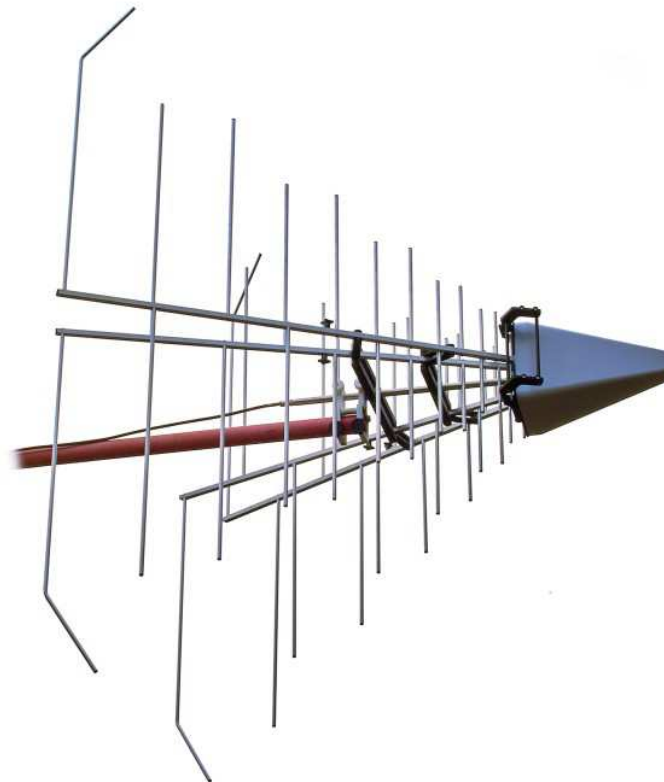


**Gestockte Log.-Per.-Breitband-Antenne**  
**Stacked Log.-Per.-Broadband Antenna**



**Beschreibung:**

Die STLP 9129 ist eine gestockte Log.-Per.-Breitband Antenne für Störfestigkeitsprüfungen im Frequenzbereich von 70 MHz bis 10 GHz.

**Description:**

The STLP 9129 is a stacked Log.-Per.-Broadband-Antenna for immunity testing in the frequency range 70 MHz up to 10 GHz.

| <b>Technische Daten:</b>  |   | <b>Specifications:</b> |
|---------------------------|---|------------------------|
| Frequenzbereich:          | 70 MHz – 10 GHz                                     | Frequency Range:       |
| Polarisation:             | linear  | Polarisation:          |
| Strahlungscharakteristik: | direktional / <i>directional</i>                    | Pattern Type:          |
| Isotropgewinn:            | 8.6 dBi ± 2.3 dB                                    | Isotropic Gain:        |
| Nominelle Impedanz:       | 50 Ω  | Nominal Impedance:     |
| Max. Dauerleistung:       | siehe Diagramm Seite 9<br><i>see diagram page 9</i> | Max.Continuous Power:  |
| VSWR typ.:                | < 2   | VSWR typ.:             |
| Abmessungen:              | 1.69 x 1.64 x 2.02 m                                | Dimensions:            |
| Befestigung:              | 22 mm Rohr / <i>Tube</i>                            | Mounting:              |
| Gewicht:                  | 10.2 kg   | Weight:                |
| Anschluss:                | N , 7/16  | Connector:             |

Die STLP 9129 wurde insbesondere für Störfestigkeitsprüfungen entwickelt, die sich über einen sehr weiten Frequenzbereich erstrecken. Es ist nun mit einer einzigen Antenne möglich, den gesamten Frequenzbereich von 80 MHz bis 10 GHz abzudecken, wobei der Fernfeld-Isotropgewinn von 8.6 dBi lediglich um +/- 2.3 dB schwankt.

Diese bislang unerreichte Bandbreite wurde durch die Kombination der bereits vielfach bewährten Modelle STLP 9128 D und der STLP 9149 erreicht. Wie bei den beiden Grundmodellen konnte auch bei der STLP 9129 das Optimum aus möglichst hohem Gewinn bei gleichzeitig hervorragender Feldhomogenität erzielt werden.

Aus mechanischen Gründen wurde für den Frequenzbereich oberhalb von 1 GHz eine Schutzhaube aus extrem dämpfungsarmem Material eingesetzt, die eine Beschädigung der kleinsten Strahlerelemente an der Antennenspitze wirkungsvoll verhindert.

Die STLP 9129 ist serienmäßig mit Schnelltrennstellen für die niederfrequenten Strahlerelemente ausgestattet, die es erlauben, die Antenne innerhalb von einer Minute in handliches Format zu zerlegen. Wenn der Frequenzbereich von 70-180 MHz nicht benötigt wird, kann die STLP 9129 auch ohne die niederfrequenten Strahlerelemente verwendet werden.

Der Hauptteil der Antenne ist zur Vereinfachung der Handhabung mit Standfüßen aus Gummi ausgestattet.

