

# SCHWARZBECK MESS - ELEKTRONIK

## Doppelsteg Breitband-Hornantenne HWRD750 Double Ridged Broadband Horn Antenna HWRD750



### Technische Daten:

Bauart:  
Linear polarisierte Doppelsteg  
Breitband Hornantenne in  
Aluminium-ausführung für Empfangs-  
und Sendeanwendungen für  
Hohlleiter-Flanschmontage.

Frequenzbereich, nominell:	7.5...18 GHz
Isotropgewinn:	16 ... 21 dBi
Antennenfaktor:	31 ... 37 dB/m
Impedanz, nominell:	50 $\Omega$
Stehwellenverhältnis SWR typisch:	1.2
Stehwellenverhältnis SWR max.:	< 2 (8-18 GHz)
Vor- Rückverhältnis:	typ. > 30 dB
Polarisationsentkopplung:	typ. > 30 dB
3 dB Öffnungswinkel typ.(E-Ebene):	12°-19°
3 dB Öffnungswinkel typ.(H-Ebene):	12°-20°
6 dB Öffnungswinkel typ.(E-Ebene):	20°-30°
6 dB Öffnungswinkel typ.(H-Ebene):	20°-30°
Max. Eingangsleistung:	1 kW cont.
Anschlußart: Hohlleiter-Flansch:	WRD750D24
Halterung: durch Hohlleiter	
Breite x Länge x Dicke:	124 x 241 x 104 mm
Gewicht:	390 g

### HWRD750

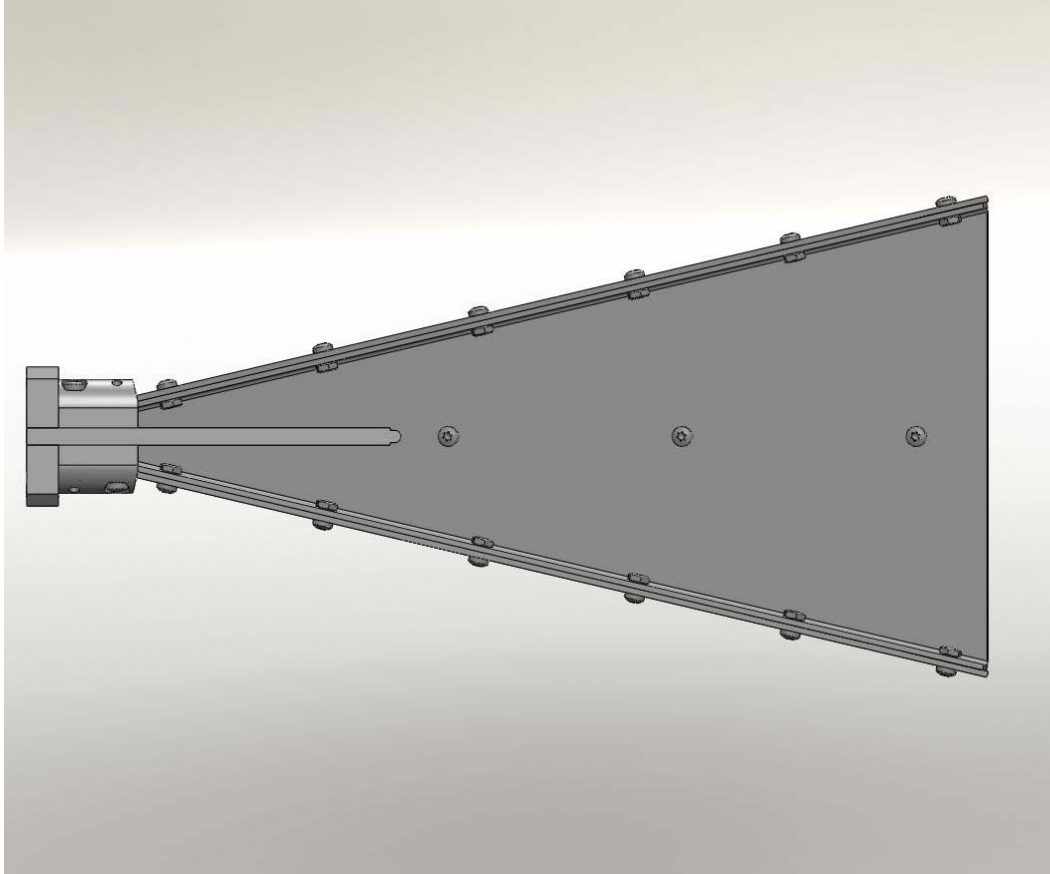
### Specifications:

Type:  
Linear polarized double ridged  
broadband horn antenna for receive  
and transmit applications made of  
aluminium with waveguide flange.

