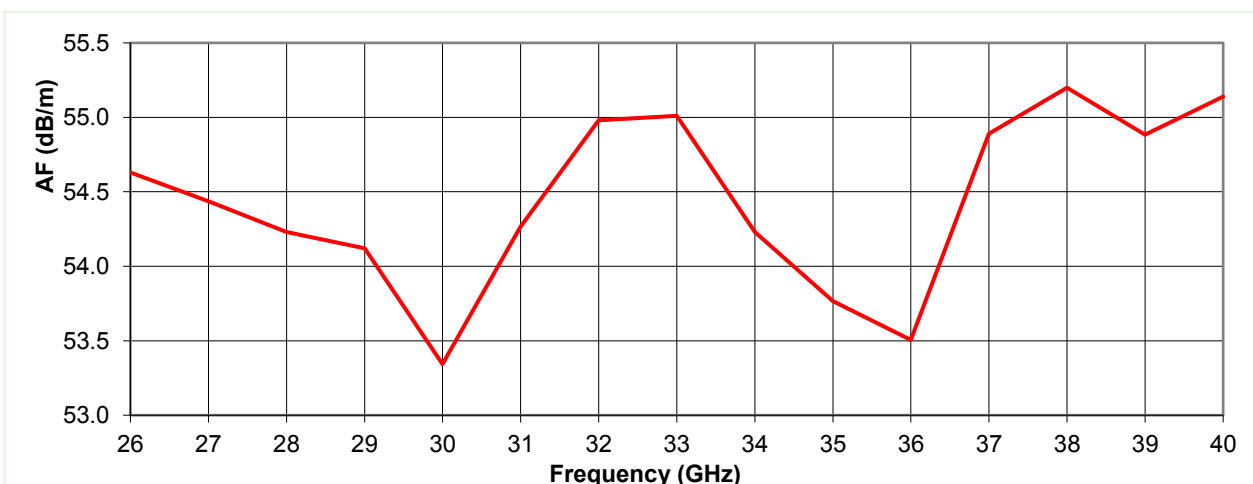
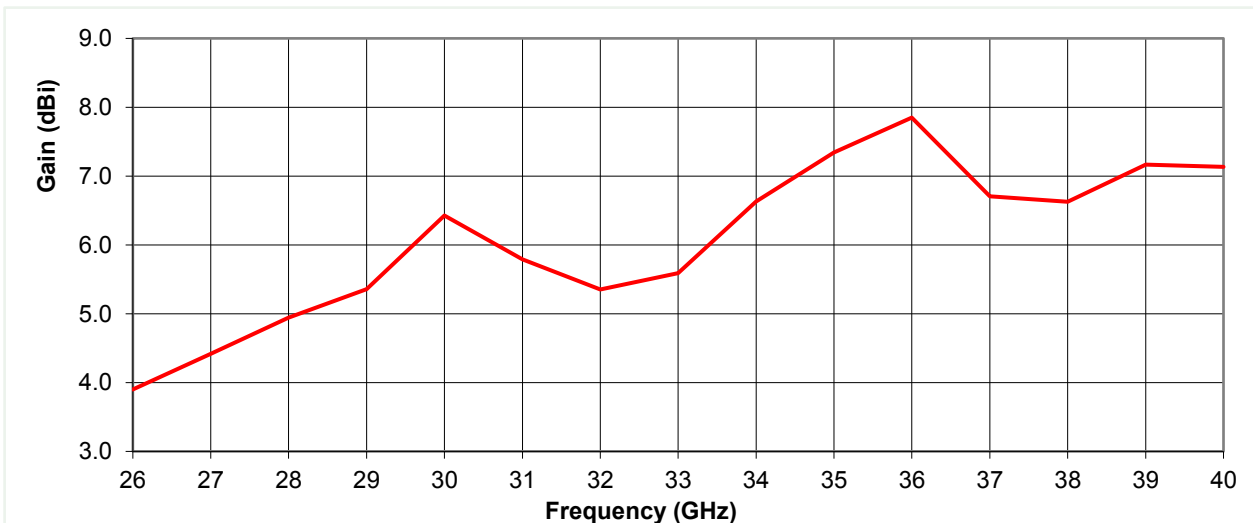


