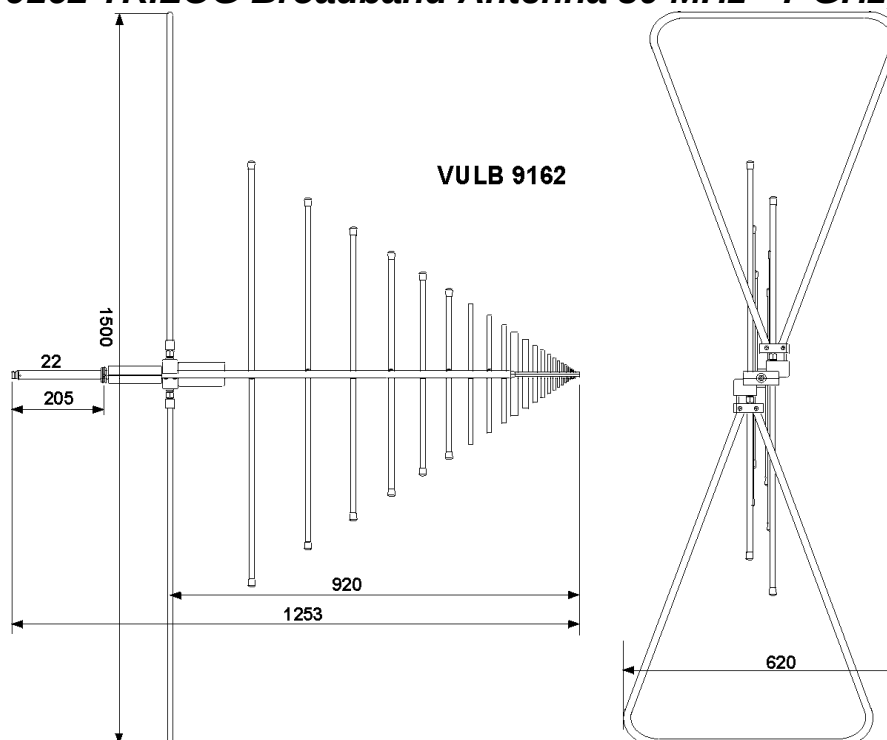


**VULB 9162 Breitband TRILOG Antenne 30 MHz - 7 GHz, 100 W**  
**VULB 9162 TRILOG Broadband Antenna 30 MHz - 7 GHz, 100 W**



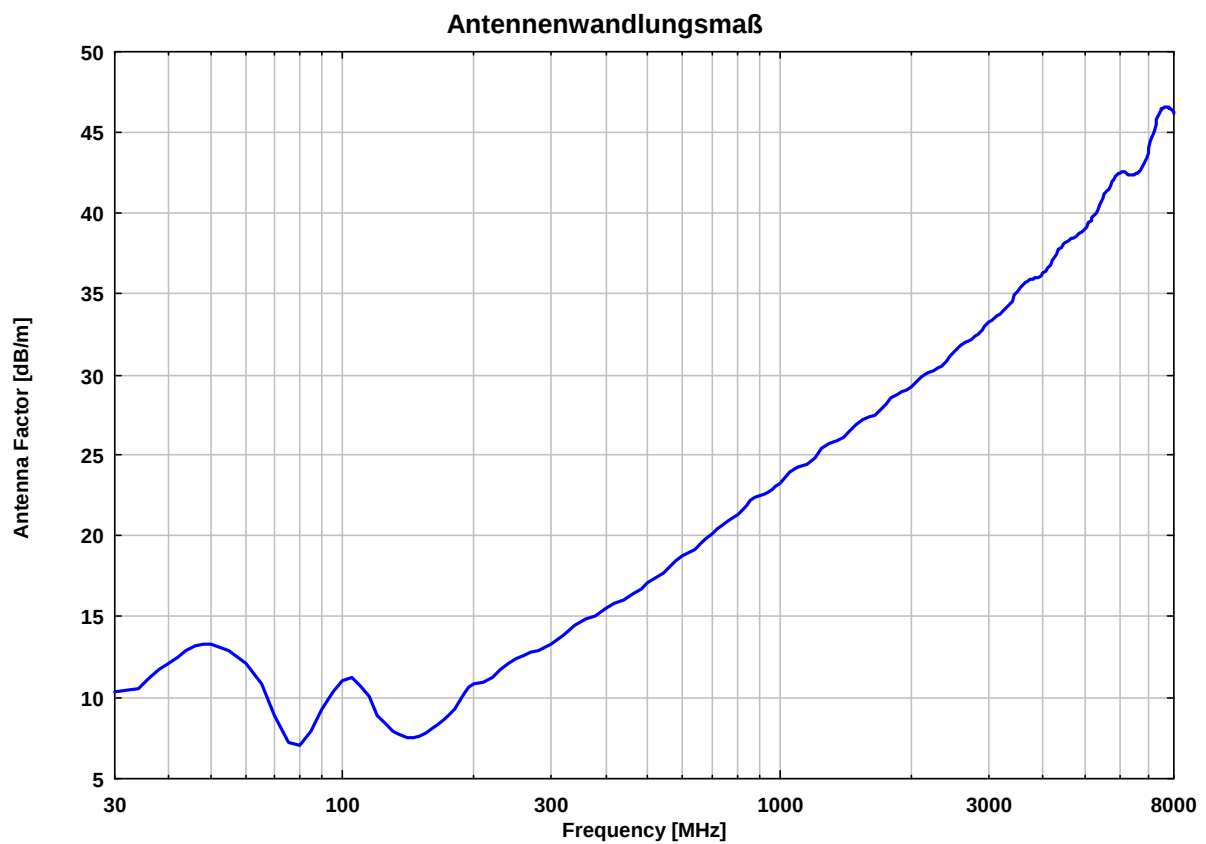
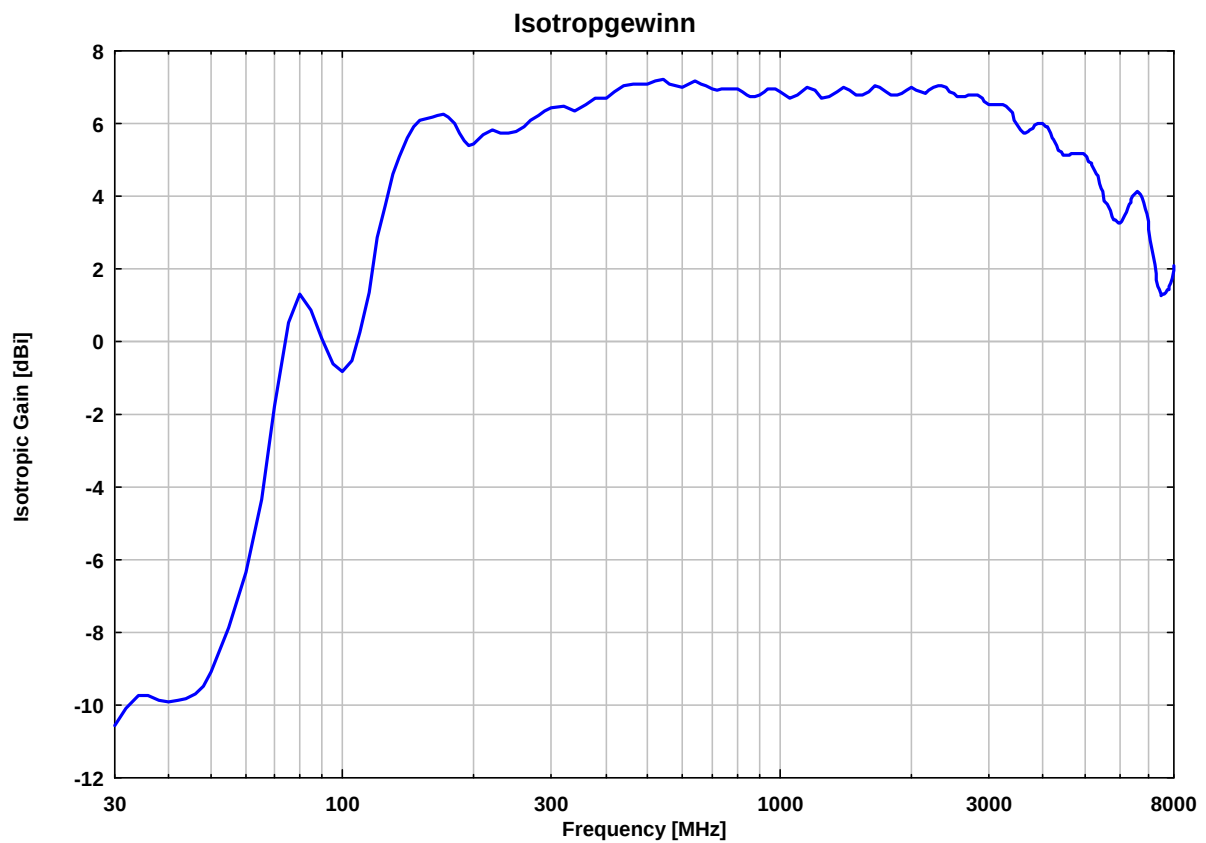
**Bauart:**

Linear polarisierte Logarithmisch Periodische Breitbandantenne mit 4:1 Breitbanddipol in Aluminiumausführung für Empfangs- und Sendeanwendungen

**Type:**

Linear polarized Logarithmic Periodic Broadband Antenna combined with a 4:1 Broadband Dipole (Aluminium tubing) for Receive and Transmit Applications

| Technische Daten:                  |                                     | Specifications:                  |
|------------------------------------|-------------------------------------|----------------------------------|
| Frequenzbereich, nominell:         | 30 MHz...7 GHz                      | Nominal Frequency Range:         |
| Nutzbarer Frequenzbereich:         | 25 MHz ... 8 GHz                    | Usable Frequency Range:          |
| Isotropiegewinn im LP-Bereich:     | 6.4+/- 1.2 dBi                      | Isotropic Gain (LP-Section):     |
| Antennenfaktor:                    | 7 ... 43 dB/m                       | Antenna Factor:                  |
| Impedanz, nominell:                | 50 Ω                                | Nominal Impedance:               |
| Stehwellenverhältnis SWR typisch:  | <1.5 (f > 150 MHz)                  | Standing Wave Ratio SWR typical: |
| Vor- Rückverhältnis:               | 20 dB (f > 150 MHz)                 | Front to Back Ratio:             |
| Polarisationsentkopplung:          | >20 dB (30 MHz...1 GHz)             | Cross Polarisation:              |
| 3 dB Öffnungswinkel typ.(E-Ebene): | 45°-65° (f > 150 MHz)               | 3 dB Beamwidth typ. (E-Plane):   |
| 3 dB Öffnungswinkel typ.(E-Ebene): | ≈78° (f < 150 MHz)                  | 3 dB Beamwidth typ. (E-Plane):   |
| 3 dB Öffnungswinkel typ.(H-Ebene): | 90°-120° (f > 150 MHz)              | 3 dB Beamwidth typ. (H-Plane):   |
| Max. Eingangsleistung:             | 200 W (intermitt.)<br>100 W (cont.) | Max. Input Power:                |
| Anschlußart: N-Buchse              |                                     | N-Connector female               |
| Halterung: 22 mm Rohr, Rastring    |                                     | Mount: 22 mm Tube, Indexing Ring |
| Breite x Länge x Dicke:            | 1500 x 920 (1253) x 620 mm          | Width x Length x Thickness:      |
| Gewicht:                           | 3.1 kg                              | Weight:                          |



| Frequency | Distance | Wavelength | Attenuation | Gain<br>(Isotr.) | Gain<br>(Dipole) | Ant.-Factor |
|-----------|----------|------------|-------------|------------------|------------------|-------------|
| MHz       | m        | m          | dB          | dB <i>i</i>      | dB <i>d</i>      | dB/m        |
| 30.00     | 5.20     | 10.00      | 37.41       | -10.56           | -12.71           | 10.32       |
| 32.00     | 5.20     | 9.38       | 37.07       | -10.10           | -12.25           | 10.43       |
| 34.00     | 5.20     | 8.82       | 36.87       | -9.74            | -11.89           | 10.59       |
| 36.00     | 5.20     | 8.33       | 37.40       | -9.76            | -11.91           | 11.10       |
| 38.00     | 5.20     | 7.89       | 38.16       | -9.90            | -12.05           | 11.72       |
