

SCHWARZBECK MESS - ELEKTRONIK

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

Mikrowellen Log. - Per. Antenne STLP 9149 *Microwave Log.-Per. Antenna STLP 9149*



Beschreibung:

Gestockte Logarithmisch -Periodische Breitbandantenne (linear polarisiert) für Sende- und Empfangsanwendungen im Mikrowellenbereich. Die Antennenstruktur besteht aus lasergeschnittenem Messingblech. Zum Schutz der feinen Antennenstruktur gegen Beschädigungen ist die Antenne mit einer verlustarmen Kunststoffhaube ausgestattet. Die STLP 9149 eignet sich besonders gut für Störfestigkeitsprüfungen gem. IEC 61000-4-3 aufgrund der guten Feldhomogenität. Weitere herausragende Merkmale dieser Antenne sind die große Bandbreite, nahezu konstanter Gewinn, hervorragende Anpassung sowie gleicher Öffnungswinkel in E- und H-Ebene.

Description:

Stacked Logarithmic-Periodic Broadband Antenna for Linear polarised RX- and TX-applications in the microwave frequency range. The antenna structure is made of laser-cut brass. For protection of the fine antenna structure against damage the antenna is equipped with a low loss plastic protection cover. The STLP 9149 is especially suitable for Immunity Testing acc. to IEC 61000-4-3 because of its good field uniformity. Further outstanding characteristics of the STLP 9149 are the wide bandwidth, the nearly constant high gain, very good impedance matching as well as equal beamwidth in E- and H-plane.

Technische Daten:

Nenn-Frequenzbereich:	0.7 - 9 GHz
Nutzbarer Frequenzbereich:	0.6 - 10.5 GHz
Anschluß: Buchse	50 Ω N
Befestigungsrohr:	$\phi=22$ mm, L=215 mm
Isotropgewinn:	typ. 10.3 dBi +/- 1.5 dB
Antennenwandlungsmaß:	18...41 dB/m
SWR typ.:	< 1.5 (f < 7 GHz)
Max. Eingangsleistung:	300 W (f = 1 GHz) 150 W (f = 6 GHz)
Halbwertsbreite E-Ebene:	46 $^{\circ}$ +/- 10 $^{\circ}$
Halbwertsbreite H-Ebene:	48 $^{\circ}$ +/- 10 $^{\circ}$
Vor-Rückmaß:	> 25 dB typ.
Kreuzpolarisationsdämpfung:	> 30 dB typ.
Abmessungen:	460 (+215) x 270 x 270 mm
Gewicht:	3.7 kg

Specifications:

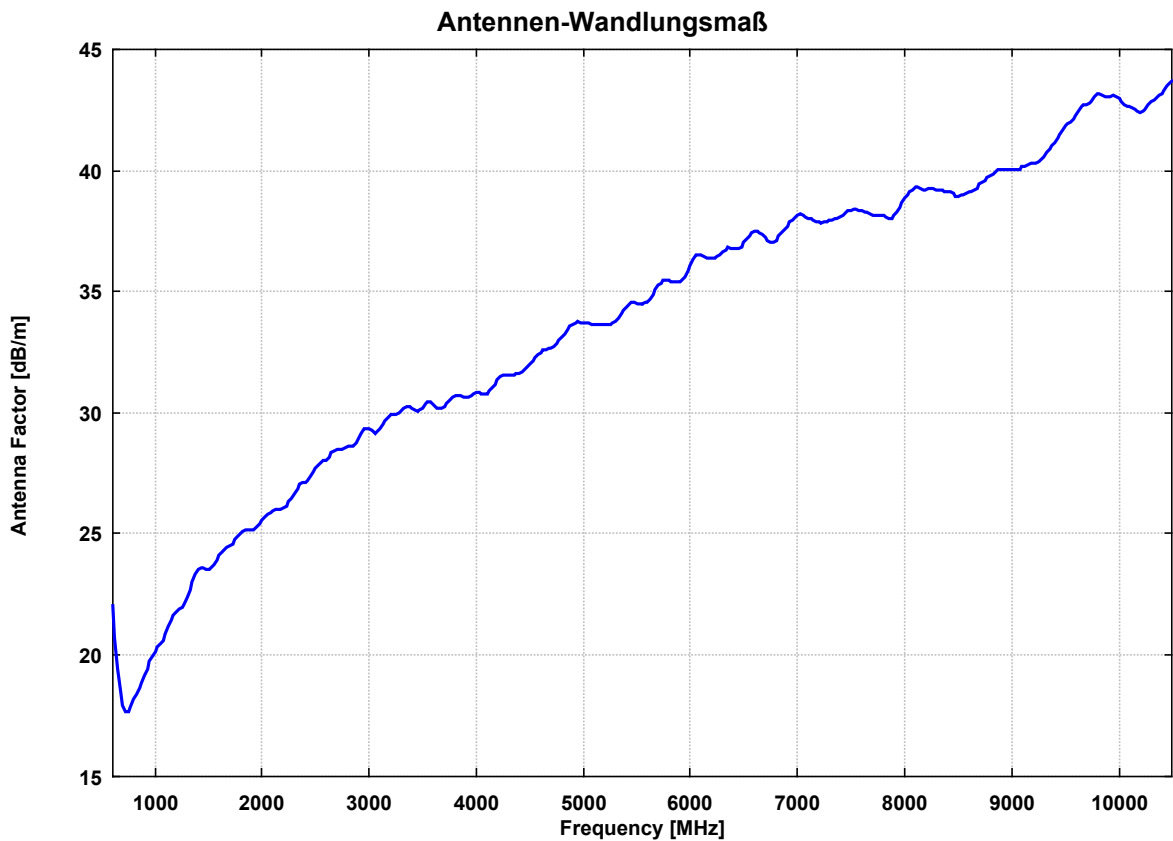
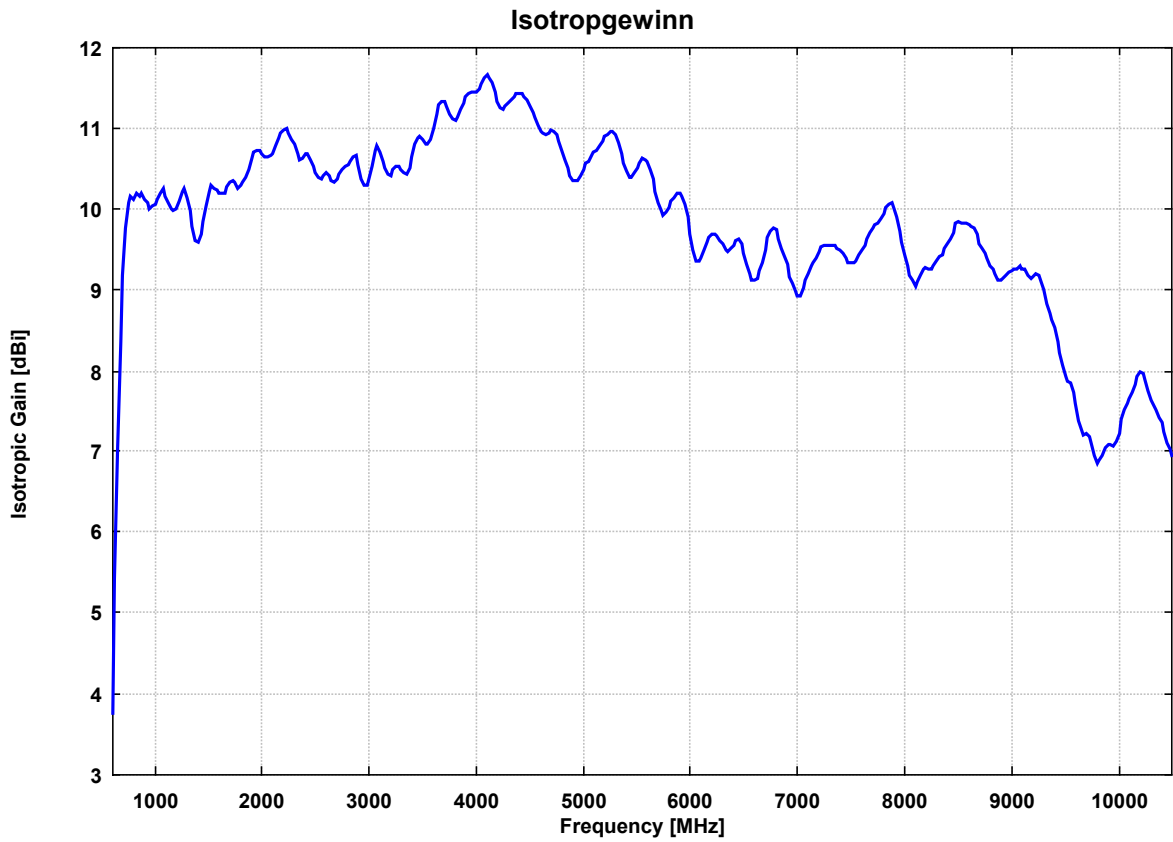
Nominal Frequency range:
Useable Frequency range:
Connector: female
Mounting tube:
Isotropic gain:
Antenna Factor:
SWR typ.:
Max. Input Power:
Half-Power Beamwidth (E-plane):
Half-Power Beamwidth (H-plane):
Front to Back Ratio:
Cross Polarisation Rejection:
Dimensions:
Weight:

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Frequency MHz	Distance m	Wavelength m	Attenuation dB	Gain(Isotr.) dBi	Ant.-Factor dB/m
600.00	3.00	0.500	30.05	3.75	22.03
625.00	3.00	0.480	27.05	5.42	20.71
650.00	3.00	0.462	24.15	7.04	19.43
675.00	3.00	0.444	21.86	8.36	18.45
700.00	3.00	0.429	20.50	9.19	17.93
725.00	3.00	0.414	19.64	9.77	17.65
750.00	2.97	0.400	19.23	10.09	17.63
775.00	2.95	0.387	19.28	10.17	17.84
800.00	2.92	0.375	19.56	10.13	18.15
825.00	2.90	0.364	19.64	10.19	18.36
850.00	2.88	0.353	19.87	10.17	18.64
875.00	2.86	0.343	20.01	10.20	18.86
900.00	2.84	0.333	20.33	10.13	19.18
925.00	2.82	0.324	20.59	10.09	19.45
950.00	2.80	0.316	20.96	10.00	19.78
975.00	2.79	0.308	21.05	10.04	19.96
1000.00	2.77	0.300	21.19	10.06	20.16
1100.00	2.72	0.273	21.61	10.17	20.88
1200.00	2.67	0.250	22.55	10.01	21.80
1300.00	2.63	0.231	22.84	10.14	22.35
1400.00	2.60	0.214	24.46	9.60	23.54
1500.00	2.57	0.200	23.72	10.22	23.52
1600.00	2.55	0.188	24.25	10.19	24.11
1700.00	2.52	0.176	24.43	10.33	24.50
1800.00	2.50	0.167	24.95	10.29	25.04
1900.00	2.49	0.158	24.65	10.64	25.15
2000.00	2.47	0.150	24.92	10.70	25.54
2100.00	2.46	0.143	25.28	10.70	25.96
2200.00	2.44	0.136	25.08	10.99	26.08
2300.00	2.43	0.130	25.79	10.80	26.65
2400.00	2.42	0.125	26.34	10.69	27.13
2500.00	2.41	0.120	27.15	10.45	27.73
2600.00	2.40	0.115	27.43	10.46	28.06
2700.00	2.39	0.111	27.89	10.38	28.47
2800.00	2.38	0.107	27.81	10.56	28.60
2900.00	2.38	0.103	28.12	10.55	28.92
3000.00	2.37	0.100	28.73	10.38	29.38
3100.00	2.36	0.097	28.33	10.71	29.34
3200.00	2.36	0.094	29.16	10.42	29.91
3300.00	2.35	0.091	29.25	10.49	30.10
3400.00	2.35	0.088	29.18	10.65	30.20
3500.00	2.34	0.086	28.98	10.87	30.23
3600.00	2.34	0.083	28.93	11.01	30.34
3700.00	2.33	0.081	28.49	11.33	30.25
3800.00	2.33	0.079	29.16	11.11	30.71
3900.00	2.32	0.077	28.81	11.39	30.65
4000.00	2.32	0.075	28.89	11.45	30.81
4100.00	2.32	0.073	28.65	11.67	30.80
4200.00	2.31	0.071	29.51	11.34	31.34
4300.00	2.31	0.070	29.76	11.31	31.58
4400.00	2.31	0.068	29.68	11.44	31.64
4500.00	2.30	0.067	30.19	11.28	32.00
4600.00	2.30	0.065	31.01	10.96	32.51
4700.00	2.30	0.064	31.16	10.98	32.68
4800.00	2.30	0.063	31.80	10.74	33.11
4900.00	2.29	0.061	32.75	10.35	33.67
5000.00	2.29	0.060	32.62	10.50	33.70
5100.00	2.29	0.059	32.36	10.71	33.66
5200.00	2.29	0.058	32.13	10.90	33.64
5300.00	2.28	0.057	32.26	10.92	33.79

