

## Mikrowellen-Bikonusantenne *Microwave Biconical Antenna*



| <b>Technische Daten:</b>                 |                        | <b>Specifications:</b>                  |
|--|------------------------|---|
| Frequenzbereich:                         | 1 - 10 GHz             | Frequency Range:                        |
| Nutzbarer Frequenzbereich:               | 1 – 14 GHz             | Useable Frequency Range:                |
| Nominelle Impedanz:                      | 50 Ω                   | Nominal Impedance:                      |
| Gewinn:                                  | typ. -1 dBi +/- 1.5 dB | Gain:                                   |
| Antennenwandlungsmaß:                    | typ. 40-52 dB/m        | Antenna Factor:                         |
| Abweichung von Rundstrahlcharakteristik: | typ. < +/- 1.5 dB      | Deviation from Omnidirectional Pattern: |
| Halbwertsbreite E-Ebene:                 | typ. 75° +/- 15°       | Half-Power Beamwidth E-plane:           |
| Dauerleistung:                           | 50 W                   | Continuous Power:                       |
| VSWR:                                    | typ. < 2.5:1           | VSWR:                                   |
| Abmessungen:                             | 30 x 30 x 476 mm       | Dimensions:                             |
| Befestigung:                             | D = 22 mm              | Mounting:                               |
| Gewicht:                                 | 0.54 kg                | Weight:                                 |
| Anschluss:                               | N female               | Connector:                              |

### **Beschreibung:**

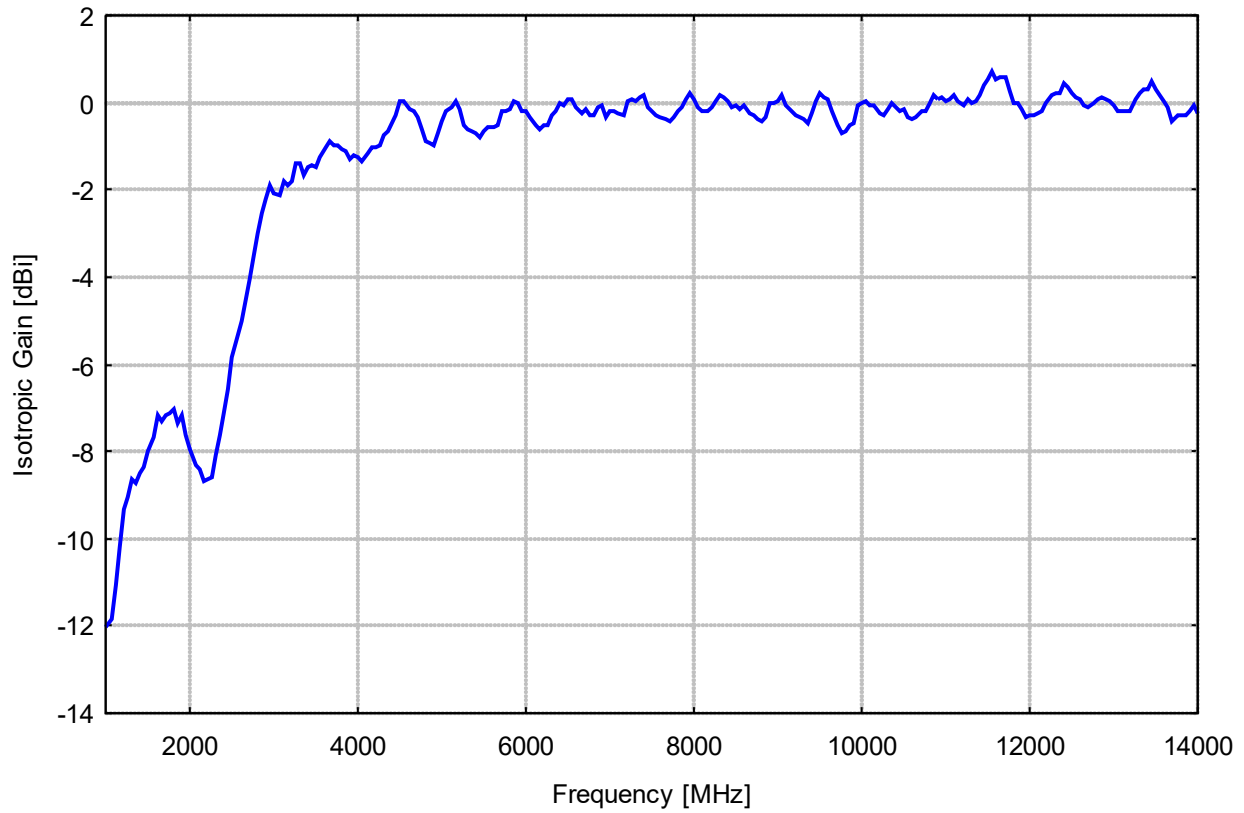
Die SBB 0110 ist ein bikonischer Breitbanddipol für den Dezimeter- und Zentimeterwellenbereich, der in der H-Ebene Rundstrahlcharakteristik aufweist. In der E-Ebene ist das Richtdiagramm „8-förmig“. Typische Anwendungen sind z.B. die Beurteilung von Messplätzen nach der SVSWR-Methode gem. CISPR 16-1-4, die Zeitbereichsmethode nach ANSI C63.25 oder auch die CMFTD-Methode (Cylindrical Mode Filtering Time Domain).

