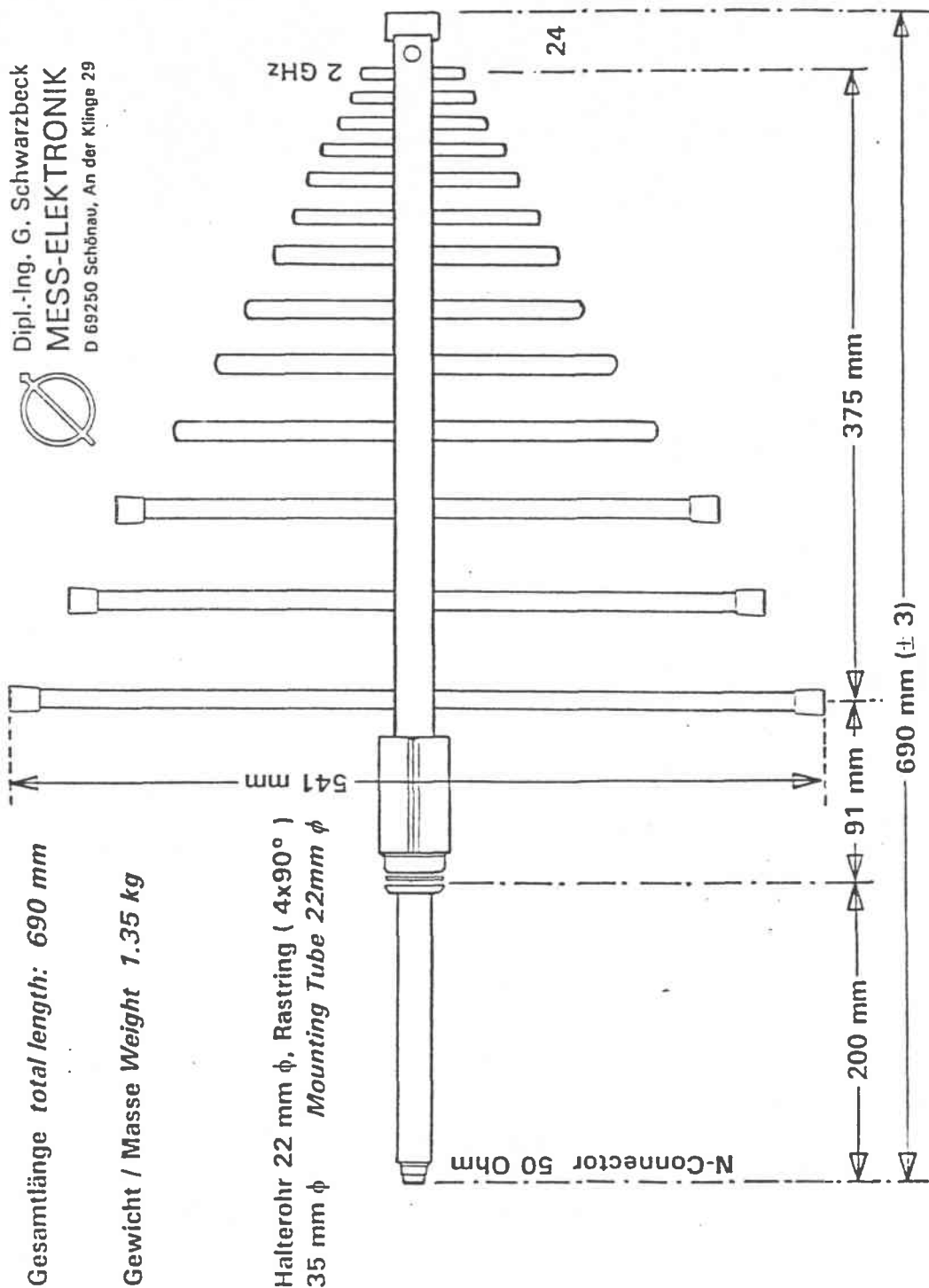


Basic Frequency Range: 300 MHz... 1 GHz, usable and calibrated: 0.25 - 2.2GHz

UHALP 9108-A1, Log.-Per.-Messantenne 250 MHz - 2 GHz
Calibrated UHF- LOG. Test Antenna, 0.25 - 2GHz, 1kW (LF)



