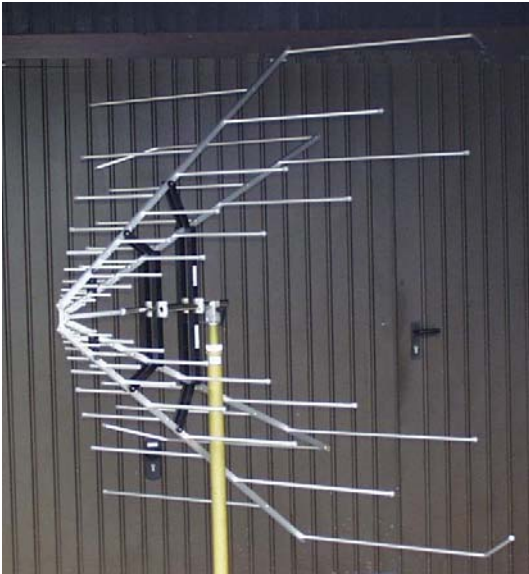


SCHWARZBECK MESS - ELEKTRONIK

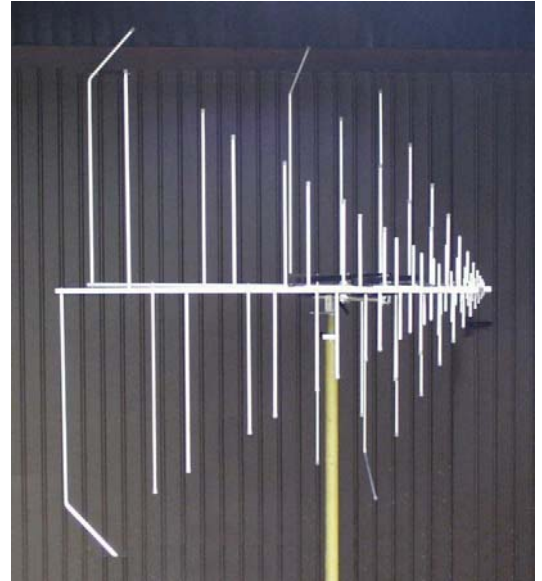
An der Klinge 29 D-69250 Schönau Tel.: 06228/1001 Fax.: (49)6228/1003

STLP 9128 D Gestockte Breitband Log. - Per. Antenne 80 - 3000 MHz STLP 9128 D Stacked Log. - Per. Antenna 80-3000 (4000) MHz



Beschreibung

Die gestockte Logarithmisch Periodische Breitbandantenne besteht aus zwei übereinander angeordneten logarithmisch-periodischen Strukturen. Die hervorragenden Eigenschaften (breitbandig sehr gute Anpassung, gleichmäßiger Gewinn über den gesamten Frequenzbereich) der Logarithmisch Periodischen Antennen bleiben dabei voll erhalten. Durch die gestockte Anordnung wird das Richtdiagramm in der H-Ebene besser gebündelt, was zu einem Gewinnzuwachs von 2.5 dB gegenüber der herkömmlichen LP-Antenne führt. Dies ist insbesondere bei der Immunitätsprüfung ein wesentlicher Vorteil, wenn maximale Feldstärke bei großer Feldhomogenität erreicht werden soll. Nahezu gleiche Öffnungswinkel in E- und H-Ebene sorgen für optimale "Ausleuchtung" bei minimiertem Einfluss von Umgebungsreflexionen. Darüberhinaus verfügt die STLP 9128 D über eine hervorragende Unterdrückung der kreuzpolarisierten Komponente. Zur Vereinfachung der Handhabung sind optional Schnelltrennstellen erhältlich, die eine werkzeuglose Demontage der hinteren Antennenteile innerhalb von wenigen Sekunden erlauben. Dadurch kann die Antenne in insgesamt fünf Teile zerlegt werden, die leicht transportiert und gelagert werden können.



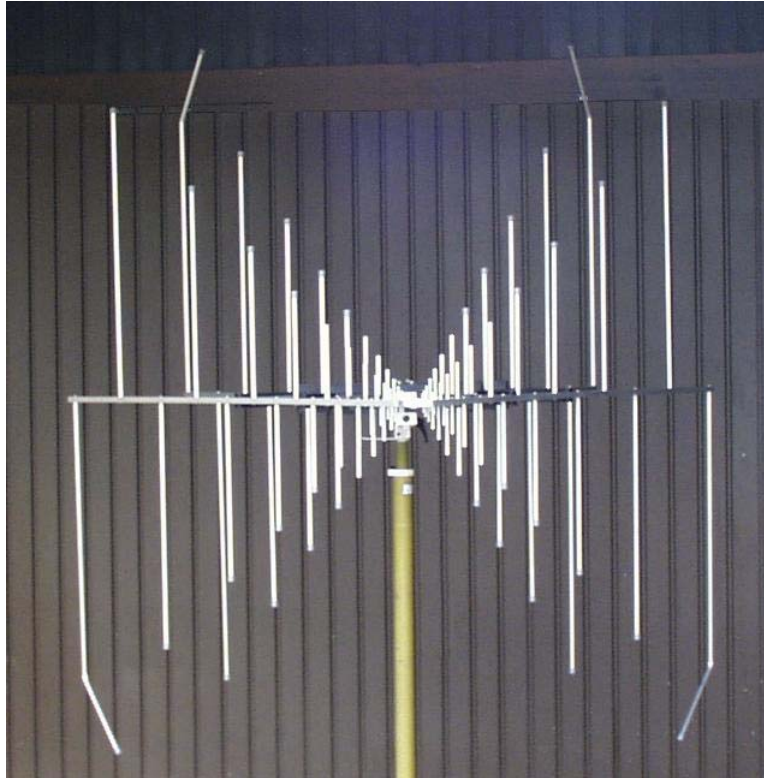
Description

The stacked Logarithmic Periodic Dipole Antenna consists of two ordinary Log.-Per. structures. The excellent characteristics (flat gain over a large bandwidth, low SWR) of the ordinary Log.-Per. designs could be maintained using the stacked LP design. The stacked design helps to focus the directional pattern of the H-plane somewhat, resulting in a typical gain improvement of 2.5 dB compared to an ordinary LP antenna. This is especially important for immunity testing, where a maximum fieldstrength and a good field uniformity is required. The beamwidth in the E-plane and the H-plane are nearly identical, providing an optimised illumination of the EuT with minimised ground reflection influence. Further the cross polar rejection of the STLP 9128 D is excellent. There are optional fastlinks available, which allow to disassemble the rear elements without any need for further tools within a few seconds. These fastlinks divide the antenna into five parts, which can be stored and transported easily.