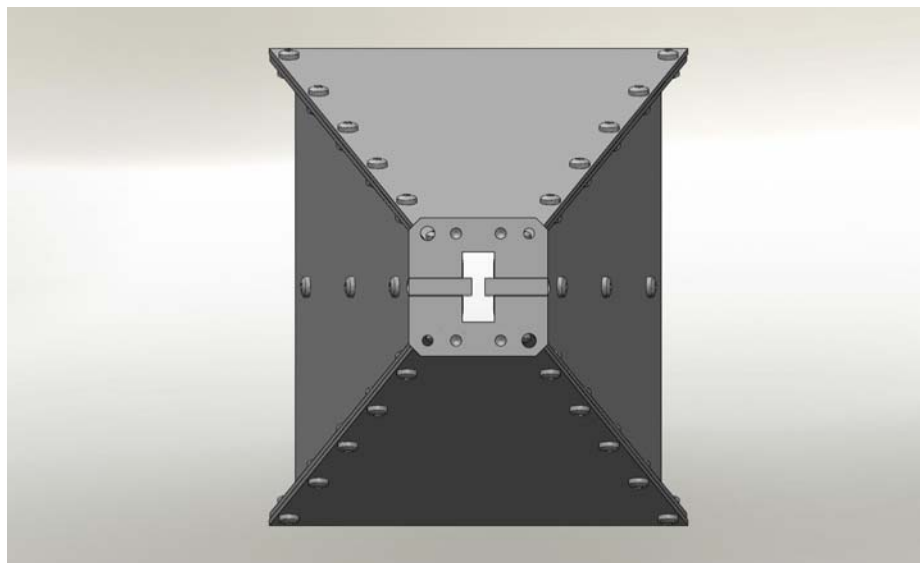
Nominal Frequency Range:	7.5...18 GHz
Isotropic Gain:	16 ... 21 dBi
Antenna Factor:	31 ... 37 dB/m
Nominal Impedance:	50 $\Omega$
Standing Wave Ratio SWR typical:	1.2
Standing Wave Ratio SWR max.:	< 2 (8-18 GHz)
Front to Back Ratio:	typ. > 30 dB
Cross Polarisation:	typ. > 30 dB
3 dB Beamwidth typ. (E-Plane):	12°-19°
3 dB Beamwidth typ. (H-Plane):	12°-20°
6 dB Beamwidth typ. (E-Plane):	20°-30°
6 dB Beamwidth typ. (H-Plane):	20°-30°
Max. Input Power:	1 kW cont.
SMA-Connector female	
Mount: Waveguide	
Width x Length x Thickness:	124 x 241 x 104 mm
Weight:	390 g