Dipl.-Ing. G. Schwarzbeck
MESS-ELEKTRONIK
D 69250 Schönau, An der Klinge 29

Gesamtlänge total length: 690 mm

Gewicht / Masse Weight 1.35 kg

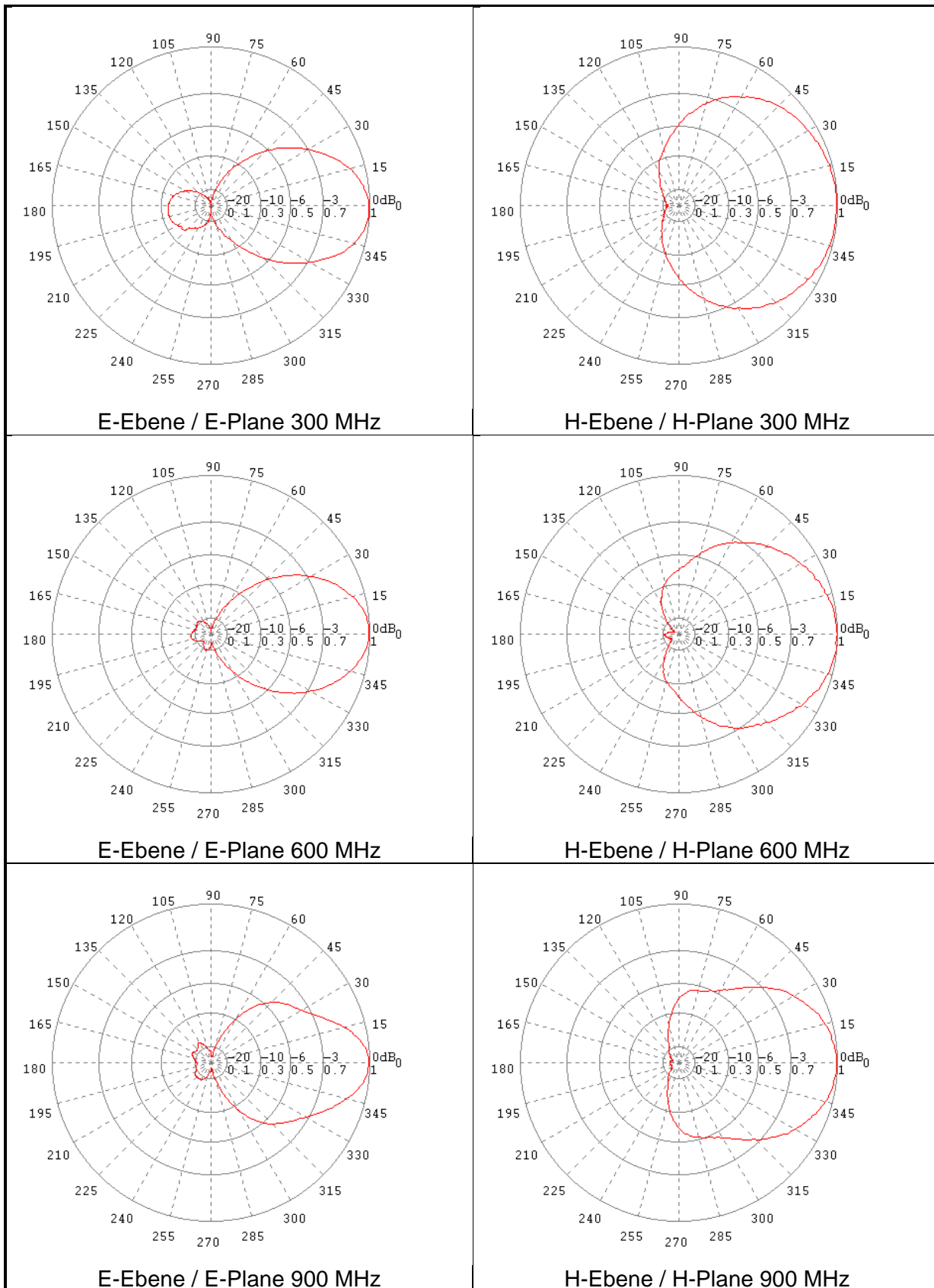
Halterohr 22 mm ϕ , Rastring (4x90°)
35 mm ϕ Mounting Tube 22mm ϕ

N-Connector 50 Ohm

SCHWARZBECK MESS - ELEKTRONIK

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

Log. - Per. Breitband-Antenne UHALP 9108 A
Log. - Per. Broadband Antenna UHALP 9108 A