SCHWARZBECK MESS - ELEKTRONIK

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

STLP 9128 D Gestockte Breitband Log. - Per. Antenne 80 - 3000 MHz STLP 9128 D Stacked Log. - Per. Antenna 80-3000 (4000) MHz



Technische Daten:

Bauart:

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

Frequenzbereich, nominell:

Nutzbarer Frequenzbereich:

Isotropgewinn:

Antennenfaktor:

Impedanz, nominell:

Stehwellenverhältnis SWR typisch:

Vor- Rückverhältnis:

Polarisationsentkopplung:

3 dB Öffnungswinkel typ.(E-Ebene):

3 dB Öffnungswinkel typ.(H-Ebene):

Max. Eingangsleistung (N-Buchse):

Max. Eingangsleistung

(7/16-Buchse):

Halterungsrohr:

Breite x Länge x Höhe
in vertikaler Polarisation:

Gewicht:

STLP 9128 D

80 MHz...3 GHz

65 MHz ... >4 GHz

9 +/- 2 dBi

2 ... 30 dB/m

50 Ω

1.5 (f < 3 GHz)

8 - 22 dB

>30 dB

60°-75°

50°-65°

1.5 kW (intermitt.)

1 kW (cont.)

3 kW (intermitt.)

2 kW (cont.)

d = 22 mm

1850 x 1460 x 2000 mm

8.1 kg

Specifications:

Type:

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.

Nominal frequency range:

Usable frequency range:

Isotropic gain:

Antenna factor:

Nominal impedance:

Standing Wave Ratio SWR typical:

Front to Back Ratio:

Cross polarisation:

3 dB beam width typ. (E-Plane):

3 dB beam width typ. (H-Plane):

Max. input power (N-Connector):

Max. input power (7/16-Connector):

Mounting tube:

Width x length x height
while set to vertical polarisation:

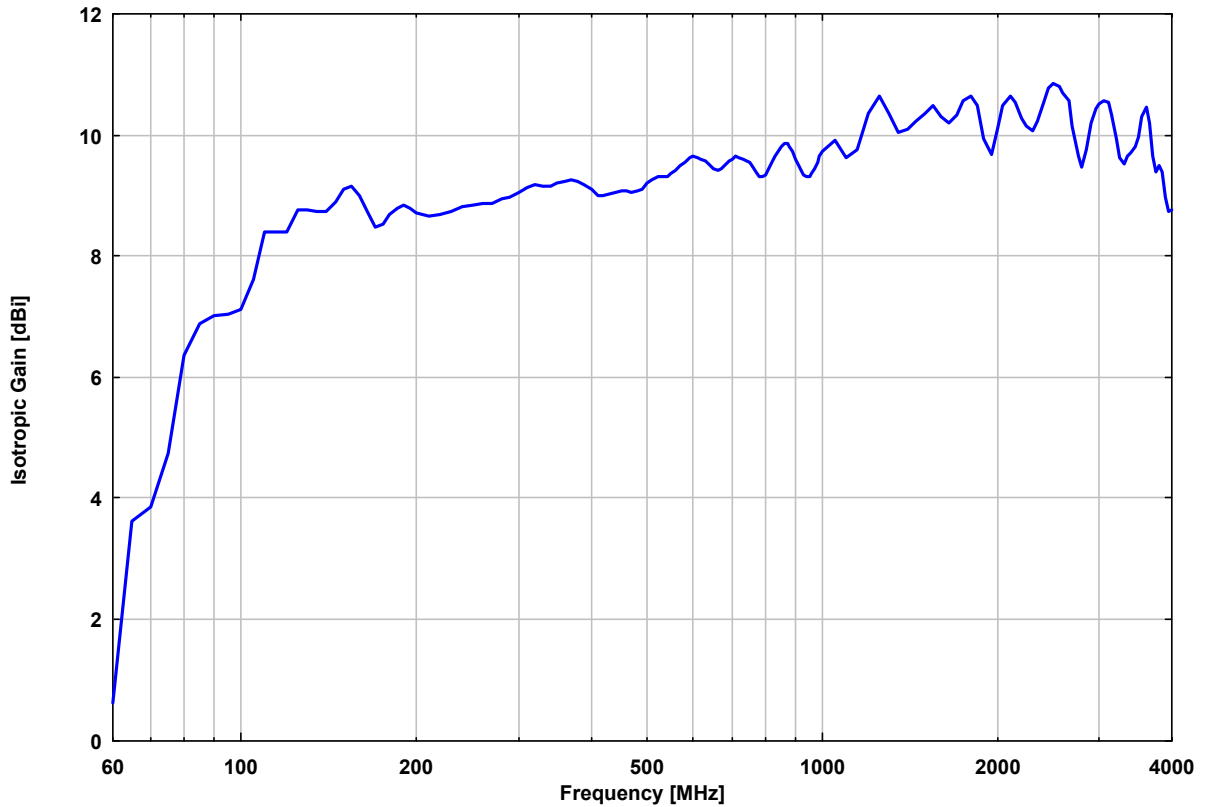
Weight:

SCHWARZBECK MESS - ELEKTRONIK

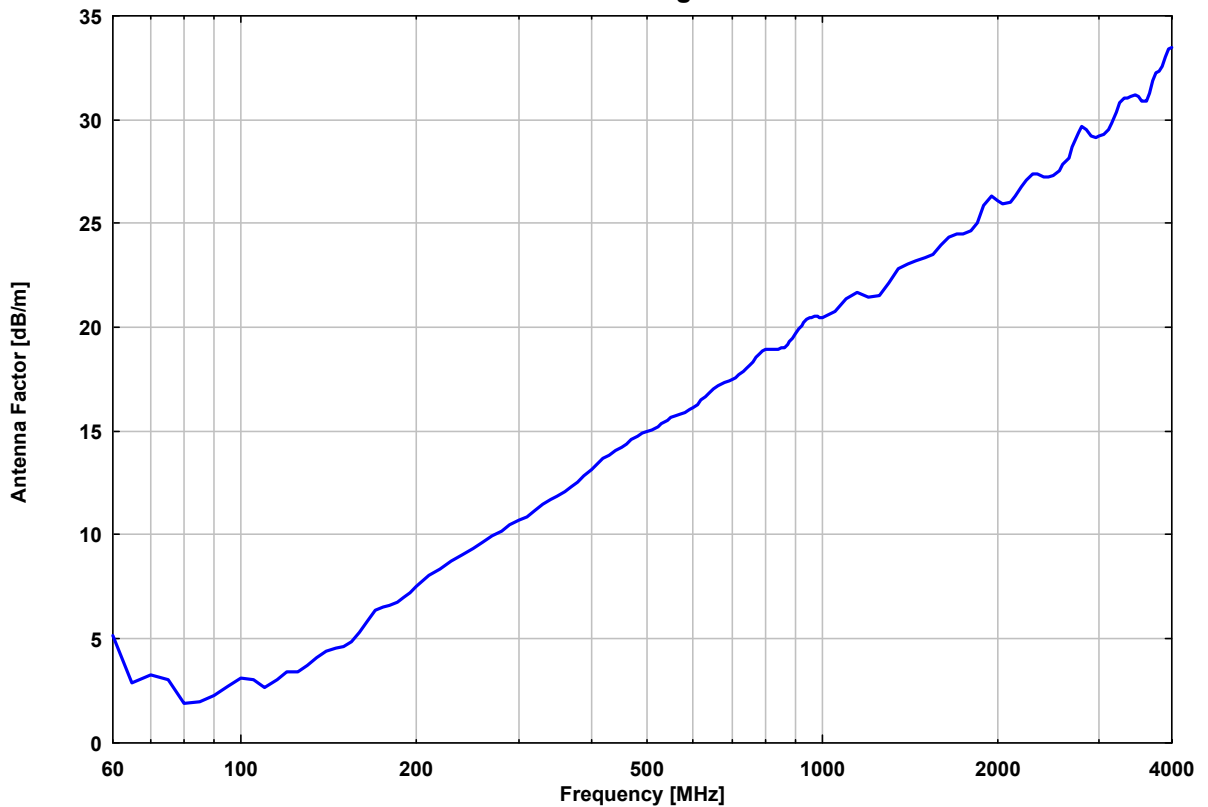
An der Klinge 29 D-69250 Schönau Tel.: 06228/1001 Fax.: (49)6228/1003

