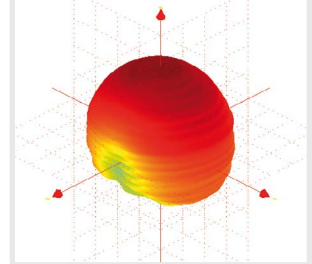


# Open-Ended Waveguides



Typical 3D radiation pattern



## SOLUTION FOR

- Near-field measurements UHF to W band
- Calibration and polarization reference

## Main features

### Technical performance

- Low loss and high efficiency
- Linear polarization with high polarization purity
- Low return loss / VSWR

### Design

- Tapered ends to minimize diffraction effects
- Lightweight for easy handling
- Standard waveguide bands

### Surface treatment

- Surtec 650 according to MIL-C 5541E class 3
- Polyurethane paint

### Repeatability

- Stiff and robust mechanical design
- Standard MVG circular interface for precision centering
- Precision pin for accurate polarization alignment
- Precision machined
- High reliability coaxial connector

### Delivered documents

- Typical performance data (TYMEDA™)
- Measured return loss data

## Product configuration

### Equipment

- Mounting flange
- Integrated coaxial transition with high precision connector
- Removable absorbers plate

### Related services

- Calibration and maintenance
- Customization

■ Included □ Optional



### SMART POSITIONING

The circular interface allows the user to position and center the antenna with very high accuracy. The horn is fastened to the customer's mounting support by four screws and the alignment is determined by a precision pin in the mechanical interface plate.

## Electrical characteristics

Part number	Frequency range [GHz]	Waveguide band	Polarization
OEW038	0.38-0.49	N/A	Single linear
OEW049	0.49-0.75	WR1500	Single linear
OEW075	0.75-1.12	WR975	Single linear
OEW096	0.96-1.45	WR770	Single linear
OEW112	1.12-1.70	WR650	Single linear
OEW145	1.45-2.20	WR510	Single linear
OEW170	1.70-2.60	WR430	Single linear
OEW220	2.20-3.30	WR340	Single linear
OEW260	2.60-3.95	WR284	Single linear
OEW330	3.30-4.90	WR229	Single linear
OEW395	3.95-5.85	WR187	Single linear
OEW490	4.90-7.05	WR159	Single linear
OEW585	5.85-8.20	WR137	Single linear
OEW705	7.05-10.0	WR112	Single linear
OEW820	8.20-12.40	WR90	Single linear
OEW1000	10.00-15.00	WR75	Single linear
OEW1240	12.40-18.00	WR62	Single linear
OEW1800	18.00-26.50	WR42	Single linear
OEW2200	22.00-33.00	WR34	Single linear
OEW2650	26.50-40.00	WR28	Single linear
OEW3300	33.00-50.00	WR22	Single linear
OEW5000	50.00-75.00	WR15	Single linear
OEW6000	60.00-90.00	WR12	Single linear
OEW7500	75.00-110.00	WR10	Single linear

