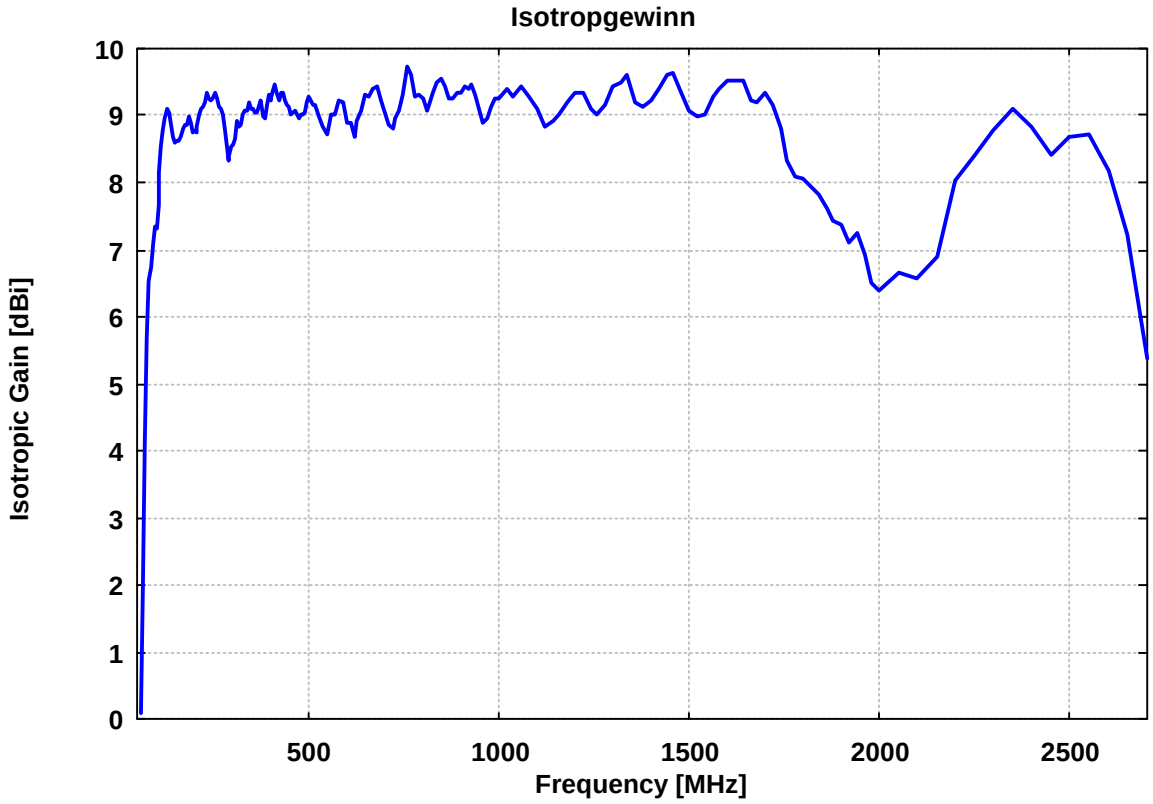
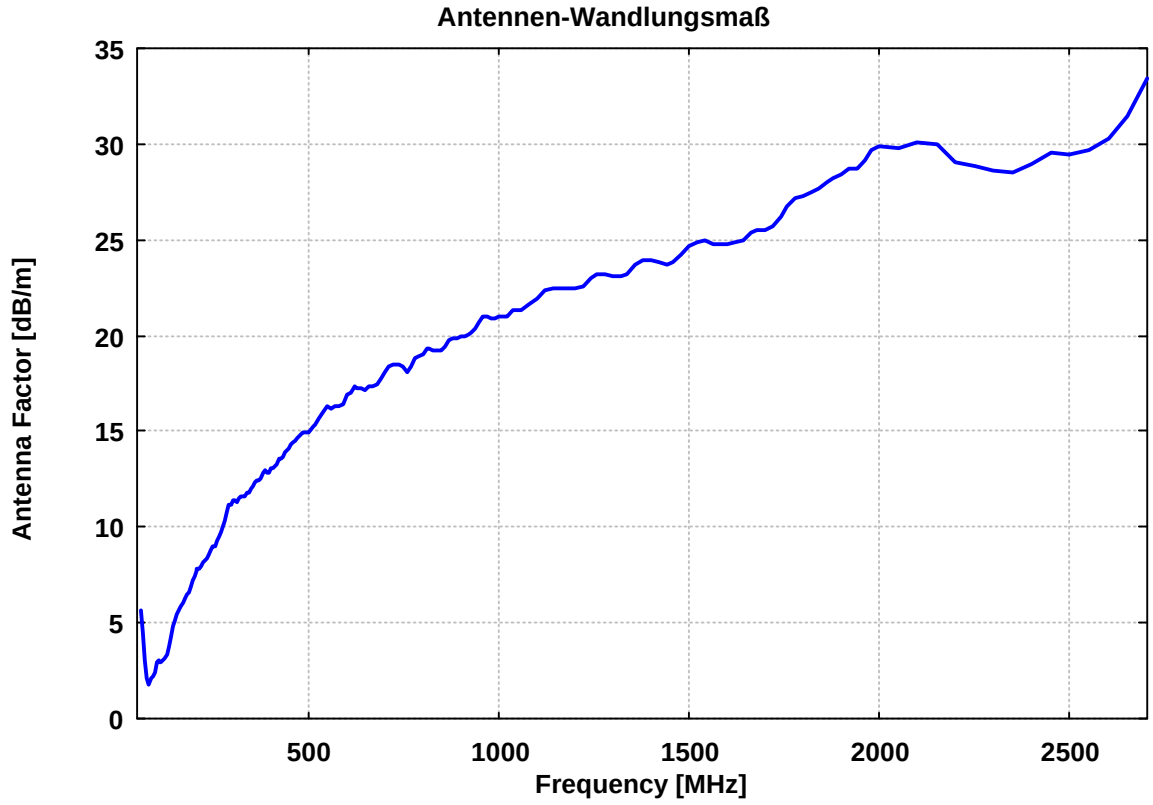
SCHWARZBECK MESS - ELEKTRONIK