STLP 9128 D Gestockte Breitband Log. - Per. Antenne 80 - 3000 MHz
STLP 9128 D Stacked Log. - Per. Antenna 80-3000 (4000) MHz

Isotropgewinn



Antennenwandlungsmaß



SCHWARZBECK MESS - ELEKTRONIK

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

STLP 9128 D Gestockte Breitband Log. - Per. Antenne 80 - 3000 MHz STLP 9128 D Stacked Log. - Per. Antenna 80-3000 (4000) MHz

| Frequency | Distance | Wavelength | Attenuation | Gain(Isotr.) | Gain(Dipole) | Ant.-Factor |
|-----------|----------|------------|-------------|--------------|--------------|-------------|
| MHz | m | m | dB | dBi | dBd | dB/m |
| 60.00 | 3.64 | 5.00 | 17.97 | 0.63 | -1.52 | 5.15 |
| 65.00 | 3.64 | 4.62 | 12.70 | 3.61 | 1.46 | 2.87 |
| 70.00 | 3.64 | 4.29 | 12.87 | 3.85 | 1.70 | 3.27 |
| 75.00 | 3.64 | 4.00 | 11.67 | 4.75 | 2.60 | 2.97 |
| 80.00 | 3.64 | 3.75 | 9.01 | 6.36 | 4.21 | 1.92 |
| 85.00 | 3.48 | 3.53 | 8.11 | 6.88 | 4.73 | 1.93 |
| 90.00 | 3.35 | 3.33 | 7.98 | 7.02 | 4.87 | 2.28 |
| 95.00 | 3.22 | 3.16 | 8.08 | 7.04 | 4.89 | 2.73 |
| 100.00 | 3.11 | 3.00 | 8.06 | 7.12 | 4.97 | 3.10 |
| 105.00 | 3.01 | 2.86 | 7.21 | 7.61 | 5.46 | 3.03 |
| 110.00 | 2.92 | 2.73 | 5.77 | 8.40 | 6.25 | 2.65 |
| 115.00 | 2.83 | 2.61 | 5.90 | 8.40 | 6.25 | 3.03 |
| 120.00 | 2.76 | 2.50 | 6.03 | 8.40 | 6.25 | 3.40 |
| 125.00 | 2.69 | 2.40 | 5.44 | 8.76 | 6.61 | 3.40 |
| 130.00 | 2.62 | 2.31 | 5.53 | 8.78 | 6.63 | 3.72 |
| 135.00 | 2.56 | 2.22 | 5.73 | 8.74 | 6.59 | 4.09 |
| 140.00 | 2.50 | 2.14 | 5.87 | 8.73 | 6.58 | 4.41 |
| 145.00 | 2.45 | 2.07 | 5.68 | 8.89 | 6.74 | 4.56 |
| 150.00 | 2.40 | 2.00 | 5.38 | 9.10 | 6.95 | 4.64 |
| 155.00 | 2.36 | 1.94 | 5.37 | 9.16 | 7.01 | 4.87 |
| 160.00 | 2.31 | 1.88 | 5.79 | 9.01 | 6.86 | 5.29 |
| 165.00 | 2.27 | 1.82 | 6.47 | 8.73 | 6.58 | 5.84 |
| 170.00 | 2.24 | 1.76 | 7.10 | 8.47 | 6.32 | 6.36 |
| 175.00 | 2.20 | 1.71 | 7.11 | 8.52 | 6.37 | 6.56 |
| 180.00 | 2.17 | 1.67 | 6.88 | 8.69 | 6.54 | 6.64 |
| 185.00 | 2.13 | 1.62 | 6.79 | 8.79 | 6.64 | 6.77 |
| 190.00 | 2.10 | 1.58 | 6.80 | 8.84 | 6.69 | 6.96 |
| 195.00 | 2.08 | 1.54 | 6.99 | 8.80 | 6.65 | 7.22 |
| 200.00 | 2.05 | 1.50 | 7.25 | 8.72 | 6.57 | 7.52 |
| 210.00 | 2.00 | 1.43 | 7.60 | 8.65 | 6.50 | 8.01 |
| 220.00 | 1.95 | 1.36 | 7.72 | 8.69 | 6.54 | 8.38 |
| 230.00 | 1.91 | 1.30 | 7.84 | 8.73 | 6.58 | 8.72 |
| 240.00 | 1.87 | 1.25 | 7.85 | 8.82 | 6.67 | 9.00 |
| 250.00 | 1.84 | 1.20 | 8.00 | 8.84 | 6.69 | 9.34 |
| 260.00 | 1.80 | 1.15 | 8.13 | 8.87 | 6.72 | 9.65 |
| 270.00 | 1.77 | 1.11 | 8.29 | 8.88 | 6.73 | 9.97 |
| 280.00 | 1.75 | 1.07 | 8.32 | 8.95 | 6.80 | 10.21 |
| 290.00 | 1.72 | 1.03 | 8.44 | 8.98 | 6.83 | 10.49 |
| 300.00 | 1.70 | 1.00 | 8.45 | 9.06 | 6.91 | 10.70 |
| 310.00 | 1.67 | 0.97 | 8.46 | 9.14 | 6.99 | 10.91 |
| 320.00 | 1.65 | 0.94 | 8.54 | 9.18 | 7.03 | 11.14 |
| 330.00 | 1.63 | 0.91 | 8.76 | 9.15 | 7.00 | 11.44 |
| 340.00 | 1.61 | 0.88 | 8.90 | 9.16 | 7.01 | 11.69 |
| 350.00 | 1.59 | 0.86 | 8.95 | 9.21 | 7.06 | 11.89 |
| 360.00 | 1.58 | 0.83 | 9.05 | 9.24 | 7.09 | 12.11 |
| 370.00 | 1.56 | 0.81 | 9.16 | 9.26 | 7.11 | 12.32 |
| 380.00 | 1.55 | 0.79 | 9.34 | 9.24 | 7.09 | 12.58 |
| 390.00 | 1.53 | 0.77 | 9.59 | 9.19 | 7.04 | 12.85 |
| 400.00 | 1.52 | 0.75 | 9.89 | 9.11 | 6.96 | 13.15 |
| 410.00 | 1.51 | 0.73 | 10.25 | 9.00 | 6.85 | 13.48 |
| 420.00 | 1.49 | 0.71 | 10.39 | 9.00 | 6.85 | 13.68 |

