

Gestockte Logarithmisch Periodische Breitbandantenne STLP 9128 F *Stacked Logarithmic-Periodic Broadband Antenna STLP 9128 F*

dataTec

Mess- und Prüftechnik. Die Experten.

**Ihr Ansprechpartner /
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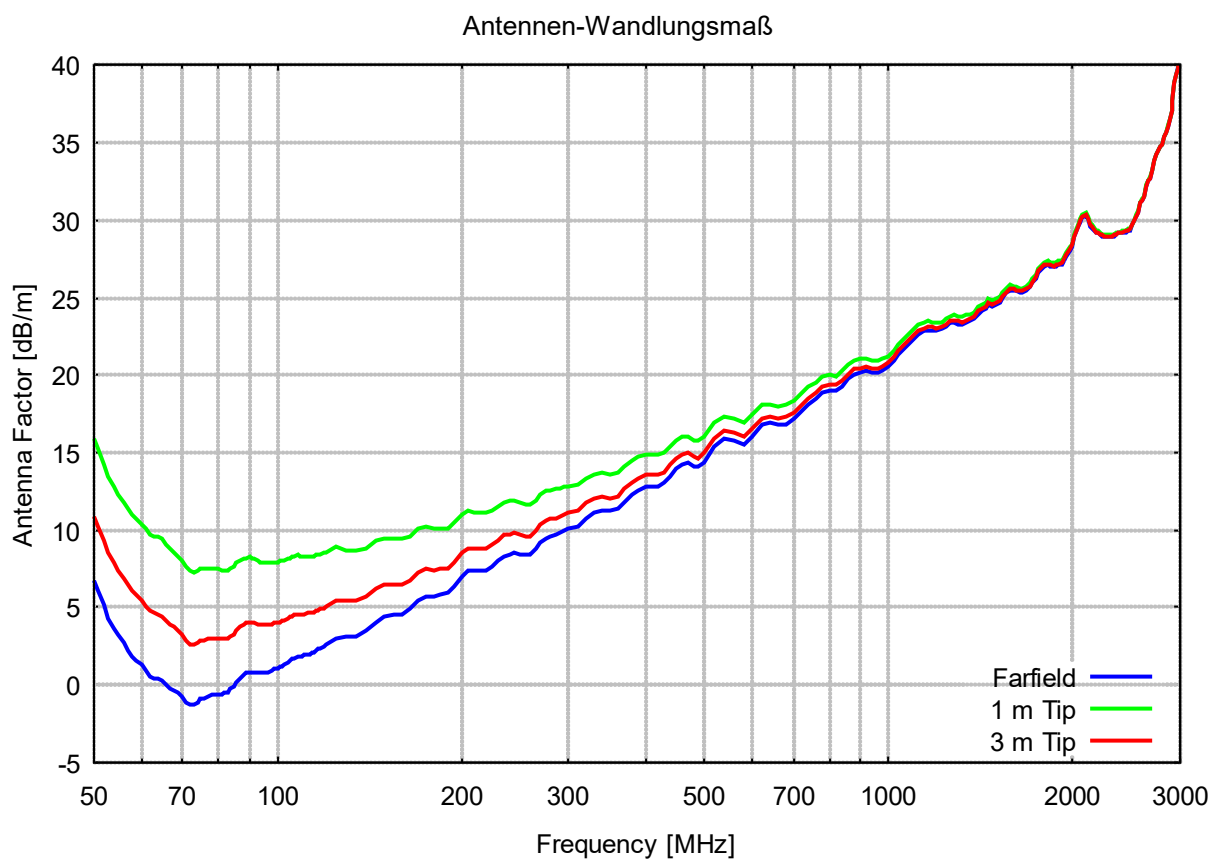
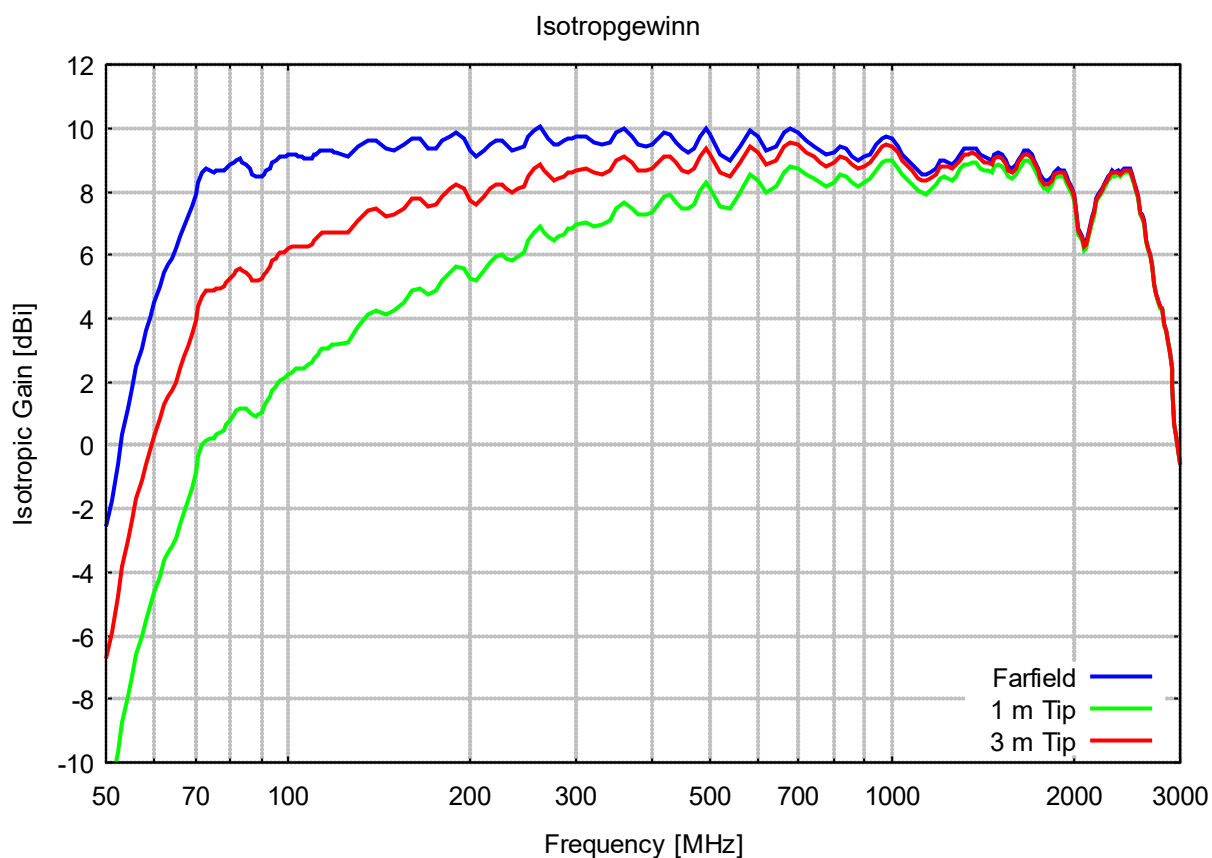
Beschreibung:

Linear polarisierte, gestockte Logarithmisch Periodische Breitbandantenne mit N- oder 7/16- Anschluss, Aluminiumausführung für Empfangs- und Sendeanwendungen. Haupteinsatzzweck: Erzeugung extrem hoher Feldstärken.

Description:

Linear polarized Stacked Logarithmic Periodic Broadband Antenna with N- or 7/16-connector for Receive and Transmit Applications. Main Application: Generation of defined field strength levels for radiated immunity testing.

Technische Daten:		Specifications:
Frequenzbereich:	70 MHz ... 1.5 GHz	Frequency Range:
Nutzbarer Frequenzbereich:	55 MHz ... 3 GHz	
Isotropgewinn (Fernfeld):	9 +/- 1 dBi	Isotropic Gain (Farfield):
Antennenfaktor:	-2 ... + 40 dB/m	Antenna Factor:
Impedanz, nominell:	50 Ω	Nominal Impedance:
Stehwellenverhältnis SWR max:	<2.3	Standing Wave Ratio SWR max:
Stehwellenverhältnis SWR typisch:	1.5	Standing Wave Ratio SWR typical:
Polarisation:	Linear	Polarisation:
3 dB Öffnungswinkel typ. (E-Ebene):	60°-75°	3 dB Beamwidth typ. (E-Plane):
3 dB Öffnungswinkel typ. (H-Ebene):	50°-65°	3 dB Beamwidth typ. (H-Plane):
Max. Eingangsleistung:	1.5 kW (intermitt.)	Max. Input Power:
Anschlußart: N-Buchse	1 kW (cont.)	N-Connector female
Max. Eingangsleistung:	3 kW (intermitt.)	Max. Input Power:
Option: 7-16 Buchse	2 kW (cont.)	Option: 7-16 connector female
Halterungsrohr:	22 mm	Mounting Tube:
Länge x Breite x Höhe:	1.95 x 2.26 x 2.54 m	Width x Length x Height:
Gewicht:	11 kg	Weight:





Frequency	Gain (Iso.) Farfield	Ant.-Fact k Farfield	gi 3m Tip	k 3 m Tip	gi 1 m Tip	k 1 m Tip
MHz	dBi	dB/m	dBi	dB/m	dBi	dB/m
50.0	-2.54	6.74	-6.72	10.92	-11.65	15.85
51.0	-1.72	6.09	-5.90	10.27	-10.83	15.20
52.0	-0.60	5.14	-4.78	9.32	-9.71	14.25
53.0	0.37	4.34	-3.81	8.52	-8.74	13.45
54.0	1.18	3.69	-3.00	7.87	-7.93	12.80
55.0	1.81	3.22	-2.37	7.40	-7.30	12.33
56.0	2.50	2.68	-1.68	6.87	-6.61	11.80
57.0	3.09	2.25	-1.09	6.43	-6.02	11.36
58.0	3.60	1.89	-0.58	6.07	-5.51	11.00
59.0	4.03	1.61	-0.15	5.79	-5.08	10.72
60.0	4.49	1.29	0.31	5.47	-4.62	10.41
61.0	5.00	0.93	0.82	5.11	-4.11	10.04
62.0	5.47	0.60	1.29	4.78	-3.64	9.71
63.0	5.74	0.47	1.56	4.65	-3.37	9.58
64.0	5.93	0.41	1.75	4.59	-3.18	9.53
65.0	6.19	0.29	2.01	4.47	-2.92	9.40
66.0	6.60	0.01	2.42	4.19	-2.51	9.12
67.0	6.93	-0.19	2.80	3.94	-2.09	8.83
68.0	7.22	-0.35	3.14	3.73	-1.72	8.59
69.0	7.52	-0.52	3.48	3.51	-1.35	8.34
70.0	7.90	-0.78	3.92	3.20	-0.87	7.99
71.0	8.32	-1.07	4.38	2.86	-0.37	7.62
72.0	8.62	-1.25	4.73	2.64	0.01	7.36
73.0	8.73	-1.24	4.88	2.61	0.18	7.30
74.0	8.70	-1.10	4.89	2.71	0.24	7.37
75.0	8.64	-0.92	4.87	2.85	0.24	7.48
76.0	8.65	-0.81	4.93	2.91	0.33	7.50
77.0	8.66	-0.71	4.98	2.97	0.41	7.54
78.0	8.68	-0.62	5.03	3.03	0.50	7.56
79.0	8.76	-0.59	5.15	3.02	0.65	7.53
80.0	8.84	-0.56	5.27	3.01	0.79	7.49
81.0	8.95	-0.56	5.42	2.97	0.97	7.42
82.0	9.02	-0.52	5.53	2.97	1.11	7.38
83.0	9.03	-0.43	5.58	3.03	1.19	7.41
84.0	8.96	-0.25	5.54	3.17	1.18	7.53
85.0	8.87	-0.06	5.48	3.32	1.16	7.65
86.0	8.71	0.20	5.35	3.56	1.05	7.86
87.0	8.56	0.45	5.23	3.78	0.96	8.05
88.0	8.47	0.64	5.18	3.93	0.94	8.17
89.0	8.46	0.75	5.20	4.01	0.98	8.22
90.0	8.48	0.82	5.25	4.05	1.06	8.25
91.0	8.58	0.82	5.38	4.02	1.21	8.19
92.0	8.65	0.85	5.48	4.01	1.34	8.16
93.0	8.77	0.82	5.63	3.96	1.52	8.07
94.0	8.92	0.76	5.81	3.87	1.72	7.96
95.0	9.01	0.76	5.93	3.84	1.87	7.90
96.0	9.07	0.80	6.01	3.85	1.97	7.90
97.0	9.10	0.86	6.07	3.88	2.06	7.90
98.0	9.11	0.93	6.12	3.93	2.12	7.92
99.0	9.13	1.00	6.16	3.98	2.18	7.95
100.0	9.16	1.06	6.22	4.00	2.27	7.95