## Mechanical characteristics

Part number	Dimensions			Weight (approx) [Kg]	RF connector	Material	Treatment	RF absorbers <sup>(1)</sup>	Interface
	W=H	L	D						
0EW038	914.4	1358.5	1084	30	SMA <sup>(3)</sup> Female (N <sup>(4)</sup> type optional)	Aluminum	Surtec 650 <sup>(2)</sup>	AEP-18	Circular Ø 110 mm
0EW049	609.6	1047	815	17.8	SMA <sup>(3)</sup> Female (N <sup>(4)</sup> type optional)	Aluminum	Surtec 650 <sup>(2)</sup>	AEP-18	Circular Ø 110 mm
0EW075	609.6	994	815	15.0	SMA <sup>(3)</sup> Female (N <sup>(4)</sup> type optional)	Aluminum	Surtec 650 <sup>(2)</sup>	AEP-18	Circular Ø 110 mm
0EW096	609.6	973	815	13.3	SMA <sup>(3)</sup> Female (N <sup>(4)</sup> type optional)	Aluminum	Surtec 650 <sup>(2)</sup>	AEP-18	Circular Ø 110 mm
0EW112	609.6	959	815	10.2	SMA <sup>(3)</sup> Female (N <sup>(4)</sup> type optional)	Aluminum	Surtec 650 <sup>(2)</sup>	AEP-12	Circular Ø 110 mm
0EW145	609.6	942	815	8.8	SMA <sup>(3)</sup> Female (N <sup>(4)</sup> type optional)	Aluminum	Surtec 650 <sup>(2)</sup>	AEP-12	Circular Ø 110 mm
0EW170	609.6	726	610	8.1	SMA <sup>(3)</sup> Female (N <sup>(4)</sup> type optional)	Aluminum	Surtec 650 <sup>(2)</sup>	AEP-12	Circular Ø 110 mm
0EW220	609.6	719	610	6.9	SMA <sup>(3)</sup> Female (N <sup>(4)</sup> type optional)	Aluminum	Surtec 650 <sup>(2)</sup>	AEP-12	Circular Ø 110 mm
0EW260	457.2	502	405	3.1	SMA <sup>(3)</sup> Female (N <sup>(4)</sup> type optional)	Aluminum	Surtec 650 <sup>(2)</sup>	AEP-8	Circular Ø 110 mm
0EW330	457.2	500	405	3.3	SMA <sup>(3)</sup> Female (N <sup>(4)</sup> type optional)	Aluminum	Surtec 650 <sup>(2)</sup>	AEP-8	Circular Ø 110 mm
0EW395	406.4	420	330	2.5	SMA <sup>(3)</sup> Female (N <sup>(4)</sup> type optional)	Aluminum	Surtec 650 <sup>(2)</sup>	AEP-6	Circular Ø 110 mm
0EW490	406.4	408	330	2.4	SMA <sup>(3)</sup> Female (N <sup>(4)</sup> type optional)	Aluminum	Surtec 650 <sup>(2)</sup>	AEP-6	Circular Ø 110 mm
0EW585	406.4	410	330	2.2	SMA <sup>(3)</sup> Female (N <sup>(4)</sup> type optional)	Aluminum	Surtec 650 <sup>(2)</sup>	AEP-6	Circular Ø 110 mm
0EW705	406.4	337	280	2.0	SMA <sup>(3)</sup> Female (N <sup>(4)</sup> type optional)	Aluminum	Surtec 650 <sup>(2)</sup>	AEP-4	Circular Ø 60 mm
0EW820	406.4	334	280	2.0	SMA <sup>(3)</sup> Female (N <sup>(4)</sup> type optional)	Aluminum	Surtec 650 <sup>(2)</sup>	AEP-4	Circular Ø 60 mm
0EW1000	406.4	333	280	1.6	SMA <sup>(3)</sup> Female (N <sup>(4)</sup> type optional)	Aluminum	Surtec 650 <sup>(2)</sup>	AEP-4	Circular Ø 60 mm
0EW1240	406.4	322	280	1.8	SMA <sup>(3)</sup> Female (N <sup>(4)</sup> type optional)	Aluminum	Surtec 650 <sup>(2)</sup>	AEP-4	Circular Ø 60 mm
0EW1800	406.4	320	280	1.8	SMA <sup>(5)</sup> Female	Aluminum	Surtec 650 <sup>(2)</sup>	AEP-4	Circular Ø 60 mm
0EW2200	406.4	322	280	1.8	2.92 mm <sup>(6)</sup> Female	Aluminum	Surtec 650 <sup>(2)</sup>	AEP-4	Circular Ø 60 mm
0EW2650	406.4	321	280	1.8	2.92 mm <sup>(6)</sup> Female	Aluminum	Surtec 650 <sup>(2)</sup>	AEP-4	Circular Ø 60 mm
0EW3300	300	170 <sup>(7)</sup>	171	0.15 <sup>(8)</sup>	WR22 (2.4 mm <sup>(9)</sup> Female optional)	Aluminum	Surtec 650 <sup>(2)</sup>	AEC-1.5	N/A (SOI200 needed)
0EW5000	300	170 <sup>(7)</sup>	171	0.15 <sup>(8)</sup>	WR15	Aluminum	Surtec 650 <sup>(2)</sup>	AEC-1.5	N/A (SOI200 needed)
0EW6000	300	170 <sup>(7)</sup>	171	0.15 <sup>(8)</sup>	WR12	Aluminum	Surtec 650 <sup>(2)</sup>	AEC-1.5	N/A (SOI200 needed)
0EW7500	300	170 <sup>(7)</sup>	171	0.15 <sup>(8)</sup>	WR10	Aluminum	Surtec 650 <sup>(2)</sup>	AEC-1.5	N/A (SOI200 needed)