Typical Specification

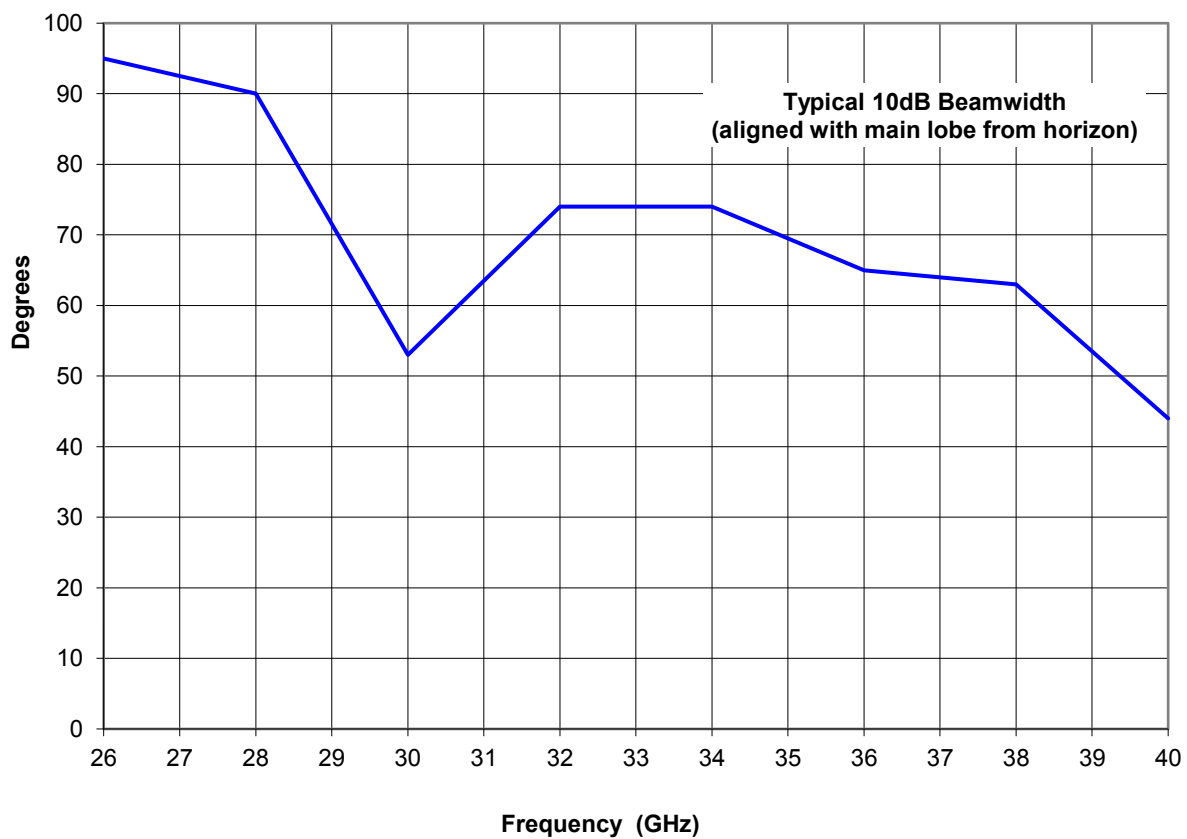
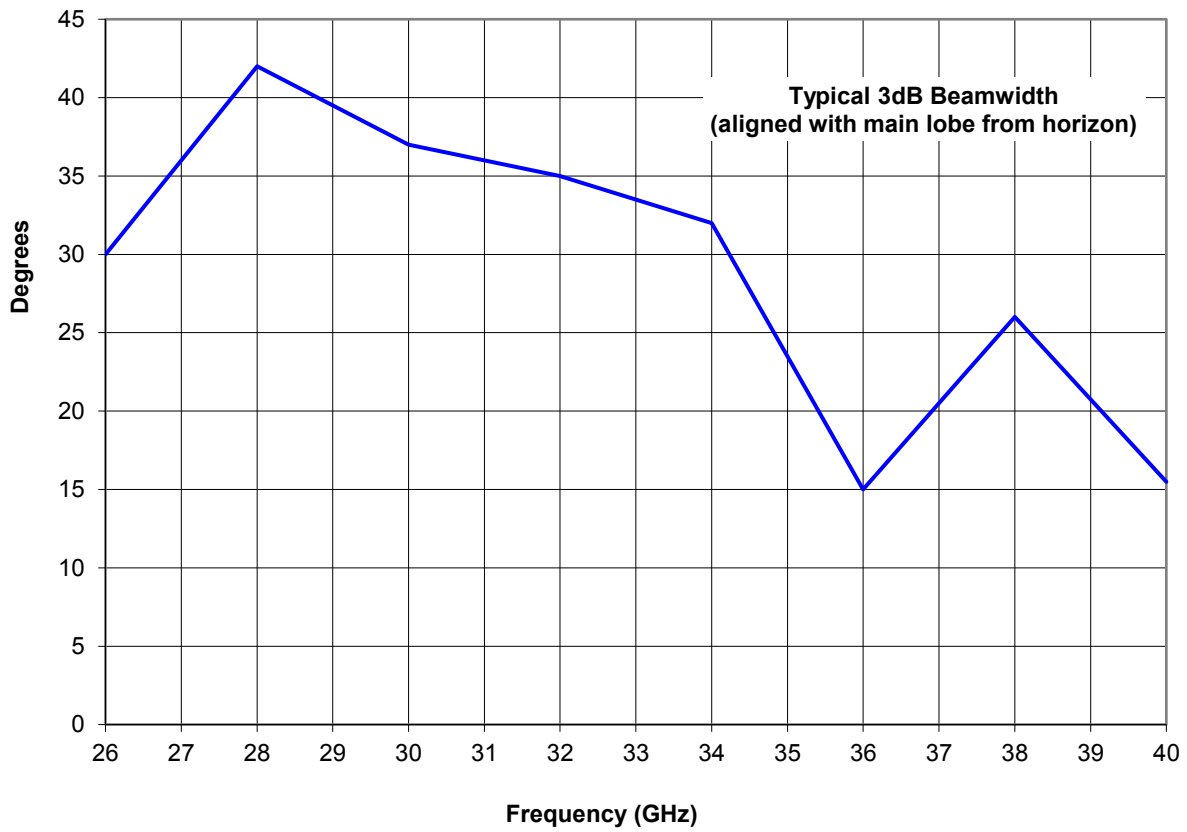
Frequency	26 to 40 GHz
Connector Type	K type (2.92 mm) jack
Power Handling	10 Watt c.w.
VSWR	< 2.5:1
Gain	3.9 to 7.8 dBi
Antenna Factor	53.3 to 55.2 dB/m
3dB Beamwidth	15 to 360 degrees
10dB Beamwidth	44 to 360 degrees
Weight	30 g nominal
Maximum Size	Ø46mm x 28.4mm total length including connector.
Mounting	3 holes for M3 CSK Screws equispaced on Ø36mm PCD See ICD for more information.
Construction	Aluminium with PTFE radome and stainless steel connector

Typical Antenna Gain / Factor

This is calculated by reference to standard gain horn antennas, and cross checked with reference to the antenna beamwidth, with an estimated error of +/- 0.8dB.