# SCHWARZBECK MESS - ELEKTRONIK

## Doppelsteg Breitband-Hornantenne HWRD750 *Double Ridged Broadband Horn Antenna HWRD750*



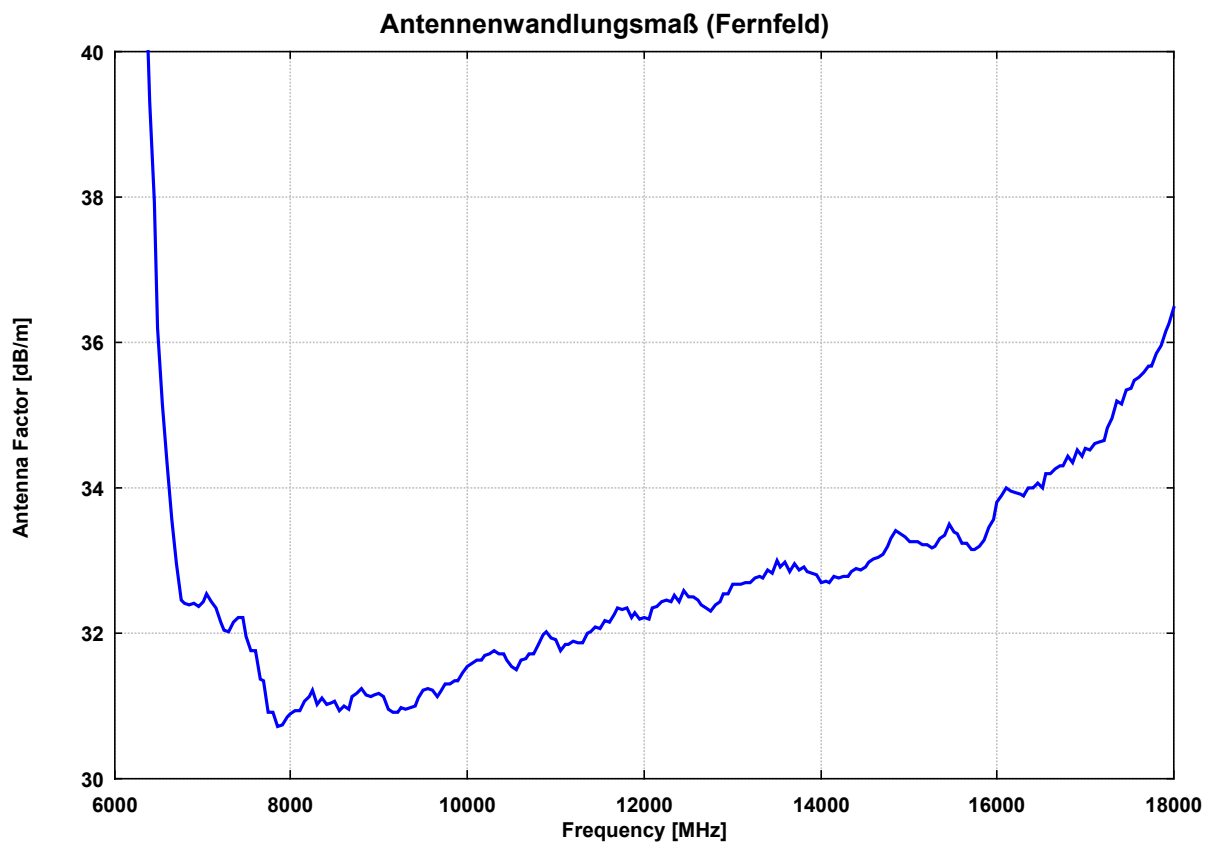
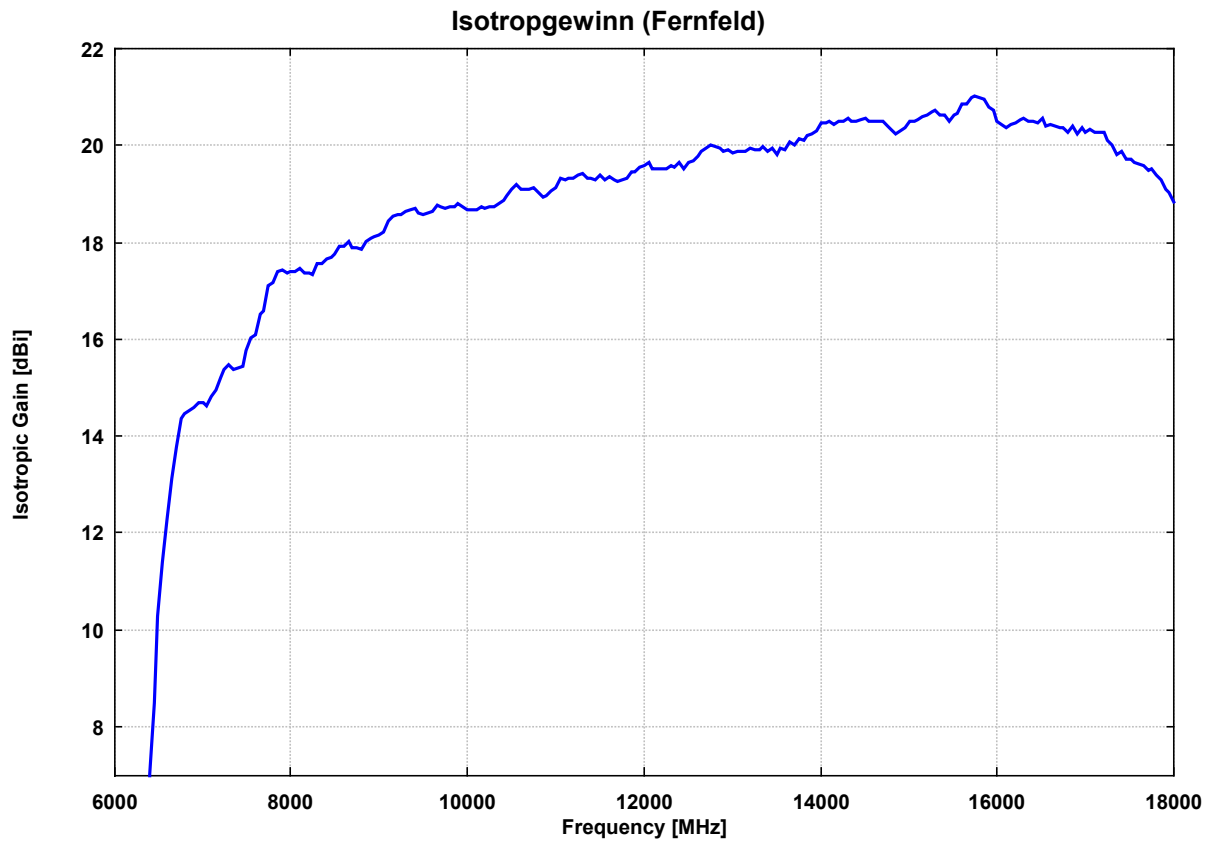
Seitenansicht (Horizontalpolarisation)  
*Side View (Horizontal Polarisation)*



Rückansicht mit WRD750D24 Flansch (Horizontalpolarisation)  
*Back View with WRD750D24 Flange (Horizontal Polarisation)*