Frequency	Gain (Iso.) Farfield	Ant.-Fact k Farfield	gi 3m Tip	k 3 m Tip	gi 1 m Tip	k 1 m Tip
MHz	dB	dB/m	dB	dB/m	dB	dB/m
101.0	9.17	1.14	6.25	4.06	2.32	7.98
102.0	9.18	1.21	6.29	4.10	2.39	8.00
103.0	9.16	1.32	6.29	4.19	2.41	8.07
104.0	9.12	1.44	6.27	4.29	2.41	8.15
105.0	9.10	1.54	6.28	4.36	2.45	8.19
106.0	9.06	1.67	6.26	4.46	2.45	8.27
107.0	9.05	1.76	6.27	4.53	2.48	8.33
108.0	9.06	1.83	6.30	4.58	2.53	8.36
109.0	9.08	1.89	6.36	4.61	2.61	8.35
110.0	9.15	1.90	6.45	4.60	2.73	8.32
111.0	9.21	1.92	6.53	4.60	2.83	8.30
112.0	9.23	1.97	6.57	4.63	2.89	8.31
113.0	9.28	2.00	6.64	4.64	2.98	8.30
114.0	9.32	2.04	6.70	4.66	3.06	8.29
115.0	9.32	2.11	6.71	4.72	3.08	8.35
116.0	9.28	2.23	6.69	4.81	3.09	8.42
117.0	9.29	2.29	6.73	4.86	3.14	8.44
118.0	9.29	2.37	6.75	4.91	3.18	8.47
119.0	9.26	2.47	6.74	4.99	3.20	8.53
120.0	9.22	2.58	6.72	5.08	3.20	8.60
125.0	9.11	3.05	6.70	5.46	3.26	8.89
130.0	9.42	3.08	7.10	5.40	3.75	8.74
135.0	9.65	3.18	7.40	5.42	4.14	8.68
140.0	9.65	3.49	7.47	5.67	4.28	8.86
145.0	9.36	4.09	7.25	6.20	4.13	9.31
150.0	9.32	4.42	7.28	6.46	4.24	9.50
155.0	9.47	4.56	7.50	6.53	4.54	9.49
160.0	9.70	4.60	7.78	6.52	4.89	9.41
165.0	9.69	4.88	7.82	6.75	4.98	9.59
170.0	9.35	5.48	7.54	7.29	4.77	10.06
175.0	9.34	5.74	7.58	7.50	4.86	10.22
180.0	9.60	5.73	7.88	7.44	5.22	10.10
185.0	9.75	5.81	8.08	7.48	5.48	10.08
190.0	9.86	5.94	8.23	7.57	5.67	10.13
195.0	9.66	6.36	8.08	7.94	5.58	10.44
200.0	9.28	6.96	7.73	8.51	5.28	10.96
205.0	9.13	7.33	7.62	8.84	5.21	11.24
210.0	9.32	7.34	7.85	8.82	5.49	11.18
215.0	9.52	7.35	8.08	8.79	5.77	11.10
220.0	9.65	7.42	8.24	8.83	5.96	11.11
225.0	9.62	7.64	8.24	9.02	6.01	11.25
230.0	9.48	7.97	8.13	9.33	5.93	11.53
235.0	9.31	8.33	8.00	9.65	5.85	11.80
240.0	9.37	8.45	8.08	9.74	5.96	11.86
245.0	9.46	8.54	8.20	9.81	6.11	11.89
250.0	9.74	8.44	8.50	9.68	6.45	11.73
255.0	9.92	8.43	8.71	9.64	6.69	11.66
260.0	10.07	8.45	8.88	9.64	6.90	11.62
265.0	9.86	8.82	8.70	9.99	6.75	11.93
270.0	9.67	9.18	8.52	10.33	6.59	12.25
275.0	9.51	9.50	8.38	10.62	6.49	12.51
280.0	9.52	9.64	8.42	10.74	6.57	12.60
285.0	9.60	9.72	8.51	10.80	6.68	12.64