*The STLP 9129 was especially designed for wideband immunity tests. The unique STLP 9129 is able to cover the entire frequency range from 80 MHz to 10 GHz with a typical isotropic farfield gain of 8.6 dBi with a ripple of less than +/- 2.3 dB only.*

*This unrivalled bandwidth was achieved by combining the both well proven antenna designs STLP 9128 D and the STLP 9149. The STLP 9129 does provide the optimum out of gain and field uniformity at the same time as well as both basic antennas do.*

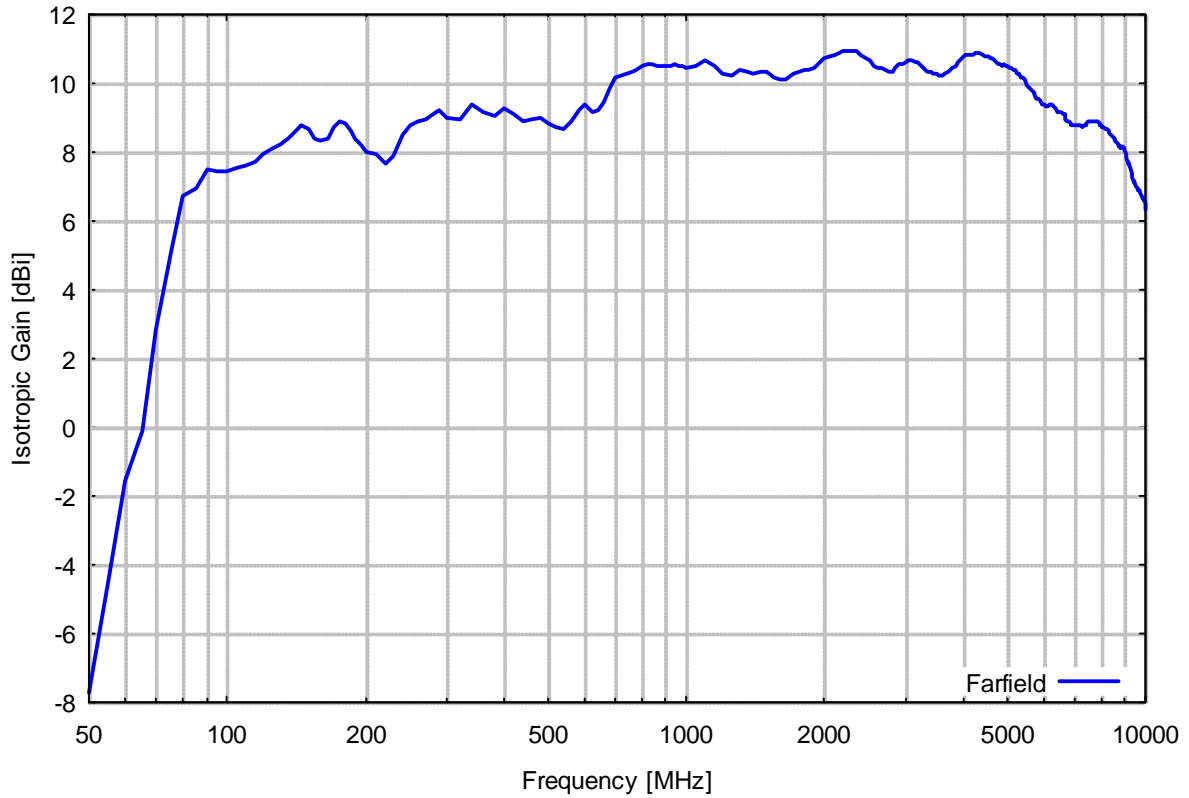
*For mechanical reasons the antenna comes with an ultra-low loss radome cover to protect the radiating elements at the antenna tip.*

*By default, the STLP 9129 is equipped with fast links for the rear radiating elements, which are responsible for the low frequency range between 70 MHz and 180 MHz. These unique fast links allow the quick disassembly of the antenna within less than a minute into five handling-friendly parts. The rear radiating elements can be omitted if there is no need to cover the frequency range from 70 MHz to 180 MHz.*

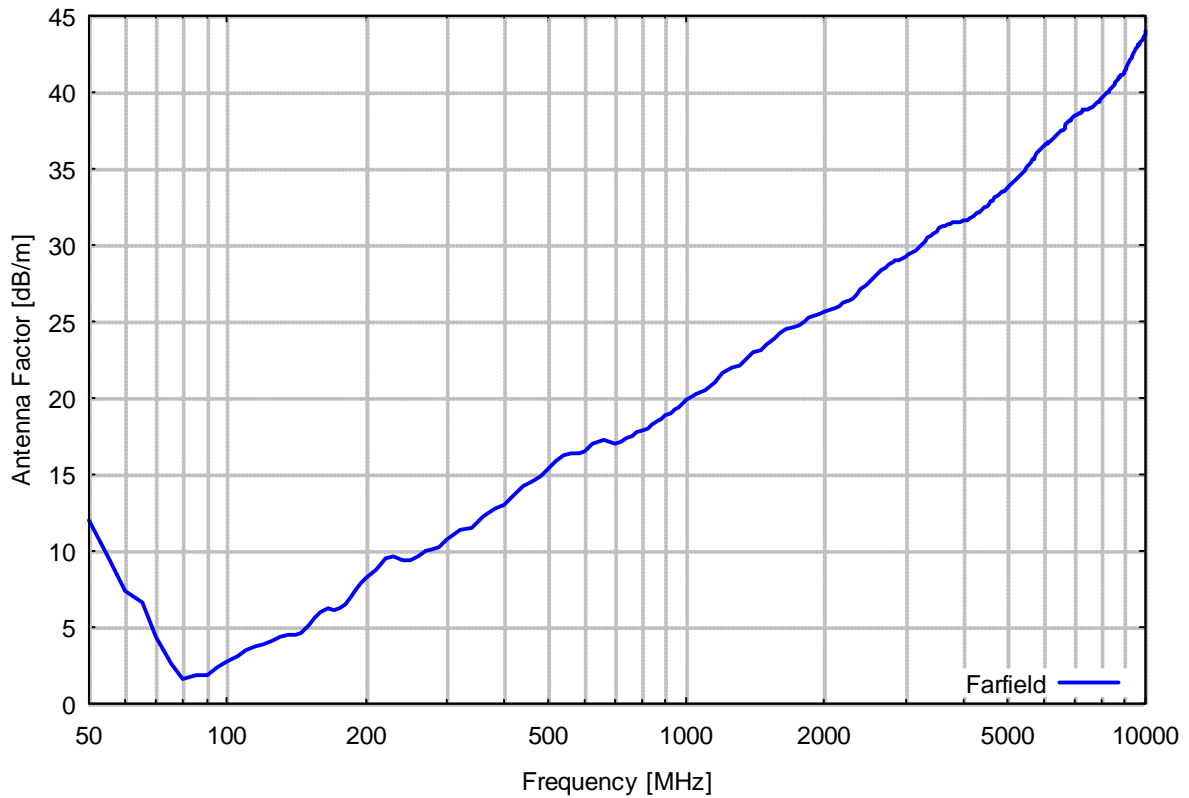
*The antenna main structure comes with support rods on rubber feet for safe placement on the ground when not in use.*