SCHWARZBECK MESS - ELEKTRONIK

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

STLP 9128 D Gestockte Breitband Log. - Per. Antenne 80 - 3000 MHz STLP 9128 D Stacked Log. - Per. Antenna 80-3000 (4000) MHz

| Frequency | Distance | Wavelength | Attenuation | Gain(Isotr.) | Gain(Dipole) | Ant.-Factor |
|-----------|----------|------------|-------------|--------------|--------------|-------------|
| MHz | m | m | dB | dBi | dBd | dB/m |
| 430.00 | 1.48 | 0.70 | 10.46 | 9.03 | 6.88 | 13.86 |
| 440.00 | 1.47 | 0.68 | 10.56 | 9.05 | 6.90 | 14.04 |
| 450.00 | 1.46 | 0.67 | 10.61 | 9.09 | 6.94 | 14.19 |
| 460.00 | 1.45 | 0.65 | 10.74 | 9.09 | 6.94 | 14.39 |
| 470.00 | 1.44 | 0.64 | 10.91 | 9.07 | 6.92 | 14.59 |
| 480.00 | 1.43 | 0.63 | 11.01 | 9.08 | 6.93 | 14.76 |
| 490.00 | 1.42 | 0.61 | 11.06 | 9.12 | 6.97 | 14.90 |
| 500.00 | 1.41 | 0.60 | 11.00 | 9.21 | 7.06 | 14.99 |
| 510.00 | 1.40 | 0.59 | 11.00 | 9.27 | 7.12 | 15.10 |
| 520.00 | 1.40 | 0.58 | 11.04 | 9.31 | 7.16 | 15.23 |
| 530.00 | 1.39 | 0.57 | 11.14 | 9.32 | 7.17 | 15.39 |
| 540.00 | 1.38 | 0.56 | 11.25 | 9.32 | 7.17 | 15.55 |
| 550.00 | 1.37 | 0.55 | 11.27 | 9.37 | 7.22 | 15.66 |
| 560.00 | 1.37 | 0.54 | 11.26 | 9.43 | 7.28 | 15.75 |
| 570.00 | 1.36 | 0.53 | 11.25 | 9.49 | 7.34 | 15.85 |
| 580.00 | 1.35 | 0.52 | 11.24 | 9.55 | 7.40 | 15.94 |
| 590.00 | 1.35 | 0.51 | 11.21 | 9.62 | 7.47 | 16.02 |
| 600.00 | 1.34 | 0.50 | 11.26 | 9.65 | 7.50 | 16.13 |
| 610.00 | 1.34 | 0.49 | 11.40 | 9.63 | 7.48 | 16.30 |
| 620.00 | 1.33 | 0.48 | 11.55 | 9.61 | 7.46 | 16.46 |
| 630.00 | 1.32 | 0.48 | 11.73 | 9.57 | 7.42 | 16.64 |
| 640.00 | 1.32 | 0.47 | 11.93 | 9.52 | 7.37 | 16.82 |
| 650.00 | 1.31 | 0.46 | 12.15 | 9.46 | 7.31 | 17.02 |
| 660.00 | 1.31 | 0.45 | 12.31 | 9.43 | 7.28 | 17.18 |
| 670.00 | 1.30 | 0.45 | 12.37 | 9.45 | 7.30 | 17.29 |
| 680.00 | 1.30 | 0.44 | 12.35 | 9.51 | 7.36 | 17.36 |
| 690.00 | 1.30 | 0.43 | 12.33 | 9.57 | 7.42 | 17.43 |
| 700.00 | 1.29 | 0.43 | 12.34 | 9.61 | 7.46 | 17.51 |
| 710.00 | 1.29 | 0.42 | 12.38 | 9.64 | 7.49 | 17.61 |
| 720.00 | 1.28 | 0.42 | 12.49 | 9.63 | 7.48 | 17.74 |
| 730.00 | 1.28 | 0.41 | 12.64 | 9.60 | 7.45 | 17.89 |
| 740.00 | 1.27 | 0.41 | 12.77 | 9.58 | 7.43 | 18.02 |
| 750.00 | 1.27 | 0.40 | 12.94 | 9.54 | 7.39 | 18.18 |
| 760.00 | 1.27 | 0.39 | 13.17 | 9.47 | 7.32 | 18.37 |
| 770.00 | 1.26 | 0.39 | 13.44 | 9.38 | 7.23 | 18.57 |
| 780.00 | 1.26 | 0.38 | 13.67 | 9.31 | 7.16 | 18.75 |
| 790.00 | 1.26 | 0.38 | 13.76 | 9.31 | 7.16 | 18.86 |
| 800.00 | 1.25 | 0.38 | 13.76 | 9.35 | 7.20 | 18.93 |
| 810.00 | 1.25 | 0.37 | 13.67 | 9.44 | 7.29 | 18.95 |
| 820.00 | 1.25 | 0.37 | 13.55 | 9.54 | 7.39 | 18.96 |
| 830.00 | 1.24 | 0.36 | 13.42 | 9.65 | 7.50 | 18.95 |
| 840.00 | 1.24 | 0.36 | 13.32 | 9.74 | 7.59 | 18.97 |
| 850.00 | 1.24 | 0.35 | 13.24 | 9.82 | 7.67 | 18.99 |
| 860.00 | 1.23 | 0.35 | 13.24 | 9.86 | 7.71 | 19.05 |
| 870.00 | 1.23 | 0.34 | 13.32 | 9.86 | 7.71 | 19.15 |
| 880.00 | 1.23 | 0.34 | 13.52 | 9.80 | 7.65 | 19.31 |
| 890.00 | 1.23 | 0.34 | 13.76 | 9.72 | 7.57 | 19.49 |
| 900.00 | 1.22 | 0.33 | 14.08 | 9.60 | 7.45 | 19.70 |
| 910.00 | 1.22 | 0.33 | 14.38 | 9.49 | 7.34 | 19.91 |
| 920.00 | 1.22 | 0.33 | 14.63 | 9.40 | 7.25 | 20.10 |
| 930.00 | 1.22 | 0.32 | 14.83 | 9.34 | 7.19 | 20.25 |
| 940.00 | 1.21 | 0.32 | 14.97 | 9.31 | 7.16 | 20.37 |