### **Description:**

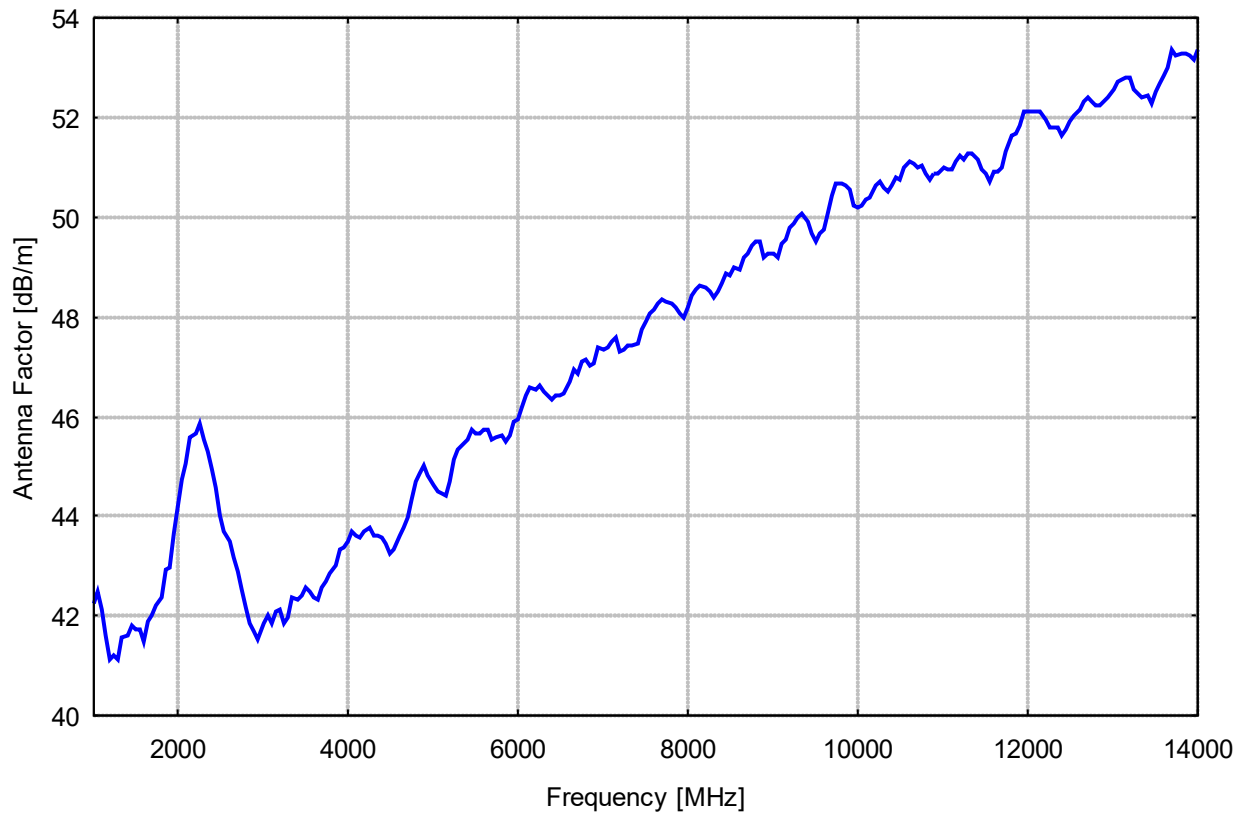
The SBB 0110 is a biconical broadband dipole antenna operating in the decimeter- and centimeter wave frequency range with omnidirectional pattern in the H-plane. The E-plane pattern is 8-shaped. Typical applications are the evaluation of test site performance e.g. according to the SVSWR method as described in CISPR 16-1-4 or the time domain method acc. to ANSI C 63.25 or the CMFTD-Method (cylindrical mode filtering time domain).