# SCHWARZBECK MESS - ELEKTRONIK

## Doppelsteg Breitband-Hornantenne HWRD750 *Double Ridged Broadband Horn Antenna HWRD750*



# SCHWARZBECK MESS - ELEKTRONIK

## Doppelsteg Breitband-Hornantenne HWRD750 *Double Ridged Broadband Horn Antenna HWRD750*

Frequency	Isotropic gain 1 m Aper.	Antenna factor 1 m Aper.	Isotropic gain Farfield	Antenna factor Farfield
[MHz]	[dBi]	[dB/m]	[dBi]	[dB/m]
6500.00	9.33	37.15	10.28	36.20
6550.00	10.64	35.90	11.40	35.14
6600.00	11.64	34.97	12.26	34.35
6650.00	12.54	34.14	13.12	33.56
6700.00	13.16	33.58	13.78	32.96
6750.00	13.64	33.17	14.35	32.46
6800.00	13.79	33.08	14.46	32.41
6850.00	13.86	33.07	14.55	32.38
6900.00	13.77	33.23	14.58	32.42
6950.00	13.82	33.24	14.69	32.37
7000.00	13.89	33.23	14.69	32.43
7050.00	14.04	33.14	14.64	32.54
7100.00	14.18	33.07	14.81	32.44
7150.00	14.35	32.96	14.96	32.35
7200.00	14.59	32.78	15.23	32.14
7250.00	14.71	32.72	15.39	32.04
7300.00	14.80	32.69	15.48	32.01
7350.00	14.83	32.72	15.39	32.16
7400.00	14.98	32.62	15.40	32.20
7450.00	15.04	32.62	15.46	32.20
7500.00	15.15	32.57	15.77	31.95
7550.00	15.23	32.55	16.03	31.75
7600.00	15.44	32.40	16.09	31.75
7650.00	15.74	32.15	16.53	31.36
7700.00	15.99	31.96	16.60	31.35
7750.00	16.26	31.75	17.11	30.90
7800.00	16.42	31.64	17.16	30.90
7850.00	16.60	31.52	17.41	30.71
7900.00	16.57	31.60	17.44	30.73
7950.00	16.60	31.63	17.38	30.85
8000.00	16.56	31.72	17.39	30.89
8050.00	16.58	31.76	17.41	30.93
8100.00	16.49	31.90	17.46	30.93
8150.00	16.41	32.03	17.38	31.06
8200.00	16.39	32.11	17.38	31.12
8250.00	16.40	32.15	17.33	31.22
8300.00	16.54	32.06	17.58	31.02
8350.00	16.62	32.03	17.56	31.09
8400.00	16.75	31.96	17.68	31.03
8450.00	16.76	32.00	17.71	31.05
8500.00	16.83	31.98	17.75	31.06
8550.00	16.93	31.93	17.94	30.92
8600.00	16.93	31.98	17.92	30.99
8650.00	16.92	32.04	18.02	30.94
8700.00	16.86	32.15	17.88	31.13
8750.00	16.90	32.16	17.90	31.16
8800.00	16.90	32.21	17.87	31.24
8850.00	16.94	32.22	18.01	31.15
8900.00	17.00	32.21	18.09	31.12
8950.00	17.10	32.16	18.12	31.14
9000.00	17.24	32.06	18.14	31.16

# SCHWARZBECK MESS - ELEKTRONIK

## Doppelsteg Breitband-Hornantenne HWRD750 Double Ridged Broadband Horn Antenna HWRD750

Frequency	Isotropic gain 1 m Aper.	Antenna factor 1 m Aper.	Isotropic gain Farfield	Antenna factor Farfield
[MHz]	[dBi]	[dB/m]	[dBi]	[dB/m]
9050.00	17.33	32.02	18.23	31.12
9100.00	17.43	31.97	18.45	30.95
9150.00	17.47	31.98	18.55	30.90
9200.00	17.55	31.95	18.58	30.92
9250.00	17.53	32.01	18.57	30.97
9300.00	17.58	32.01	18.65	30.94
9350.00	17.61	32.03	18.67	30.97
9400.00	17.63	32.05	18.70	30.98
9450.00	17.65	32.08	18.62	31.11
9500.00	17.61	32.16	18.57	31.20
9550.00	17.62	32.20	18.60	31.22
9600.00	17.58	32.29	18.66	31.21
9650.00	17.67	32.24	18.78	31.13
9700.00	17.67	32.29	18.76	31.20
9750.00	17.78	32.22	18.71	31.29
9800.00	17.79	32.25	18.75	31.29
9850.00	17.83	32.26	18.74	31.35
9900.00	17.79	32.34	18.79	31.34
9950.00	17.78	32.40	18.73	31.45
10000.00	17.77	32.45	18.69	31.53
10050.00	17.81	32.45	18.68	31.58
10100.00	17.80	32.51	18.68	31.63
10150.00	17.83	32.52	18.73	31.62
10200.00	17.88	32.51	18.70	31.69
10250.00	17.89	32.54	18.73	31.70
10300.00	17.96	32.52	18.73	31.75
10350.00	17.96	32.56	18.82	31.70
10400.00	18.06	32.50	18.86	31.70
10450.00	18.10	32.50	18.97	31.63
10500.00	18.19	32.45	19.10	31.54
10550.00	18.26	32.43	19.20	31.49
10600.00	18.29	32.44	19.11	31.62
10650.00	18.23	32.54	19.12	31.65
10700.00	18.16	32.65	19.10	31.71
10750.00	18.17	32.68	19.14	31.71
10800.00	18.20	32.69	19.04	31.85
10850.00	18.15	32.78	18.95	31.98
10900.00	18.08	32.89	18.96	32.01
10950.00	18.02	32.99	19.08	31.93
11000.00	18.04	33.01	19.14	31.91
11050.00	18.10	32.99	19.34	31.75
11100.00	18.12	33.01	19.29	31.84
11150.00	18.25	32.92	19.33	31.84
11200.00	18.22	32.98	19.32	31.88
11250.00	18.38	32.86	19.39	31.85
11300.00	18.30	32.98	19.41	31.87
11350.00	18.35	32.97	19.32	32.00
11400.00	18.30	33.06	19.33	32.03
11450.00	18.28	33.12	19.31	32.09
11500.00	18.30	33.13	19.38	32.05
11550.00	18.25	33.22	19.30	32.17
11600.00	18.31	33.20	19.36	32.15