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

Logarithmisch Periodische Breitbandantenne UHALP 9108 A1

Logarithmic Periodic Broadband Antenna UHALP 9108 A1

250...2200 MHz, 1 kW

Calibration accuracy: 0.7 dB, free space data

Frequency MHz	Distance m	lambda m	Attenuation dB	Gain(Isotr.) dBi	Gain(Dipole) dBd	Ant.-Factor dB/m
250.00	4.00	1.20	27.90	2.27	0.12	15.91
260.00	4.00	1.15	25.90	3.44	1.29	15.08
270.00	4.00	1.11	24.60	4.26	2.10	14.59
280.00	4.00	1.07	23.40	5.01	2.86	14.15
290.00	4.00	1.03	22.48	5.63	3.47	13.84
300.00	3.97	1.00	21.82	6.07	3.92	13.69
325.00	3.91	0.92	21.30	6.61	4.46	13.85
350.00	3.85	0.86	21.45	6.79	4.64	14.31
375.00	3.80	0.80	22.45	6.54	4.38	15.17
400.00	3.76	0.75	23.20	6.39	4.24	15.87
425.00	3.72	0.71	23.39	6.52	4.37	16.27
450.00	3.69	0.67	23.55	6.65	4.50	16.64
475.00	3.66	0.63	23.86	6.69	4.54	17.06
500.00	3.63	0.60	23.90	6.86	4.71	17.34
525.00	3.61	0.57	24.12	6.93	4.78	17.69
550.00	3.59	0.55	24.61	6.86	4.71	18.16
575.00	3.57	0.52	25.09	6.79	4.64	18.62
600.00	3.55	0.50	25.20	6.90	4.75	18.88
625.00	3.53	0.48	25.40	6.96	4.81	19.18
650.00	3.51	0.46	25.65	6.98	4.83	19.50
675.00	3.50	0.44	25.88	7.01	4.86	19.79
700.00	3.49	0.43	26.07	7.06	4.91	20.06
725.00	3.47	0.41	26.00	7.23	5.08	20.19
750.00	3.46	0.40	25.85	7.44	5.29	20.28
775.00	3.45	0.39	25.95	7.52	5.37	20.49
800.00	3.44	0.38	26.36	7.44	5.29	20.84
825.00	3.43	0.36	26.75	7.36	5.21	21.18
850.00	3.42	0.35	27.12	7.30	5.15	21.51
900.00	3.41	0.33	27.29	7.44	5.29	21.86
1000.00	3.38	0.30	28.07	7.47	5.32	22.75
1050.00	3.37	0.29	28.20	7.60	5.45	23.04
1100.00	3.35	0.27	28.50	7.64	5.49	23.41
1150.00	3.34	0.26	28.90	7.62	5.47	23.81
1200.00	3.33	0.25	29.25	7.62	5.47	24.19
1300.00	3.32	0.23	30.26	7.44	5.29	25.06
1400.00	3.30	0.21	30.95	7.40	5.25	25.74
1500.00	3.29	0.20	31.77	7.27	5.12	26.47
1600.00	3.28	0.19	32.40	7.22	5.07	27.08
1700.00	3.27	0.18	33.70	6.82	4.67	28.00
1800.00	3.26	0.17	34.80	6.51	4.36	28.81
1900.00	3.26	0.16	36.60	5.84	3.69	29.96
2000.00	3.25	0.15	38.40	5.15	3.00	31.09
2100.00	3.24	0.14	39.40	4.85	2.70	31.81
2200.00	3.24	0.14	39.70	4.90	2.75	32.17
2300.00	3.23	0.13	39.40	5.23	3.08	32.22
2400.00	3.23	0.13	40.10	5.06	2.91	32.76