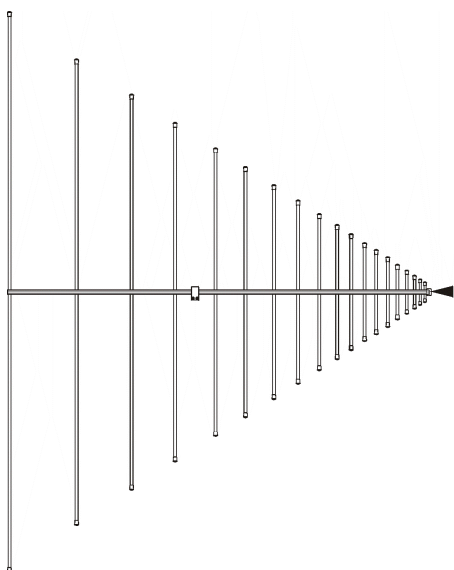
Frequency	Gain (Iso.) Farfield	Ant.-Fact k Farfield	gi 3m Tip	k 3 m Tip	gi 1 m Tip	k 1 m Tip
MHz	dB	dB/m	dB	dB/m	dB	dB/m
290.0	9.68	9.79	8.62	10.85	6.82	12.65
295.0	9.66	9.96	8.61	11.01	6.83	12.79
300.0	9.72	10.04	8.70	11.07	6.95	12.81
310.0	9.76	10.29	8.76	11.28	7.06	12.99
320.0	9.55	10.77	8.59	11.73	6.94	13.38
330.0	9.50	11.09	8.57	12.02	6.96	13.63
340.0	9.57	11.28	8.66	12.19	7.09	13.76
350.0	9.88	11.22	9.01	12.09	7.50	13.60
360.0	9.97	11.38	9.13	12.22	7.66	13.69
370.0	9.75	11.83	8.92	12.66	7.47	14.11
380.0	9.50	12.32	8.70	13.12	7.29	14.53
390.0	9.45	12.59	8.67	13.37	7.31	14.74
400.0	9.49	12.77	8.73	13.53	7.38	14.88
410.0	9.67	12.81	8.93	13.54	7.63	14.85
420.0	9.86	12.82	9.14	13.55	7.85	14.83
430.0	9.84	13.05	9.14	13.74	7.90	14.99
440.0	9.58	13.51	8.90	14.19	7.68	15.41
450.0	9.35	13.93	8.68	14.60	7.48	15.80
460.0	9.26	14.22	8.62	14.86	7.46	16.01
470.0	9.34	14.32	8.71	14.95	7.58	16.08
480.0	9.75	14.09	9.14	14.71	8.02	15.82
490.0	9.98	14.04	9.38	14.65	8.29	15.74
500.0	9.79	14.41	9.20	15.00	8.13	16.07
520.0	9.15	15.39	8.59	15.95	7.57	16.97
540.0	9.01	15.86	8.48	16.39	7.50	17.37
560.0	9.43	15.75	8.91	16.27	7.96	17.23
580.0	9.94	15.55	9.45	16.04	8.54	16.95
600.0	9.74	16.04	9.26	16.52	8.38	17.41
620.0	9.29	16.78	8.84	17.23	8.00	18.07
640.0	9.44	16.90	9.00	17.34	8.19	18.16
660.0	9.85	16.76	9.43	17.18	8.64	17.97
680.0	10.00	16.87	9.59	17.28	8.82	18.05
700.0	9.88	17.24	9.48	17.64	8.74	18.38
720.0	9.65	17.72	9.27	18.10	8.55	18.82
740.0	9.46	18.14	9.09	18.51	8.40	19.21
760.0	9.30	18.54	8.95	18.89	8.28	19.56
780.0	9.17	18.89	8.83	19.23	8.19	19.88
800.0	9.24	19.04	8.91	19.37	8.29	19.99
820.0	9.44	19.06	9.13	19.37	8.53	19.96
840.0	9.38	19.33	9.07	19.64	8.47	20.23
860.0	9.14	19.77	8.84	20.07	8.27	20.64
880.0	9.02	20.09	8.74	20.37	8.19	20.92
900.0	9.11	20.19	8.83	20.48	8.28	21.02
920.0	9.19	20.31	8.92	20.58	8.40	21.09
940.0	9.48	20.20	9.21	20.47	8.69	20.99
960.0	9.70	20.17	9.44	20.42	8.95	20.91
980.0	9.76	20.28	9.50	20.54	9.01	21.03
1000.0	9.68	20.54	9.44	20.78	8.97	21.25
1020.0	9.46	20.93	9.22	21.17	8.75	21.64
1040.0	9.21	21.35	8.98	21.58	8.54	22.02
1060.0	9.01	21.72	8.78	21.94	8.34	22.38
1080.0	8.86	22.03	8.65	22.24	8.23	22.66
1100.0	8.66	22.39	8.45	22.60	8.03	23.02



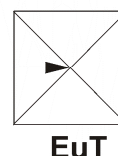
Frequency	Gain (Iso.) Farfield	Ant.-Fact k Farfield	gi 3m Tip	k 3 m Tip	gi 1 m Tip	k 1 m Tip
MHz	dB	dB/m	dB	dB/m	dB	dB/m
1120.0	8.58	22.62	8.38	22.82	7.99	23.21
1140.0	8.53	22.83	8.33	23.03	7.94	23.42
1160.0	8.64	22.87	8.44	23.07	8.05	23.46
1180.0	8.77	22.89	8.58	23.07	8.22	23.43
1200.0	8.98	22.82	8.79	23.01	8.43	23.37
1220.0	9.00	22.95	8.83	23.12	8.49	23.45
1240.0	8.96	23.13	8.79	23.30	8.45	23.63
1260.0	8.89	23.34	8.72	23.51	8.38	23.84
1280.0	9.02	23.34	8.85	23.52	8.51	23.85
1300.0	9.18	23.32	9.02	23.48	8.71	23.78
1320.0	9.36	23.27	9.20	23.43	8.89	23.74
1340.0	9.36	23.40	9.20	23.56	8.89	23.87
1360.0	9.36	23.53	9.22	23.67	8.94	23.95
1380.0	9.35	23.67	9.21	23.81	8.93	24.09
1400.0	9.17	23.97	9.03	24.12	8.75	24.40
1420.0	9.10	24.17	8.96	24.31	8.68	24.59
1440.0	9.04	24.35	8.91	24.48	8.66	24.73
1460.0	9.01	24.50	8.88	24.63	8.63	24.88
1480.0	9.17	24.46	9.04	24.58	8.79	24.84
1500.0	9.22	24.52	9.09	24.65	8.84	24.90
1520.0	9.15	24.71	9.03	24.82	8.81	25.05
1540.0	8.97	25.00	8.85	25.12	8.63	25.34
1560.0	8.81	25.27	8.69	25.39	8.47	25.61
1580.0	8.74	25.45	8.62	25.57	8.40	25.79
1600.0	8.89	25.41	8.77	25.53	8.55	25.75
1620.0	9.00	25.41	8.90	25.51	8.70	25.71
1640.0	9.19	25.33	9.09	25.43	8.89	25.63
1660.0	9.30	25.32	9.20	25.42	9.00	25.62
1680.0	9.29	25.44	9.19	25.54	8.99	25.73
1700.0	9.17	25.66	9.07	25.76	8.87	25.96
1720.0	9.02	25.91	8.92	26.01	8.72	26.21
1740.0	8.76	26.27	8.67	26.36	8.50	26.53
1760.0	8.53	26.60	8.44	26.69	8.27	26.86
1780.0	8.34	26.89	8.25	26.97	8.08	27.15
1800.0	8.34	26.99	8.25	27.07	8.08	27.24
1820.0	8.33	27.09	8.24	27.18	8.07	27.35
1840.0	8.48	27.04	8.39	27.12	8.22	27.29
1860.0	8.62	26.99	8.55	27.06	8.41	27.20
1880.0	8.71	26.99	8.64	27.07	8.50	27.21
1900.0	8.68	27.12	8.61	27.19	8.47	27.33
1920.0	8.70	27.19	8.63	27.26	8.49	27.40
1940.0	8.52	27.46	8.45	27.53	8.31	27.67
1960.0	8.36	27.71	8.29	27.78	8.15	27.92
1980.0	8.11	28.04	8.04	28.12	7.90	28.26
2000.0	7.93	28.31	7.87	28.37	7.76	28.48
2020.0	7.41	28.92	7.35	28.97	7.24	29.09
2040.0	6.84	29.57	6.78	29.63	6.67	29.74
2060.0	6.61	29.89	6.55	29.95	6.44	30.06
2080.0	6.35	30.23	6.29	30.29	6.18	30.40
2100.0	6.41	30.25	6.35	30.31	6.24	30.43
2120.0	6.68	30.07	6.62	30.12	6.51	30.24
2140.0	7.21	29.62	7.15	29.68	7.04	29.79
2160.0	7.42	29.49	7.36	29.55	7.25	29.66