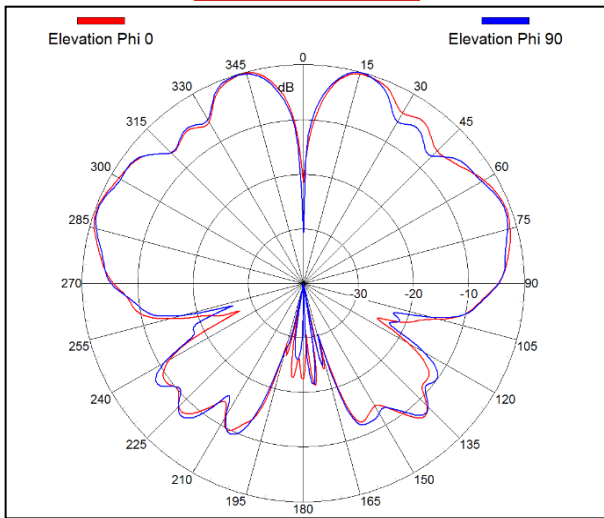


Typical Beamwidth

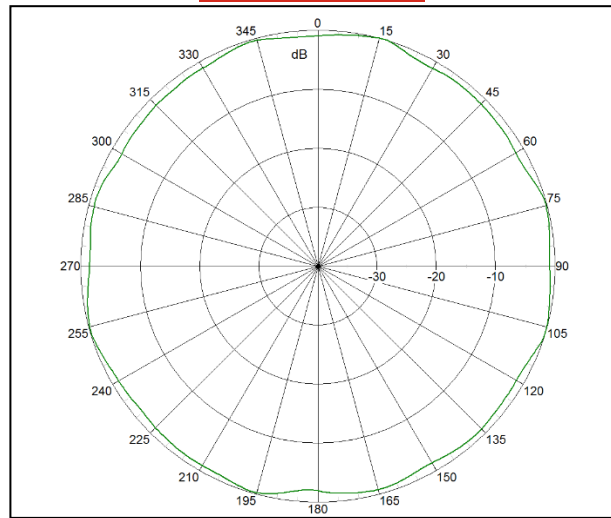


Typical Radiation Patterns

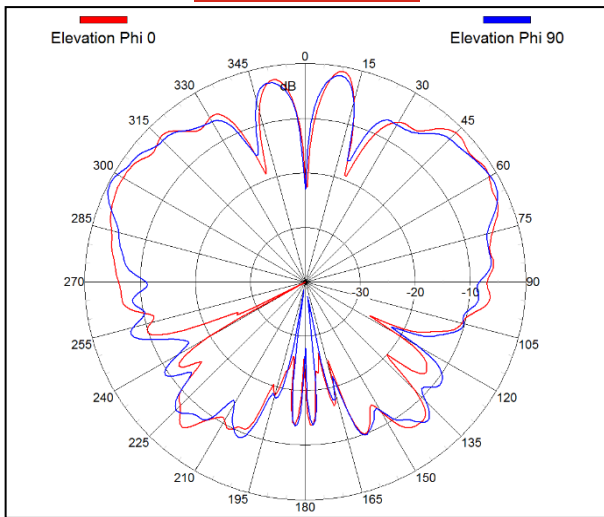
