

## 2 - 18 GHz Dual Linearly Polarised Wideband Horn Antenna fitted with SMA Connectors and a Radome

Catalogue number **QWH-DL-2-18-S-SG-R**

Steatite reference **QMS-00951**

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QQD06-2 V7.3

PDM 01/05/2019 5424

## Typical Specification

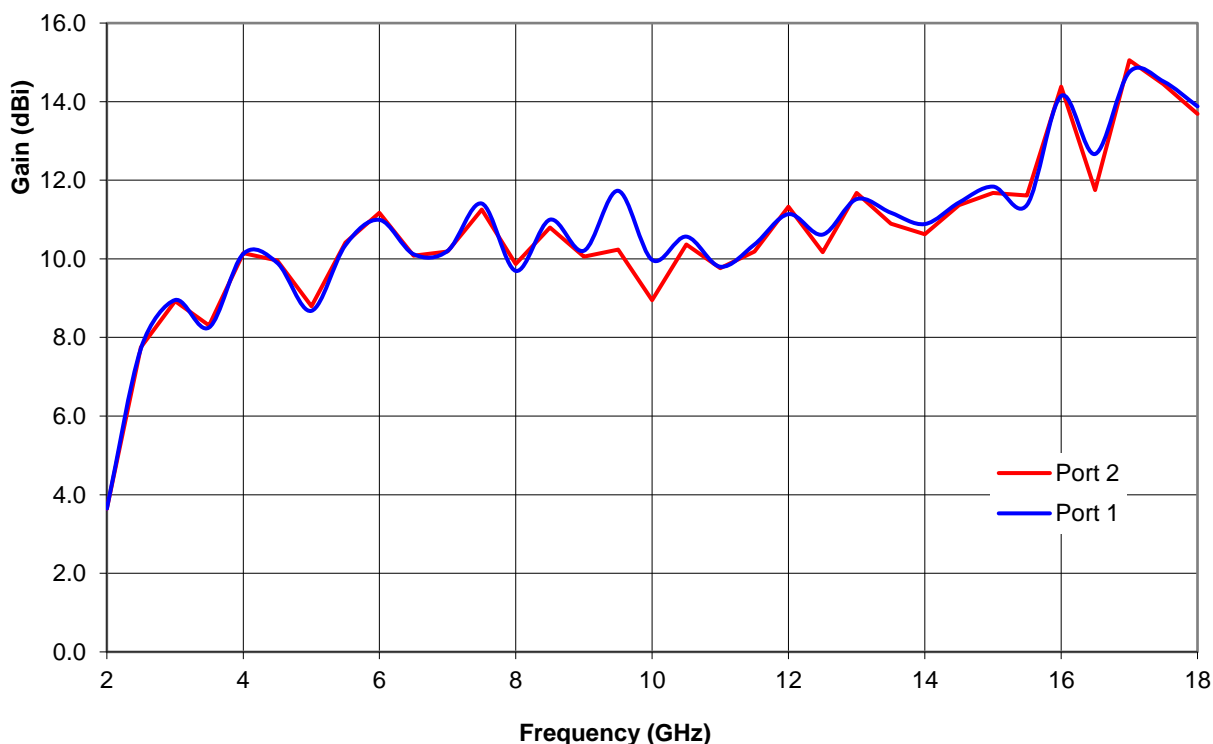
<b>Frequency</b>	2 to 18 GHz
<b>Connector Type</b>	2 x SMA Female
<b>Power Handling</b>	Typically 20W CW
<b>VSWR</b>	Typically <2.5:1 (Maximum 3.0:1)
<b>Isolation</b>	Typically >25 dB
<b>Gain</b>	3.6 to 15.1 dBi
<b>Antenna Factor</b>	30.4 to 42.8 dB/m
<b>3dB Beamwidth</b>	15 to 135 degrees
<b>10dB Beamwidth</b>	36 to 261 degrees
<b>Weight</b>	660g nominal
<b>Maximum Size</b>	155mm base diameter and 141mm tall (excluding connector block)
<b>Mounting</b>	8 x Ø4.2mm eqi-spaced on a 142.5mm PCD
<b>Construction</b>	Aluminium baseplate and dielectric radome