| 40.00     | 5.20     | 7.50       | 38.63       | -9.91            | -12.06           | 12.17       |
| 42.00     | 5.20     | 7.14       | 38.94       | -9.86            | -12.01           | 12.54       |
| 44.00     | 5.20     | 6.82       | 39.30       | -9.84            | -11.99           | 12.93       |
| 46.00     | 5.20     | 6.52       | 39.42       | -9.70            | -11.85           | 13.18       |
| 48.00     | 5.20     | 6.25       | 39.34       | -9.48            | -11.63           | 13.32       |
| 50.00     | 5.20     | 6.00       | 38.95       | -9.10            | -11.25           | 13.30       |
| 55.00     | 5.20     | 5.45       | 37.31       | -7.87            | -10.02           | 12.90       |
| 60.00     | 5.20     | 5.00       | 35.02       | -6.35            | -8.50            | 12.13       |
| 65.00     | 5.20     | 4.62       | 31.77       | -4.37            | -6.52            | 10.85       |
| 70.00     | 5.20     | 4.29       | 27.25       | -1.79            | -3.94            | 8.91        |
| 75.00     | 5.20     | 4.00       | 23.21       | 0.52             | -1.63            | 7.20        |
| 80.00     | 5.20     | 3.75       | 22.23       | 1.30             | -0.85            | 6.98        |
| 85.00     | 5.20     | 3.53       | 23.62       | 0.86             | -1.29            | 7.94        |
| 90.00     | 5.20     | 3.33       | 25.69       | 0.08             | -2.07            | 9.23        |
| 95.00     | 5.20     | 3.16       | 27.53       | -0.61            | -2.76            | 10.38       |
| 100.00    | 5.20     | 3.00       | 28.40       | -0.82            | -2.97            | 11.04       |
| 105.00    | 5.20     | 2.86       | 28.26       | -0.54            | -2.69            | 11.18       |
| 110.00    | 5.20     | 2.73       | 27.07       | 0.26             | -1.89            | 10.79       |
| 115.00    | 5.20     | 2.61       | 25.23       | 1.37             | -0.78            | 10.06       |
| 120.00    | 5.20     | 2.50       | 22.59       | 2.88             | 0.73             | 8.93        |
| 125.00    | 5.13     | 2.40       | 21.06       | 3.76             | 1.61             | 8.40        |
| 130.00    | 5.06     | 2.31       | 19.60       | 4.60             | 2.45             | 7.90        |
| 135.00    | 5.00     | 2.22       | 18.80       | 5.11             | 2.96             | 7.71        |
| 140.00    | 4.94     | 2.14       | 18.00       | 5.62             | 3.47             | 7.52        |
| 145.00    | 4.88     | 2.07       | 17.63       | 5.91             | 3.76             | 7.54        |
| 150.00    | 4.83     | 2.00       | 17.46       | 6.09             | 3.94             | 7.65        |
| 155.00    | 4.78     | 1.94       | 17.52       | 6.16             | 4.01             | 7.86        |
| 160.00    | 4.74     | 1.88       | 17.66       | 6.19             | 4.04             | 8.11        |
| 165.00    | 4.70     | 1.82       | 17.74       | 6.24             | 4.09             | 8.33        |
| 170.00    | 4.66     | 1.76       | 17.88       | 6.27             | 4.12             | 8.56        |
| 175.00    | 4.62     | 1.71       | 18.24       | 6.18             | 4.03             | 8.90        |
| 180.00    | 4.59     | 1.67       | 18.74       | 6.02             | 3.87             | 9.31        |
| 185.00    | 4.55     | 1.62       | 19.44       | 5.75             | 3.60             | 9.81        |