# SCHWARZBECK MESS - ELEKTRONIK

## Doppelsteg Breitband-Hornantenne HWRD750 Double Ridged Broadband Horn Antenna HWRD750

Frequency	Isotropic gain 1 m Aper.	Antenna factor 1 m Aper.	Isotropic gain Farfield	Antenna factor Farfield
[MHz]	[dBi]	[dB/m]	[dBi]	[dB/m]
11650.00	18.20	33.35	19.28	32.27
11700.00	18.22	33.36	19.25	32.33
11750.00	18.23	33.39	19.29	32.33
11800.00	18.40	33.26	19.32	32.34
11850.00	18.52	33.17	19.48	32.21
11900.00	18.58	33.15	19.46	32.27
11950.00	18.65	33.12	19.57	32.20
12000.00	18.62	33.18	19.60	32.20
12050.00	18.67	33.17	19.64	32.20
12100.00	18.53	33.35	19.54	32.34
12150.00	18.59	33.32	19.54	32.37
12200.00	18.57	33.38	19.51	32.44
12250.00	18.67	33.31	19.53	32.45
12300.00	18.67	33.35	19.60	32.42
12350.00	18.69	33.36	19.55	32.50
12400.00	18.61	33.48	19.67	32.42
12450.00	18.60	33.52	19.54	32.58
12500.00	18.63	33.53	19.67	32.49
12550.00	18.70	33.49	19.70	32.49
12600.00	18.79	33.44	19.78	32.45
12650.00	18.86	33.40	19.87	32.39
12700.00	18.92	33.38	19.95	32.35
12750.00	18.94	33.39	20.02	32.31
12800.00	18.93	33.43	19.99	32.37
12850.00	18.91	33.49	19.96	32.44
12900.00	18.91	33.52	19.90	32.53
12950.00	18.87	33.60	19.92	32.55
13000.00	18.90	33.60	19.84	32.66
13050.00	18.86	33.67	19.87	32.66
13100.00	18.90	33.67	19.89	32.68
13150.00	18.91	33.69	19.90	32.70
13200.00	19.04	33.59	19.95	32.68
13250.00	19.02	33.64	19.91	32.75
13300.00	19.09	33.61	19.92	32.78
13350.00	19.01	33.72	19.97	32.76
13400.00	19.06	33.70	19.90	32.86
13450.00	18.90	33.89	19.96	32.83
13500.00	18.89	33.94	19.83	33.00
13550.00	18.81	34.05	19.96	32.90
13600.00	18.86	34.03	19.92	32.97
13650.00	18.83	34.09	20.08	32.84
13700.00	18.82	34.13	20.00	32.95
13750.00	18.87	34.12	20.13	32.86
13800.00	18.85	34.17	20.11	32.91
13850.00	18.94	34.11	20.21	32.84
13900.00	18.97	34.11	20.26	32.82
13950.00	19.14	33.97	20.31	32.80
14000.00	19.17	33.97	20.46	32.68
14050.00	19.18	33.99	20.47	32.70
14100.00	19.09	34.11	20.52	32.68
14150.00	19.04	34.20	20.45	32.79
14200.00	18.94	34.33	20.50	32.77