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Frequency	Distance	Wavelength	Attenuation	Gain(Isotr.)	Ant.-Factor
MHz	m	m	dB	dBi	dB/m
5400.00	2.28	0.056	33.30	10.47	34.39
5500.00	2.28	0.055	33.38	10.51	34.51
5600.00	2.28	0.054	33.37	10.59	34.59
5700.00	2.28	0.053	34.53	10.09	35.25
5800.00	2.27	0.052	34.81	10.02	35.47
5900.00	2.27	0.051	34.58	10.20	35.43
6000.00	2.27	0.050	35.75	9.69	36.09
6100.00	2.27	0.049	36.46	9.40	36.52
6200.00	2.27	0.048	36.03	9.69	36.38
6300.00	2.27	0.048	36.38	9.57	36.63
6400.00	2.26	0.047	36.53	9.56	36.78
6500.00	2.26	0.046	36.89	9.45	37.03
6600.00	2.26	0.045	37.69	9.12	37.50
6700.00	2.26	0.045	37.05	9.50	37.24
6800.00	2.26	0.044	36.66	9.75	37.12
6900.00	2.26	0.043	37.66	9.32	37.68
7000.00	2.26	0.043	38.55	8.93	38.19
7100.00	2.25	0.042	38.13	9.20	38.05
7200.00	2.25	0.042	37.70	9.47	37.89
7300.00	2.25	0.041	37.67	9.55	37.94
7400.00	2.25	0.041	37.86	9.50	38.10
7500.00	2.25	0.040	38.32	9.33	38.39
7600.00	2.25	0.039	38.09	9.50	38.33
7700.00	2.25	0.039	37.69	9.76	38.19
7800.00	2.25	0.038	37.43	9.94	38.12
7900.00	2.25	0.038	37.37	10.02	38.15
8000.00	2.25	0.038	38.65	9.44	38.84
8100.00	2.24	0.037	39.53	9.05	39.34
8200.00	2.24	0.037	39.17	9.28	39.21
8300.00	2.24	0.036	39.11	9.36	39.24
8400.00	2.24	0.036	38.79	9.57	39.13
8500.00	2.24	0.035	38.33	9.85	38.96
8600.00	2.24	0.035	38.51	9.81	39.10
8700.00	2.24	0.034	39.09	9.57	39.44
8800.00	2.24	0.034	39.70	9.31	39.80
8900.00	2.24	0.034	40.16	9.13	40.08
9000.00	2.24	0.033	40.04	9.24	40.06
9100.00	2.24	0.033	40.10	9.25	40.15
9200.00	2.24	0.033	40.37	9.17	40.33
9300.00	2.23	0.032	40.77	9.01	40.58
9400.00	2.23	0.032	41.81	8.54	41.14
9500.00	2.23	0.032	43.12	7.93	41.85
9600.00	2.23	0.031	43.89	7.59	42.28
9700.00	2.23	0.031	44.71	7.22	42.74
9800.00	2.23	0.031	45.51	6.86	43.18
9900.00	2.23	0.030	45.15	7.09	43.05
10000.00	2.23	0.030	44.94	7.23	42.99
10100.00	2.23	0.030	44.18	7.66	42.65
10200.00	2.23	0.029	43.61	7.98	42.41
10300.00	2.23	0.029	44.37	7.64	42.83
10400.00	2.23	0.029	44.99	7.37	43.19
10500.00	2.23	0.029	45.93	6.94	43.70