## Beamwidth and Pattern Cut Definition

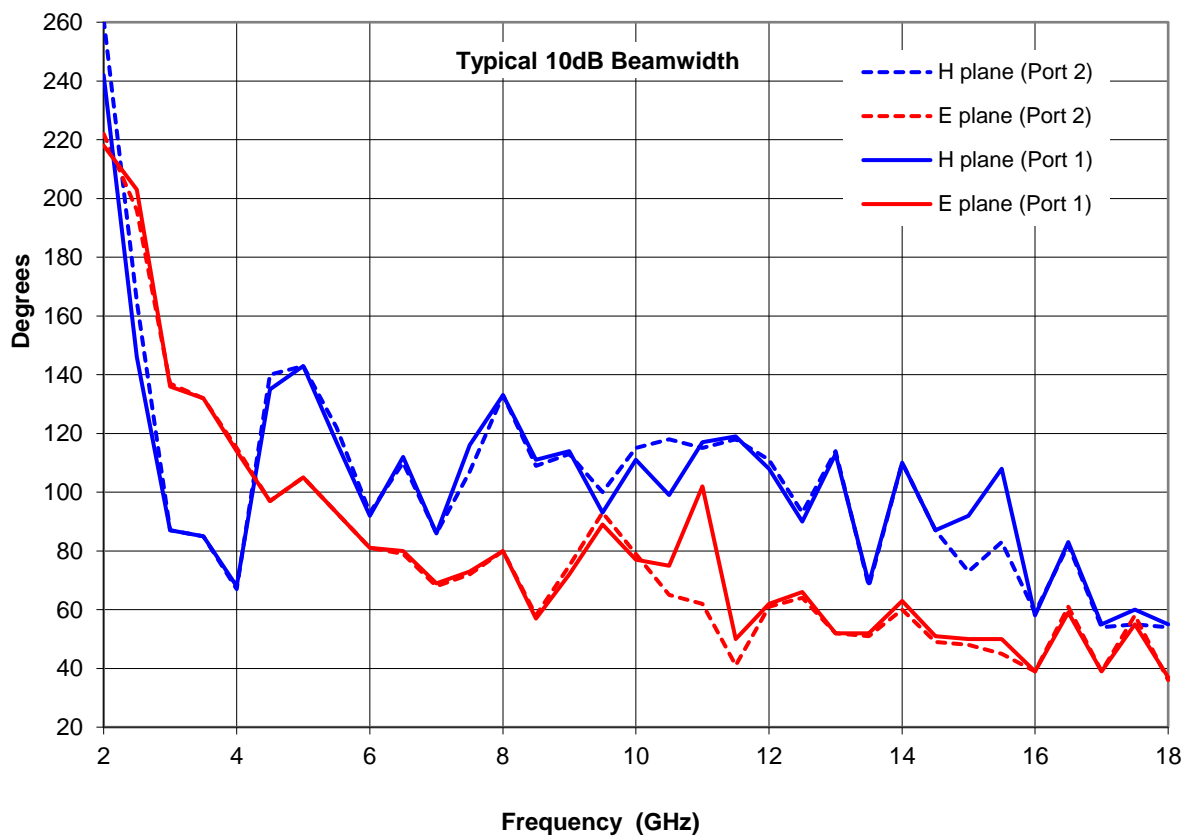
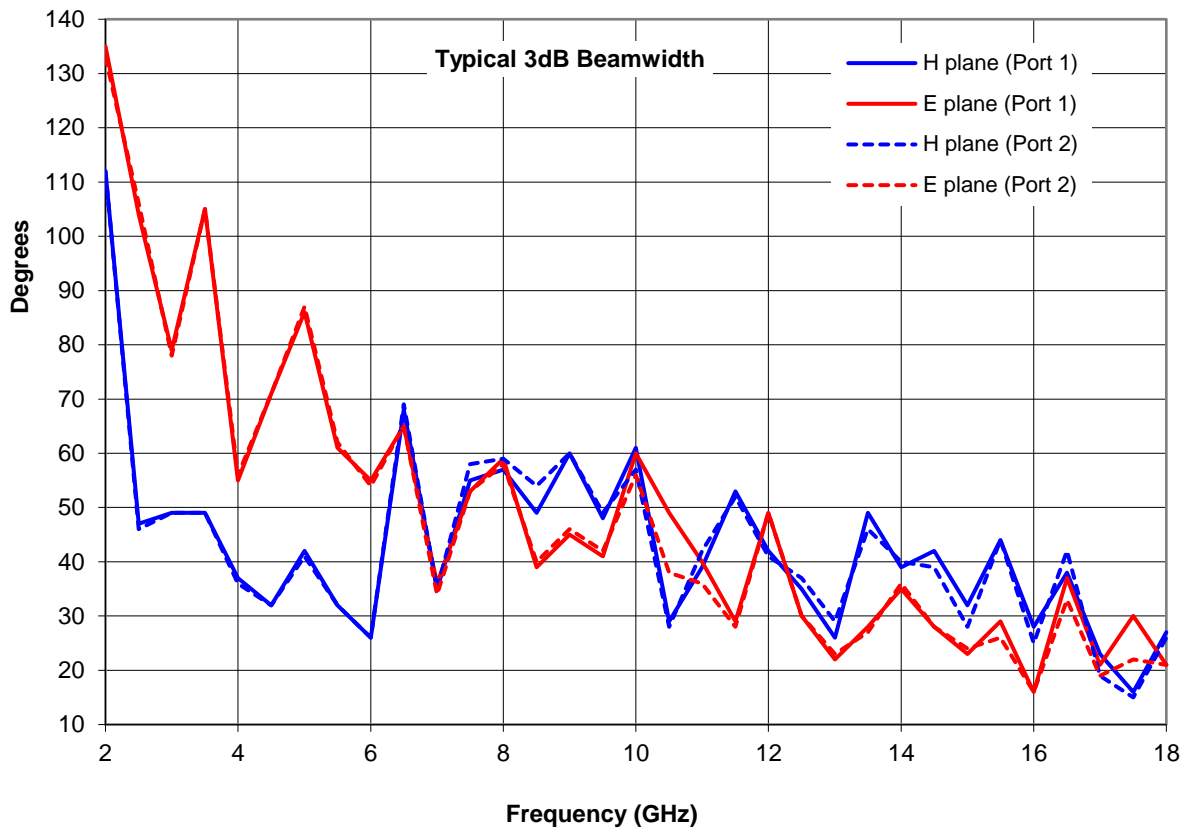
For all antenna measurements the co-polarised port under test is aligned horizontally and defined as a Phi 0 (H-Plane) cut. The antenna is then rotated 90 degrees such that the co-polarised port under test is aligned vertically and defined as a Phi 90 (E-Plane) cut. This is true for both ports 1 and 2, i.e. when Port 1 is measured Phi 0 equates to the antenna being aligned horizontally and Phi 90 equates to the antenna being aligned vertically and when Port 2 is measured Phi 0 equates to the antenna being aligned horizontally and Phi 90 equates to the antenna being aligned vertically. Thus Port 1 and Port 2 results show almost identical performance for identically labelled plots.