# SCHWARZBECK MESS - ELEKTRONIK

## Doppelsteg Breitband-Hornantenne HWRD750 Double Ridged Broadband Horn Antenna HWRD750

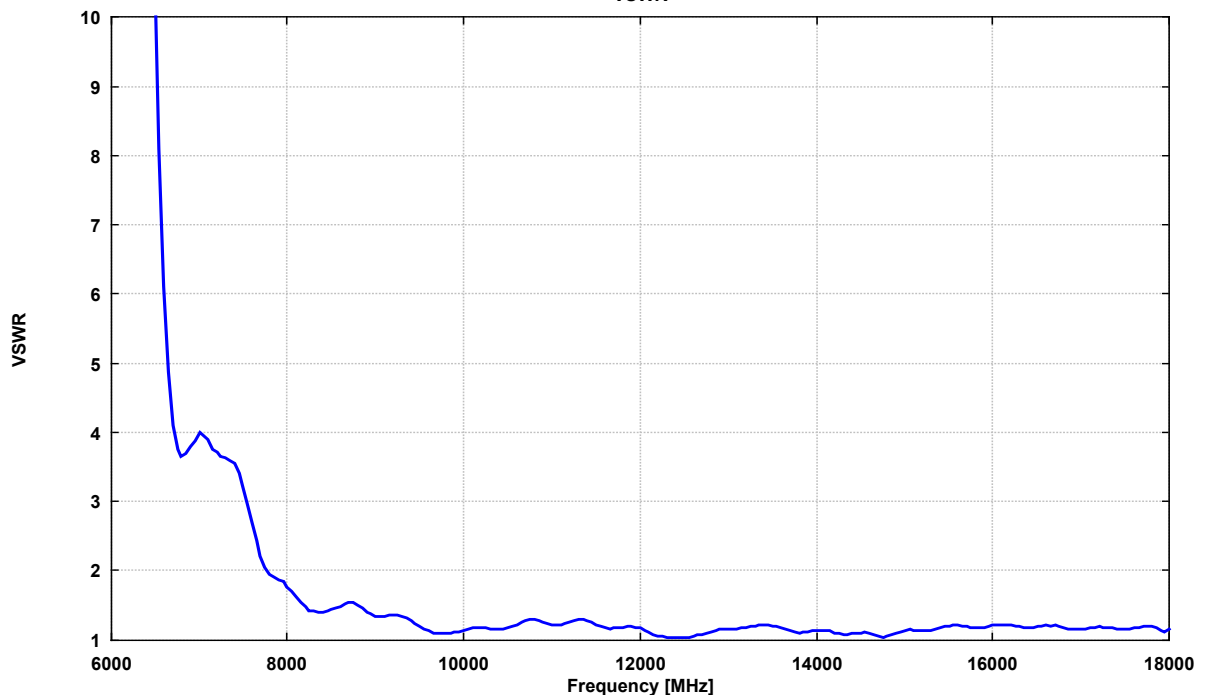
Frequency	Isotropic gain 1 m Aper.	Antenna factor 1 m Aper.	Isotropic gain Farfield	Antenna factor Farfield
[MHz]	[dBi]	[dB/m]	[dBi]	[dB/m]
14250.00	19.00	34.30	20.52	32.78
14300.00	19.01	34.32	20.55	32.78
14350.00	19.07	34.29	20.52	32.84
14400.00	19.07	34.32	20.50	32.89
14450.00	19.07	34.35	20.54	32.88
14500.00	19.09	34.36	20.55	32.90
14550.00	19.10	34.38	20.51	32.97
14600.00	19.16	34.35	20.50	33.01
14650.00	19.16	34.38	20.50	33.04
14700.00	19.13	34.44	20.49	33.08
14750.00	19.04	34.56	20.40	33.20
14800.00	19.04	34.59	20.33	33.30
14850.00	19.01	34.64	20.25	33.40
14900.00	19.11	34.57	20.31	33.37
14950.00	19.20	34.51	20.39	33.32
15000.00	19.37	34.37	20.49	33.25
15050.00	19.40	34.37	20.52	33.25
15100.00	19.45	34.35	20.54	33.26
15150.00	19.45	34.38	20.62	33.21
15200.00	19.47	34.39	20.65	33.21
15250.00	19.48	34.41	20.71	33.18
15300.00	19.46	34.45	20.73	33.18
15350.00	19.55	34.39	20.65	33.29
15400.00	19.50	34.47	20.63	33.34
15450.00	19.58	34.42	20.51	33.49
15500.00	19.48	34.55	20.65	33.38
15550.00	19.54	34.51	20.68	33.37
15600.00	19.52	34.56	20.85	33.23
15650.00	19.64	34.47	20.87	33.24
15700.00	19.68	34.46	21.00	33.14
15750.00	19.69	34.48	21.02	33.15
15800.00	19.74	34.45	21.00	33.19
15850.00	19.60	34.62	20.95	33.27
15900.00	19.62	34.63	20.80	33.45
15950.00	19.45	34.83	20.72	33.56
16000.00	19.44	34.86	20.50	33.80
16050.00	19.31	35.02	20.44	33.89
16100.00	19.26	35.10	20.36	34.00
16150.00	19.20	35.18	20.42	33.96
16200.00	19.21	35.20	20.47	33.94
16250.00	19.22	35.22	20.53	33.91
16300.00	19.25	35.21	20.58	33.88
16350.00	19.29	35.20	20.50	33.99
16400.00	19.30	35.22	20.52	34.00
16450.00	19.32	35.22	20.47	34.07
16500.00	19.26	35.31	20.57	34.00
16550.00	19.14	35.46	20.40	34.20
16600.00	19.07	35.55	20.44	34.18
16650.00	18.99	35.66	20.40	34.25
16700.00	18.93	35.74	20.38	34.29
16750.00	18.88	35.82	20.39	34.31
16800.00	18.76	35.97	20.29	34.44