SCHWARZBECK MESS - ELEKTRONIK

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

STLP 9128 D Gestockte Breitband Log. - Per. Antenne 80 - 3000 MHz STLP 9128 D Stacked Log. - Per. Antenna 80-3000 (4000) MHz

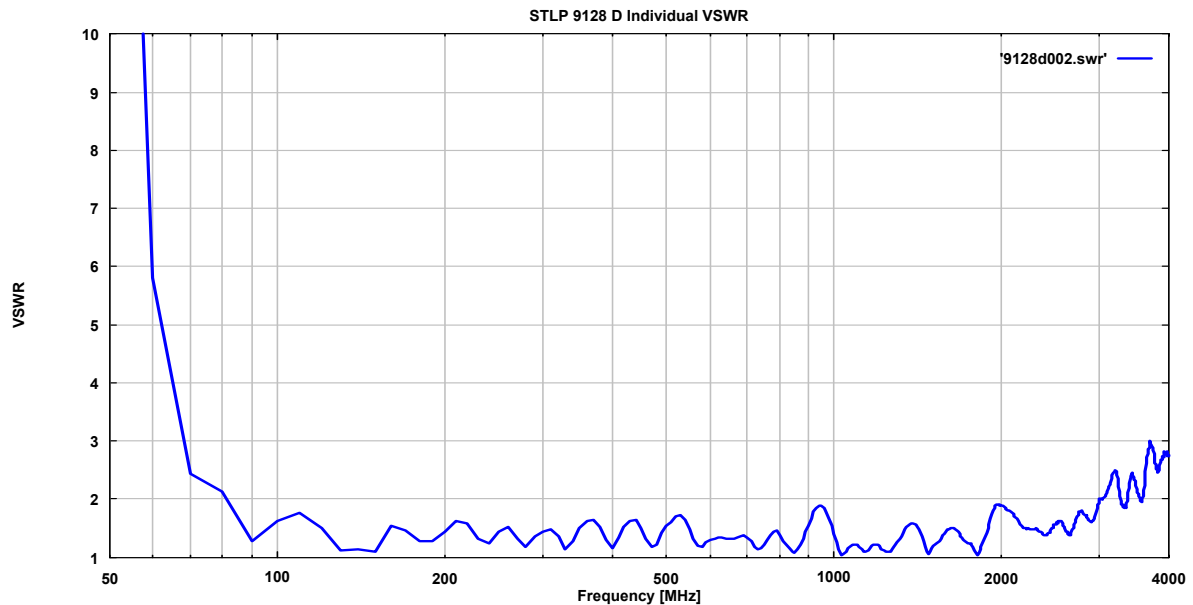
| Frequency | Distance | Wavelength | Attenuation | Gain(Isotr.) | Gain(Dipole) | Ant.-Factor |
|-----------|----------|------------|-------------|--------------|--------------|-------------|
| MHz | m | m | dB | dBi | dBd | dB/m |
| 950.00 | 1.21 | 0.32 | 15.02 | 9.32 | 7.17 | 20.45 |
| 960.00 | 1.21 | 0.31 | 14.99 | 9.37 | 7.22 | 20.50 |
| 970.00 | 1.21 | 0.31 | 14.89 | 9.46 | 7.31 | 20.50 |
| 980.00 | 1.20 | 0.31 | 14.78 | 9.55 | 7.40 | 20.49 |
| 990.00 | 1.20 | 0.30 | 14.65 | 9.65 | 7.50 | 20.48 |
| 1000.00 | 1.20 | 0.30 | 14.57 | 9.73 | 7.58 | 20.49 |
| 1050.00 | 1.19 | 0.29 | 14.56 | 9.91 | 7.76 | 20.73 |
| 1100.00 | 1.18 | 0.27 | 15.45 | 9.63 | 7.48 | 21.42 |
| 1150.00 | 1.17 | 0.26 | 15.52 | 9.76 | 7.61 | 21.67 |
| 1200.00 | 1.16 | 0.25 | 14.63 | 10.36 | 8.21 | 21.44 |
| 1250.00 | 1.16 | 0.24 | 14.35 | 10.65 | 8.50 | 21.51 |
| 1300.00 | 1.15 | 0.23 | 15.22 | 10.36 | 8.21 | 22.14 |
| 1350.00 | 1.14 | 0.22 | 16.12 | 10.05 | 7.90 | 22.78 |
| 1400.00 | 1.14 | 0.21 | 16.32 | 10.09 | 7.94 | 23.05 |
| 1450.00 | 1.13 | 0.21 | 16.32 | 10.22 | 8.07 | 23.23 |
| 1500.00 | 1.13 | 0.20 | 16.30 | 10.36 | 8.21 | 23.38 |
| 1550.00 | 1.12 | 0.19 | 16.31 | 10.48 | 8.33 | 23.55 |
| 1600.00 | 1.12 | 0.19 | 16.87 | 10.32 | 8.17 | 23.98 |
| 1650.00 | 1.12 | 0.18 | 17.35 | 10.20 | 8.05 | 24.37 |
| 1700.00 | 1.11 | 0.18 | 17.32 | 10.33 | 8.18 | 24.50 |
| 1750.00 | 1.11 | 0.17 | 17.08 | 10.56 | 8.41 | 24.52 |
| 1800.00 | 1.11 | 0.17 | 17.10 | 10.66 | 8.51 | 24.67 |
| 1850.00 | 1.10 | 0.16 | 17.63 | 10.50 | 8.35 | 25.06 |
| 1900.00 | 1.10 | 0.16 | 18.98 | 9.93 | 7.78 | 25.87 |
| 1950.00 | 1.10 | 0.15 | 19.66 | 9.69 | 7.54 | 26.33 |
| 2000.00 | 1.09 | 0.15 | 18.98 | 10.13 | 7.98 | 26.11 |
| 2050.00 | 1.09 | 0.15 | 18.44 | 10.50 | 8.35 | 25.96 |
| 2100.00 | 1.09 | 0.14 | 18.35 | 10.64 | 8.49 | 26.02 |
| 2150.00 | 1.09 | 0.14 | 18.75 | 10.53 | 8.38 | 26.34 |
| 2200.00 | 1.08 | 0.14 | 19.41 | 10.29 | 8.14 | 26.78 |
| 2250.00 | 1.08 | 0.13 | 19.87 | 10.15 | 8.00 | 27.11 |
| 2300.00 | 1.08 | 0.13 | 20.19 | 10.08 | 7.93 | 27.37 |
| 2350.00 | 1.08 | 0.13 | 20.04 | 10.24 | 8.09 | 27.40 |
| 2400.00 | 1.08 | 0.13 | 19.58 | 10.55 | 8.40 | 27.27 |
| 2450.00 | 1.07 | 0.12 | 19.29 | 10.78 | 8.63 | 27.22 |
| 2500.00 | 1.07 | 0.12 | 19.31 | 10.85 | 8.70 | 27.33 |
| 2550.00 | 1.07 | 0.12 | 19.59 | 10.79 | 8.64 | 27.56 |
| 2600.00 | 1.07 | 0.12 | 19.94 | 10.69 | 8.54 | 27.83 |
| 2650.00 | 1.07 | 0.11 | 20.36 | 10.56 | 8.41 | 28.12 |
| 2700.00 | 1.07 | 0.11 | 21.33 | 10.15 | 8.00 | 28.70 |
| 2750.00 | 1.06 | 0.11 | 22.50 | 9.64 | 7.49 | 29.37 |
| 2800.00 | 1.06 | 0.11 | 22.98 | 9.47 | 7.32 | 29.69 |
| 2850.00 | 1.06 | 0.11 | 22.52 | 9.77 | 7.62 | 29.55 |
| 2900.00 | 1.06 | 0.10 | 21.80 | 10.20 | 8.05 | 29.27 |
| 2950.00 | 1.06 | 0.10 | 21.46 | 10.44 | 8.29 | 29.18 |
| 3000.00 | 1.06 | 0.10 | 21.46 | 10.51 | 8.36 | 29.25 |
| 3050.00 | 1.06 | 0.10 | 21.45 | 10.58 | 8.43 | 29.33 |
| 3100.00 | 1.06 | 0.10 | 21.64 | 10.55 | 8.40 | 29.50 |
| 3150.00 | 1.06 | 0.10 | 22.21 | 10.33 | 8.18 | 29.86 |
| 3200.00 | 1.05 | 0.09 | 23.10 | 9.95 | 7.80 | 30.37 |
| 3250.00 | 1.05 | 0.09 | 23.89 | 9.62 | 7.47 | 30.84 |
| 3300.00 | 1.05 | 0.09 | 24.19 | 9.53 | 7.38 | 31.06 |

