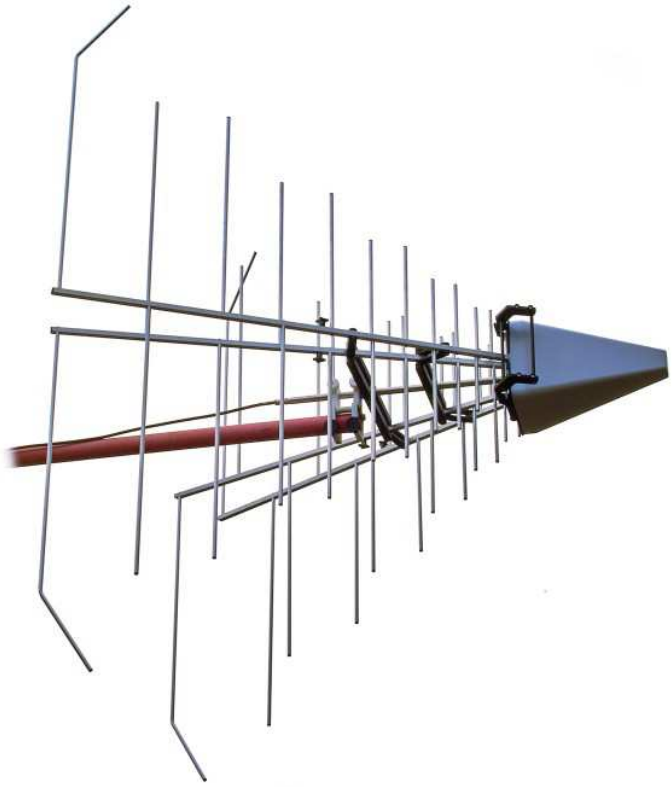
Gestockte Log.-Per.-Breitband-Antenne
Stacked Log.-Per.-Broadband Antenna



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.

Technische Daten:		***Specifications:***
Frequenzbereich:	70 MHz – 10 GHz	*Frequency Range:*
Polarisation:	linear	*Polarisation:*
Strahlungscharakteristik:	direktional / *directional*	*Pattern Type:*
Isotropgewinn:	8.6 dBi ± 2.3 dB	*Isotropic Gain:*
Nominelle Impedanz:	50 Ω	*Nominal Impedance:*
Max. Dauerleistung:	1.5 KW (f < 100 MHz) 500 W (f < 1 GHz) 200 W (f < 8 GHz)	*Max.Continuous Power:*
VSWR typ.:	< 2	*VSWR typ.:*
Abmessungen:	1.69 x 1.64 x 2.02 m	*Dimensions:*
Befestigung:	22 mm Rohr / *Tube*	*Mounting*
Gewicht:	10.2 kg	*Weight:*
Anschluss:	N , 7/16	*Connector:*

Die STLP 9129 wurde insbesondere für Störfesigkeitsprüfungen 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 9149 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.