**Isotropgewinn**  
*Isotropic Gain*



**Antennen-Wandlungsmaß**  
*Antenna Factor*



| Frequency<br>MHz | Gain(Isotr.)<br>dBi | Ant.-Factor<br>dB/m |
|------------------|---------------------|---------------------|
| 1000.00          | -12.03              | 42.25               |
| 1050.00          | -11.85              | 42.49               |
| 1100.00          | -11.07              | 42.12               |
| 1150.00          | -10.18              | 41.61               |
| 1200.00          | -9.34               | 41.14               |
| 1250.00          | -9.03               | 41.19               |
| 1300.00          | -8.61               | 41.11               |
| 1350.00          | -8.73               | 41.55               |
| 1400.00          | -8.48               | 41.62               |
| 1450.00          | -8.34               | 41.79               |
| 1500.00          | -7.99               | 41.73               |
| 1550.00          | -7.68               | 41.71               |
| 1600.00          | -7.17               | 41.47               |
| 1650.00          | -7.31               | 41.88               |
| 1700.00          | -7.16               | 41.99               |
| 1750.00          | -7.13               | 42.21               |
| 1800.00          | -7.04               | 42.37               |
| 1850.00          | -7.35               | 42.92               |
| 1900.00          | -7.18               | 42.97               |
| 1950.00          | -7.63               | 43.65               |
| 2000.00          | -7.95               | 44.19               |
| 2050.00          | -8.29               | 44.74               |
| 2100.00          | -8.39               | 45.05               |
| 2150.00          | -8.70               | 45.57               |
| 2200.00          | -8.61               | 45.68               |
| 2250.00          | -8.59               | 45.85               |
| 2300.00          | -8.07               | 45.53               |
| 2350.00          | -7.64               | 45.28               |
| 2400.00          | -7.10               | 44.93               |
| 2450.00          | -6.58               | 44.58               |
| 2500.00          | -5.83               | 44.00               |
| 2550.00          | -5.33               | 43.68               |
| 2600.00          | -4.99               | 43.51               |
| 2650.00          | -4.50               | 43.18               |
| 2700.00          | -4.03               | 42.88               |
| 2750.00          | -3.50               | 42.51               |
| 2800.00          | -2.99               | 42.15               |
| 2850.00          | -2.51               | 41.83               |
| 2900.00          | -2.20               | 41.67               |
| 2950.00          | -1.90               | 41.52               |
| 3000.00          | -2.08               | 41.85               |
| 3050.00          | -2.11               | 42.02               |
| 3100.00          | -1.79               | 41.84               |
| 3150.00          | -1.90               | 42.09               |
| 3200.00          | -1.80               | 42.12               |
| 3250.00          | -1.39               | 41.85               |
| 3300.00          | -1.37               | 41.96               |
| 3350.00          | -1.64               | 42.36               |
| 3400.00          | -1.48               | 42.33               |
| 3450.00          | -1.42               | 42.39               |
| 3500.00          | -1.46               | 42.57               |
| 3550.00          | -1.25               | 42.47               |
| 3600.00          | -1.01               | 42.35               |
| 3650.00          | -0.86               | 42.33               |
| 3700.00          | -0.97               | 42.56               |