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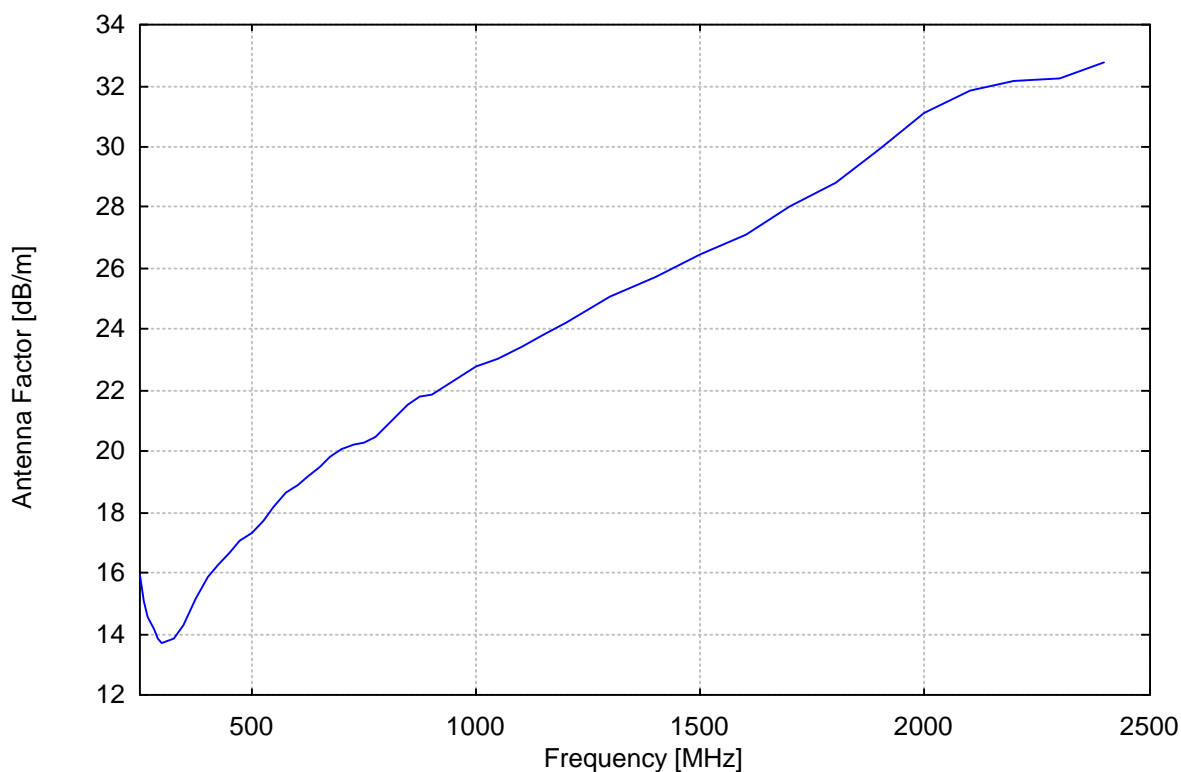
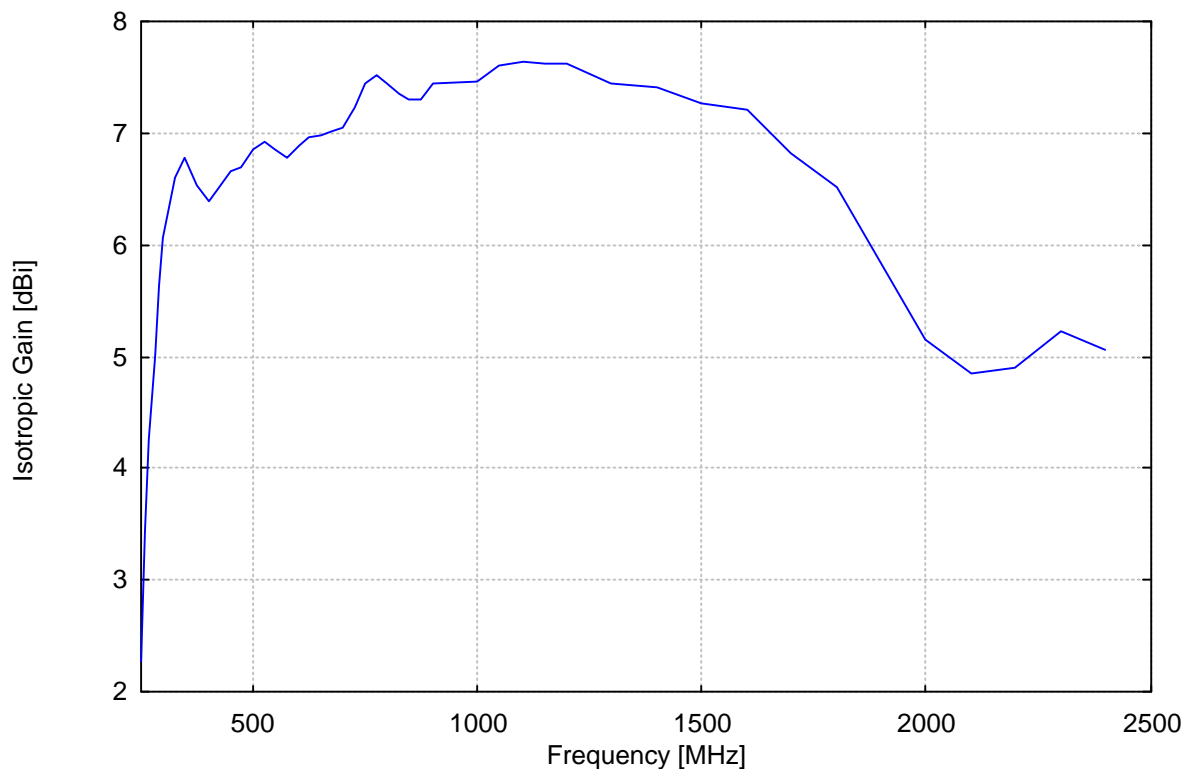
An der Klinge 29 D-69250 Schönau Tel.: 06228/1001 Fax.: (49)6228/1003