An der Klinge 29 D-69250 Schönau Tel.: 06228/1001 Fax.: (49)6228/1003

STLP 9128 E special Gestockte Log. - Per. Antenne mit Elementfaltung

STLP 9128 E special Stacked Log. - Per. Antenna with space saving elements





SCHWARZBECK MESS - ELEKTRONIK

An der Klinge 29 D-69250 Schönau Tel.: 06228/1001 Fax.: (49)6228/1003

STLP 9128 E special Gestockte Log. - Per. Antenne mit Elementfaltung

STLP 9128 E special Stacked Log. - Per. Antenna with space saving elements

Frequency	Distance	Wavelength	Attenuation	Gain(Isotr.)	Gain(Dipole)	Ant.-Factor
Frequenz	Abstand	Wellen-länge	Dämpfung	Isotrop-gewinn	Gewinn über Dipol	Ant.-Wand-lungsmaß
MHz	m	m	dB	dBi	dBd	dB/m
60.00	6.40	5.00	23.95	0.09	-2.06	5.69
65.00	6.40	4.62	20.92	1.95	-0.20	4.53
70.00	6.40	4.29	17.23	4.12	1.97	3.00
75.00	6.40	4.00	14.73	5.67	3.52	2.05
80.00	6.40	3.75	13.53	6.55	4.40	1.73
85.00	6.19	3.53	13.39	6.74	4.59	2.07
90.00	6.01	3.33	12.93	7.09	4.94	2.21
95.00	5.85	3.16	12.68	7.33	5.18	2.44
100.00	5.70	3.00	12.94	7.31	5.16	2.91
105.00	5.57	2.86	12.44	7.67	5.52	2.97
110.00	5.45	2.73	11.69	8.15	6.00	2.90
115.00	5.34	2.61	11.14	8.53	6.38	2.90
120.00	5.24	2.50	10.86	8.77	6.62	3.03
125.00	5.14	2.40	10.66	8.97	6.82	3.19
130.00	5.06	2.31	10.58	9.11	6.96	3.39
135.00	4.98	2.22	10.91	9.04	6.89	3.79
140.00	4.90	2.14	11.45	8.86	6.71	4.28
145.00	4.83	2.07	12.00	8.68	6.53	4.77
150.00	4.77	2.00	12.33	8.60	6.45	5.14
155.00	4.71	1.94	12.45	8.63	6.48	5.40
160.00	4.65	1.88	12.64	8.62	6.47	5.68
165.00	4.60	1.82	12.67	8.69	6.54	5.88
170.00	4.55	1.76	12.59	8.81	6.66	6.02
175.00	4.50	1.71	12.65	8.86	6.71	6.22
180.00	4.46	1.67	12.77	8.88	6.73	6.45
185.00	4.42	1.62	12.73	8.98	6.83	6.58
190.00	4.38	1.58	13.02	8.91	6.76	6.89
195.00	4.34	1.54	13.47	8.76	6.61	7.26
200.00	4.30	1.50	13.60	8.77	6.62	7.47
205.00	4.27	1.46	13.77	8.76	6.61	7.70
210.00	4.24	1.43	13.77	8.83	6.68	7.83
215.00	4.21	1.40	13.57	9.00	6.85	7.87
220.00	4.18	1.36	13.51	9.10	6.95	7.97
225.00	4.15	1.33	13.54	9.15	7.00	8.11
230.00	4.12	1.30	13.58	9.20	7.05	8.25
235.00	4.10	1.28	13.45	9.33	7.18	8.31
240.00	4.07	1.25	13.74	9.25	7.10	8.57
245.00	4.05	1.22	13.95	9.21	7.06	8.79
250.00	4.02	1.20	14.00	9.25	7.10	8.93
255.00	4.00	1.18	13.94	9.34	7.19	9.01
260.00	3.98	1.15	14.22	9.26	7.11	9.26
265.00	3.96	1.13	14.60	9.13	6.98	9.55
270.00	3.94	1.11	14.76	9.11	6.96	9.74
275.00	3.92	1.09	15.10	9.00	6.85	10.01
280.00	3.90	1.07	15.62	8.80	6.65	10.36
285.00	3.89	1.05	16.17	8.58	6.43	10.74