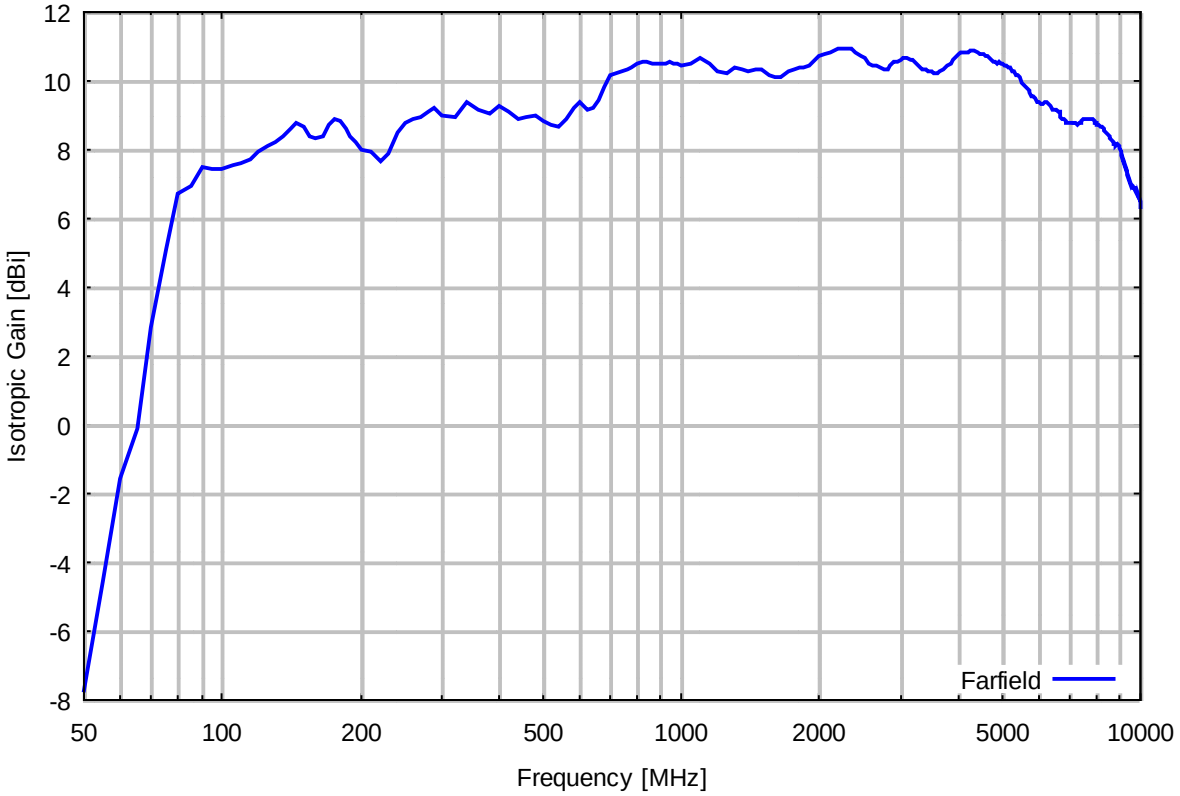
This unrivalled bandwidth was achieved by combining the both well proven antenna designs STLP 9128 D and the STLP 9149. The STLP 9129 does provide the optimum out of gain and field uniformity at the same time as well as both basic antennas do.

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

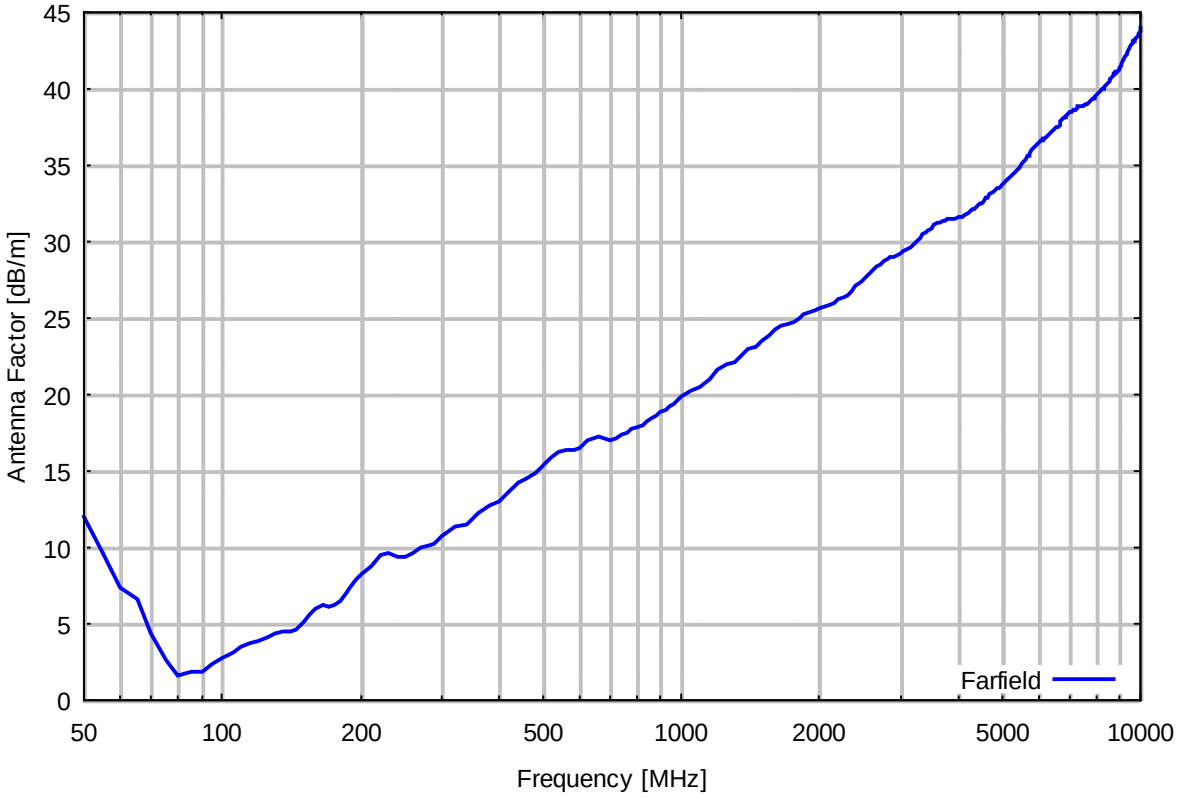
By default, the STLP 9129 is equipped with fast links for the rear radiating elements, which are responsible for the low frequency range between 70 MHz and 180 MHz. These unique fast links allow the quick disassembly of the antenna within less than a minute into five handling-friendly parts. The rear 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 Frequenz	Distance Abstand	Wavelength Wellen- länge	Attenuation Dämpfung	Gain(Isotr.) Isotrop- gewinn	Ant.-Factor Ant.-Wand- lungsmaß
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

