

# Dual Linear Polarized Scalar Feed Horn Antenna

From 7 to 110 GHz, 12 to 20 dBi Gain

## DESCRIPTION

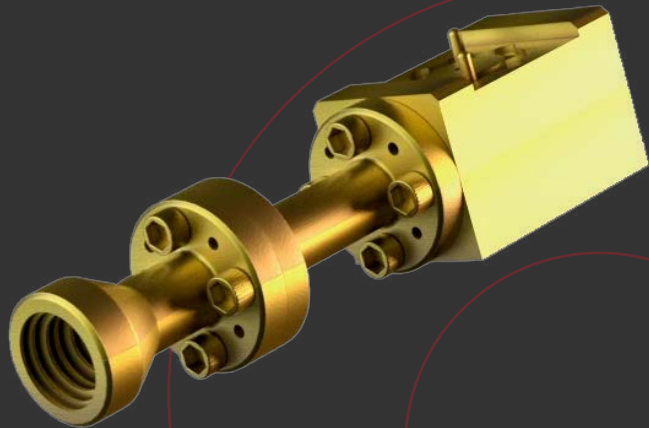
Anteral's Dual Linear Polarized Scalar Feed Horn Antenna (DLPSFHA) is an integrated system composed of an **orthomode transducer** (OMT) that provides high isolation and cross-polarization (XP) cancellation and a broad band **scalar feed horn antenna** (SFHA) that provides high gain, low VSWR and low side-lobes, with minimum size. Client can choose the OMT and SFHA and Anteral will design the DLPSFHA that suits their needs.

They are designed to cover the frequency range of 7 to 110 GHz with different nominal mid-band gain and a low VSWR. The OMT supports either horizontal or vertical polarized signals with more than 35 dB cross-polarization rejections and 35 dB isolation. Besides, custom bands, gain values and flanges can be requested.

Dual Polarized Scalar Feed Horn Antennas are especially useful when high isolation and high cross polarization is required. They are widely used in 5G systems, radar applications, communication, and antenna ranges, among others.

## APPLICATIONS

This type of horns is especially suitable for laboratory test measurements, electromagnetic measurements and gain calibration. Moreover, custom bands and gain values can be requested.

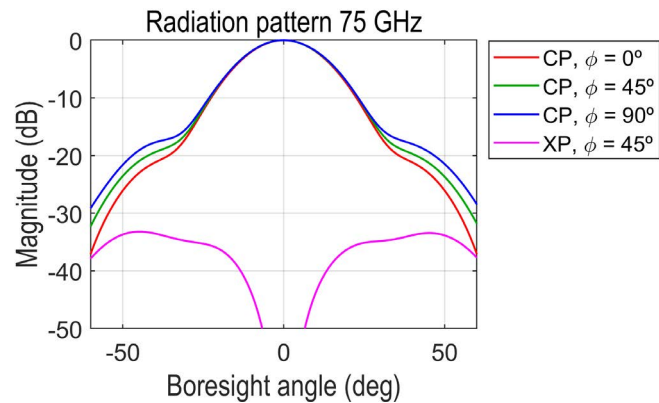
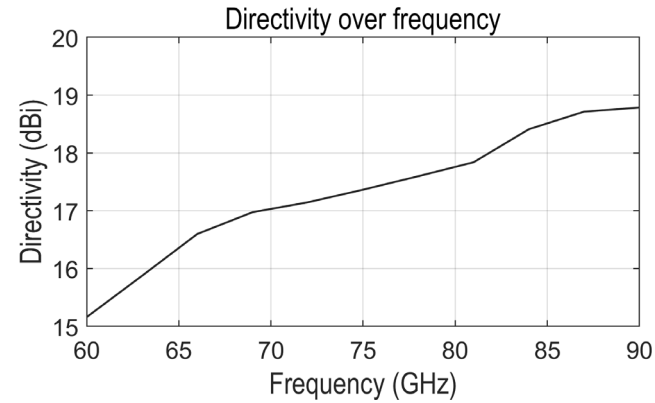


## ELECTRICAL SPECIFICATIONS

Model	Frequency (GHz)	S11 (dB)	Directivity (dBi)	Isolation (dB)	XP (dB)
DLPSFHA-15-WR112	7.05 - 10	-23	15	45	25
DLPSFHA-15-WR90	8.2 - 12.4	-23	15	45	25
DLPSFHA-15-WR75	10 - 15	-23	15	45	25
DLPSFHA-15-WR62	12.4 - 18	-23	15	40	25
DLPSFHA-15-WR51	15 - 22	-23	15	40	25
DLPSFHA-12-WR42	18 - 26.5	-23	12	40	30
DLPSFHA-18-WR42	18 - 26.5	-23	18	40	30
DLPSFHA-12-WR28	26.5 - 40	-20	12	35	25
DLPSFHA-15-WR28	24.5 - 43.5	-20	15	35	25
DLPSFHA-18-WR28	26.5 - 40	-20	18	35	30
DLPSFHA-15-WR22	33 - 50	-20	15	35	20
DLPSFHA-17-WR19	40 - 60	-17	17	35	30
DLPSFHA-13-WR19	40 - 60	-17	13	35	25
DLPSFHA-17-WR15	50 - 75	-17	17	35	30
DLPSFHA-13-WR15	50 - 75	-17	13	35	25
DLPSFHA-18-WR12	60 - 90	-15	18	35	30
DLPSFHA-17-WR12	60 - 90	-15	17	35	30
DLPSFHA-13-WR12	60 - 90	-15	13	35	25
DLPSFHA-17-WR10	75 - 110	-15	17	35	30
DLPSFHA-13-WR10	75 - 110	-15	13	35	25

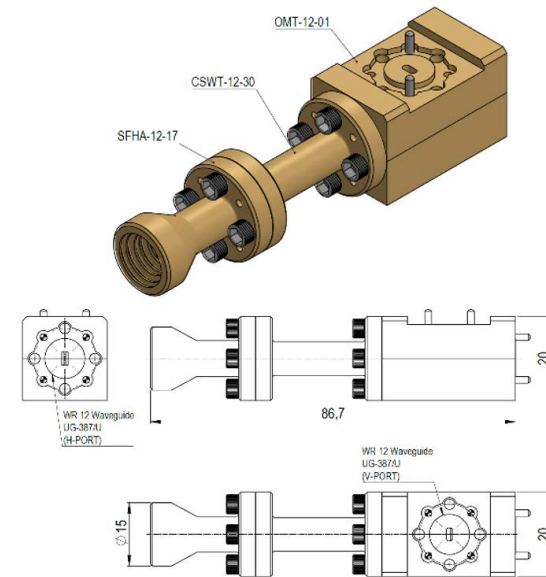
This table contains only a few DLPSFHA examples. All data are typical values. Contact us for other DLPSFHA and more information.

### TYPICAL PERFORMANCE



### MECHANICAL OUTLINE

Flange	Standard UG-xxx/U
Operating temperature	-40°C to +85°C
External color	Aluminum. Gold plated in some cases.
Material	Aluminum.



### Additional notes

All data are simulated. Typical performance data and mechanical outline correspond to DLPSFHA-17-WR12 model. Actual values could vary slightly. The return loss performance of all items is checked before delivery.