SCHWARZBECK MESS - ELEKTRONIK

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

STLP 9128 D Gestockte Breitband Log. - Per. Antenne 80 - 3000 MHz STLP 9128 D Stacked Log. - Per. Antenna 80-3000 (4000) MHz

| Frequency | Distance | Wavelength | Attenuation | Gain(Isotr.) | Gain(Dipole) | Ant.-Factor |
|-----------|----------|------------|-------------|--------------|--------------|-------------|
| MHz | m | m | dB | dBi | dBd | dB/m |
| 3350.00 | 1.05 | 0.09 | 24.06 | 9.66 | 7.51 | 31.06 |
| 3400.00 | 1.05 | 0.09 | 24.08 | 9.71 | 7.56 | 31.14 |
| 3450.00 | 1.05 | 0.09 | 24.02 | 9.80 | 7.65 | 31.18 |
| 3500.00 | 1.05 | 0.09 | 23.77 | 9.98 | 7.83 | 31.12 |
| 3550.00 | 1.05 | 0.08 | 23.25 | 10.30 | 8.15 | 30.92 |
| 3600.00 | 1.05 | 0.08 | 23.04 | 10.46 | 8.31 | 30.89 |
| 3650.00 | 1.05 | 0.08 | 23.68 | 10.20 | 8.05 | 31.27 |
| 3700.00 | 1.05 | 0.08 | 24.89 | 9.65 | 7.50 | 31.93 |
| 3750.00 | 1.04 | 0.08 | 25.50 | 9.40 | 7.25 | 32.30 |
| 3800.00 | 1.04 | 0.08 | 25.39 | 9.51 | 7.36 | 32.31 |
| 3850.00 | 1.04 | 0.08 | 25.74 | 9.39 | 7.24 | 32.54 |
| 3900.00 | 1.04 | 0.08 | 26.68 | 8.97 | 6.82 | 33.07 |
| 3950.00 | 1.04 | 0.08 | 27.27 | 8.73 | 6.58 | 33.42 |
| 4000.00 | 1.04 | 0.08 | 27.27 | 8.78 | 6.63 | 33.48 |
| 4050.00 | 1.04 | 0.07 | 26.89 | 9.02 | 6.87 | 33.35 |
| 4100.00 | 1.04 | 0.07 | 26.61 | 9.21 | 7.06 | 33.27 |
| 4150.00 | 1.04 | 0.07 | 26.31 | 9.41 | 7.26 | 33.17 |
| 4200.00 | 1.04 | 0.07 | 26.09 | 9.57 | 7.42 | 33.11 |



Zwischenschalten eines Dämpfungsgliedes ist zweckmäßig, wenn das angeschlossene Gerät ein hohes Eigen-SWR (z.B. in der 0 dB-Stellung des Eingangsteilers) aufweist. Dann ist diese Dämpfung zum Antennenwandlungsmaß zu addieren bzw. vom Gewinn abzuziehen. Bei Betrieb mit Leistungsverstärkern ist der Einsatz eines Dämpfungsgliedes nicht empfehlenswert.