**Isotropgewinn**



**Antennen-Wandlungsmaß**





| Frequency<br>Frequenz | Distance<br>Abstand | Wavelength<br>Wellenlänge | Attenuation<br>Dämpfung | Gain(Isotr.)<br>Isotropgewinn | Ant.-Factor<br>Ant.-Wandlungsmaß |
|-----------------------|---------------------|---------------------------|-------------------------|-------------------------------|----------------------------------|
| MHz                   | m                   | m                         | dB                      | dBi                           | dB/m                             |
| 50.00                 | 4.28                | 6.00                      | 34.56                   | -7.75                         | 11.95                            |
| 55.00                 | 4.28                | 5.45                      | 29.03                   | -4.58                         | 9.60                             |
| 60.00                 | 4.28                | 5.00                      | 23.81                   | -1.59                         | 7.37                             |
| 65.00                 | 4.28                | 4.62                      | 21.54                   | -0.10                         | 6.58                             |
| 70.00                 | 4.28                | 4.29                      | 16.35                   | 2.81                          | 4.31                             |
| 75.00                 | 4.28                | 4.00                      | 12.33                   | 5.12                          | 2.60                             |
| 80.00                 | 4.11                | 3.75                      | 12.05                   | 6.72                          | 1.56                             |
| 85.00                 | 3.97                | 3.53                      | 9.18                    | 6.91                          | 1.90                             |
| 90.00                 | 3.84                | 3.33                      | 8.24                    | 7.48                          | 1.82                             |
| 95.00                 | 3.72                | 3.16                      | 8.58                    | 7.41                          | 2.36                             |
| 100.00                | 3.62                | 3.00                      | 8.71                    | 7.45                          | 2.77                             |
| 105.00                | 3.52                | 2.86                      | 8.70                    | 7.55                          | 3.10                             |
| 110.00                | 3.43                | 2.73                      | 8.79                    | 7.60                          | 3.45                             |
| 115.00                | 3.36                | 2.61                      | 8.77                    | 7.70                          | 3.73                             |
| 120.00                | 3.28                | 2.50                      | 8.47                    | 7.94                          | 3.86                             |
| 125.00                | 3.22                | 2.40                      | 8.38                    | 8.07                          | 4.08                             |
| 130.00                | 3.15                | 2.31                      | 8.33                    | 8.19                          | 4.31                             |
| 135.00                | 3.10                | 2.22                      | 8.11                    | 8.38                          | 4.44                             |
| 140.00                | 3.05                | 2.14                      | 7.82                    | 8.61                          | 4.54                             |
| 145.00                | 3.00                | 2.07                      | 7.65                    | 8.77                          | 4.67                             |
| 150.00                | 2.95                | 2.00                      | 8.05                    | 8.66                          | 5.09                             |
| 155.00                | 2.91                | 1.94                      | 8.78                    | 8.37                          | 5.66                             |
| 160.00                | 2.87                | 1.88                      | 9.05                    | 8.31                          | 5.99                             |
| 165.00                | 2.83                | 1.82                      | 9.05                    | 8.39                          | 6.18                             |
| 170.00                | 2.79                | 1.76                      | 8.62                    | 8.68                          | 6.15                             |
| 175.00                | 2.76                | 1.71                      | 8.40                    | 8.86                          | 6.22                             |
| 180.00                | 2.73                | 1.67                      | 8.65                    | 8.81                          | 6.52                             |
| 185.00                | 2.70                | 1.62                      | 9.27                    | 8.57                          | 6.99                             |
| 190.00                | 2.67                | 1.58                      | 9.79                    | 8.38                          | 7.42                             |
| 195.00                | 2.64                | 1.54                      | 10.27                   | 8.21                          | 7.81                             |
| 200.00                | 2.62                | 1.50                      | 10.90                   | 7.96                          | 8.28                             |
| 210.00                | 2.57                | 1.43                      | 11.22                   | 7.93                          | 8.73                             |
| 220.00                | 2.53                | 1.36                      | 12.04                   | 7.65                          | 9.42                             |
| 230.00                | 2.49                | 1.30                      | 11.86                   | 7.87                          | 9.59                             |
| 240.00                | 2.45                | 1.25                      | 10.90                   | 8.47                          | 9.36                             |
| 250.00                | 2.42                | 1.20                      | 10.51                   | 8.78                          | 9.40                             |
| 260.00                | 2.39                | 1.15                      | 10.54                   | 8.88                          | 9.64                             |
| 270.00                | 2.36                | 1.11                      | 10.71                   | 8.91                          | 9.94                             |
| 280.00                | 2.33                | 1.07                      | 10.57                   | 9.09                          | 10.08                            |
| 290.00                | 2.31                | 1.03                      | 10.59                   | 9.18                          | 10.29                            |
| 300.00                | 2.29                | 1.00                      | 11.18                   | 8.99                          | 10.77                            |
| 320.00                | 2.24                | 0.94                      | 11.71                   | 8.93                          | 11.40                            |
| 340.00                | 2.21                | 0.88                      | 11.23                   | 9.36                          | 11.49                            |
| 360.00                | 2.17                | 0.83                      | 11.98                   | 9.17                          | 12.18                            |
| 380.00                | 2.15                | 0.79                      | 12.54                   | 9.06                          | 12.75                            |
| 400.00                | 2.12                | 0.75                      | 12.51                   | 9.25                          | 13.01                            |
| 420.00                | 2.10                | 0.71                      | 13.20                   | 9.07                          | 13.62                            |
| 440.00                | 2.07                | 0.68                      | 13.97                   | 8.84                          | 14.25                            |
| 460.00                | 2.05                | 0.65                      | 14.06                   | 8.94                          | 14.53                            |
| 480.00                | 2.04                | 0.63                      | 14.29                   | 8.98                          | 14.87                            |
| 500.00                | 2.02                | 0.60                      | 14.87                   | 8.83                          | 15.37                            |
| 520.00                | 2.00                | 0.58                      | 15.35                   | 8.72                          | 15.82                            |