Logarithmisch Periodische Breitbandantenne UHALP 9108 A1

Logarithmic Periodic Broadband Antenna UHALP 9108 A1

250...2200 MHz, 1 kW

Calibration accuracy: 0.7 dB, free space data



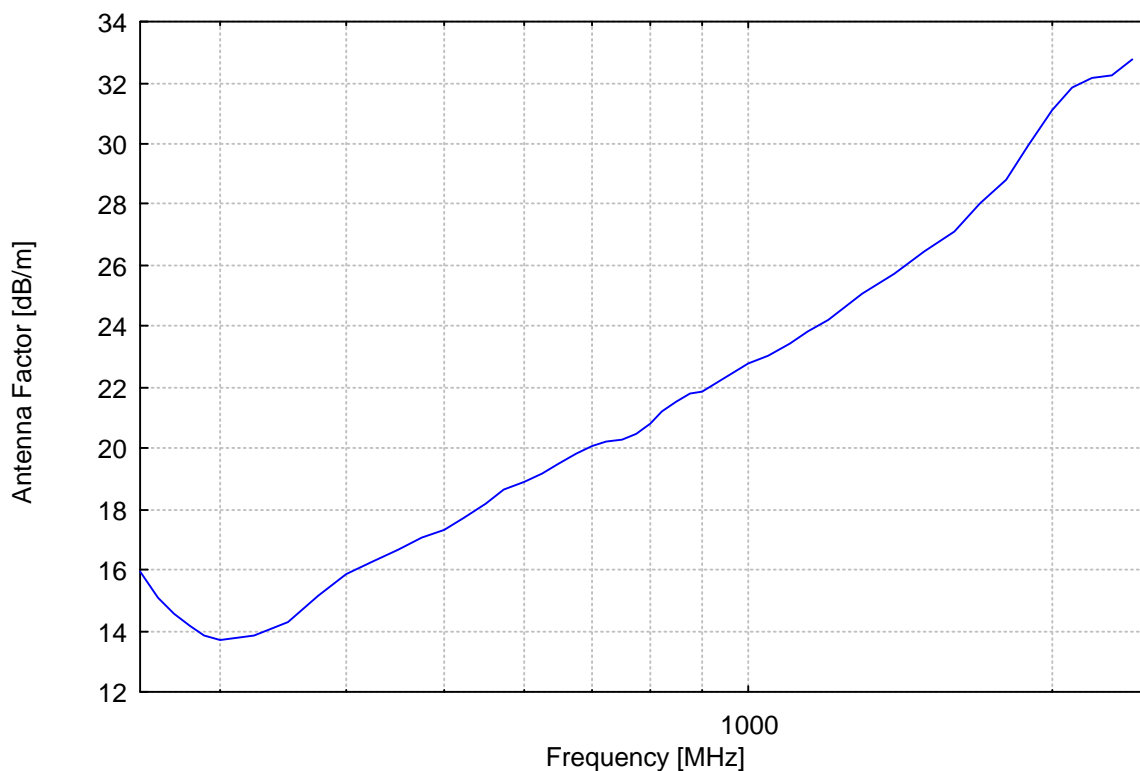
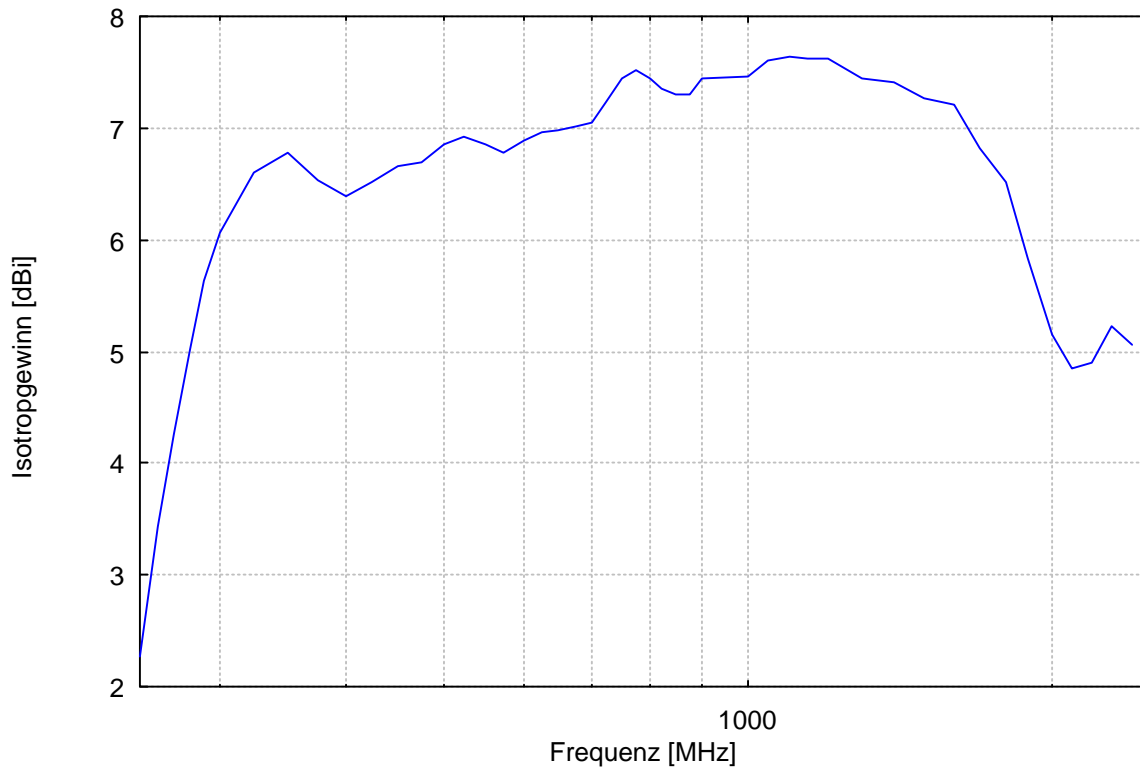
SCHWARZBECK MESS - ELEKTRONIK