| 190.00    | 4.52     | 1.58       | 20.08       | 5.52             | 3.37             | 10.27       |
| 195.00    | 4.49     | 1.54       | 20.52       | 5.38             | 3.23             | 10.64       |
| 200.00    | 4.46     | 1.50       | 20.61       | 5.42             | 3.27             | 10.82       |
| 210.00    | 4.41     | 1.43       | 20.40       | 5.69             | 3.54             | 10.98       |
| 220.00    | 4.36     | 1.36       | 20.41       | 5.84             | 3.69             | 11.23       |
| 230.00    | 4.32     | 1.30       | 20.89       | 5.75             | 3.60             | 11.70       |
| 240.00    | 4.28     | 1.25       | 21.19       | 5.74             | 3.59             | 12.08       |
| 250.00    | 4.24     | 1.20       | 21.35       | 5.80             | 3.65             | 12.38       |
| 260.00    | 4.21     | 1.15       | 21.36       | 5.93             | 3.78             | 12.59       |
| 270.00    | 4.18     | 1.11       | 21.36       | 6.07             | 3.91             | 12.78       |
| 280.00    | 4.15     | 1.07       | 21.28       | 6.23             | 4.08             | 12.93       |
| 290.00    | 4.12     | 1.03       | 21.25       | 6.37             | 4.22             | 13.10       |
| 300.00    | 4.10     | 1.00       | 21.36       | 6.44             | 4.29             | 13.33       |
| 320.00    | 4.05     | 0.94       | 21.75       | 6.47             | 4.32             | 13.85       |
| 340.00    | 4.01     | 0.88       | 22.39       | 6.37             | 4.22             | 14.48       |

| Frequency | Distance | Wavelength | Attenuation | Gain<br>(Isotr.) | Gain<br>(Dipole) | Ant.-Factor |
|-----------|----------|------------|-------------|------------------|------------------|-------------|
| MHz       | m        | m          | dB          | dBi              | dBd              | dB/m        |
| 360.00    | 3.97     | 0.83       | 22.46       | 6.54             | 4.39             | 14.80       |
| 380.00    | 3.94     | 0.79       | 22.51       | 6.72             | 4.57             | 15.10       |
| 400.00    | 3.91     | 0.75       | 22.88       | 6.72             | 4.57             | 15.54       |
| 420.00    | 3.89     | 0.71       | 22.96       | 6.87             | 4.71             | 15.82       |
| 440.00    | 3.86     | 0.68       | 22.97       | 7.04             | 4.89             | 16.05       |
| 460.00    | 3.84     | 0.65       | 23.19       | 7.10             | 4.94             | 16.38       |
| 480.00    | 3.82     | 0.63       | 23.54       | 7.08             | 4.93             | 16.76       |
| 500.00    | 3.80     | 0.60       | 23.77       | 7.12             | 4.97             | 17.08       |
| 520.00    | 3.78     | 0.58       | 23.95       | 7.18             | 5.03             | 17.36       |
| 540.00    | 3.77     | 0.56       | 24.18       | 7.22             | 5.07             | 17.65       |
| 560.00    | 3.75     | 0.54       | 24.70       | 7.10             | 4.95             | 18.09       |
| 580.00    | 3.74     | 0.52       | 25.11       | 7.03             | 4.88             | 18.46       |
| 600.00    | 3.73     | 0.50       | 25.38       | 7.02             | 4.87             | 18.76       |
| 620.00    | 3.72     | 0.48       | 25.52       | 7.09             | 4.94             | 18.98       |
| 640.00    | 3.70     | 0.47       | 25.60       | 7.17             | 5.02             | 19.17       |