| Frequency<br>MHz | Gain(Isotr.)<br>dBi | Ant.-Factor<br>dB/m |
|------------------|---------------------|---------------------|
| 3750.00          | -0.99               | 42.70               |
| 3800.00          | -1.05               | 42.86               |
| 3850.00          | -1.10               | 43.03               |
| 3900.00          | -1.29               | 43.33               |
| 3950.00          | -1.21               | 43.37               |
| 4000.00          | -1.24               | 43.50               |
| 4050.00          | -1.32               | 43.69               |
| 4100.00          | -1.14               | 43.62               |
| 4150.00          | -1.01               | 43.59               |
| 4200.00          | -1.00               | 43.69               |
| 4250.00          | -0.97               | 43.76               |
| 4300.00          | -0.73               | 43.62               |
| 4350.00          | -0.63               | 43.62               |
| 4400.00          | -0.48               | 43.57               |
| 4450.00          | -0.28               | 43.47               |
| 4500.00          | 0.03                | 43.26               |
| 4550.00          | 0.06                | 43.32               |
| 4600.00          | -0.14               | 43.62               |
| 4650.00          | -0.19               | 43.76               |
| 4700.00          | -0.33               | 43.99               |
| 4750.00          | -0.58               | 44.33               |
| 4800.00          | -0.86               | 44.71               |
| 4850.00          | -0.90               | 44.84               |
| 4900.00          | -0.97               | 45.00               |
| 4950.00          | -0.71               | 44.82               |
| 5000.00          | -0.41               | 44.61               |
| 5050.00          | -0.20               | 44.48               |
| 5100.00          | -0.10               | 44.47               |
| 5150.00          | 0.04                | 44.41               |
| 5200.00          | -0.16               | 44.70               |
| 5250.00          | -0.51               | 45.13               |
| 5300.00          | -0.61               | 45.32               |
| 5350.00          | -0.63               | 45.42               |
| 5400.00          | -0.67               | 45.54               |
| 5450.00          | -0.78               | 45.73               |
| 5500.00          | -0.64               | 45.67               |
| 5550.00          | -0.56               | 45.66               |
| 5600.00          | -0.56               | 45.74               |
| 5650.00          | -0.50               | 45.76               |
| 5700.00          | -0.20               | 45.54               |
| 5750.00          | -0.18               | 45.59               |
| 5800.00          | -0.13               | 45.62               |
| 5850.00          | 0.05                | 45.52               |
| 5900.00          | 0.01                | 45.62               |
| 5950.00          | -0.21               | 45.92               |
| 6000.00          | -0.17               | 45.95               |
| 6050.00          | -0.33               | 46.19               |
| 6100.00          | -0.49               | 46.41               |
| 6150.00          | -0.58               | 46.57               |
| 6200.00          | -0.49               | 46.56               |
| 6250.00          | -0.50               | 46.64               |
| 6300.00          | -0.29               | 46.50               |
| 6350.00          | -0.17               | 46.44               |
| 6400.00          | 0.00                | 46.34               |
| 6450.00          | -0.03               | 46.44               |