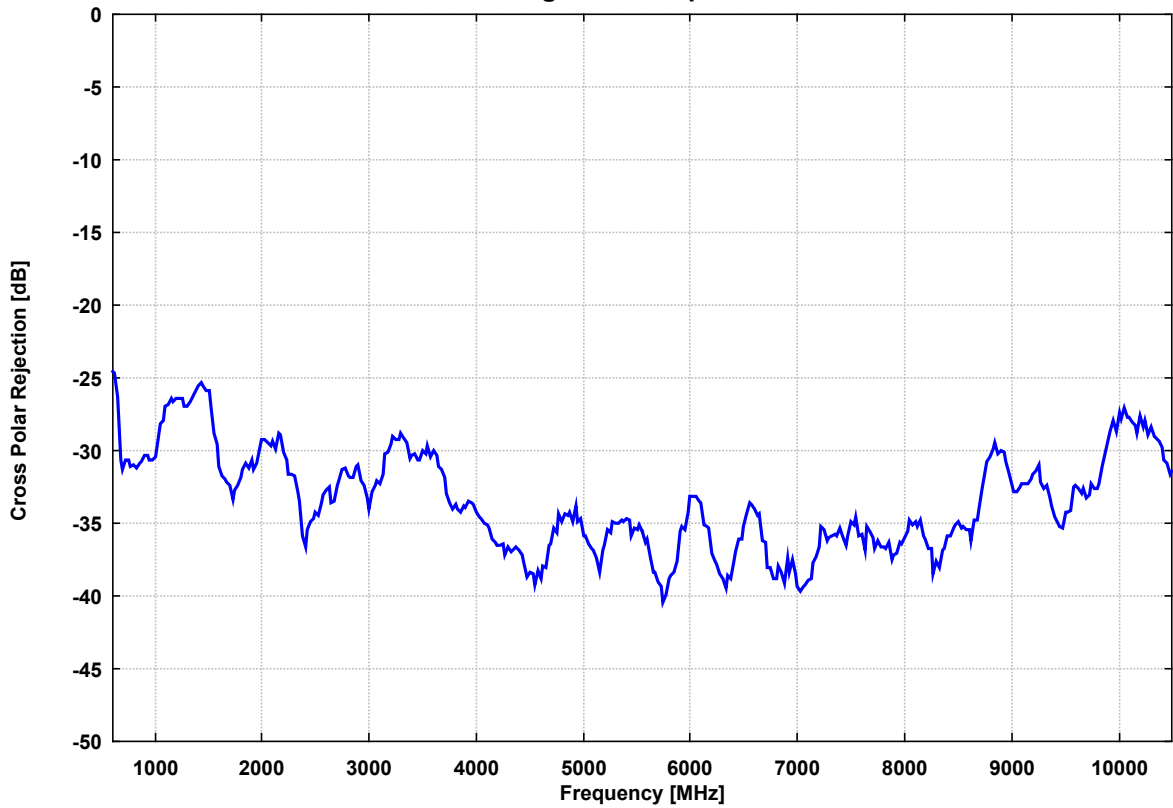
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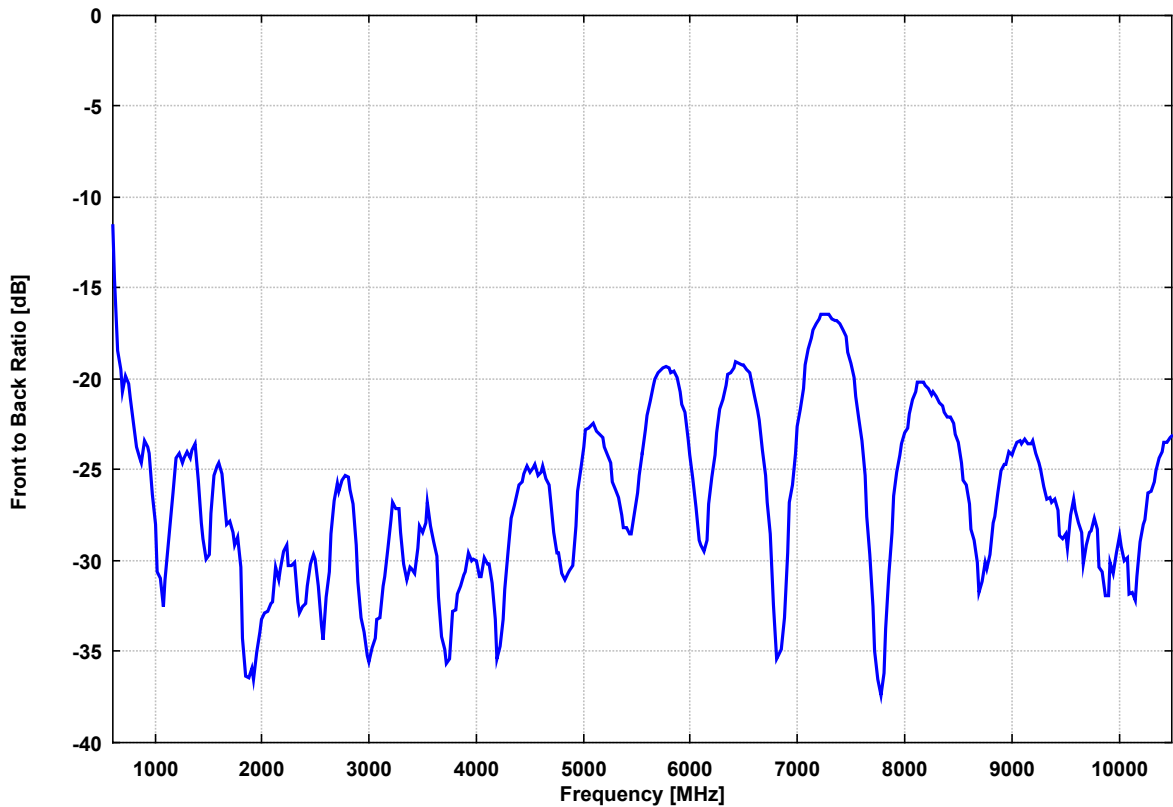
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Unterdrückung der Kreuzpolarisation