290.00	3.87	1.03	16.79	8.33	6.18	11.14
295.00	3.85	1.02	16.80	8.38	6.23	11.24
MHz	m	m	dB	dBi	dBd	dB/m

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STLP 9128 E special Gestockte Log. - Per. Antenne mit Elementfaltung

STLP 9128 E special Stacked Log. - Per. Antenna with space saving elements

Frequency	Distance	Wavelength	Attenuation	Gain(Isotr.)	Gain(Dipole)	Ant.-Factor
Frequenz	Abstand	Wellen-länge	Dämpfung	Isotrop-gewinn	Gewinn über Dipol	Ant.-Wand-lungsmaß
MHz	m	m	dB	dBi	dBd	dB/m
300.00	3.84	1.00	16.59	8.54	6.39	11.22
305.00	3.82	0.98	16.64	8.57	6.42	11.34
310.00	3.81	0.97	16.58	8.65	6.50	11.40
315.00	3.79	0.95	16.15	8.92	6.77	11.27
320.00	3.78	0.94	16.43	8.83	6.68	11.49
325.00	3.77	0.92	16.44	8.88	6.73	11.58
330.00	3.75	0.91	16.28	9.01	6.86	11.58
335.00	3.74	0.90	16.22	9.09	6.94	11.63
340.00	3.73	0.88	16.32	9.09	6.94	11.76
345.00	3.72	0.87	16.20	9.20	7.05	11.78
350.00	3.71	0.86	16.46	9.12	6.97	11.98
355.00	3.69	0.85	16.56	9.12	6.97	12.10
360.00	3.68	0.83	16.79	9.05	6.90	12.30
365.00	3.67	0.82	16.87	9.06	6.91	12.41
370.00	3.66	0.81	16.78	9.15	7.00	12.43
375.00	3.65	0.80	16.75	9.21	7.06	12.49
380.00	3.64	0.79	17.28	8.99	6.84	12.83
385.00	3.63	0.78	17.42	8.97	6.82	12.96
390.00	3.62	0.77	17.11	9.17	7.02	12.87
395.00	3.61	0.76	16.93	9.30	7.15	12.85
400.00	3.61	0.75	17.14	9.24	7.09	13.02
405.00	3.60	0.74	17.17	9.27	7.12	13.10
410.00	3.59	0.73	17.02	9.39	7.24	13.09
415.00	3.58	0.72	16.96	9.46	7.31	13.12
420.00	3.57	0.71	17.27	9.35	7.20	13.33
425.00	3.56	0.71	17.61	9.22	7.07	13.57
430.00	3.56	0.70	17.47	9.33	7.18	13.56
435.00	3.55	0.69	17.55	9.33	7.18	13.66
440.00	3.54	0.68	17.82	9.24	7.09	13.85
445.00	3.53	0.67	18.06	9.16	7.01	14.03
450.00	3.53	0.67	18.20	9.13	6.98	14.15
455.00	3.52	0.66	18.52	9.01	6.86	14.37
460.00	3.51	0.65	18.51	9.05	6.90	14.43
465.00	3.51	0.65	18.53	9.08	6.93	14.49
470.00	3.50	0.64	18.75	9.01	6.86	14.65
475.00	3.50	0.63	18.91	8.97	6.82	14.78
480.00	3.49	0.63	18.92	9.00	6.85	14.84
485.00	3.48	0.62	18.96	9.02	6.87	14.91
490.00	3.48	0.61	18.95	9.06	6.91	14.96
495.00	3.47	0.61	18.76	9.19	7.04	14.92
500.00	3.47	0.60	18.64	9.29	7.14	14.91
510.00	3.45	0.59	19.02	9.17	7.02	15.20
520.00	3.44	0.58	19.14	9.18	7.03	15.36
530.00	3.43	0.57	19.68	8.98	6.83	15.73
540.00	3.42	0.56	20.10	8.84	6.69	16.03
550.00	3.41	0.55	20.50	8.71	6.56	16.32
560.00	3.41	0.54	20.05	9.00	6.85	16.18
570.00	3.40	0.53	20.16	9.01	6.86	16.33
580.00	3.39	0.52	19.83	9.24	7.09	16.25
MHz	m	m	dB	dBi	dBd	dB/m