(1) [http://www.mvg-world.com/products/field\\_product\\_family/absorber-6](http://www.mvg-world.com/products/field_product_family/absorber-6)

(2) According to MIL-C 5541E class 3

(3) SWMI type 212-503 SF

(4) SWMI type 312-14 SF

(5) SWMI type 212-513 SF

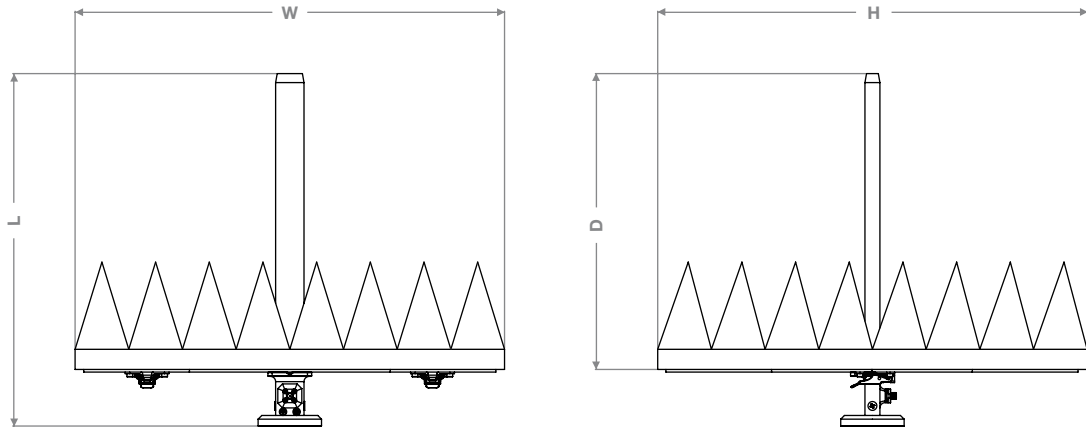
(6) SWMI type 1012-23 SF

(7) 336.3 mm including SOI200

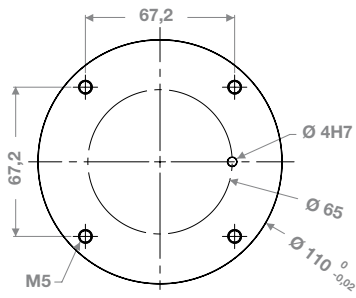
(8) 1.55 Kg including SOI200

(9) SWMI type 1812-05SF

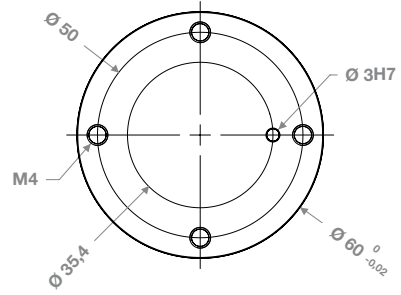
Dimensional drawing



Circular Ø 110 mm interface



Circular Ø 60 mm interface



Contact your local sales representative for more information  
[www.mvg-world.com/antennas](http://www.mvg-world.com/antennas)  
[salesteam@mvg-world.com](mailto:salesteam@mvg-world.com)