| 660.00    | 3.69     | 0.45       | 25.96       | 7.11             | 4.96             | 19.50       |
| 680.00    | 3.68     | 0.44       | 26.36       | 7.03             | 4.88             | 19.84       |
| 700.00    | 3.67     | 0.43       | 26.74       | 6.95             | 4.80             | 20.17       |
| 720.00    | 3.67     | 0.42       | 27.02       | 6.93             | 4.78             | 20.44       |
| 740.00    | 3.66     | 0.41       | 27.19       | 6.95             | 4.80             | 20.65       |
| 760.00    | 3.65     | 0.39       | 27.41       | 6.95             | 4.80             | 20.89       |
| 780.00    | 3.64     | 0.38       | 27.61       | 6.95             | 4.80             | 21.11       |
| 800.00    | 3.64     | 0.38       | 27.77       | 6.97             | 4.82             | 21.31       |
| 820.00    | 3.63     | 0.37       | 28.20       | 6.86             | 4.71             | 21.64       |
| 840.00    | 3.62     | 0.36       | 28.50       | 6.80             | 4.65             | 21.90       |
| 860.00    | 3.62     | 0.35       | 28.82       | 6.74             | 4.59             | 22.17       |
| 880.00    | 3.61     | 0.34       | 28.99       | 6.75             | 4.59             | 22.36       |
| 900.00    | 3.60     | 0.33       | 29.06       | 6.80             | 4.65             | 22.51       |
| 920.00    | 3.60     | 0.33       | 29.06       | 6.89             | 4.74             | 22.60       |
| 940.00    | 3.59     | 0.32       | 29.11       | 6.95             | 4.80             | 22.73       |
| 960.00    | 3.59     | 0.31       | 29.24       | 6.97             | 4.82             | 22.89       |
| 980.00    | 3.58     | 0.31       | 29.40       | 6.98             | 4.83             | 23.07       |
| 1000.00   | 3.58     | 0.30       | 29.74       | 6.89             | 4.74             | 23.33       |
| 1050.00   | 3.57     | 0.29       | 30.51       | 6.70             | 4.55             | 23.94       |
| 1100.00   | 3.56     | 0.27       | 30.71       | 6.80             | 4.65             | 24.25       |
| 1150.00   | 3.55     | 0.26       | 30.67       | 7.00             | 4.85             | 24.44       |
| 1200.00   | 3.54     | 0.25       | 31.16       | 6.93             | 4.78             | 24.88       |
| 1250.00   | 3.54     | 0.24       | 31.93       | 6.71             | 4.56             | 25.45       |
| 1300.00   | 3.53     | 0.23       | 32.21       | 6.73             | 4.58             | 25.77       |
| 1350.00   | 3.52     | 0.22       | 32.25       | 6.87             | 4.72             | 25.96       |
| 1400.00   | 3.52     | 0.21       | 32.26       | 7.02             | 4.86             | 26.13       |
| 1450.00   | 3.51     | 0.21       | 32.75       | 6.92             | 4.76             | 26.53       |
| 1500.00   | 3.51     | 0.20       | 33.25       | 6.81             | 4.66             | 26.94       |
| 1550.00   | 3.50     | 0.19       | 33.52       | 6.81             | 4.66             | 27.22       |
| 1600.00   | 3.50     | 0.19       | 33.59       | 6.90             | 4.75             | 27.40       |
| 1650.00   | 3.49     | 0.18       | 33.60       | 7.03             | 4.87             | 27.54       |
| 1700.00   | 3.49     | 0.18       | 33.88       | 7.01             | 4.86             | 27.82       |
| 1750.00   | 3.49     | 0.17       | 34.36       | 6.89             | 4.74             | 28.19       |
| 1800.00   | 3.48     | 0.17       | 34.78       | 6.80             | 4.65             | 28.53       |