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STLP 9128 E special Stacked Log. - Per. Antenna with space saving elements

Frequency	Distance	Wavelength	Attenuation	Gain(Isotr.)	Gain(Dipole)	Ant.-Factor
Frequenz	Abstand	Wellen-länge	Dämpfung	Isotrop-gewinn	Gewinn über Dipol	Ant.-Wand-lungsmaß
MHz	m	m	dB	dBi	dBd	dB/m
590.00	3.38	0.51	20.06	9.19	7.04	16.45
600.00	3.37	0.50	20.76	8.90	6.75	16.88
610.00	3.36	0.49	20.91	8.89	6.74	17.04
620.00	3.36	0.48	21.43	8.69	6.54	17.38
630.00	3.35	0.48	21.07	8.93	6.78	17.28
640.00	3.34	0.47	20.89	9.08	6.93	17.26
650.00	3.34	0.46	20.53	9.32	7.17	17.16
660.00	3.33	0.45	20.72	9.28	7.13	17.33
670.00	3.32	0.45	20.58	9.41	7.26	17.33
680.00	3.32	0.44	20.63	9.44	7.29	17.43
690.00	3.31	0.43	21.16	9.23	7.08	17.77
700.00	3.31	0.43	21.65	9.04	6.89	18.08
710.00	3.30	0.42	22.12	8.86	6.71	18.39
720.00	3.29	0.42	22.31	8.82	6.67	18.55
730.00	3.29	0.41	22.15	8.95	6.80	18.54
740.00	3.28	0.41	21.98	9.09	6.94	18.51
750.00	3.28	0.40	21.62	9.32	7.17	18.40
760.00	3.27	0.39	20.92	9.72	7.57	18.12
770.00	3.27	0.39	21.24	9.61	7.46	18.34
780.00	3.27	0.38	22.00	9.28	7.13	18.78
790.00	3.26	0.38	22.06	9.30	7.15	18.87
800.00	3.26	0.38	22.24	9.26	7.11	19.02
810.00	3.25	0.37	22.67	9.09	6.94	19.30
820.00	3.25	0.37	22.59	9.18	7.03	19.32
830.00	3.24	0.36	22.38	9.33	7.18	19.27
840.00	3.24	0.36	22.14	9.50	7.35	19.21
850.00	3.24	0.35	22.15	9.54	7.39	19.27
860.00	3.23	0.35	22.46	9.43	7.28	19.48
870.00	3.23	0.34	22.91	9.25	7.10	19.76
880.00	3.22	0.34	23.00	9.25	7.10	19.86
890.00	3.22	0.34	22.93	9.33	7.18	19.88
900.00	3.22	0.33	22.98	9.35	7.20	19.95
910.00	3.21	0.33	22.88	9.44	7.29	19.96
920.00	3.21	0.33	23.05	9.40	7.25	20.10
930.00	3.21	0.32	23.01	9.46	7.31	20.13
940.00	3.20	0.32	23.38	9.32	7.17	20.36
950.00	3.20	0.32	23.86	9.12	6.97	20.65
960.00	3.20	0.31	24.38	8.90	6.75	20.97
970.00	3.19	0.31	24.33	8.97	6.82	20.99
980.00	3.19	0.31	24.05	9.15	7.00	20.89
990.00	3.19	0.30	23.91	9.26	7.11	20.87
1000.00	3.19	0.30	23.99	9.26	7.11	20.96
1020.00	3.18	0.29	23.84	9.41	7.26	20.98
1040.00	3.18	0.29	24.26	9.28	7.13	21.28
1060.00	3.17	0.28	24.11	9.43	7.28	21.30
1080.00	3.17	0.28	24.54	9.29	7.14	21.60
1100.00	3.16	0.27	25.05	9.11	6.96	21.94
1120.00	3.16	0.27	25.71	8.85	6.70	22.35
1140.00	3.15	0.26	25.71	8.92	6.77	22.44
MHz	m	m	dB	dBi	dBd	dB/m