26 GHz Elevation



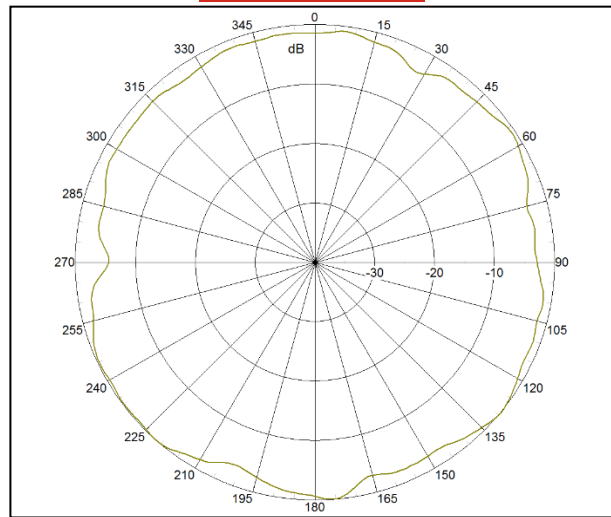
26 GHz Azimuth



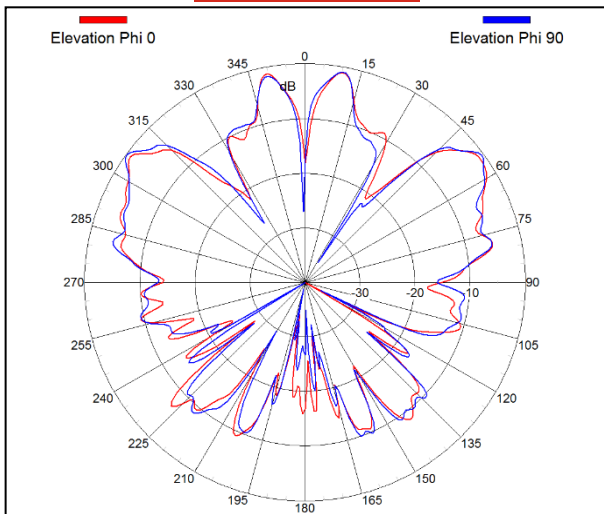
33 GHz Elevation