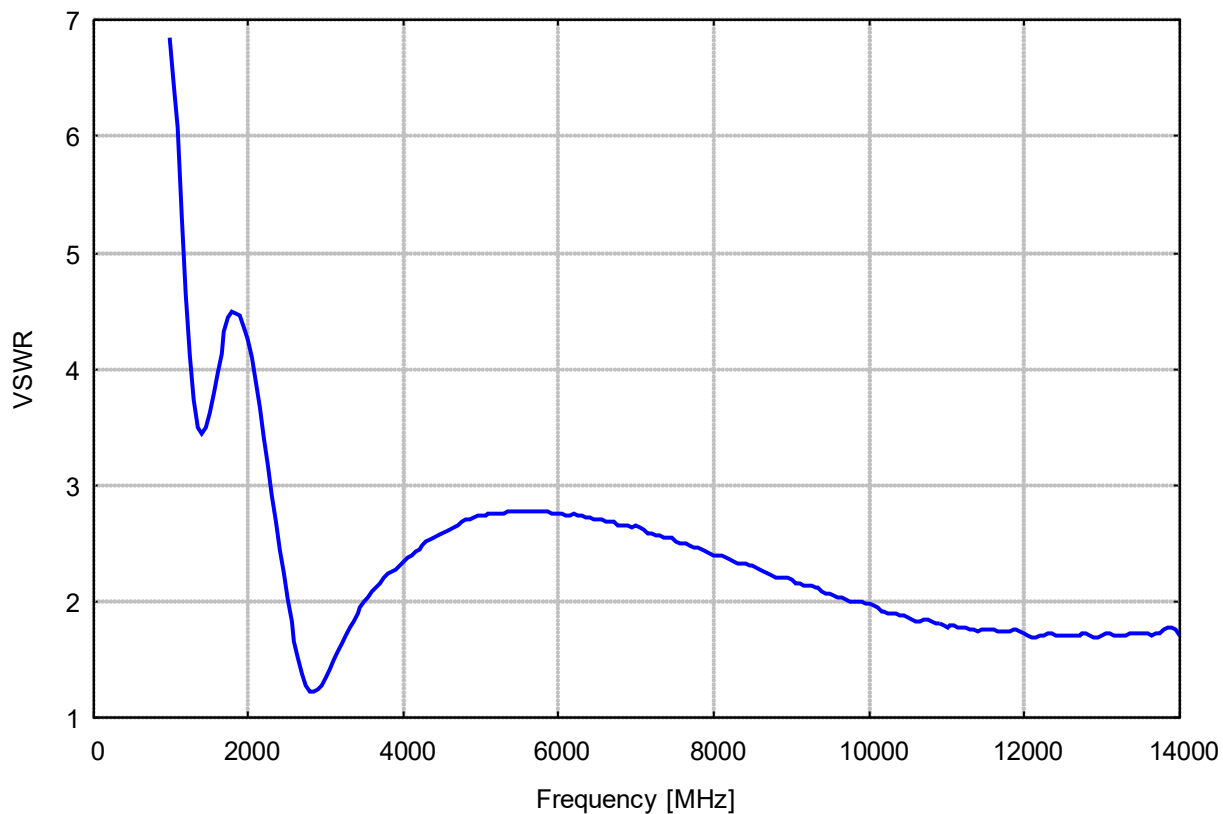
| Frequency<br>MHz | Gain(Isotr.)<br>dBi | Ant.-Factor<br>dB/m |
|------------------|---------------------|---------------------|
| 6500.00          | 0.07                | 46.41               |
| 6550.00          | 0.08                | 46.47               |
| 6600.00          | -0.11               | 46.72               |
| 6650.00          | -0.25               | 46.93               |
| 6700.00          | -0.13               | 46.87               |
| 6750.00          | -0.28               | 47.09               |
| 6800.00          | -0.28               | 47.15               |
| 6850.00          | -0.10               | 47.04               |
| 6900.00          | -0.06               | 47.06               |
| 6950.00          | -0.31               | 47.37               |
| 7000.00          | -0.21               | 47.33               |
| 7050.00          | -0.19               | 47.38               |
| 7100.00          | -0.25               | 47.49               |
| 7150.00          | -0.28               | 47.58               |
| 7200.00          | 0.06                | 47.30               |
| 7250.00          | 0.08                | 47.35               |
| 7300.00          | 0.05                | 47.43               |
| 7350.00          | 0.12                | 47.43               |
| 7400.00          | 0.16                | 47.45               |
| 7450.00          | -0.09               | 47.76               |
| 7500.00          | -0.18               | 47.90               |
| 7550.00          | -0.29               | 48.07               |
| 7600.00          | -0.34               | 48.17               |
| 7650.00          | -0.37               | 48.27               |
| 7700.00          | -0.41               | 48.36               |
| 7750.00          | -0.32               | 48.33               |
| 7800.00          | -0.20               | 48.26               |
| 7850.00          | -0.09               | 48.21               |
| 7900.00          | 0.10                | 48.07               |
| 7950.00          | 0.24                | 47.99               |
| 8000.00          | 0.09                | 48.20               |
| 8050.00          | -0.10               | 48.43               |
| 8100.00          | -0.17               | 48.56               |
| 8150.00          | -0.21               | 48.65               |
| 8200.00          | -0.09               | 48.59               |
| 8250.00          | 0.02                | 48.52               |
| 8300.00          | 0.20                | 48.40               |
| 8350.00          | 0.15                | 48.50               |
| 8400.00          | 0.04                | 48.67               |
| 8450.00          | -0.10               | 48.86               |
| 8500.00          | -0.03               | 48.83               |
| 8550.00          | -0.15               | 49.01               |
| 8600.00          | -0.05               | 48.96               |
| 8650.00          | -0.25               | 49.21               |
| 8700.00          | -0.26               | 49.27               |
| 8750.00          | -0.39               | 49.45               |
| 8800.00          | -0.40               | 49.51               |
| 8850.00          | -0.34               | 49.50               |
| 8900.00          | 0.01                | 49.19               |
| 8950.00          | -0.00               | 49.26               |
| 9000.00          | 0.02                | 49.28               |
| 9050.00          | 0.16                | 49.19               |
| 9100.00          | -0.06               | 49.46               |
| 9150.00          | -0.13               | 49.57               |
| 9200.00          | -0.30               | 49.79               |