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STLP 9128 E special Stacked Log. - Per. Antenna with space saving elements

Frequency	Distance	Wavelength	Attenuation	Gain(Isotr.)	Gain(Dipole)	Ant.-Factor
Frequenz	Abstand	Wellen-länge	Dämpfung	Isotrop-gewinn	Gewinn über Dipol	Ant.-Wand-lungsmaß
MHz	m	m	dB	dBi	dBd	dB/m
1160.00	3.15	0.26	25.63	9.03	6.88	22.48
1180.00	3.14	0.25	25.43	9.20	7.05	22.46
1200.00	3.14	0.25	25.28	9.34	7.19	22.46
1220.00	3.14	0.25	25.38	9.36	7.21	22.59
1240.00	3.13	0.24	25.99	9.12	6.97	22.97
1260.00	3.13	0.24	26.36	9.00	6.85	23.23
1280.00	3.13	0.23	26.16	9.16	7.01	23.20
1300.00	3.12	0.23	25.75	9.43	7.28	23.07
1320.00	3.12	0.23	25.73	9.50	7.35	23.13
1340.00	3.12	0.22	25.61	9.62	7.47	23.14
1360.00	3.11	0.22	26.59	9.19	7.04	23.70
1380.00	3.11	0.22	26.83	9.13	6.98	23.89
1400.00	3.11	0.21	26.79	9.21	7.06	23.93
1420.00	3.10	0.21	26.52	9.40	7.25	23.87
1440.00	3.10	0.21	26.20	9.62	7.47	23.77
1460.00	3.10	0.21	26.25	9.65	7.50	23.86
1480.00	3.10	0.20	26.96	9.35	7.20	24.28
1500.00	3.09	0.20	27.61	9.08	6.93	24.66
1520.00	3.09	0.20	27.90	8.99	6.84	24.87
1540.00	3.09	0.19	27.93	9.03	6.88	24.94
1560.00	3.09	0.19	27.51	9.29	7.14	24.79
1580.00	3.08	0.19	27.38	9.41	7.26	24.78
1600.00	3.08	0.19	27.24	9.53	7.38	24.77
1620.00	3.08	0.19	27.34	9.53	7.38	24.88
1640.00	3.08	0.18	27.48	9.51	7.36	25.01
1660.00	3.08	0.18	28.14	9.23	7.08	25.39
1680.00	3.07	0.18	28.32	9.19	7.04	25.54
1700.00	3.07	0.18	28.12	9.34	7.19	25.49
1720.00	3.07	0.17	28.55	9.17	7.02	25.76
1740.00	3.07	0.17	29.39	8.80	6.65	26.23
1760.00	3.07	0.17	30.40	8.34	6.19	26.79
1780.00	3.06	0.17	30.98	8.10	5.95	27.13
1800.00	3.06	0.17	31.15	8.06	5.91	27.27
1820.00	3.06	0.16	31.46	7.95	5.80	27.47
1840.00	3.06	0.16	31.83	7.81	5.66	27.71
1860.00	3.06	0.16	32.32	7.61	5.46	28.00
1880.00	3.06	0.16	32.75	7.44	5.29	28.26
1900.00	3.05	0.16	32.93	7.39	5.24	28.41
1920.00	3.05	0.16	33.58	7.11	4.96	28.78
1940.00	3.05	0.15	33.41	7.24	5.09	28.74
1960.00	3.05	0.15	34.15	6.91	4.76	29.16
1980.00	3.05	0.15	35.02	6.52	4.37	29.63
2000.00	3.05	0.15	35.34	6.40	4.25	29.84
2050.00	3.04	0.15	35.02	6.66	4.51	29.80
2100.00	3.04	0.14	35.42	6.56	4.41	30.10
2150.00	3.04	0.14	34.96	6.89	4.74	29.98
2200.00	3.03	0.14	32.85	8.04	5.89	29.03
2250.00	3.03	0.13	32.26	8.43	6.28	28.83
2300.00	3.03	0.13	31.72	8.79	6.64	28.66
MHz	m	m	dB	dBi	dBd	dB/m