| Frequency<br>Frequenz | Distance<br>Abstand | Wavelength<br>Wellen-<br>länge | Attenuation<br>Dämpfung | Gain(Isotr.)<br>Isotrop-<br>gewinn | Ant.-Factor<br>Ant.-Wand-<br>lungsmaß |
|-----------------------|---------------------|--------------------------------|-------------------------|------------------------------------|---------------------------------------|
| MHz                   | m                   | m                              | dB                      | dBi                                | dB/m                                  |
| 540.00                | 1.99                | 0.56                           | 15.76                   | 8.66                               | 16.21                                 |
| 560.00                | 1.98                | 0.54                           | 15.62                   | 8.85                               | 16.33                                 |
| 580.00                | 1.96                | 0.52                           | 15.21                   | 9.18                               | 16.30                                 |
| 600.00                | 1.95                | 0.50                           | 15.08                   | 9.37                               | 16.42                                 |
| 620.00                | 1.94                | 0.48                           | 15.82                   | 9.12                               | 16.95                                 |
| 640.00                | 1.93                | 0.47                           | 15.86                   | 9.22                               | 17.13                                 |
| 660.00                | 1.92                | 0.45                           | 15.70                   | 9.41                               | 17.20                                 |
| 680.00                | 1.91                | 0.44                           | 15.10                   | 9.81                               | 17.06                                 |
| 700.00                | 1.91                | 0.43                           | 14.68                   | 10.13                              | 16.99                                 |
| 720.00                | 1.90                | 0.42                           | 14.71                   | 10.22                              | 17.14                                 |
| 740.00                | 1.89                | 0.41                           | 14.81                   | 10.27                              | 17.33                                 |
| 760.00                | 1.88                | 0.39                           | 14.93                   | 10.31                              | 17.52                                 |
| 780.00                | 1.88                | 0.38                           | 14.99                   | 10.38                              | 17.68                                 |
| 800.00                | 1.87                | 0.38                           | 14.97                   | 10.48                              | 17.80                                 |
| 820.00                | 1.85                | 0.37                           | 14.97                   | 10.54                              | 17.95                                 |
| 840.00                | 1.83                | 0.36                           | 15.07                   | 10.55                              | 18.16                                 |
| 860.00                | 1.81                | 0.35                           | 15.29                   | 10.50                              | 18.41                                 |
| 880.00                | 1.79                | 0.34                           | 15.42                   | 10.49                              | 18.62                                 |
| 900.00                | 1.77                | 0.33                           | 15.51                   | 10.50                              | 18.81                                 |
| 920.00                | 1.76                | 0.33                           | 15.61                   | 10.50                              | 18.99                                 |
| 940.00                | 1.74                | 0.32                           | 15.70                   | 10.51                              | 19.17                                 |
| 960.00                | 1.73                | 0.31                           | 15.84                   | 10.49                              | 19.37                                 |
| 980.00                | 1.71                | 0.31                           | 16.04                   | 10.45                              | 19.60                                 |
| 1000.00               | 1.70                | 0.30                           | 16.22                   | 10.41                              | 19.81                                 |
| 1050.00               | 1.66                | 0.29                           | 16.37                   | 10.46                              | 20.19                                 |
| 1100.00               | 1.63                | 0.27                           | 16.24                   | 10.64                              | 20.41                                 |
| 1150.00               | 1.61                | 0.26                           | 16.83                   | 10.47                              | 20.97                                 |
| 1200.00               | 1.58                | 0.25                           | 17.54                   | 10.23                              | 21.57                                 |
| 1250.00               | 1.56                | 0.24                           | 17.80                   | 10.21                              | 21.95                                 |
| 1300.00               | 1.54                | 0.23                           | 17.73                   | 10.36                              | 22.14                                 |
| 1350.00               | 1.52                | 0.22                           | 18.09                   | 10.29                              | 22.54                                 |
| 1400.00               | 1.50                | 0.21                           | 18.40                   | 10.23                              | 22.91                                 |
| 1450.00               | 1.48                | 0.21                           | 18.48                   | 10.30                              | 23.15                                 |
| 1500.00               | 1.46                | 0.20                           | 18.61                   | 10.33                              | 23.41                                 |
| 1550.00               | 1.45                | 0.19                           | 19.19                   | 10.14                              | 23.89                                 |
| 1600.00               | 1.44                | 0.19                           | 19.44                   | 10.11                              | 24.19                                 |
| 1650.00               | 1.42                | 0.18                           | 19.66                   | 10.09                              | 24.48                                 |
| 1700.00               | 1.41                | 0.18                           | 19.51                   | 10.26                              | 24.57                                 |
| 1750.00               | 1.40                | 0.17                           | 19.58                   | 10.32                              | 24.76                                 |
| 1800.00               | 1.39                | 0.17                           | 19.68                   | 10.35                              | 24.97                                 |
| 1850.00               | 1.38                | 0.16                           | 19.79                   | 10.39                              | 25.18                                 |
| 1900.00               | 1.37                | 0.16                           | 19.92                   | 10.40                              | 25.39                                 |
| 1950.00               | 1.36                | 0.15                           | 19.74                   | 10.58                              | 25.44                                 |
| 2000.00               | 1.35                | 0.15                           | 19.67                   | 10.69                              | 25.55                                 |
| 2050.00               | 1.34                | 0.15                           | 19.73                   | 10.74                              | 25.71                                 |
| 2100.00               | 1.33                | 0.14                           | 19.78                   | 10.80                              | 25.87                                 |
| 2150.00               | 1.32                | 0.14                           | 19.76                   | 10.88                              | 25.98                                 |
| 2200.00               | 1.32                | 0.14                           | 19.84                   | 10.92                              | 26.15                                 |
| 2250.00               | 1.31                | 0.13                           | 19.99                   | 10.92                              | 26.34                                 |
| 2300.00               | 1.30                | 0.13                           | 20.11                   | 10.93                              | 26.52                                 |
| 2350.00               | 1.30                | 0.13                           | 20.26                   | 10.93                              | 26.71                                 |
| 2400.00               | 1.29                | 0.13                           | 20.67                   | 10.79                              | 27.03                                 |
| 2450.00               | 1.28                | 0.12                           | 20.99                   | 10.71                              | 27.30                                 |