Frequency	Gain (Iso.) Farfield	Ant.-Fact k Farfield	gi 3m Tip	k 3 m Tip	gi 1 m Tip	k 1 m Tip
MHz	dB	dB/m	dB	dB/m	dB	dB/m
2180.0	7.79	29.20	7.75	29.24	7.66	29.33
2200.0	7.92	29.15	7.88	29.19	7.79	29.28
2220.0	8.11	29.04	8.07	29.08	7.98	29.17
2240.0	8.25	28.97	8.21	29.02	8.12	29.10
2260.0	8.35	28.95	8.31	29.00	8.22	29.08
2280.0	8.48	28.90	8.44	28.94	8.35	29.03
2300.0	8.57	28.88	8.53	28.93	8.44	29.01
2320.0	8.65	28.88	8.61	28.92	8.52	29.01
2340.0	8.63	28.97	8.59	29.02	8.50	29.10
2360.0	8.67	29.01	8.63	29.05	8.54	29.14
2380.0	8.58	29.17	8.55	29.20	8.49	29.26
2400.0	8.67	29.15	8.64	29.18	8.58	29.24
2420.0	8.71	29.19	8.68	29.22	8.62	29.27
2440.0	8.73	29.24	8.70	29.27	8.64	29.32
2460.0	8.72	29.32	8.69	29.35	8.63	29.41
2480.0	8.73	29.38	8.70	29.41	8.64	29.47
2500.0	8.52	29.66	8.49	29.69	8.43	29.75
2520.0	8.31	29.94	8.28	29.97	8.22	30.02
2540.0	8.10	30.22	8.07	30.25	8.01	30.30
2560.0	7.88	30.50	7.85	30.53	7.79	30.59
2580.0	7.37	31.08	7.34	31.11	7.28	31.17
2600.0	7.27	31.25	7.24	31.28	7.18	31.34
2620.0	7.08	31.51	7.05	31.53	6.99	31.59
2640.0	6.46	32.19	6.45	32.21	6.42	32.24
2660.0	6.21	32.51	6.20	32.52	6.17	32.55
2680.0	6.05	32.73	6.04	32.75	6.01	32.78
2700.0	5.68	33.17	5.67	33.18	5.64	33.21
2720.0	5.11	33.80	5.10	33.82	5.07	33.84
2740.0	4.78	34.20	4.77	34.21	4.74	34.24
2760.0	4.57	34.47	4.56	34.48	4.53	34.51
2780.0	4.37	34.73	4.36	34.75	4.33	34.77
2800.0	4.34	34.82	4.33	34.84	4.30	34.87
2820.0	3.82	35.40	3.81	35.42	3.78	35.45
2840.0	3.65	35.64	3.64	35.65	3.61	35.68
2860.0	3.27	36.08	3.26	36.09	3.23	36.12
2880.0	2.91	36.50	2.90	36.51	2.87	36.54
2900.0	2.42	37.05	2.41	37.06	2.38	37.09
2920.0	1.87	37.66	1.86	37.67	1.83	37.70
2940.0	0.66	38.93	0.66	38.93	0.66	38.93
2960.0	0.28	39.37	0.28	39.37	0.28	39.37
2980.0	-0.15	39.85	-0.15	39.85	-0.15	39.85
3000.0	-0.60	40.36	-0.60	40.36	-0.60	40.36