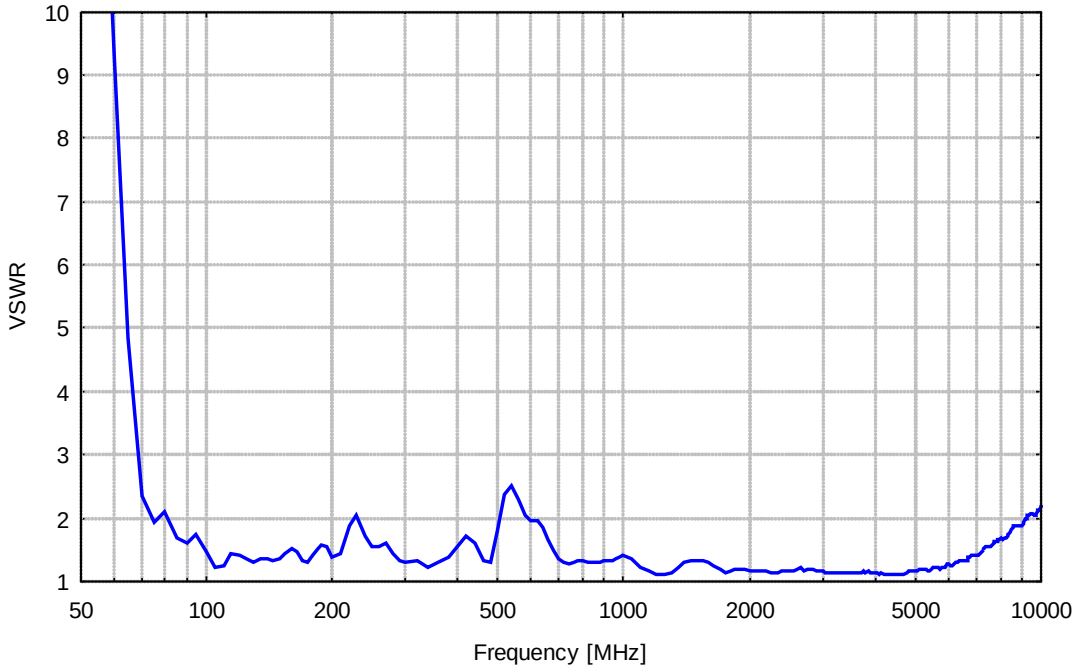
Frequency Frequenz	Distance Abstand	Wavelength Wellen- länge	Attenuation Dämpfung	Gain(Isotr.) Isotrop- gewinn	Ant.-Factor Ant.-Wand- lungsmaß
MHz	m	m	dB	dBi	dB/m
540.00	1.99	0.56	15.76	8.66	16.21
560.00	1.98	0.54	15.62	8.85	16.33
580.00	1.96	0.52	15.21	9.18	16.30
600.00	1.95	0.50	15.08	9.37	16.42
620.00	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 Frequenz	Distance Abstand	Wavelength Wellen- länge	Attenuation Dämpfung	Gain(Isotr.) Isotrop- gewinn	Ant.-Factor Ant.-Wand- 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