| Frequency<br>Frequenz | Distance<br>Abstand | Wavelength<br>Wellen-<br>länge | Attenuation<br>Dämpfung | Gain(Isotr.)<br>Isotrop-<br>gewinn | Ant.-Factor<br>Ant.-Wand-<br>lungsmaß |
|-----------------------|---------------------|--------------------------------|-------------------------|------------------------------------|---------------------------------------|
| MHz                   | m                   | m                              | dB                      | dBi                                | dB/m                                  |
| 2500.00               | 1.28                | 0.12                           | 21.25                   | 10.64                              | 27.53                                 |
| 2550.00               | 1.27                | 0.12                           | 21.69                   | 10.49                              | 27.86                                 |
| 2600.00               | 1.27                | 0.12                           | 22.01                   | 10.40                              | 28.12                                 |
| 2650.00               | 1.26                | 0.11                           | 22.13                   | 10.40                              | 28.28                                 |
| 2700.00               | 1.26                | 0.11                           | 22.29                   | 10.38                              | 28.46                                 |
| 2750.00               | 1.25                | 0.11                           | 22.53                   | 10.33                              | 28.68                                 |
| 2800.00               | 1.25                | 0.11                           | 22.69                   | 10.31                              | 28.85                                 |
| 2850.00               | 1.24                | 0.11                           | 22.64                   | 10.40                              | 28.92                                 |
| 2900.00               | 1.24                | 0.10                           | 22.47                   | 10.54                              | 28.92                                 |
| 2950.00               | 1.24                | 0.10                           | 22.59                   | 10.55                              | 29.07                                 |
| 3000.00               | 1.23                | 0.10                           | 22.65                   | 10.58                              | 29.19                                 |
| 3050.00               | 1.23                | 0.10                           | 22.66                   | 10.63                              | 29.28                                 |
| 3100.00               | 1.22                | 0.10                           | 22.75                   | 10.64                              | 29.40                                 |
| 3150.00               | 1.22                | 0.10                           | 22.94                   | 10.60                              | 29.58                                 |
| 3200.00               | 1.22                | 0.09                           | 23.13                   | 10.57                              | 29.76                                 |
| 3250.00               | 1.21                | 0.09                           | 23.42                   | 10.47                              | 29.99                                 |
| 3300.00               | 1.21                | 0.09                           | 23.76                   | 10.36                              | 30.23                                 |
| 3350.00               | 1.21                | 0.09                           | 23.96                   | 10.31                              | 30.41                                 |
| 3400.00               | 1.21                | 0.09                           | 24.11                   | 10.29                              | 30.56                                 |
| 3450.00               | 1.20                | 0.09                           | 24.25                   | 10.27                              | 30.70                                 |
| 3500.00               | 1.20                | 0.09                           | 24.37                   | 10.27                              | 30.83                                 |
| 3550.00               | 1.20                | 0.08                           | 24.64                   | 10.18                              | 31.04                                 |
| 3600.00               | 1.19                | 0.08                           | 24.73                   | 10.19                              | 31.16                                 |
| 3650.00               | 1.19                | 0.08                           | 24.73                   | 10.24                              | 31.23                                 |
| 3700.00               | 1.19                | 0.08                           | 24.73                   | 10.29                              | 31.30                                 |
| 3750.00               | 1.19                | 0.08                           | 24.70                   | 10.35                              | 31.35                                 |
| 3800.00               | 1.18                | 0.08                           | 24.67                   | 10.41                              | 31.40                                 |
| 3850.00               | 1.18                | 0.08                           | 24.60                   | 10.50                              | 31.43                                 |
| 3900.00               | 1.18                | 0.08                           | 24.54                   | 10.58                              | 31.46                                 |
| 3950.00               | 1.18                | 0.08                           | 24.50                   | 10.65                              | 31.51                                 |
| 4000.00               | 1.17                | 0.08                           | 24.42                   | 10.73                              | 31.53                                 |
| 4050.00               | 1.17                | 0.07                           | 24.39                   | 10.79                              | 31.58                                 |
| 4100.00               | 1.17                | 0.07                           | 24.40                   | 10.83                              | 31.64                                 |
| 4150.00               | 1.17                | 0.07                           | 24.50                   | 10.83                              | 31.75                                 |
| 4200.00               | 1.17                | 0.07                           | 24.59                   | 10.82                              | 31.86                                 |
| 4250.00               | 1.16                | 0.07                           | 24.62                   | 10.85                              | 31.93                                 |
| 4300.00               | 1.16                | 0.07                           | 24.70                   | 10.86                              | 32.03                                 |
| 4350.00               | 1.16                | 0.07                           | 24.78                   | 10.86                              | 32.13                                 |
| 4400.00               | 1.16                | 0.07                           | 24.97                   | 10.81                              | 32.28                                 |
| 4450.00               | 1.16                | 0.07                           | 25.15                   | 10.76                              | 32.42                                 |
| 4500.00               | 1.16                | 0.07                           | 25.22                   | 10.77                              | 32.51                                 |
| 4550.00               | 1.15                | 0.07                           | 25.36                   | 10.74                              | 32.64                                 |
| 4600.00               | 1.15                | 0.07                           | 25.50                   | 10.71                              | 32.77                                 |
| 4650.00               | 1.15                | 0.06                           | 25.60                   | 10.70                              | 32.87                                 |
| 4700.00               | 1.15                | 0.06                           | 25.84                   | 10.62                              | 33.04                                 |
| 4750.00               | 1.15                | 0.06                           | 26.12                   | 10.52                              | 33.23                                 |
| 4800.00               | 1.15                | 0.06                           | 26.21                   | 10.52                              | 33.33                                 |
| 4850.00               | 1.14                | 0.06                           | 26.33                   | 10.49                              | 33.44                                 |
| 4900.00               | 1.14                | 0.06                           | 26.38                   | 10.51                              | 33.51                                 |
| 4950.00               | 1.14                | 0.06                           | 26.47                   | 10.50                              | 33.61                                 |
| 5000.00               | 1.14                | 0.06                           | 26.57                   | 10.49                              | 33.71                                 |
| 5050.00               | 1.14                | 0.06                           | 26.77                   | 10.43                              | 33.86                                 |
| 5100.00               | 1.14                | 0.06                           | 26.87                   | 10.42                              | 33.95                                 |