D



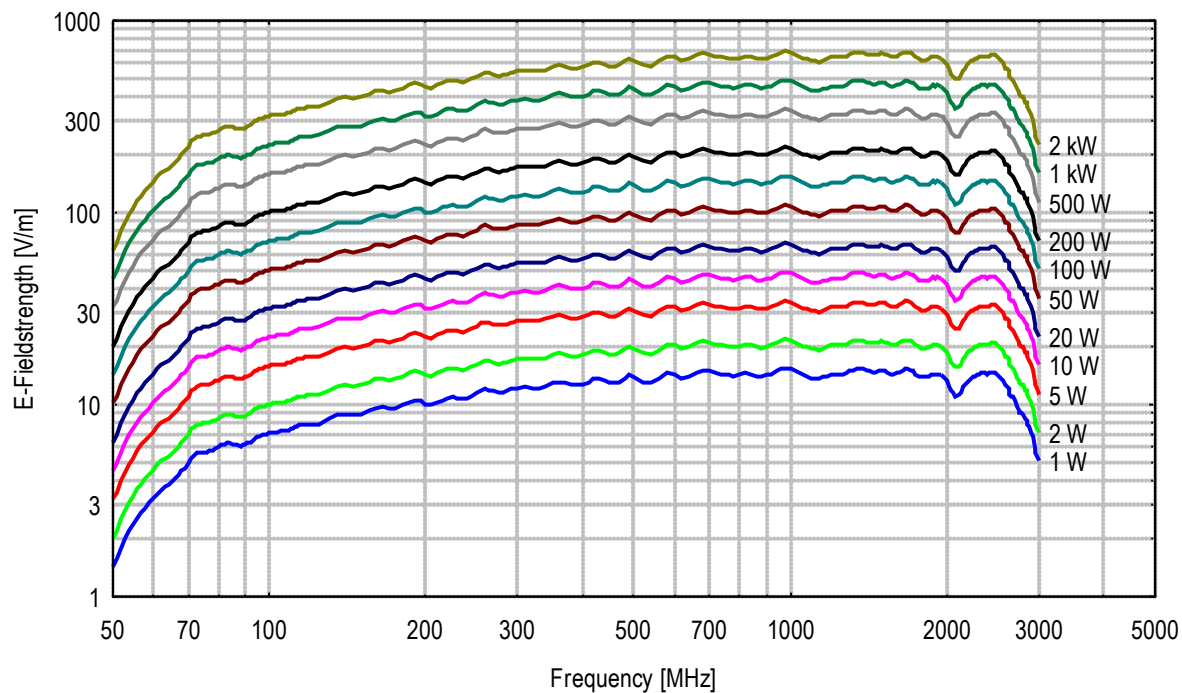
Erzeugung von Feldstärken unter Freiraumbedingungen vor der Spitze der Log.-Per. Antenne (siehe Skizze und Angaben bei den Kurvenscharen). Wenn Anteile von Umgebungsreflexionen vorhanden sind, kann dies zu einer frequenz- und höhenabhängigen Änderung der Feldstärke führen. Die Leistungsangaben beziehen sich auf eine 50Ω Quellimpedanz und unmodulierte Hochfrequenz (CW). Bei 80% Amplitudenmodulation ist die 1.8-fache Spannungsaussteuerung erforderlich, was in einem ca. 3.24-fachen Leistungsbedarf resultiert. Zur Steigerung der Feldstärke um den Faktor 10 ist die 100-fache Verstärkerleistung erforderlich.

Field strength generated under free-space conditions at a separation from the antenna tip (see diagrams for several combinations of power and distance). If environmental reflections are present, this may lead to frequency and height dependent fieldstrengths. The power figures refer to a 50Ω source and an unmodulated (cw) signal. An 80% Amplitude Modulation requires a 1.8 times higher voltage, resulting in 3.24 times higher power compared to cw. A fieldstrength increase of factor 10 requires 100 times amplifier-power.

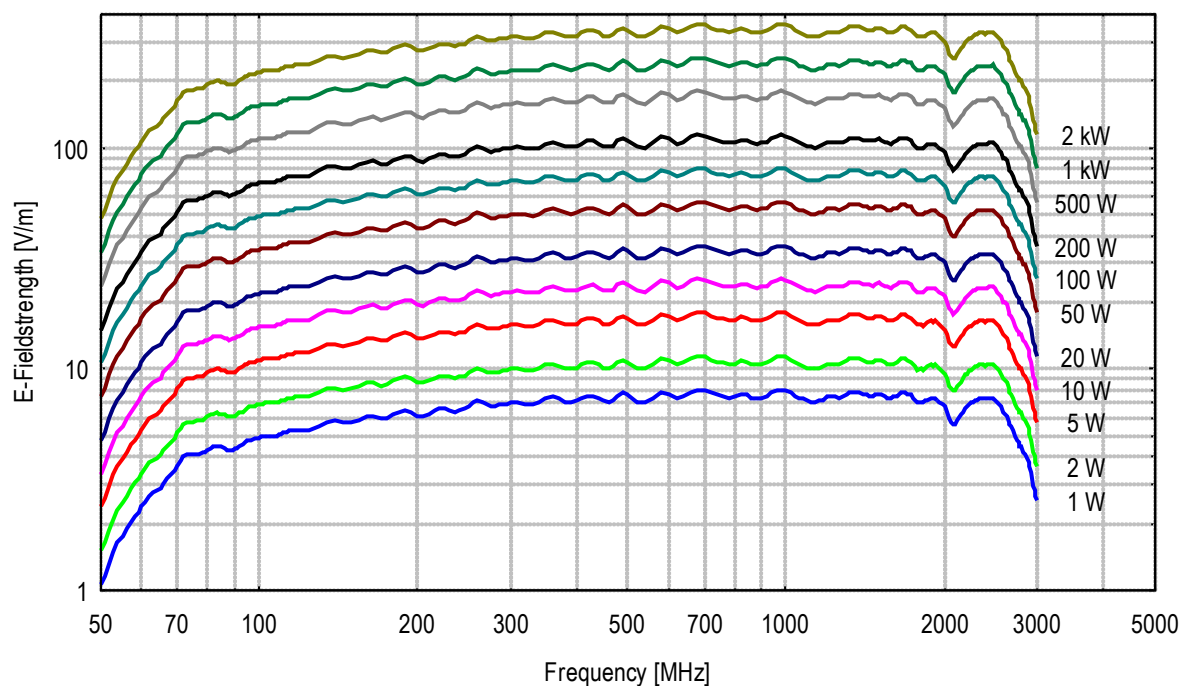


Erzeugte Elektrische Feldstärke vor der Antennenspitze
unmoduliert, Eingangsleistung an N-Buchse, Reflexionsfreie Umgebung
Generated Electrical Fieldstrength in front of Antenna Tip
no modulation, Input Power at N-Connector, Anechoic Environmental Conditions