Vor- Rückmaß



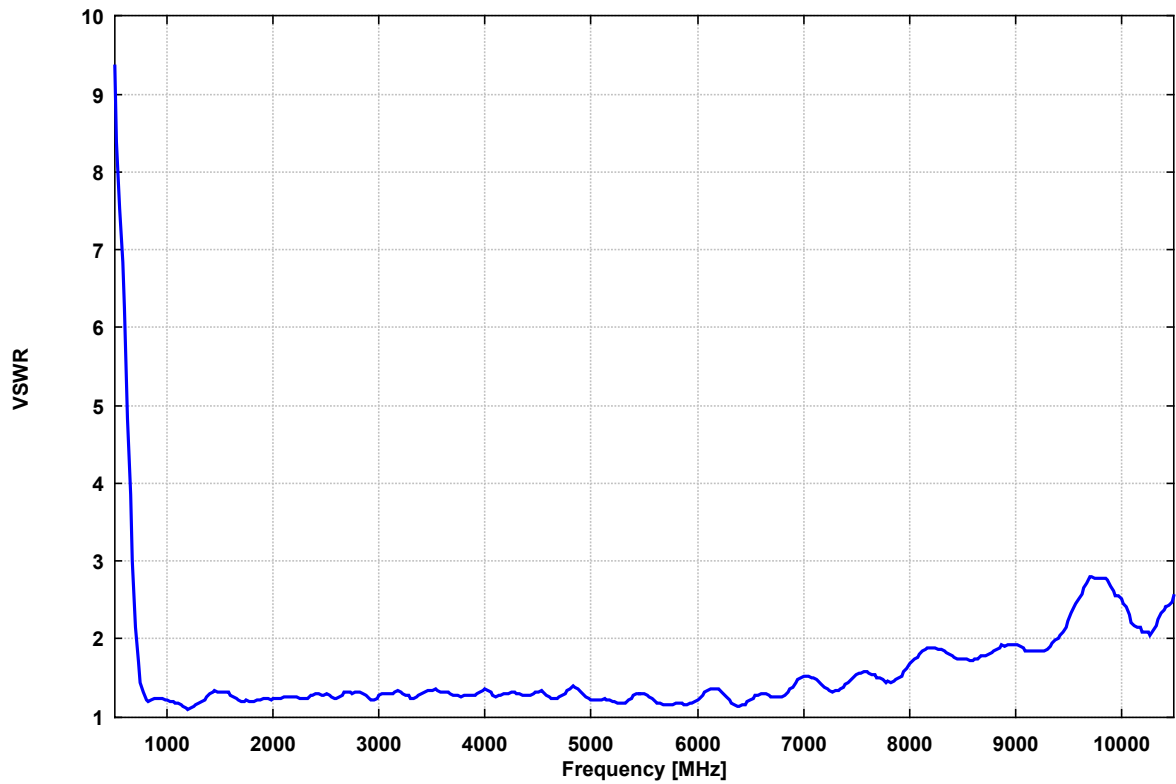
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Stehwellenverhältnis an der Antennenbuchse STLP 9149



3 dB Öffnungswinkel in E- und H-Ebene