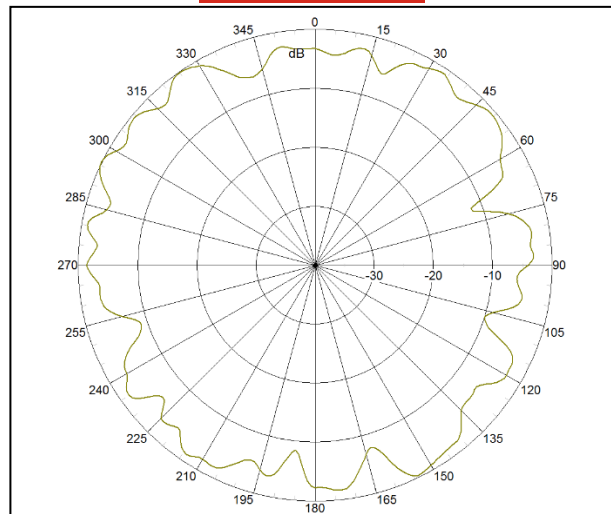
33 GHz Azimuth

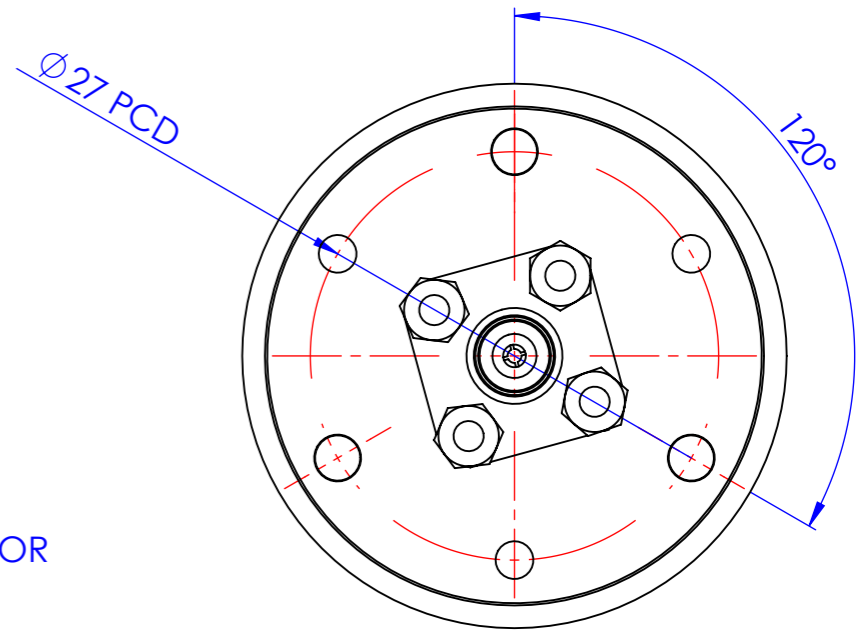
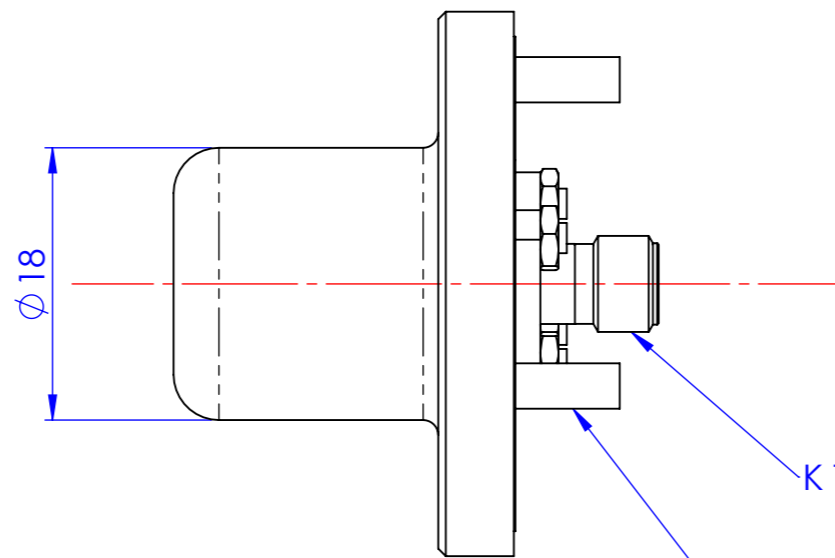
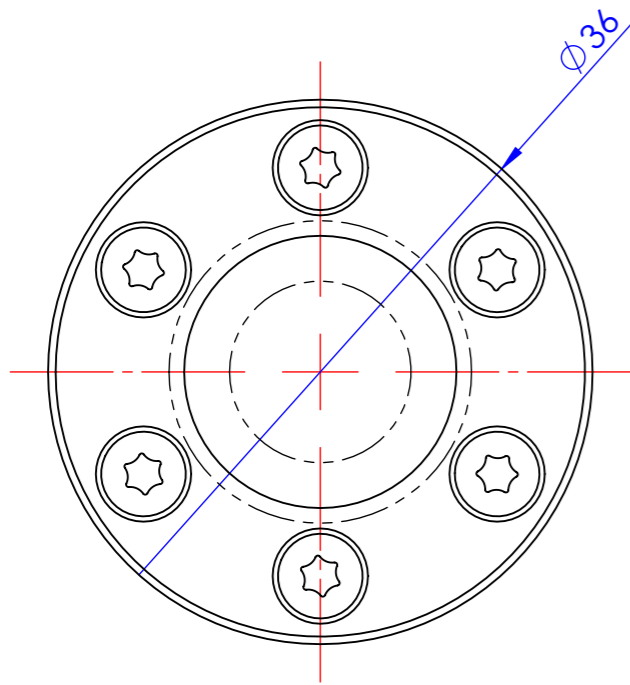