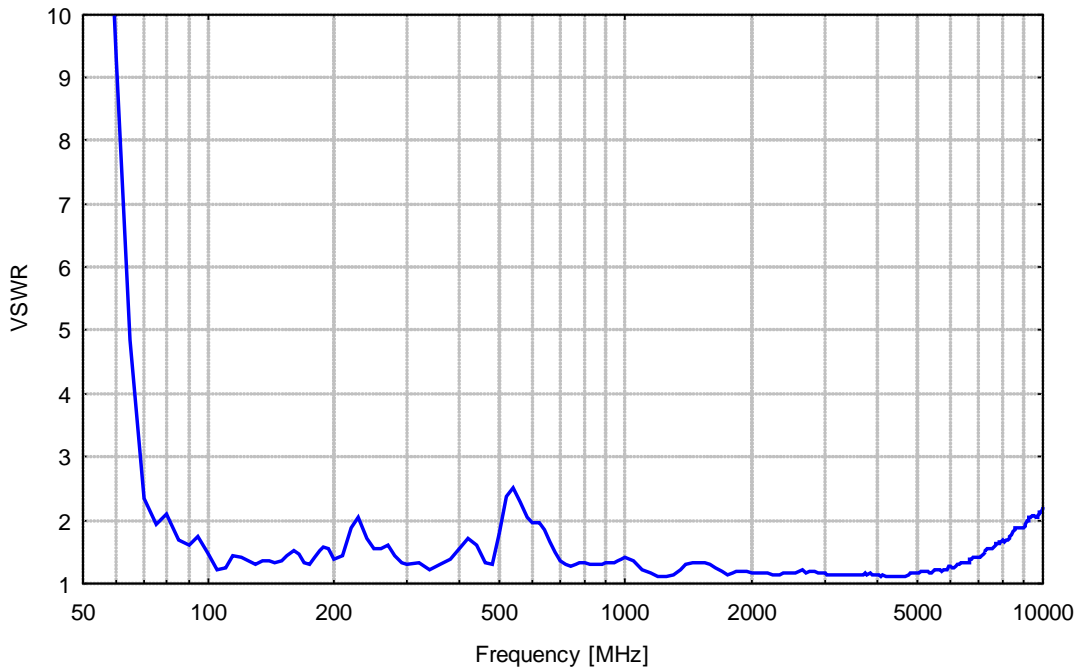
| Frequency<br>Frequenz | Distance<br>Abstand | Wavelength<br>Wellen-<br>länge | Attenuation<br>Dämpfung | Gain(Isotr.)<br>Isotrop-<br>gewinn | Ant.-Factor<br>Ant.-Wand-<br>lungsmaß |
|-----------------------|---------------------|--------------------------------|-------------------------|------------------------------------|---------------------------------------|
| MHz                   | m                   | m                              | dB                      | dBi                                | dB/m                                  |
| 5150.00               | 1.14                | 0.06                           | 27.06                   | 10.36                              | 34.09                                 |
| 5200.00               | 1.13                | 0.06                           | 27.15                   | 10.35                              | 34.19                                 |
| 5250.00               | 1.13                | 0.06                           | 27.36                   | 10.28                              | 34.34                                 |
| 5300.00               | 1.13                | 0.06                           | 27.47                   | 10.27                              | 34.44                                 |
| 5350.00               | 1.13                | 0.06                           | 27.73                   | 10.17                              | 34.61                                 |
| 5400.00               | 1.13                | 0.06                           | 27.87                   | 10.14                              | 34.73                                 |
| 5450.00               | 1.13                | 0.06                           | 28.05                   | 10.08                              | 34.86                                 |
| 5500.00               | 1.13                | 0.05                           | 28.44                   | 9.92                               | 35.10                                 |
| 5550.00               | 1.13                | 0.05                           | 28.63                   | 9.86                               | 35.24                                 |
| 5600.00               | 1.12                | 0.05                           | 28.78                   | 9.82                               | 35.36                                 |
| 5650.00               | 1.12                | 0.05                           | 29.02                   | 9.74                               | 35.52                                 |
| 5700.00               | 1.12                | 0.05                           | 29.15                   | 9.70                               | 35.63                                 |
| 5750.00               | 1.12                | 0.05                           | 29.30                   | 9.66                               | 35.75                                 |
| 5800.00               | 1.12                | 0.05                           | 29.60                   | 9.55                               | 35.94                                 |
| 5850.00               | 1.12                | 0.05                           | 29.73                   | 9.52                               | 36.05                                 |
| 5900.00               | 1.12                | 0.05                           | 29.87                   | 9.48                               | 36.16                                 |
| 5950.00               | 1.12                | 0.05                           | 30.13                   | 9.38                               | 36.33                                 |
| 6000.00               | 1.12                | 0.05                           | 30.25                   | 9.36                               | 36.43                                 |
| 6050.00               | 1.12                | 0.05                           | 30.39                   | 9.32                               | 36.54                                 |
| 6100.00               | 1.11                | 0.05                           | 30.50                   | 9.29                               | 36.63                                 |
| 6150.00               | 1.11                | 0.05                           | 30.54                   | 9.31                               | 36.69                                 |
| 6200.00               | 1.11                | 0.05                           | 30.52                   | 9.35                               | 36.72                                 |
| 6250.00               | 1.11                | 0.05                           | 30.59                   | 9.35                               | 36.79                                 |
| 6300.00               | 1.11                | 0.05                           | 30.72                   | 9.31                               | 36.90                                 |
| 6350.00               | 1.11                | 0.05                           | 30.93                   | 9.24                               | 37.04                                 |