| 1850.00   | 3.48     | 0.16       | 35.02       | 6.80             | 4.65             | 28.77       |
| 1900.00   | 3.48     | 0.16       | 35.14       | 6.85             | 4.70             | 28.95       |
| 1950.00   | 3.47     | 0.15       | 35.19       | 6.93             | 4.78             | 29.09       |
| 2000.00   | 3.47     | 0.15       | 35.26       | 7.00             | 4.85             | 29.24       |

| Frequency | Distance | Wavelength | Attenuation | Gain<br>(Isotr.) | Gain<br>(Dipole) | Ant.-Factor |
|-----------|----------|------------|-------------|------------------|------------------|-------------|
| MHz       | m        | m          | dB          | dBi              | dBd              | dB/m        |
| 2050.00   | 3.47     | 0.15       | 35.61       | 6.93             | 4.78             | 29.52       |
| 2100.00   | 3.46     | 0.14       | 35.95       | 6.87             | 4.71             | 29.80       |
| 2150.00   | 3.46     | 0.14       | 36.18       | 6.85             | 4.70             | 30.02       |
| 2200.00   | 3.46     | 0.14       | 36.23       | 6.92             | 4.77             | 30.15       |
| 2250.00   | 3.46     | 0.13       | 36.27       | 6.99             | 4.84             | 30.27       |
| 2300.00   | 3.46     | 0.13       | 36.33       | 7.06             | 4.91             | 30.39       |
| 2350.00   | 3.45     | 0.13       | 36.49       | 7.07             | 4.92             | 30.57       |
| 2400.00   | 3.45     | 0.13       | 36.77       | 7.02             | 4.87             | 30.81       |
| 2450.00   | 3.45     | 0.12       | 37.21       | 6.89             | 4.74             | 31.12       |
| 2500.00   | 3.45     | 0.12       | 37.50       | 6.82             | 4.67             | 31.36       |
| 2550.00   | 3.45     | 0.12       | 37.84       | 6.74             | 4.59             | 31.61       |
| 2600.00   | 3.44     | 0.12       | 38.03       | 6.73             | 4.57             | 31.79       |
| 2650.00   | 3.44     | 0.11       | 38.16       | 6.74             | 4.59             | 31.94       |
| 2700.00   | 3.44     | 0.11       | 38.24       | 6.78             | 4.63             | 32.07       |
| 2750.00   | 3.44     | 0.11       | 38.38       | 6.79             | 4.64             | 32.22       |
| 2800.00   | 3.44     | 0.11       | 38.54       | 6.78             | 4.63             | 32.38       |
| 2850.00   | 3.44     | 0.11       | 38.70       | 6.78             | 4.63             | 32.54       |
| 2900.00   | 3.44     | 0.10       | 39.05       | 6.68             | 4.53             | 32.79       |
| 2950.00   | 3.43     | 0.10       | 39.30       | 6.63             | 4.47             | 32.99       |
| 3000.00   | 3.43     | 0.10       | 39.64       | 6.53             | 4.38             | 33.24       |
| 3050.00   | 3.43     | 0.10       | 39.77       | 6.53             | 4.38             | 33.37       |
| 3100.00   | 3.43     | 0.10       | 39.89       | 6.54             | 4.39             | 33.50       |
| 3150.00   | 3.43     | 0.10       | 40.04       | 6.54             | 4.38             | 33.65       |
| 3200.00   | 3.43     | 0.09       | 40.19       | 6.53             | 4.37             | 33.80       |
| 3250.00   | 3.43     | 0.09       | 40.36       | 6.51             | 4.36             | 33.95       |
| 3300.00   | 3.43     | 0.09       | 40.57       | 6.47             | 4.32             | 34.12       |