Distance Tip-EuT: 1 m

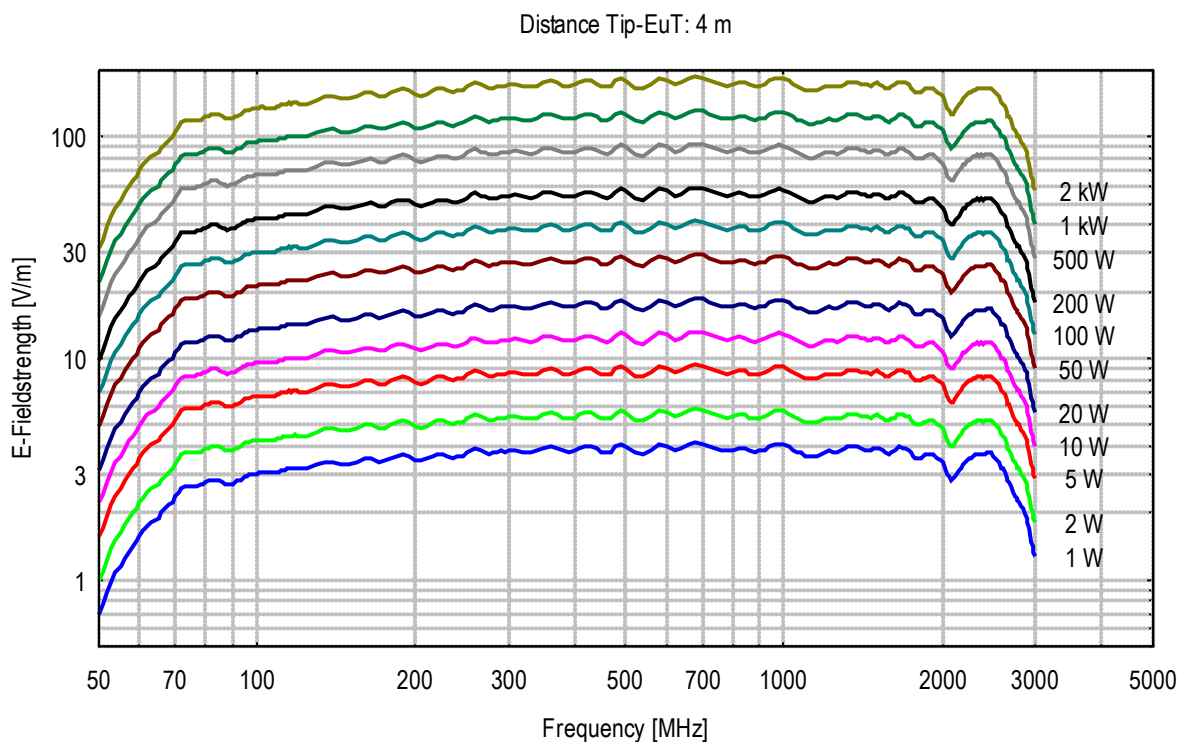
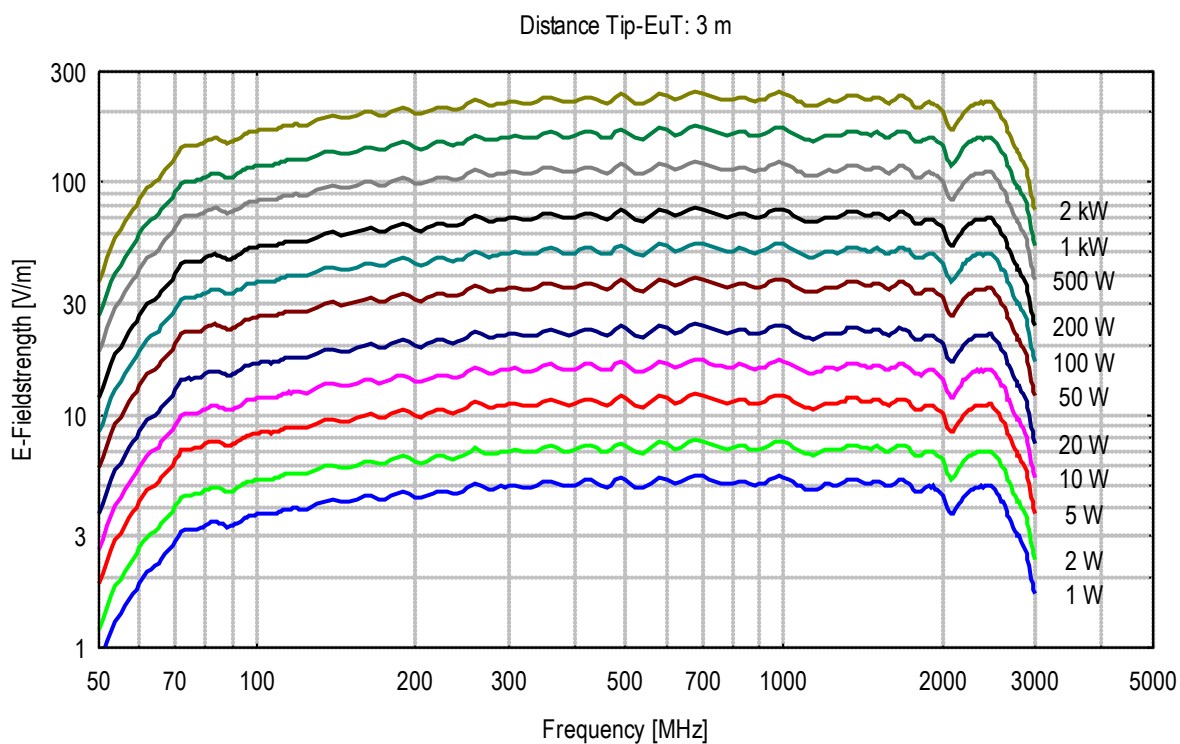