| 6400.00               | 1.11                | 0.05                           | 31.17                   | 9.15                               | 37.20                                 |
| 6450.00               | 1.11                | 0.05                           | 31.23                   | 9.15                               | 37.26                                 |
| 6500.00               | 1.11                | 0.05                           | 31.31                   | 9.14                               | 37.34                                 |
| 6550.00               | 1.11                | 0.05                           | 31.38                   | 9.13                               | 37.41                                 |
| 6600.00               | 1.11                | 0.05                           | 31.48                   | 9.11                               | 37.50                                 |
| 6650.00               | 1.11                | 0.05                           | 31.62                   | 9.07                               | 37.60                                 |
| 6700.00               | 1.10                | 0.04                           | 31.97                   | 8.93                               | 37.81                                 |
| 6750.00               | 1.10                | 0.04                           | 32.12                   | 8.88                               | 37.92                                 |
| 6800.00               | 1.10                | 0.04                           | 32.23                   | 8.85                               | 38.02                                 |
| 6850.00               | 1.10                | 0.04                           | 32.37                   | 8.81                               | 38.12                                 |
| 6900.00               | 1.10                | 0.04                           | 32.49                   | 8.78                               | 38.21                                 |
| 6950.00               | 1.10                | 0.04                           | 32.63                   | 8.74                               | 38.32                                 |
| 7000.00               | 1.10                | 0.04                           | 32.71                   | 8.73                               | 38.39                                 |
| 7050.00               | 1.10                | 0.04                           | 32.74                   | 8.74                               | 38.44                                 |
| 7100.00               | 1.10                | 0.04                           | 32.75                   | 8.76                               | 38.48                                 |
| 7150.00               | 1.10                | 0.04                           | 32.82                   | 8.76                               | 38.55                                 |
| 7200.00               | 1.10                | 0.04                           | 32.90                   | 8.74                               | 38.62                                 |
| 7250.00               | 1.10                | 0.04                           | 33.01                   | 8.72                               | 38.71                                 |
| 7300.00               | 1.10                | 0.04                           | 33.07                   | 8.71                               | 38.77                                 |
| 7350.00               | 1.10                | 0.04                           | 33.10                   | 8.73                               | 38.82                                 |
| 7400.00               | 1.09                | 0.04                           | 33.08                   | 8.77                               | 38.84                                 |
| 7450.00               | 1.09                | 0.04                           | 33.06                   | 8.80                               | 38.86                                 |
| 7500.00               | 1.09                | 0.04                           | 33.01                   | 8.85                               | 38.87                                 |
| 7550.00               | 1.09                | 0.04                           | 33.01                   | 8.88                               | 38.90                                 |
| 7600.00               | 1.09                | 0.04                           | 33.04                   | 8.89                               | 38.95                                 |
| 7650.00               | 1.09                | 0.04                           | 33.10                   | 8.89                               | 39.01                                 |
| 7700.00               | 1.09                | 0.04                           | 33.19                   | 8.87                               | 39.08                                 |
| 7750.00               | 1.09                | 0.04                           | 33.29                   | 8.84                               | 39.16                                 |