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Frequency	Distance	Wavelength	Attenuation	Gain(Isotr.)	Gain(Dipole)	Ant.-Factor
Frequenz	Abstand	Wellen-länge	Dämpfung	Isotrop-gewinn	Gewinn über Dipol	Ant.-Wand-lungsmaß
MHz	m	m	dB	dBi	dBd	dB/m
2350.00	3.03	0.13	31.26	9.11	6.96	28.53
2400.00	3.02	0.13	31.96	8.85	6.70	28.97
2450.00	3.02	0.12	32.97	8.43	6.28	29.57
2500.00	3.02	0.12	32.64	8.68	6.53	29.50
2550.00	3.02	0.12	32.74	8.71	6.56	29.64
2600.00	3.01	0.12	33.97	8.18	6.03	30.34
2650.00	3.01	0.11	36.06	7.21	5.06	31.47
2700.00	3.01	0.11	39.88	5.38	3.23	33.47

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Erzeugung definierter Feldstärken

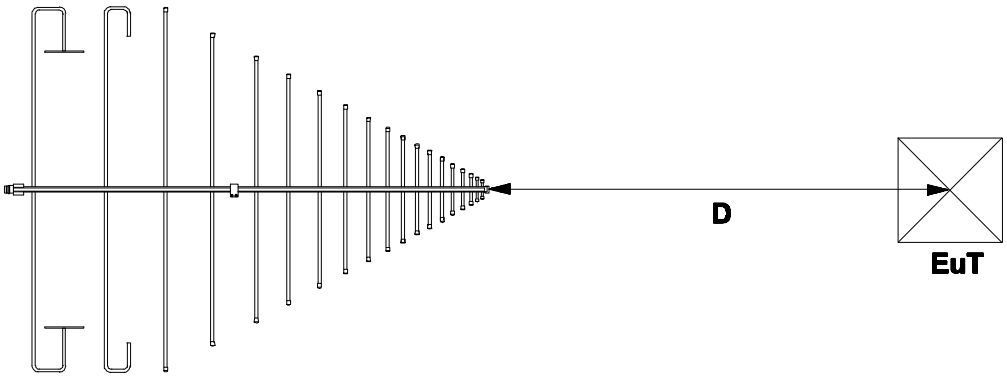
Generating defined Fieldstrength

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 50 Ω 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 50 W 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.

Bei der Erzeugung von hohen Feldstärken müssen die relevanten Sicherheitsvorschriften und Normen beachtet werden! Missachtung dieser Vorschriften kann zu Schädigungen der Gesundheit führen!

The safety precautions and relevant standards must be considered while performing tests with high fieldstrength! Ignoring these standards and precautions may result in severe danger for health!