# SCHWARZBECK MESS - ELEKTRONIK

## Doppelsteg Breitband-Hornantenne HWRD750 Double Ridged Broadband Horn Antenna HWRD750

Frequency	Isotropic gain 1 m Aper.	Antenna factor 1 m Aper.	Isotropic gain Farfield	Antenna factor Farfield
[MHz]	[dBi]	[dB/m]	[dBi]	[dB/m]
16850.00	18.80	35.95	20.40	34.35
16900.00	18.76	36.02	20.26	34.52
16950.00	18.82	35.98	20.36	34.44
17000.00	18.77	36.06	20.29	34.54
17050.00	18.82	36.03	20.33	34.52
17100.00	18.79	36.09	20.28	34.60
17150.00	18.73	36.18	20.28	34.63
17200.00	18.66	36.27	20.28	34.65
17250.00	18.50	36.46	20.12	34.84
17300.00	18.45	36.53	20.02	34.96
17350.00	18.26	36.75	19.81	35.20
17400.00	18.31	36.72	19.87	35.16
17450.00	18.23	36.83	19.71	35.35
17500.00	18.35	36.73	19.72	35.36
17550.00	18.27	36.84	19.64	35.47
17600.00	18.36	36.77	19.61	35.52
17650.00	18.31	36.84	19.58	35.57
17700.00	18.36	36.82	19.50	35.68
17750.00	18.41	36.79	19.52	35.68
17800.00	18.33	36.90	19.38	35.85
17850.00	18.25	37.00	19.30	35.95
17900.00	18.00	37.28	19.12	36.16
17950.00	17.90	37.40	19.04	36.26
18000.00	17.68	37.65	18.84	36.49
18050.00	17.23	38.12	18.36	36.99
18100.00	14.50	40.87	15.56	39.81
18150.00	12.23	43.17	13.27	42.13
18200.00	10.03	45.39	11.31	44.11