| Frequency<br>MHz | Gain(Isotr.)<br>dBi | Ant.-Factor<br>dB/m |
|------------------|---------------------|---------------------|
| 9250.00          | -0.33               | 49.88               |
| 9300.00          | -0.39               | 49.98               |
| 9350.00          | -0.45               | 50.08               |
| 9400.00          | -0.23               | 49.91               |
| 9450.00          | 0.06                | 49.67               |
| 9500.00          | 0.24                | 49.53               |
| 9550.00          | 0.15                | 49.67               |
| 9600.00          | 0.11                | 49.76               |
| 9650.00          | -0.17               | 50.08               |
| 9700.00          | -0.49               | 50.45               |
| 9750.00          | -0.69               | 50.69               |
| 9800.00          | -0.63               | 50.67               |
| 9850.00          | -0.53               | 50.62               |
| 9900.00          | -0.44               | 50.58               |
| 9950.00          | -0.05               | 50.23               |
| 10000.00         | 0.01                | 50.21               |
| 10050.00         | 0.02                | 50.25               |
| 10100.00         | -0.05               | 50.36               |
| 10150.00         | -0.05               | 50.40               |
| 10200.00         | -0.22               | 50.62               |
| 10250.00         | -0.27               | 50.71               |
| 10300.00         | -0.14               | 50.61               |
| 10350.00         | -0.01               | 50.53               |
| 10400.00         | -0.09               | 50.65               |
| 10450.00         | -0.19               | 50.79               |
| 10500.00         | -0.13               | 50.77               |
| 10550.00         | -0.33               | 51.01               |
| 10600.00         | -0.38               | 51.11               |
| 10650.00         | -0.31               | 51.08               |
| 10700.00         | -0.21               | 51.02               |
| 10750.00         | -0.20               | 51.04               |
| 10800.00         | 0.00                | 50.89               |
| 10850.00         | 0.16                | 50.77               |
| 10900.00         | 0.10                | 50.87               |
| 10950.00         | 0.12                | 50.89               |
| 11000.00         | 0.03                | 51.02               |
| 11050.00         | 0.11                | 50.97               |
| 11100.00         | 0.18                | 50.95               |
| 11150.00         | 0.03                | 51.14               |
| 11200.00         | -0.03               | 51.24               |
| 11250.00         | 0.09                | 51.15               |
| 11300.00         | 0.00                | 51.28               |
| 11350.00         | 0.03                | 51.29               |
| 11400.00         | 0.18                | 51.18               |
| 11450.00         | 0.42                | 50.98               |
| 11500.00         | 0.56                | 50.87               |
| 11550.00         | 0.73                | 50.74               |
| 11600.00         | 0.56                | 50.94               |
| 11650.00         | 0.61                | 50.94               |
| 11700.00         | 0.58                | 51.00               |
| 11750.00         | 0.29                | 51.33               |
| 11800.00         | 0.00                | 51.66               |
| 11850.00         | -0.01               | 51.70               |
| 11900.00         | -0.12               | 51.85               |
| 11950.00         | -0.34               | 52.11               |