Modulation (AM)	50 %	60 %	70 %	80 %	90 %	95%	*Modulation (AM)*
Leistungsfaktor	2.25	2.56	2.89	3.24	3.61	3.8	*Power Factor*
Zusätzlicher Leistungsbedarf [dB]	+3.5	+4.1	+4.6	+5.1	+5.6	+5.8	*Additional Power Requirement [dB]*

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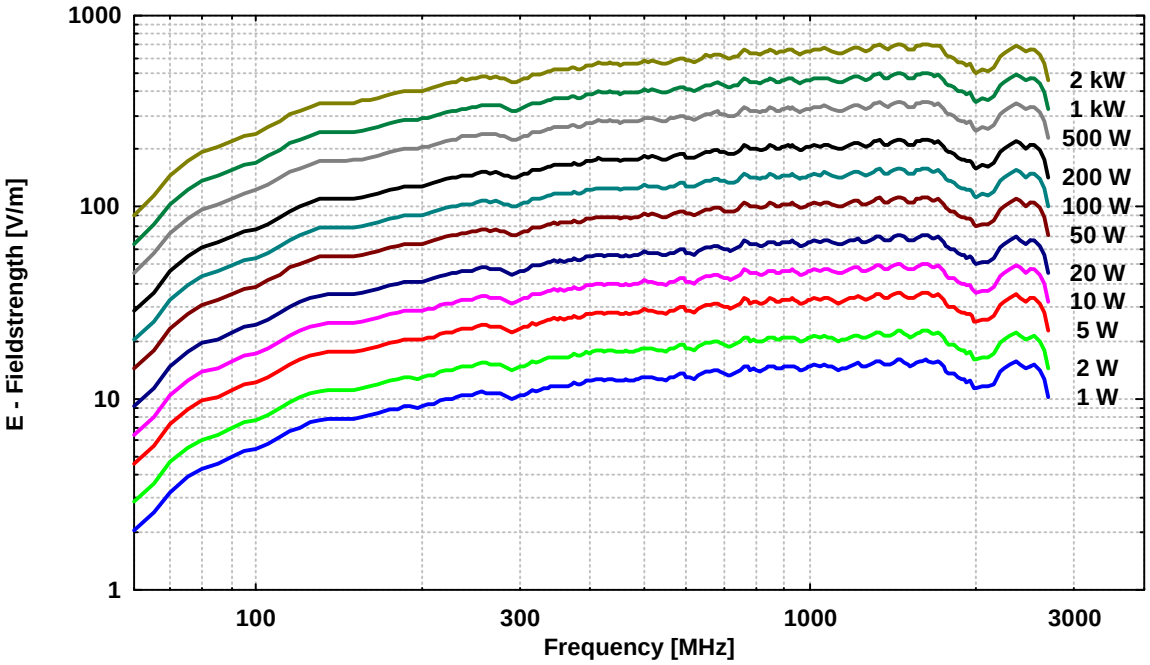
An der Klinge 29 D-69250 Schönau Tel.: 06228/1001 Fax.: (49)6228/1003

STLP 9128 E special Gestockte Log. - Per. Antenne mit Elementfaltung

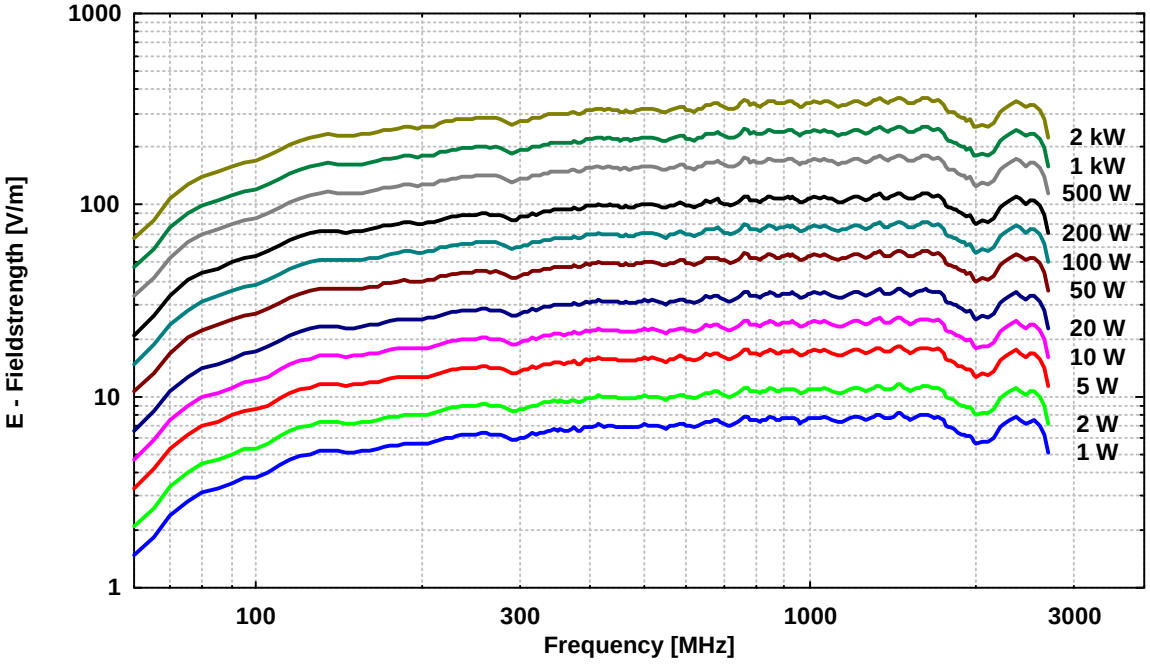
STLP 9128 E special Stacked Log. - Per. Antenna with space saving elements

