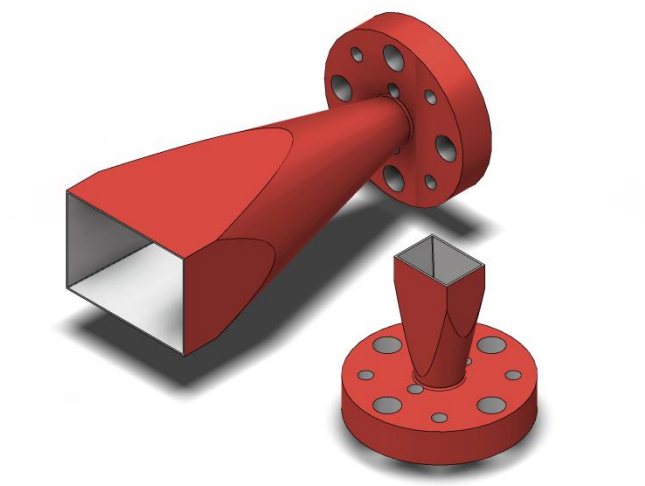


- **Standard Gain Horn**
- **Specific gain values can be requested.**
- **WR-X input with UG-387 U/M flange or customer specified.**
- **26 dB nominal gain at center freq.**

Description

This type of horn is suitable for radiation, electromagnetic measurements and gain calibration. Models presented have around 26 dB gain at central frequency, but any customer requirement gain value is accepted. These antennas are equipped with the standard UG-387 U/M precision style flange, the flange is manufactured in special way to provide the most accurate and repeatable mechanical alignment possible.

Additional notes

Horn antenna can be scaled to other wavelengths.

Horn antenna exterior appearance is designed to minimize weight, improve robustness and offer an sharp aperture to avoid standing waves; but exterior appearance, color, flange or additional support structures if needed can be defined as customer needs.

Extended performance datasheet is available if customer requires. Ask for more information.

Horn antenna is manufactured from a single aluminum rod, no soldering for flanges and no screws for attaching parts are included.

Mechanical and Electrical Specifications

Specifications	Description
Flange	Standard UG-387 U/M precision style flange or specified by the customer
Fabrication	In a single aluminum piece
External color	Ruby Red
Material	Aluminum

Table 1: Mechanical specifications of QSH antennas.

Model	f0 (GHz)	fmin (GHz)	fmax (GHz)	Length (mm)	A (mm)	B (mm)	VSWR
QSH-SL-140-170-F-20	140	110	170	52	20	14	<1,15
QSH-SL-180-220-F-20	180	140	220	41	16	11	<1,2
QSH-SL-215-260-F-20	215	170	260	35	13	9	<1,25
QSH-SL-275-330-F-20	275	220	330	27	11	8	<1,3
QSH-SL-330-400-F-20	330	260	400	23	9	7	<1,35
QSH-SL-415-500-F-20	415	330	500	18	7	5	<1,4

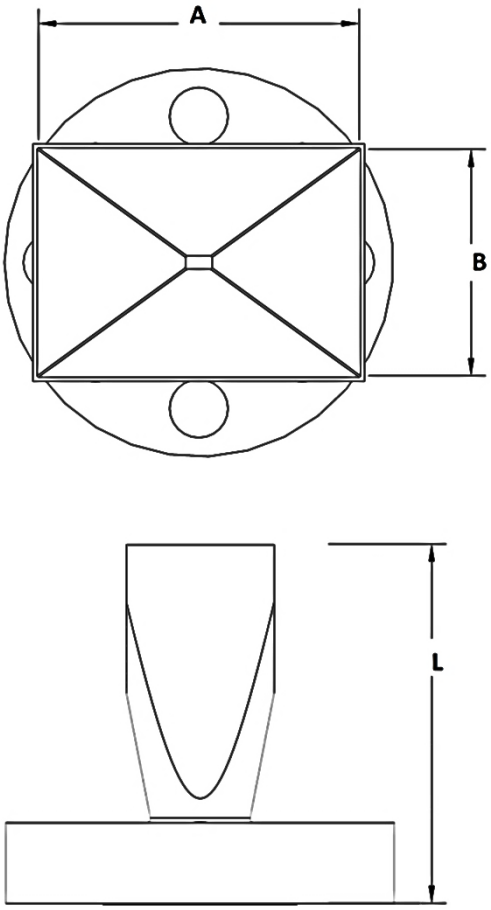
Table 2: Size and operating frequency of each antenna model.

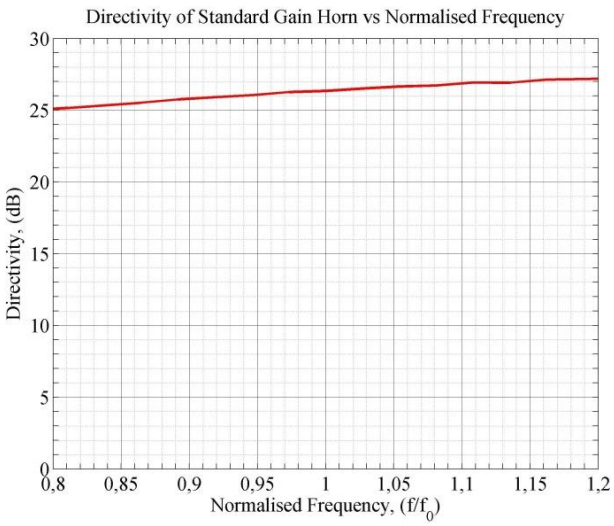
Radiation Patterns Parameters

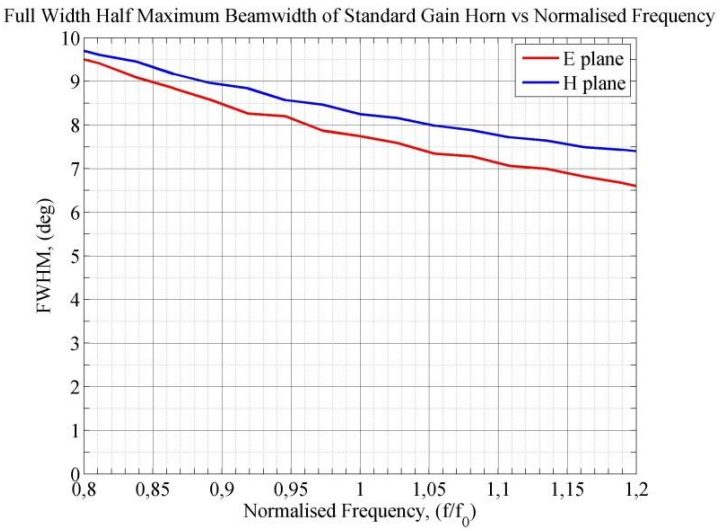
Frequency	Directivity	FWHM (deg.)	
f/f0	(dB)	E-plane	H-plane
0,800	25,1	9,5	9,7
0,811	25,2	9,4	9,6
0,838	25,3	9,1	9,5
0,865	25,5	8,8	9,2
0,892	25,8	8,6	9,0
0,919	25,9	8,3	8,8
0,946	26,1	8,2	8,6
0,973	26,3	7,9	8,5
1,000	26,3	7,7	8,2
1,027	26,5	7,6	8,2
1,054	26,7	7,3	8,0
1,081	26,7	7,3	7,9
1,108	26,9	7,1	7,7
1,135	26,9	7,0	7,6
1,162	27,1	6,8	7,5
1,189	27,2	6,7	7,4
1,200	27,2	6,6	7,4

Table 3: Antenna radiation pattern values vs. frequency.

Antenna Dimensions







Radiation Patterns