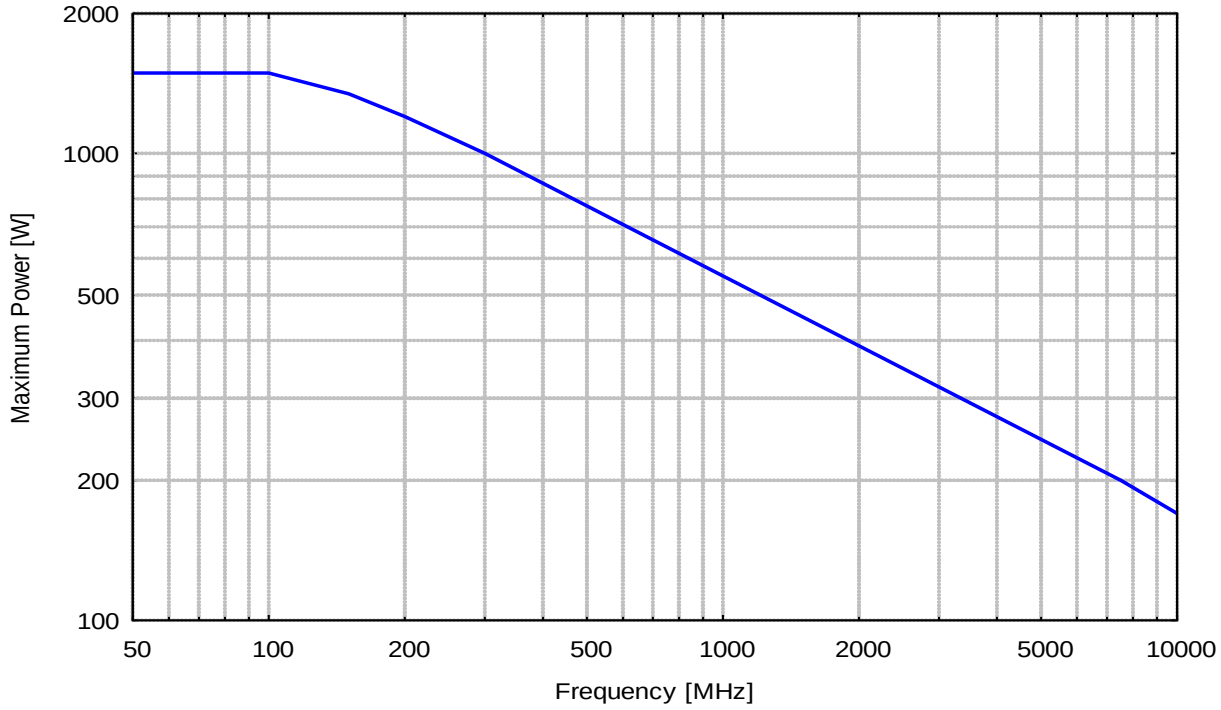
Frequency Frequenz	Distance Abstand	Wavelength Wellen- länge	Attenuation Dämpfung	Gain(Isotr.) Isotrop- gewinn	Ant.-Factor Ant.-Wand- lungsmaß
MHz	m	m	dB	dBi	dB/m
5150.00	1.14	0.06	27.06	10.36	34.09
5200.00	1.13	0.06	27.15	10.35	34.19
5250.00	1.13	0.06	27.36	10.28	34.34
5300.00	1.13	0.06	27.47	10.27	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 Frequenz	Distance Abstand	Wavelength Wellen- länge	Attenuation Dämpfung	Gain(Isotr.) Isotrop- gewinn	Ant.-Factor Ant.-Wand- 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



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