## Typical Antenna Gain

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.

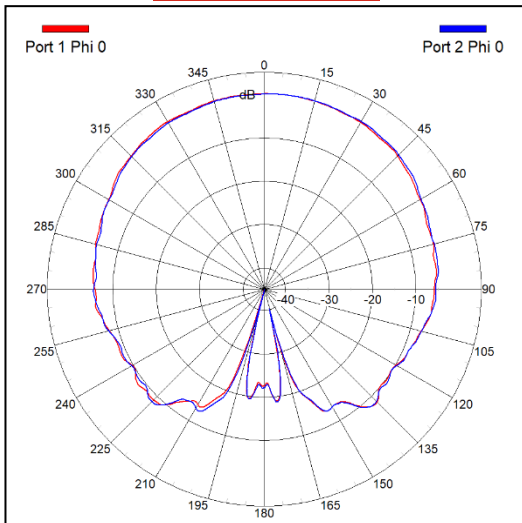


## Typical Beamwidth

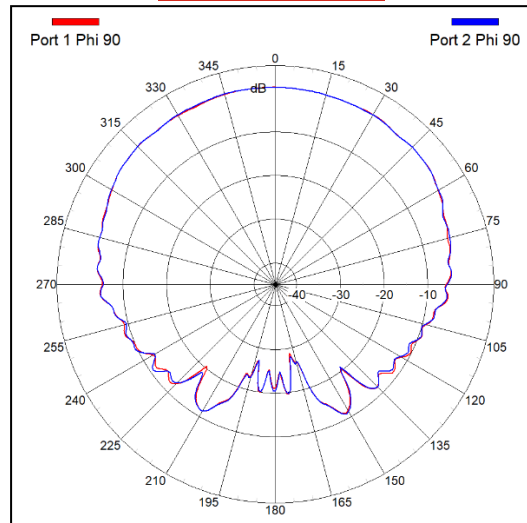


## Typical Radiation Patterns

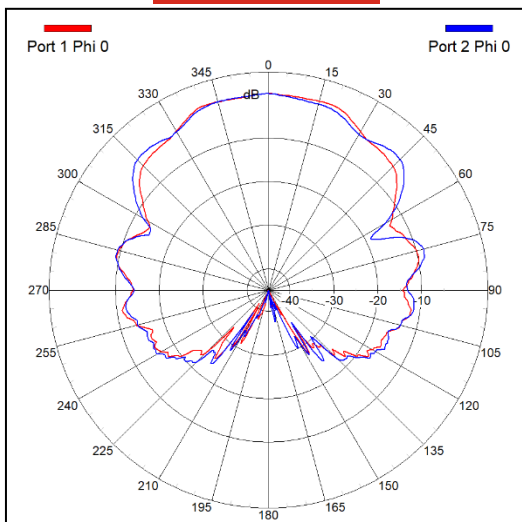
2 GHz Phi 0



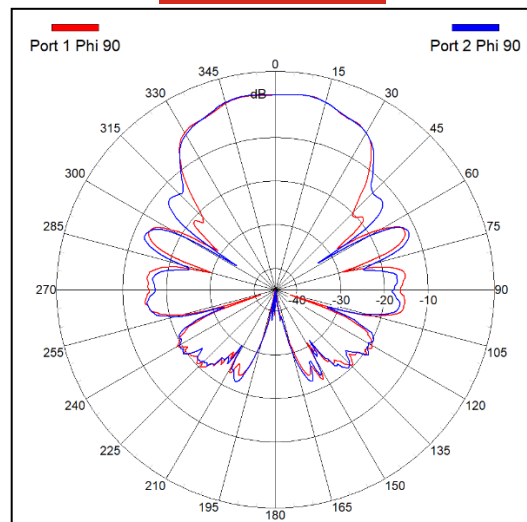
2 GHz Phi 90



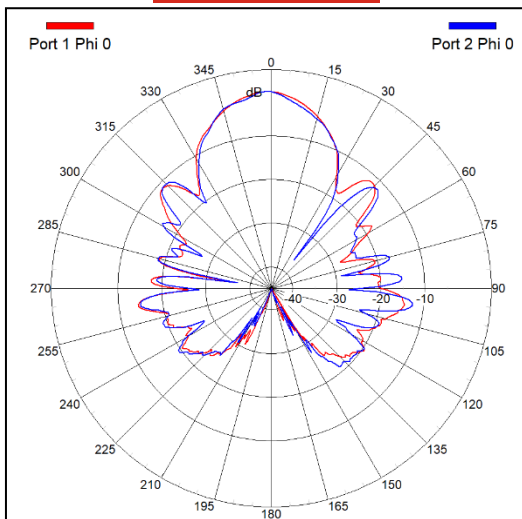
10 GHz Phi 0



10 GHz Phi 90



18 GHz Phi 0



18 GHz Phi 90