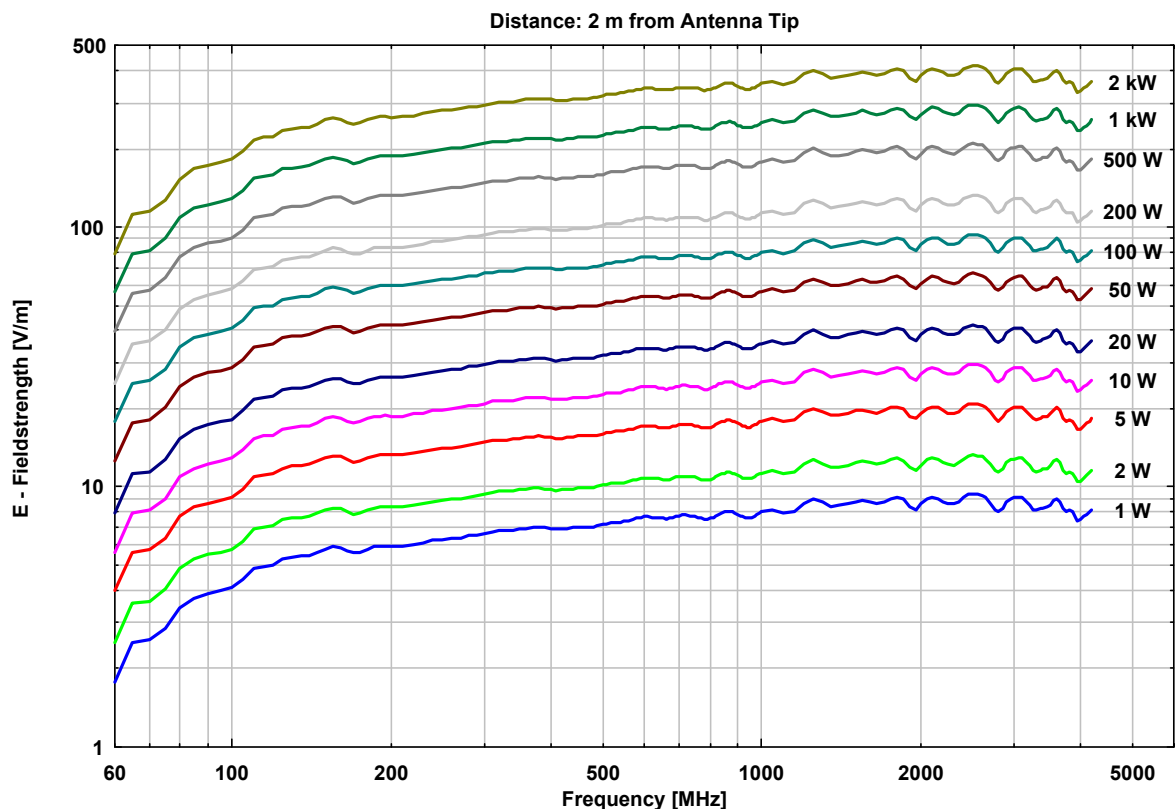
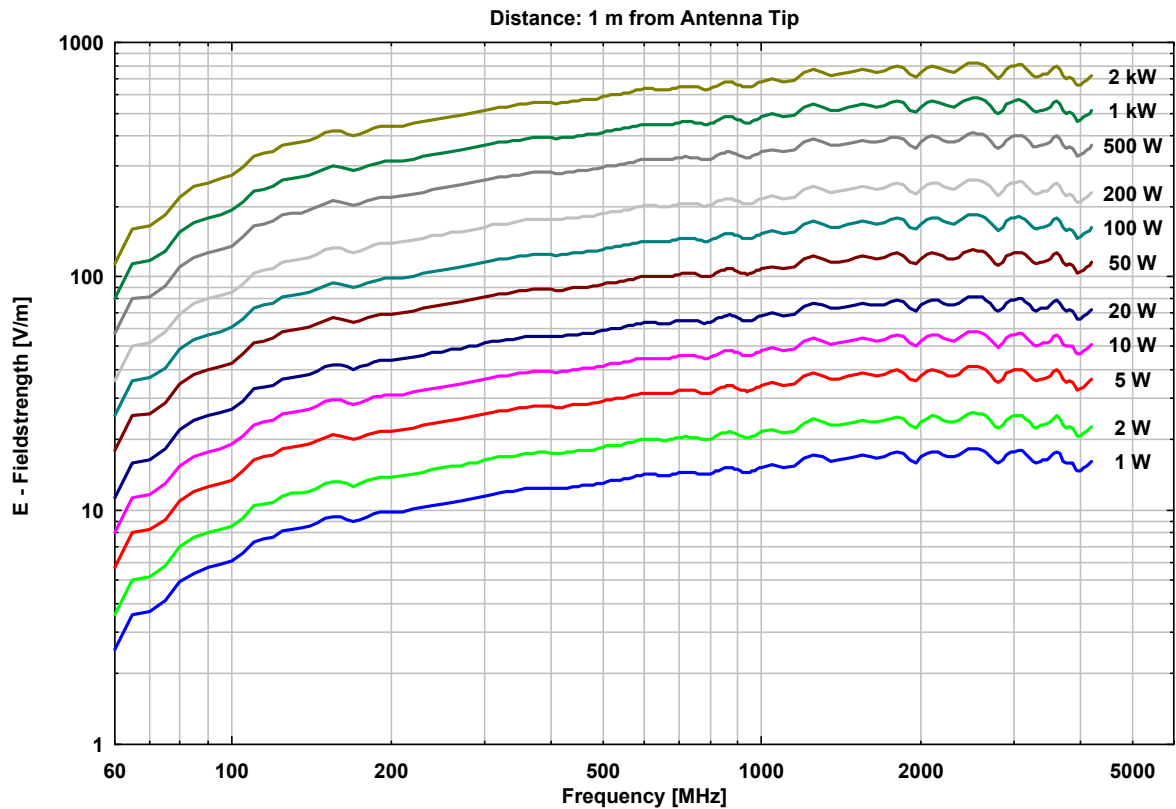
Insertion of attenuator is advisable if the equipment presents a high internal SWR (e.g. in the 0 dB position of an internal step attenuator). In this case the attenuation must be added to the antenna factor (dB/m) or subtracted from the gain (dBi, dBd). For immunity testing with power amplifiers the use of a fixed pad is not recommended.

SCHWARZBECK MESS - ELEKTRONIK

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

STLP 9128 D Gestockte Breitband Log. - Per. Antenne 80 - 3000 MHz STLP 9128 D Stacked Log. - Per. Antenna 80-3000 (4000) MHz