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

Logarithmisch Periodische Breitbandantenne UHALP 9108 A1 *Logarithmic Periodic Broadband Antenna UHALP 9108 A1*

250...2200 MHz, 1 kW

Calibration accuracy: 0.7 dB, free space data



SCHWARZBECK MESS - ELEKTRONIK

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

UHALP 9108 A1

Korrekturdaten für kurze Meßentfernung

Correction for Short Measuring Distance

Frequency	Gain (Iso.)	Ant.-Fact k	gi (10 m)	k (10m)	gi (3m)	k (3m)	gi (1m)	k (1m)
Frequenz	Gewinn	Ant. Faktor	gi (10 m)	k (10m)	gi (3m)	k (3m)	gi (1m)	k (1m)
MHz	dBi	dB/m	dBi	dB/m	dBi	dB/m	dBi	dB/m
250.0	2.27	15.91	2.11	16.07	1.74	16.44	0.76	17.42
260.0	3.44	15.08	3.28	15.24	2.91	15.61	1.93	16.59
270.0	4.26	14.59	4.10	14.75	3.73	15.12	2.75	16.10
280.0	5.01	14.15	4.85	14.32	4.48	14.69	3.50	15.66
290.0	5.63	13.84	5.47	14.00	5.10	14.37	4.12	15.35
300.0	6.07	13.69	5.92	13.84	5.58	14.18	4.67	15.09
325.0	6.61	13.85	6.48	13.97	6.20	14.26	5.43	15.02
350.0	6.79	14.31	6.69	14.41	6.46	14.64	5.84	15.26
375.0	6.54	15.17	6.46	15.24	6.28	15.42	5.79	15.91
400.0	6.39	15.87	6.33	15.93	6.19	16.07	5.80	16.46
425.0	6.52	16.27	6.48	16.31	6.38	16.41	6.10	16.69
450.0	6.65	16.64	6.62	16.66	6.55	16.73	6.35	16.93
475.0	6.69	17.06	6.67	17.08	6.63	17.12	6.52	17.24
500.0	6.86	17.34	6.86	17.34	6.85	17.35	6.82	17.38
525.0	6.93	17.69	6.93	17.69	6.94	17.68	6.97	17.65
550.0	6.86	18.16	6.87	18.15	6.90	18.12	6.99	18.04
575.0	6.79	18.62	6.81	18.60	6.86	18.55	7.01	18.40
600.0	6.90	18.88	6.93	18.85	7.00	18.78	7.21	18.57
625.0	6.96	19.18	7.00	19.14	7.09	19.05	7.36	18.78
650.0	6.98	19.50	7.03	19.45	7.14	19.34	7.47	19.01
675.0	7.01	19.79	7.06	19.74	7.19	19.62	7.55	19.26
700.0	7.06	20.06	7.12	20.01	7.25	19.87	7.64	19.48
725.0	7.23	20.19	7.30	20.13	7.45	19.98	7.91	19.52
750.0	7.44	20.28	7.51	20.21	7.67	20.05	8.16	19.56
775.0	7.52	20.49	7.59	20.41	7.77	20.24	8.29	19.71
800.0	7.44	20.84	7.52	20.76	7.70	20.58	8.26	20.02
825.0	7.36	21.18	7.44	21.11	7.64	20.91	8.23	20.32
850.0	7.30	21.51	7.39	21.42	7.59	21.21	8.22	20.59
875.0	7.31	21.75	7.40	21.66	7.62	21.44	8.27	20.79
900.0	7.44	21.86	7.53	21.77	7.75	21.56	8.40	20.90
1000.0	7.47	22.75	7.57	22.65	7.82	22.40	8.58	21.64
1050.0	7.60	23.04	7.71	22.93	7.97	22.67	8.76	21.88
1100.0	7.64	23.41	7.76	23.29	8.04	23.01	8.90	22.15
1150.0	7.62	23.81	7.74	23.69	8.04	23.40	8.93	22.50
1200.0	7.62	24.19	7.75	24.06	8.05	23.75	8.98	22.82
1300.0	7.44	25.06	7.57	24.93	7.89	24.61	8.85	23.65
1400.0	7.40	25.74	7.54	25.60	7.88	25.27	8.91	24.23
1500.0	7.27	26.47	7.41	26.33	7.76	25.98	8.84	24.91
1600.0	7.22	27.08	7.37	26.93	7.73	26.58	8.84	25.46
Bezugs- punkt:	Strahlungs- zone:	Strahlungs- zone:	Mitte der Log.-Per. Struktur					
Reference Point:	Radiating Zone:	Radiating Zone:	Center of Log.-Per. Structure					