| 3350.00   | 3.43     | 0.09       | 40.83       | 6.41             | 4.25             | 34.32       |
| 3400.00   | 3.42     | 0.09       | 41.16       | 6.30             | 4.15             | 34.55       |
| 3450.00   | 3.42     | 0.09       | 41.74       | 6.07             | 3.92             | 34.90       |
| 3500.00   | 3.42     | 0.09       | 42.11       | 5.95             | 3.80             | 35.15       |
| 3550.00   | 3.42     | 0.08       | 42.49       | 5.82             | 3.67             | 35.40       |
| 3600.00   | 3.42     | 0.08       | 42.74       | 5.76             | 3.61             | 35.59       |
| 3650.00   | 3.42     | 0.08       | 42.85       | 5.76             | 3.61             | 35.71       |
| 3700.00   | 3.42     | 0.08       | 42.91       | 5.79             | 3.64             | 35.80       |
| 3750.00   | 3.42     | 0.08       | 42.93       | 5.83             | 3.68             | 35.87       |
| 3800.00   | 3.42     | 0.08       | 42.94       | 5.88             | 3.73             | 35.93       |
| 3850.00   | 3.42     | 0.08       | 42.91       | 5.95             | 3.80             | 35.98       |
| 3900.00   | 3.42     | 0.08       | 42.91       | 6.01             | 3.86             | 36.03       |
| 3950.00   | 3.42     | 0.08       | 43.00       | 6.02             | 3.87             | 36.13       |
| 4000.00   | 3.41     | 0.08       | 43.15       | 6.00             | 3.85             | 36.26       |
| 4050.00   | 3.41     | 0.07       | 43.39       | 5.93             | 3.78             | 36.43       |
| 4100.00   | 3.41     | 0.07       | 43.55       | 5.90             | 3.75             | 36.57       |
| 4150.00   | 3.41     | 0.07       | 43.93       | 5.76             | 3.61             | 36.82       |
| 4200.00   | 3.41     | 0.07       | 44.34       | 5.62             | 3.46             | 37.07       |
| 4250.00   | 3.41     | 0.07       | 44.53       | 5.57             | 3.42             | 37.22       |
| 4300.00   | 3.41     | 0.07       | 44.95       | 5.41             | 3.26             | 37.48       |
| 4350.00   | 3.41     | 0.07       | 45.33       | 5.27             | 3.12             | 37.72       |
| 4400.00   | 3.41     | 0.07       | 45.50       | 5.23             | 3.08             | 37.85       |
| 4450.00   | 3.41     | 0.07       | 45.75       | 5.15             | 3.00             | 38.03       |
| 4500.00   | 3.41     | 0.07       | 45.91       | 5.12             | 2.97             | 38.16       |
| 4550.00   | 3.41     | 0.07       | 45.96       | 5.14             | 2.99             | 38.24       |
| 4600.00   | 3.41     | 0.07       | 46.05       | 5.15             | 2.99             | 38.33       |
| 4650.00   | 3.41     | 0.06       | 46.12       | 5.16             | 3.01             | 38.41       |

| Frequency | Distance | Wavelength | Attenuation | Gain<br>(Isotr.) | Gain<br>(Dipole) | Ant.-Factor |
|-----------|----------|------------|-------------|------------------|------------------|-------------|
| MHz       | m        | m          | dB          | dBi              | dBd              | dB/m        |
| 4700.00   | 3.41     | 0.06       | 46.22       | 5.16             | 3.01             | 38.51       |
| 4750.00   | 3.41     | 0.06       | 46.26       | 5.18             | 3.03             | 38.57       |
| 4800.00   | 3.41     | 0.06       | 46.36       | 5.18             | 3.03             | 38.67       |