40 GHz Elevation



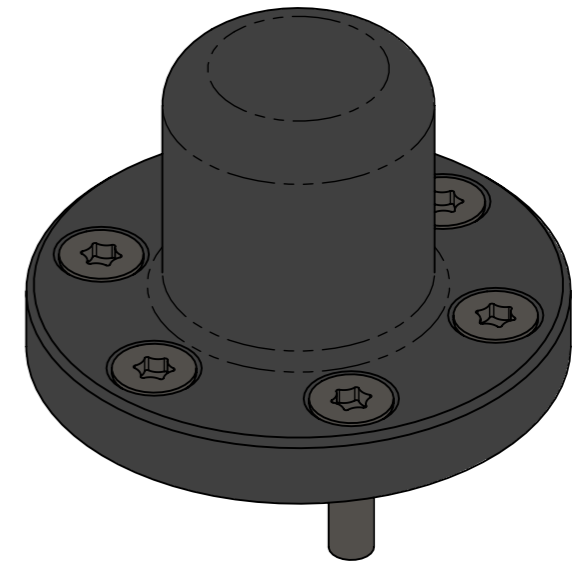
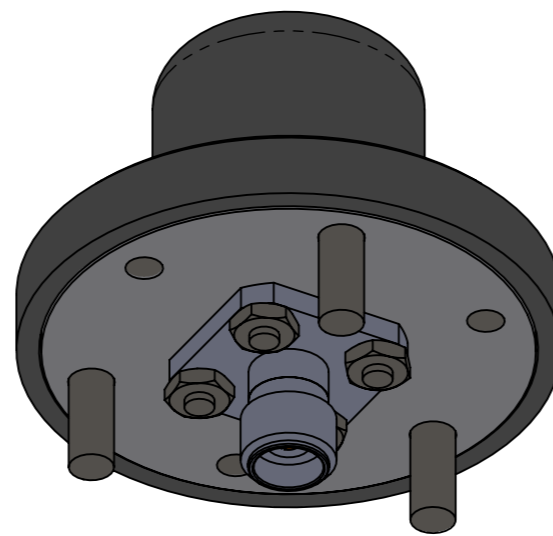
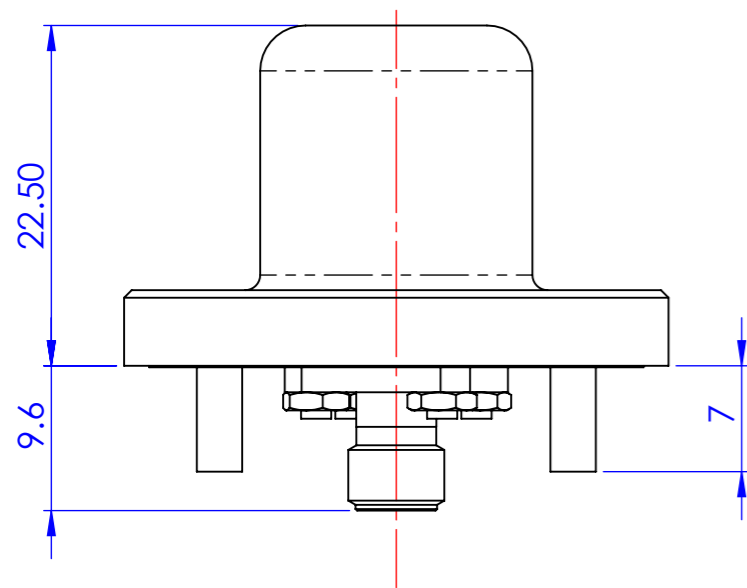
40 GHz Azimuth





K TYPE CONNECTOR

3 OFF M3 FASTENERS FOR MOUNTING



 3rd ANGLE	IF IN DOUBT, ASK! DIMENSIONS IN mm DO NOT SCALE
	UNSPECIFIED TOLERANCES LENGTHS ANGLES X.X ± 0.5 X.X ± 5.0 X.XX ± 0.25 X.XX ± 1.0 X.XXX ± 0.1 X.XXX ± 0.5
SURFACE FINISH (µm) ∇ 3.2 ∇∇ 1.6 ∇∇∇ 0.8	

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QMD-04272
SEE SPECIFICATION DOCUMENTS

TITLE QOM-SL-26-40-K-SG-R
Rev'd by JG Appr by PWS on 02/01/19
DRG No QMS-00954-A
PROC. No :