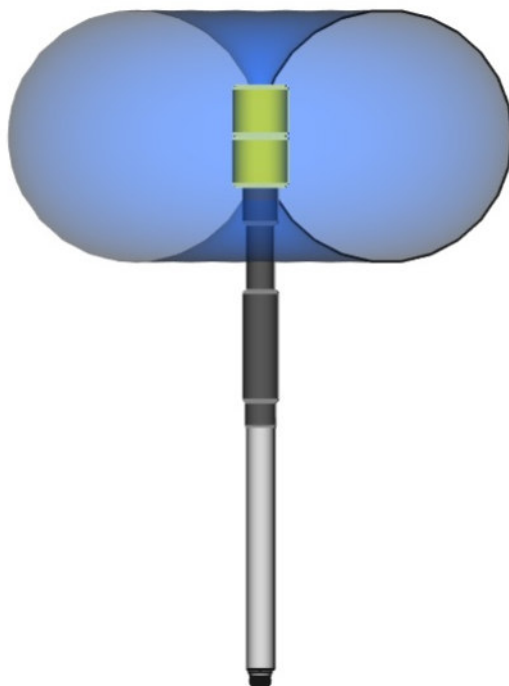
| Frequency<br>MHz | Gain(Isotr.)<br>dBi | Ant.-Factor<br>dB/m |
|------------------|---------------------|---------------------|
| 12000.00         | -0.30               | 52.11               |
| 12050.00         | -0.30               | 52.14               |
| 12100.00         | -0.23               | 52.11               |
| 12150.00         | -0.20               | 52.11               |
| 12200.00         | -0.01               | 51.96               |
| 12250.00         | 0.16                | 51.82               |
| 12300.00         | 0.21                | 51.80               |
| 12350.00         | 0.24                | 51.81               |
| 12400.00         | 0.45                | 51.64               |
| 12450.00         | 0.36                | 51.76               |
| 12500.00         | 0.22                | 51.93               |
| 12550.00         | 0.15                | 52.04               |
| 12600.00         | 0.08                | 52.15               |
| 12650.00         | -0.07               | 52.34               |
| 12700.00         | -0.10               | 52.39               |
| 12750.00         | -0.00               | 52.33               |
| 12800.00         | 0.11                | 52.26               |
| 12850.00         | 0.13                | 52.26               |
| 12900.00         | 0.11                | 52.32               |
| 12950.00         | 0.06                | 52.40               |
| 13000.00         | -0.06               | 52.56               |
| 13050.00         | -0.19               | 52.72               |

| Frequency<br>MHz | Gain(Isotr.)<br>dBi | Ant.-Factor<br>dB/m |
|------------------|---------------------|---------------------|
| 13100.00         | -0.21               | 52.78               |
| 13150.00         | -0.21               | 52.81               |
| 13200.00         | -0.18               | 52.81               |
| 13250.00         | 0.08                | 52.58               |
| 13300.00         | 0.23                | 52.47               |
| 13350.00         | 0.32                | 52.41               |
| 13400.00         | 0.31                | 52.45               |
| 13450.00         | 0.52                | 52.27               |
| 13500.00         | 0.31                | 52.52               |
| 13550.00         | 0.18                | 52.68               |
| 13600.00         | 0.04                | 52.85               |
| 13650.00         | -0.08               | 53.00               |
| 13700.00         | -0.40               | 53.36               |
| 13750.00         | -0.26               | 53.25               |
| 13800.00         | -0.28               | 53.30               |
| 13850.00         | -0.26               | 53.31               |
| 13900.00         | -0.19               | 53.27               |
| 13950.00         | -0.05               | 53.16               |
| 14000.00         | -0.24               | 53.38               |

**Spannungs-Stehwellenverhältnis**  
**Voltage Standing Wave Ratio**



**Räumliches Richtdiagramm**  
*Spatial Directional Pattern*



**Abmessungen**  
*Dimensions*