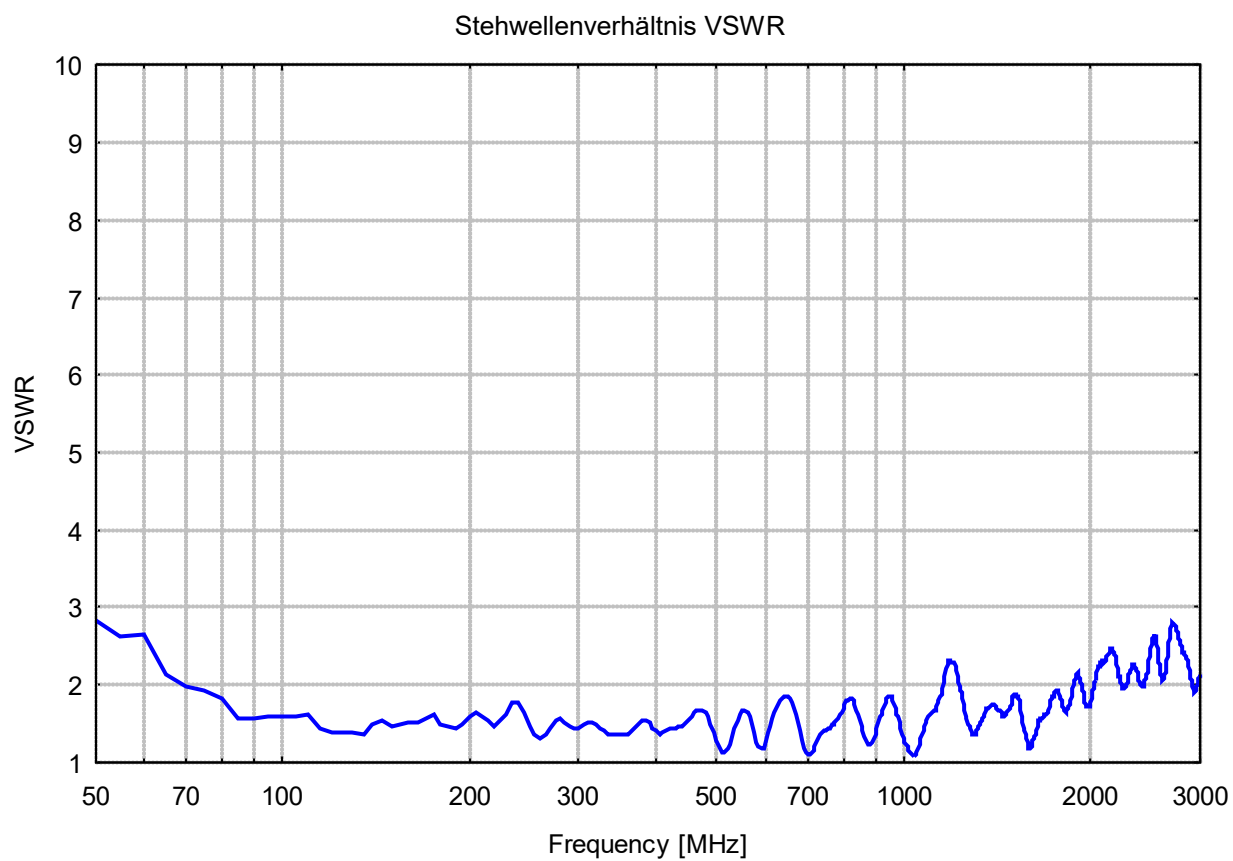
Distance Tip-EuT: 2 m





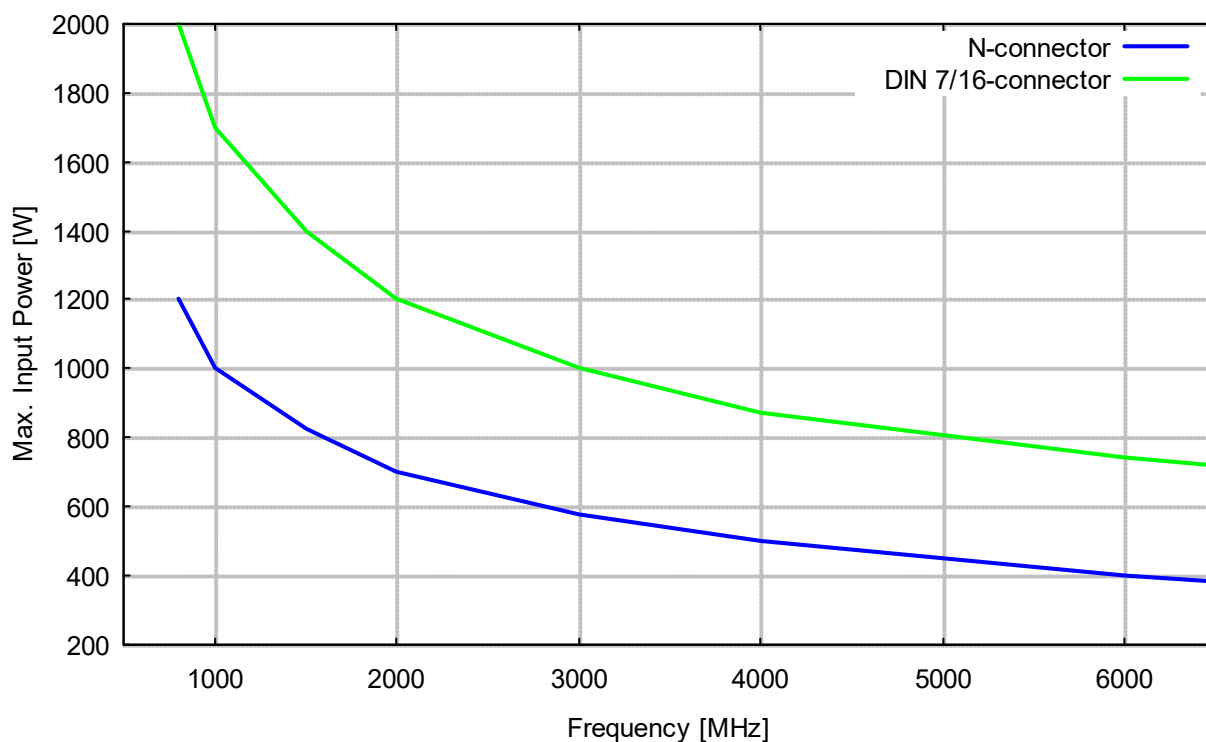
Erzeugte Elektrische Feldstärke vor der Antennenspitze
unmoduliert, Eingangsleistung an N-Buchse, Reflexionsfreie Umgebung
Generated Electrical Fieldstrength in front of Antenna Tip
no modulation, Input Power at N-Connector, Anechoic Environmental Conditions







Maximale Eingangsleistung



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