Stehwellenverhältnis  
VSWR

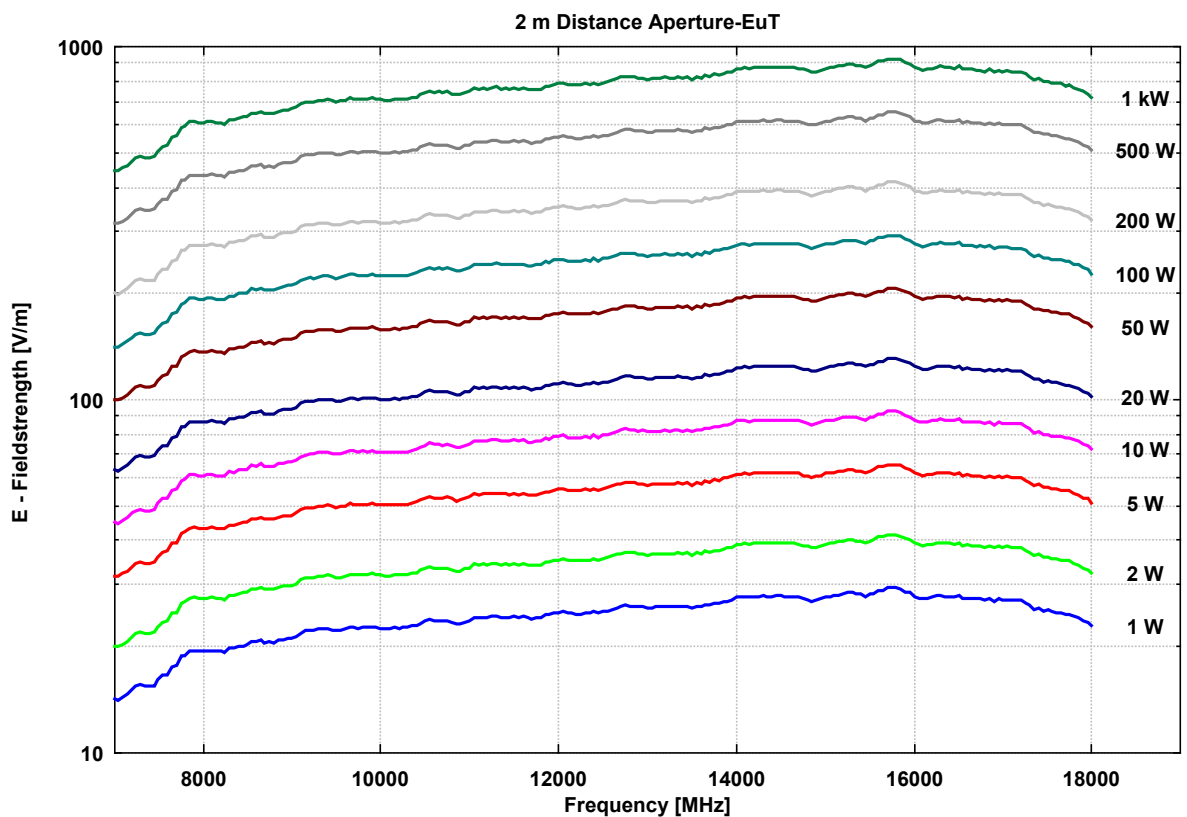
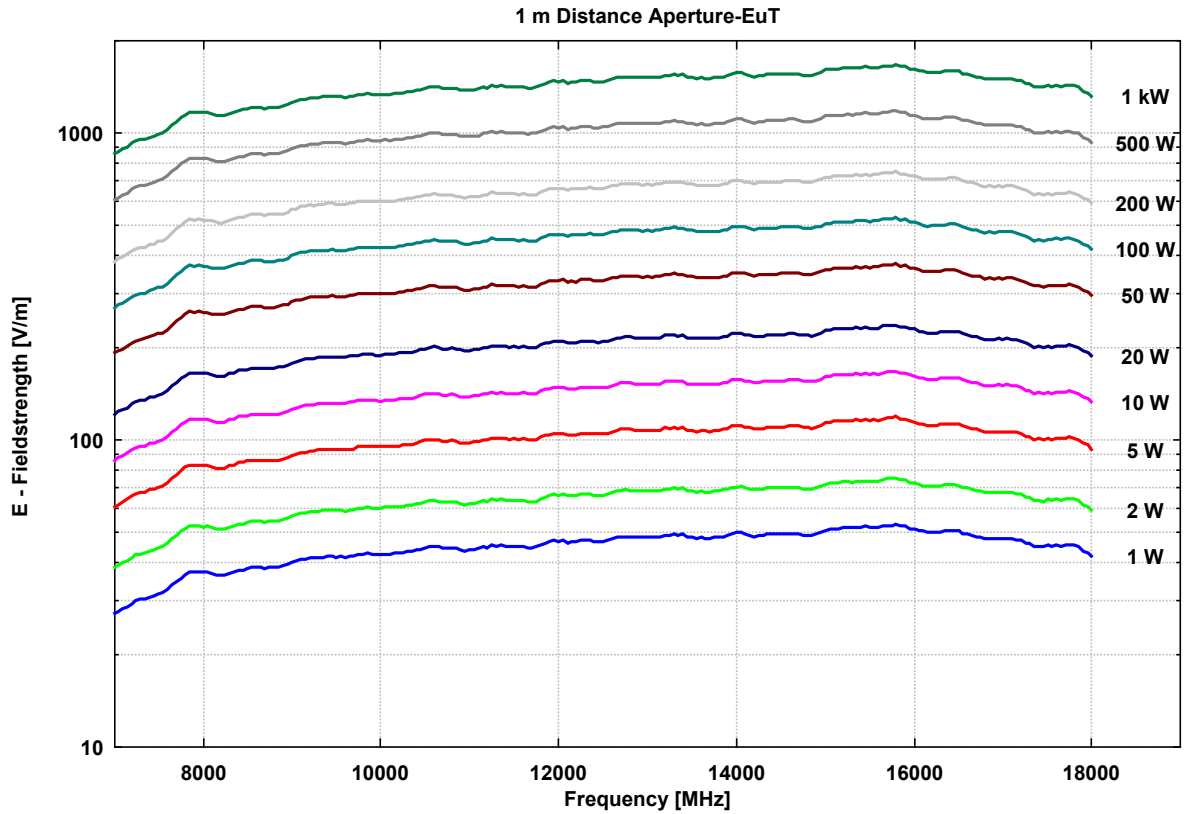




# SCHWARZBECK MESS - ELEKTRONIK

## Doppelsteg Breitband-Hornantenne HWRD750 Double Ridged Broadband Horn Antenna HWRD750

Erzeugte Elektrische Feldstärke vor der Antennenöffnung  
unmoduliert, Eingangsleistung am Hohlleiterflansch, Reflexionsfreie Umgebung  
*Generated Electrical Fieldstrength in front of Antenna Aperture,  
no Modulation, Input Power at Waveguide Flange, Anechoic Environmental Conditions*



# SCHWARZBECK MESS - ELEKTRONIK

## Double Ridged Broadband Horn Antenna HWRD750

Generated Electrical Fieldstrength in front of Antenna Aperture,  
no Modulation, Input Power at Waveguide Flange, Anechoic Environmental Conditions