| 4850.00   | 3.40     | 0.06       | 46.40       | 5.20             | 3.05             | 38.74       |
| 4900.00   | 3.40     | 0.06       | 46.54       | 5.17             | 3.02             | 38.85       |
| 4950.00   | 3.40     | 0.06       | 46.61       | 5.18             | 3.03             | 38.93       |
| 5000.00   | 3.40     | 0.06       | 46.81       | 5.13             | 2.98             | 39.07       |
| 5050.00   | 3.40     | 0.06       | 46.94       | 5.10             | 2.95             | 39.18       |
| 5100.00   | 3.40     | 0.06       | 47.28       | 4.97             | 2.82             | 39.40       |
| 5150.00   | 3.40     | 0.06       | 47.47       | 4.92             | 2.77             | 39.53       |
| 5200.00   | 3.40     | 0.06       | 47.67       | 4.86             | 2.71             | 39.68       |
| 5250.00   | 3.40     | 0.06       | 48.06       | 4.71             | 2.56             | 39.92       |
| 5300.00   | 3.40     | 0.06       | 48.29       | 4.63             | 2.48             | 40.07       |
| 5350.00   | 3.40     | 0.06       | 48.49       | 4.57             | 2.42             | 40.21       |
| 5400.00   | 3.40     | 0.06       | 49.02       | 4.35             | 2.20             | 40.52       |
| 5450.00   | 3.40     | 0.06       | 49.31       | 4.24             | 2.09             | 40.70       |
| 5500.00   | 3.40     | 0.05       | 49.58       | 4.15             | 2.00             | 40.88       |
| 5550.00   | 3.40     | 0.05       | 50.17       | 3.89             | 1.74             | 41.22       |
| 5600.00   | 3.40     | 0.05       | 50.44       | 3.80             | 1.65             | 41.39       |
| 5650.00   | 3.40     | 0.05       | 50.69       | 3.71             | 1.56             | 41.55       |
| 5700.00   | 3.40     | 0.05       | 50.93       | 3.63             | 1.48             | 41.71       |
| 5750.00   | 3.40     | 0.05       | 51.39       | 3.43             | 1.28             | 41.98       |
| 5800.00   | 3.40     | 0.05       | 51.60       | 3.37             | 1.22             | 42.12       |
| 5850.00   | 3.40     | 0.05       | 51.76       | 3.33             | 1.17             | 42.24       |
| 5900.00   | 3.40     | 0.05       | 51.89       | 3.30             | 1.15             | 42.34       |
| 5950.00   | 3.40     | 0.05       | 52.05       | 3.25             | 1.10             | 42.46       |
| 6000.00   | 3.40     | 0.05       | 52.10       | 3.26             | 1.11             | 42.52       |
| 6050.00   | 3.40     | 0.05       | 52.05       | 3.32             | 1.17             | 42.53       |
| 6100.00   | 3.40     | 0.05       | 52.02       | 3.38             | 1.22             | 42.55       |
| 6150.00   | 3.40     | 0.05       | 51.90       | 3.47             | 1.32             | 42.53       |
| 6200.00   | 3.39     | 0.05       | 51.79       | 3.56             | 1.41             | 42.51       |
| 6250.00   | 3.39     | 0.05       | 51.57       | 3.70             | 1.55             | 42.43       |
| 6300.00   | 3.39     | 0.05       | 51.49       | 3.78             | 1.63             | 42.43       |
| 6350.00   | 3.39     | 0.05       | 51.43       | 3.84             | 1.69             | 42.43       |
| 6400.00   | 3.39     | 0.05       | 51.34       | 3.92             | 1.77             | 42.43       |
| 6450.00   | 3.39     | 0.05       | 51.22       | 4.01             | 1.86             | 42.40       |