| Frequency<br>Frequenz | Distance<br>Abstand | Wavelength<br>Wellen-<br>länge | Attenuation<br>Dämpfung | Gain(Isotr.)<br>Isotrop-<br>gewinn | Ant.-Factor<br>Ant.-Wand-<br>lungsmaß |
|-----------------------|---------------------|--------------------------------|-------------------------|------------------------------------|---------------------------------------|
| MHz                   | m                   | m                              | dB                      | dBi                                | dB/m                                  |
| 7800.00               | 1.09                | 0.04                           | 33.29                   | 8.87                               | 39.19                                 |
| 7850.00               | 1.09                | 0.04                           | 33.39                   | 8.85                               | 39.27                                 |
| 7900.00               | 1.09                | 0.04                           | 33.54                   | 8.79                               | 39.38                                 |
| 7950.00               | 1.09                | 0.04                           | 33.65                   | 8.77                               | 39.46                                 |
| 8000.00               | 1.09                | 0.04                           | 33.75                   | 8.74                               | 39.54                                 |
| 8050.00               | 1.09                | 0.04                           | 33.85                   | 8.72                               | 39.62                                 |
| 8100.00               | 1.09                | 0.04                           | 33.96                   | 8.68                               | 39.71                                 |
| 8150.00               | 1.09                | 0.04                           | 34.04                   | 8.67                               | 39.77                                 |
| 8200.00               | 1.09                | 0.04                           | 34.10                   | 8.66                               | 39.83                                 |
| 8250.00               | 1.08                | 0.04                           | 34.19                   | 8.64                               | 39.91                                 |
| 8300.00               | 1.08                | 0.04                           | 34.31                   | 8.61                               | 39.99                                 |
| 8350.00               | 1.08                | 0.04                           | 34.49                   | 8.54                               | 40.11                                 |
| 8400.00               | 1.08                | 0.04                           | 34.68                   | 8.47                               | 40.24                                 |
| 8450.00               | 1.08                | 0.04                           | 34.84                   | 8.41                               | 40.34                                 |
| 8500.00               | 1.08                | 0.04                           | 34.84                   | 8.44                               | 40.37                                 |
| 8550.00               | 1.08                | 0.04                           | 35.05                   | 8.36                               | 40.50                                 |
| 8600.00               | 1.08                | 0.03                           | 35.21                   | 8.30                               | 40.61                                 |
| 8650.00               | 1.08                | 0.03                           | 35.36                   | 8.25                               | 40.71                                 |
| 8700.00               | 1.08                | 0.03                           | 35.51                   | 8.20                               | 40.81                                 |
| 8750.00               | 1.08                | 0.03                           | 35.62                   | 8.17                               | 40.89                                 |
| 8800.00               | 1.08                | 0.03                           | 35.70                   | 8.15                               | 40.96                                 |
| 8850.00               | 1.08                | 0.03                           | 35.83                   | 8.11                               | 41.05                                 |
| 8900.00               | 1.08                | 0.03                           | 35.83                   | 8.13                               | 41.08                                 |
| 8950.00               | 1.08                | 0.03                           | 35.94                   | 8.09                               | 41.16                                 |
| 9000.00               | 1.08                | 0.03                           | 36.13                   | 8.02                               | 41.28                                 |
| 9050.00               | 1.08                | 0.03                           | 36.34                   | 7.94                               | 41.41                                 |
| 9100.00               | 1.08                | 0.03                           | 36.60                   | 7.83                               | 41.57                                 |
| 9150.00               | 1.08                | 0.03                           | 36.97                   | 7.67                               | 41.78                                 |
| 9200.00               | 1.08                | 0.03                           | 36.97                   | 7.69                               | 41.81                                 |
| 9250.00               | 1.08                | 0.03                           | 37.34                   | 7.53                               | 42.01                                 |
| 9300.00               | 1.08                | 0.03                           | 37.69                   | 7.37                               | 42.22                                 |
| 9350.00               | 1.07                | 0.03                           | 37.98                   | 7.25                               | 42.38                                 |
| 9400.00               | 1.07                | 0.03                           | 38.30                   | 7.11                               | 42.57                                 |
| 9450.00               | 1.07                | 0.03                           | 38.30                   | 7.14                               | 42.59                                 |
| 9500.00               | 1.07                | 0.03                           | 38.64                   | 6.99                               | 42.79                                 |
| 9550.00               | 1.07                | 0.03                           | 38.71                   | 6.97                               | 42.85                                 |
| 9600.00               | 1.07                | 0.03                           | 38.86                   | 6.92                               | 42.95                                 |
| 9650.00               | 1.07                | 0.03                           | 39.02                   | 6.86                               | 43.05                                 |
| 9700.00               | 1.07                | 0.03                           | 39.02                   | 6.88                               | 43.08                                 |
| 9750.00               | 1.07                | 0.03                           | 39.19                   | 6.82                               | 43.18                                 |
| 9800.00               | 1.07                | 0.03                           | 39.44                   | 6.71                               | 43.33                                 |
| 9850.00               | 1.07                | 0.03                           | 39.72                   | 6.60                               | 43.49                                 |
| 9900.00               | 1.07                | 0.03                           | 39.72                   | 6.62                               | 43.52                                 |
| 9950.00               | 1.07                | 0.03                           | 40.03                   | 6.48                               | 43.70                                 |
| 10000.00              | 1.07                | 0.03                           | 40.42                   | 6.31                               | 43.91                                 |





**VSWR**



**Maximale Leistungsbelastbarkeit**

