

# 1 - 1.6 GHz Four Horn Focussing 20 dBi HiRF Antenna Array fitted with a 7:16 DIN Connector

Catalogue number **QPA-SL-1-1.6-A-20**

Q-par reference **QMS-00719**

Contents **Summary**  
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**VSWR**



Typical photograph with mounting trolley. Finish according to customer specifications.

### Typical Specification at One Metre

<b>Frequency</b>	1 to 1.6 GHz
<b>Connector Type</b>	7:16 DIN
<b>Power Handling</b>	2 kW c.w. 13 kW peak at 15 % duty cycle maximum.
<b>VSWR</b>	Typically < 1.5 : 1. Maximum 2 : 1.
<b>Gain</b>	18.9 to 20.6 dBi
<b>Antenna Factor</b>	11.3 to 12.8 dB/m
<b>3dB Beamwidth</b>	10 to 15 degrees
<b>Focus adjustment</b>	Infinity to 950 mm.
<b>Weight</b>	60 kg nominal
<b>Maximum Size</b>	1250 x 1250 x 900 mm nominal
<b>Mounting</b>	Requires specialised trolley. Refer to QMS-00719_ICD.
<b>Construction</b>	Stainless steel, aluminium.

### Antenna Gain / Factor at One Metre

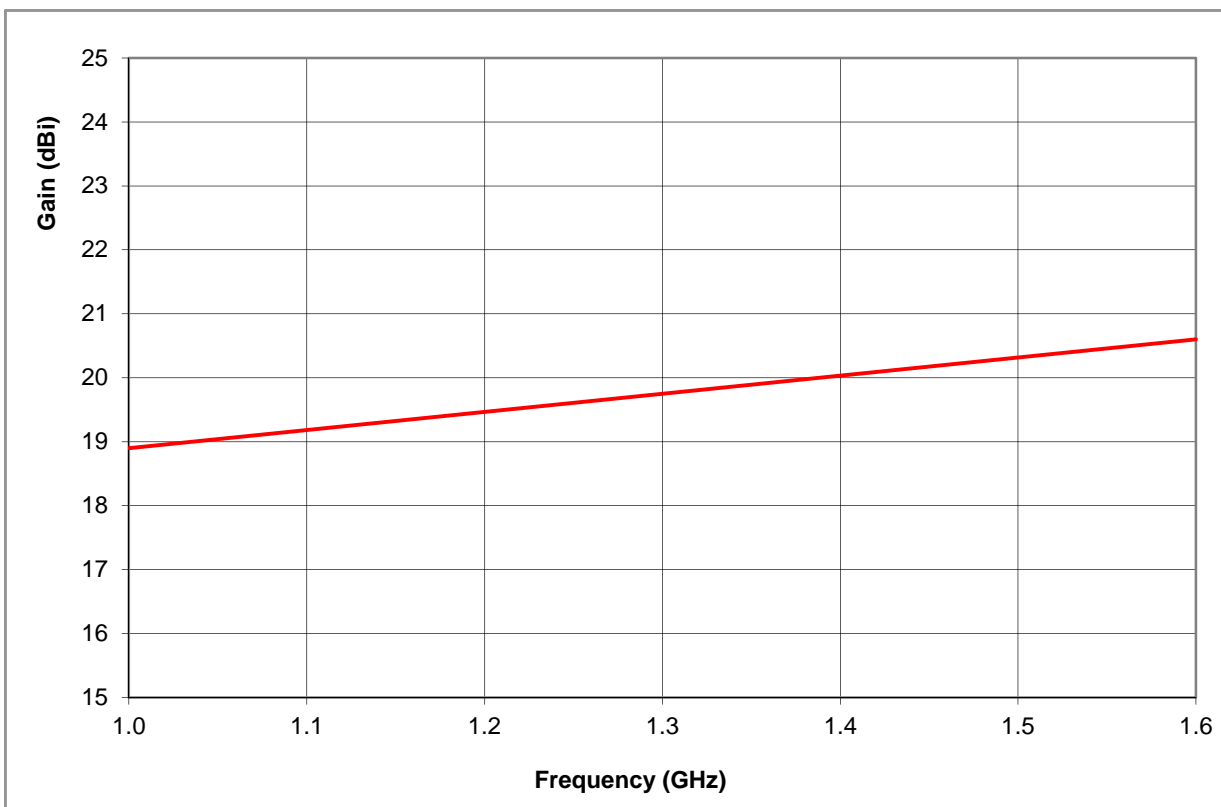
This is calculated by reference to standard gain horn antennas with an estimated error of +/- 0.8dB.

Horn squint setting nominal 12 degrees in horizontal and vertical planes.

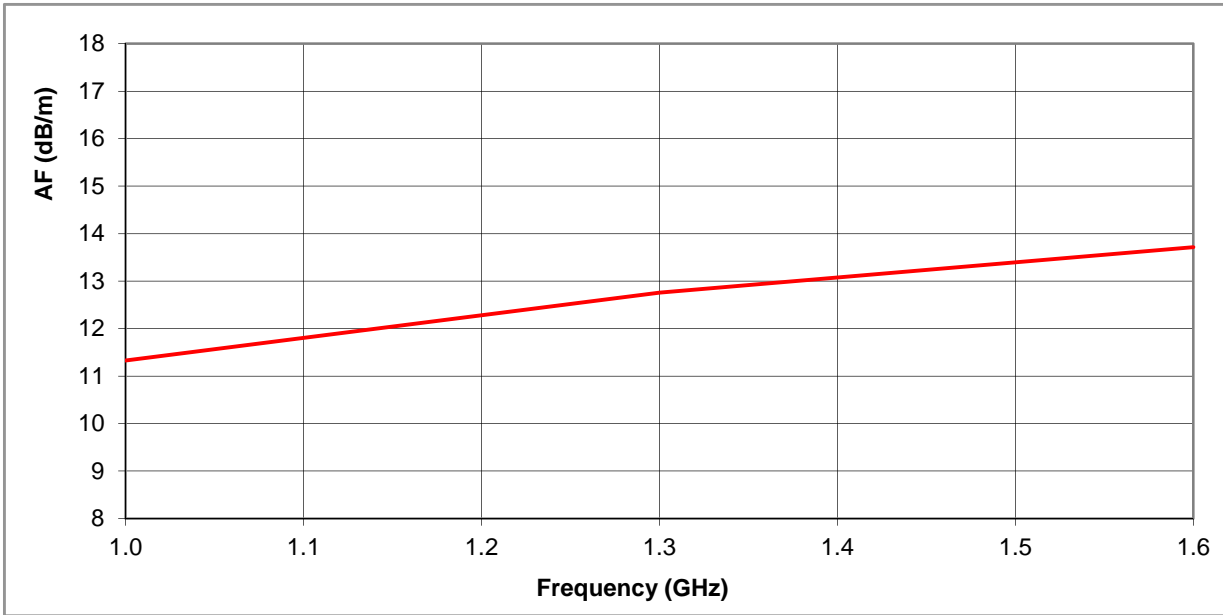
Larger squint angles will increase the gain at the expense of beamwidth.

Gain and antenna factor are measured using a small, low gain probe such as a short dipole

One metre distance is with respect to the array centre, as measured from the end of the horns.



### Antenna Factor at One Metre



Frequency	Gain at 1 m	Antenna factor at 1 m
GHz	dBi	dB/m
1	18.9	11.3
1.3	19.8	12.8
1.6	20.6	13.7

### 3dB Beamwidth at One Metre

Horn squint setting nominal 12 degrees in horizontal and vertical planes.