| 6500.00   | 3.39     | 0.05       | 51.21       | 4.05             | 1.90             | 42.43       |
| 6550.00   | 3.39     | 0.05       | 51.21       | 4.08             | 1.93             | 42.46       |
| 6600.00   | 3.39     | 0.05       | 51.21       | 4.12             | 1.97             | 42.49       |
| 6650.00   | 3.39     | 0.05       | 51.34       | 4.08             | 1.93             | 42.59       |
| 6700.00   | 3.39     | 0.04       | 51.48       | 4.05             | 1.90             | 42.69       |
| 6750.00   | 3.39     | 0.04       | 51.73       | 3.95             | 1.80             | 42.85       |
| 6800.00   | 3.39     | 0.04       | 52.02       | 3.84             | 1.69             | 43.03       |
| 6850.00   | 3.39     | 0.04       | 52.39       | 3.68             | 1.53             | 43.25       |
| 6900.00   | 3.39     | 0.04       | 52.83       | 3.50             | 1.35             | 43.50       |
| 6950.00   | 3.39     | 0.04       | 53.29       | 3.30             | 1.15             | 43.76       |
| 7000.00   | 3.39     | 0.04       | 53.80       | 3.07             | 0.92             | 44.05       |
| 7050.00   | 3.39     | 0.04       | 54.42       | 2.80             | 0.65             | 44.39       |
| 7100.00   | 3.39     | 0.04       | 54.96       | 2.56             | 0.41             | 44.69       |
| 7150.00   | 3.39     | 0.04       | 55.41       | 2.36             | 0.21             | 44.95       |

| Frequency | Distance | Wavelength | Attenuation | Gain (Isotr.) | Gain (Dipole) | Ant.-Factor |
|-----------|----------|------------|-------------|---------------|---------------|-------------|
| MHz       | m        | m          | dB          | dBi           | dBd           | dB/m        |
| 7200.00   | 3.39     | 0.04       | 55.95       | 2.12          | -0.03         | 45.25       |
| 7250.00   | 3.39     | 0.04       | 56.49       | 1.88          | -0.27         | 45.55       |
| 7300.00   | 3.39     | 0.04       | 56.94       | 1.69          | -0.46         | 45.80       |
| 7350.00   | 3.39     | 0.04       | 57.30       | 1.53          | -0.62         | 46.01       |
| 7400.00   | 3.39     | 0.04       | 57.61       | 1.41          | -0.74         | 46.20       |
| 7450.00   | 3.39     | 0.04       | 57.89       | 1.30          | -0.85         | 46.37       |
| 7500.00   | 3.39     | 0.04       | 58.00       | 1.27          | -0.88         | 46.45       |
| 7550.00   | 3.39     | 0.04       | 58.01       | 1.30          | -0.86         | 46.48       |
| 7600.00   | 3.39     | 0.04       | 58.06       | 1.30          | -0.85         | 46.54       |
| 7650.00   | 3.39     | 0.04       | 58.05       | 1.33          | -0.82         | 46.56       |
| 7700.00   | 3.39     | 0.04       | 57.95       | 1.41          | -0.74         | 46.54       |
| 7750.00   | 3.39     | 0.04       | 57.95       | 1.44          | -0.71         | 46.57       |
| 7800.00   | 3.39     | 0.04       | 57.83       | 1.53          | -0.62         | 46.53       |
| 7850.00   | 3.39     | 0.04       | 57.71       | 1.61          | -0.54         | 46.51       |
| 7900.00   | 3.39     | 0.04       | 57.49       | 1.75          | -0.40         | 46.42       |
| 7950.00   | 3.39     | 0.04       | 57.17       | 1.94          | -0.21         | 46.29       |
| 8000.00   | 3.39     | 0.04       | 56.91       | 2.09          | -0.06         | 46.19       |

VSWR-Plot VULB 9162