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*

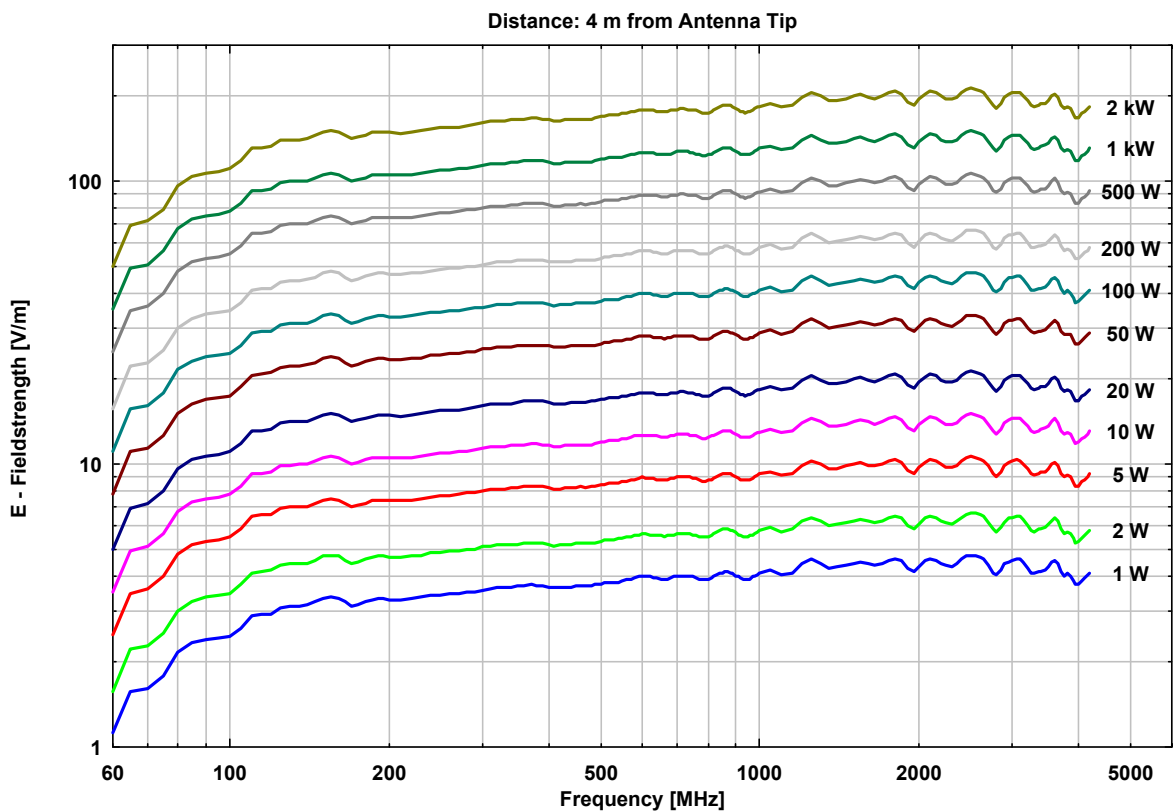
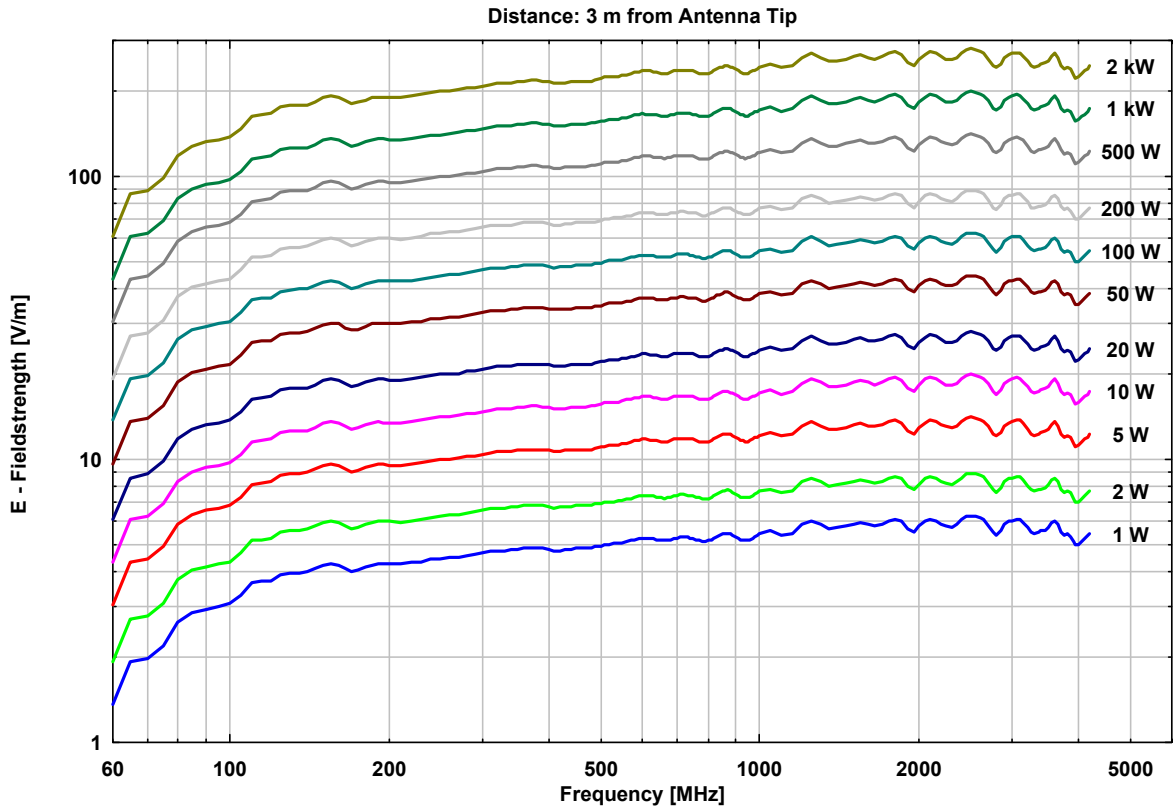


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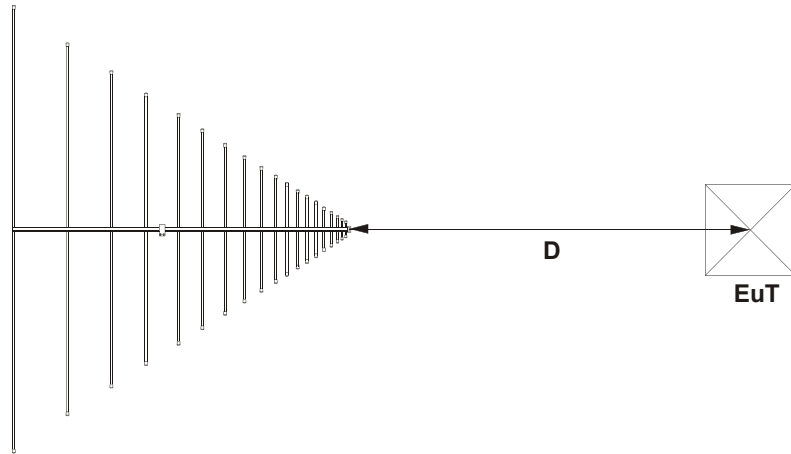
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Erzeugung von Feldstärken unter Freiraumbedingungen vor der Spitze der Log.-Per. Antenne (siehe Skizze und Angaben bei den Kurvenscharen). Wenn Anteile von Umgebungsreflexionen vorhanden sind, kann dies zu einer frequenz- und höhenabhängigen Änderung 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.

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 field strength! 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] |