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

STLP 9128 E special Erzeugte Feldstärke in 1 m Abstand Spitze - Prüfling
STLP 9128 E special 1 m Distance Tip-EuT



STLP 9128 E special Erzeugte Feldstärke in 2 m Abstand Spitze - Prüfling
STLP 9128 E special 2 m Distance Tip-EuT



SCHWARZBECK MESS - ELEKTRONIK

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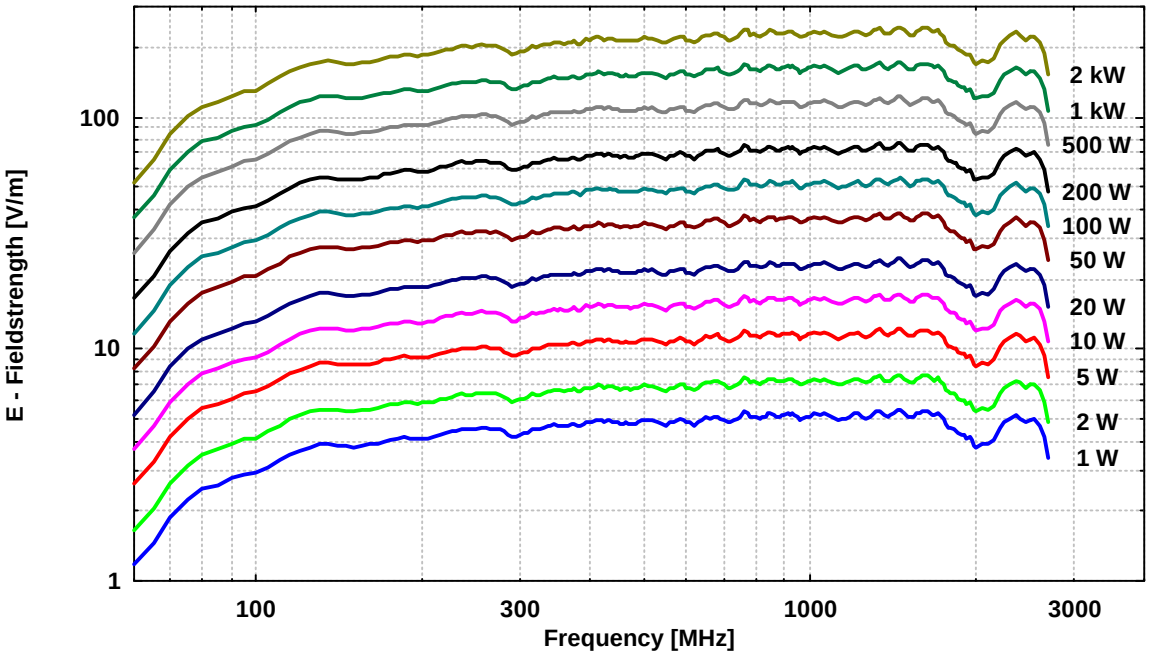
STLP 9128 E special Gestockte Log. - Per. Antenne mit Elementfaltung

STLP 9128 E special Stacked Log. - Per. Antenna with space saving elements

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

STLP 9128 E special Erzeugte Feldstärke in 3 m Abstand Spitze - Prüfling
STLP 9128 E special 3 m Distance Tip-EuT



STLP 9128 E special Erzeugte Feldstärke in 4 m Abstand Spitze - Prüfling
STLP 9128 E special 4 m Distance Tip-EuT