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

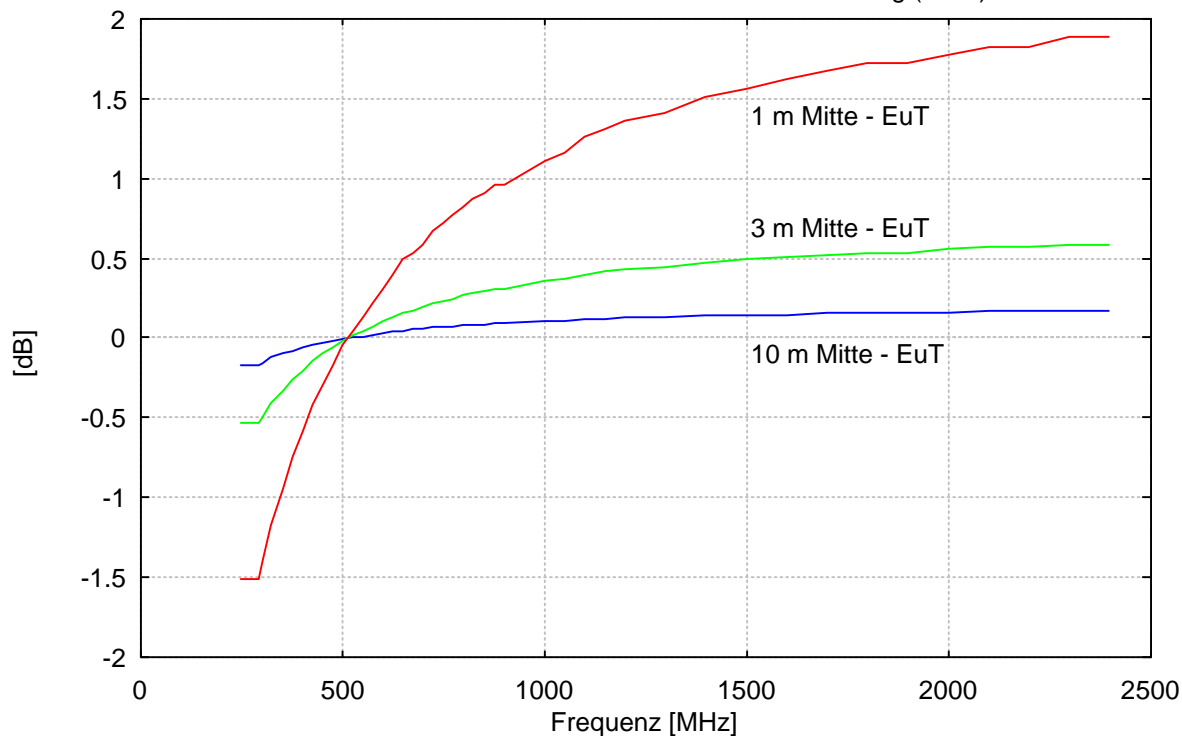
UHALP 9108 A1

Korrekturdaten für kurze Meßentfernung

Correction for Short Measuring Distance

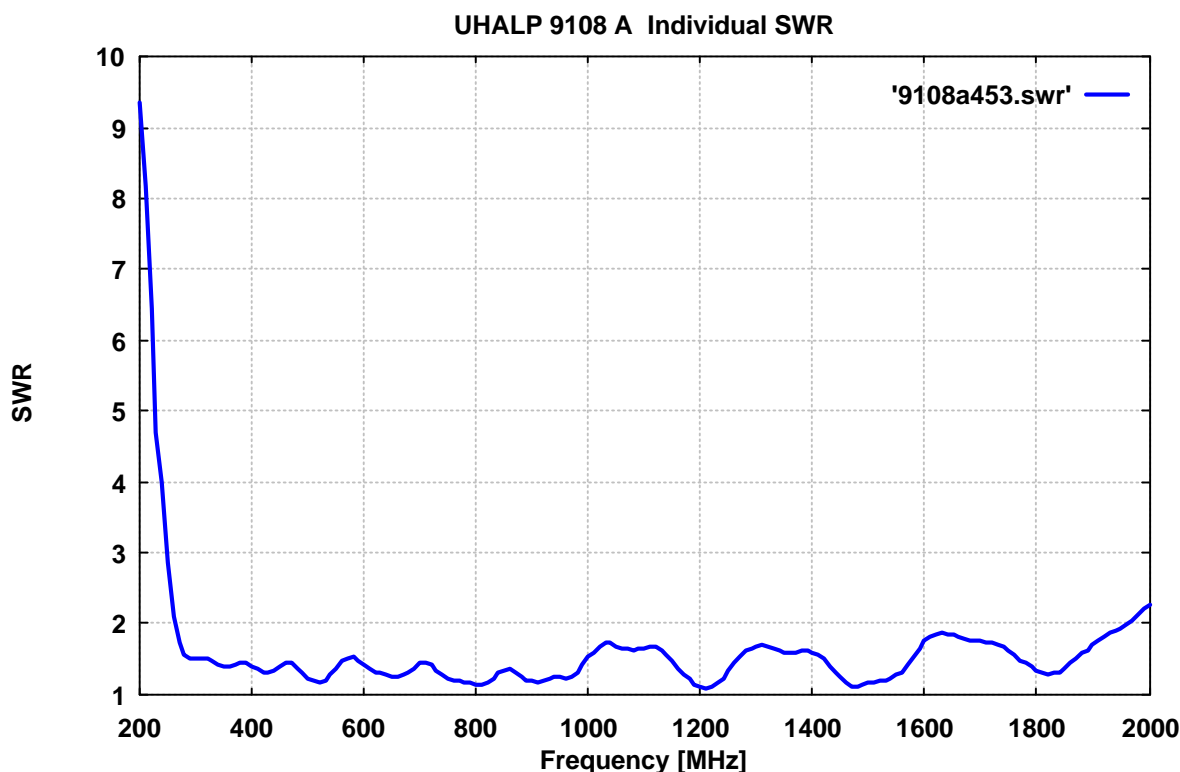
Frequency	Gain (Iso.)	Ant.-Fact k	gi (10 m)	k (10m)	gi (3m)	k (3m)	gi (1m)	k (1m)
Frequenz	Gewinn	Ant. Faktor	gi (10 m)	k (10m)	gi (3m)	k (3m)	gi (1m)	k (1m)
MHz	dBi	dB/m	dB	dB/m	dB	dB/m	dB	dB/m
1600.0	7.22	27.08	7.37	26.93	7.73	26.58	8.84	25.46
1700.0	6.82	28.00	6.97	27.86	7.34	27.49	8.49	26.34
1800.0	6.51	28.81	6.67	28.66	7.05	28.28	8.23	27.09
1900.0	5.84	29.96	6.00	29.80	6.38	29.42	7.56	28.23
2000.0	5.15	31.09	5.31	30.93	5.70	30.54	6.93	29.31
2100.0	4.85	31.81	5.02	31.65	5.42	31.25	6.68	29.98
2200.0	4.90	32.17	5.07	32.00	5.47	31.60	6.73	30.34
2300.0	5.23	32.22	5.40	32.05	5.81	31.64	7.11	30.34
2400.0	5.06	32.76	5.23	32.59	5.64	32.18	6.94	30.88
Bezugs- punkt:	Strahlungs- -zone:	Strahlungs- -zone:	Mitte der Log.-Per. Struktur					
Reference Point:	Radiating Zone:	Radiating Zone:	Center of Log.-Per. Structure					

UHALP 9108 A1 Korrektur für kurze Meßentfernung (Mitte)



SCHWARZBECK MESS - ELEKTRONIK

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Zwischenschalten eines Dämpfungsgliedes ist zweckmäßig, wenn das angeschlossene Gerät ein hohes Eigen-SWR (z.B. in der 0 dB-Stellung des Eingangsteilers) aufweist. Dann ist diese Dämpfung zum Antennenwandlungsmaß zu addieren bzw. vom Gewinn abzuziehen.

Das VSWR hängt von der Antennenhöhe über Grund, der Polarisation, der Kabelführung und anderen Umgebungseinflüssen ab.

Insertion of an attenuator is advisable if the equipment presents a high internal SWR (e.g. in the 0 dB position of an internal step attenuator). In this case the attenuation must be added to the antenna factor (dB/m) or subtracted from the gain (dBi, dBd)

The VSWR depends on antenna height, polarisation, cable dropdown and other environmental parameters.

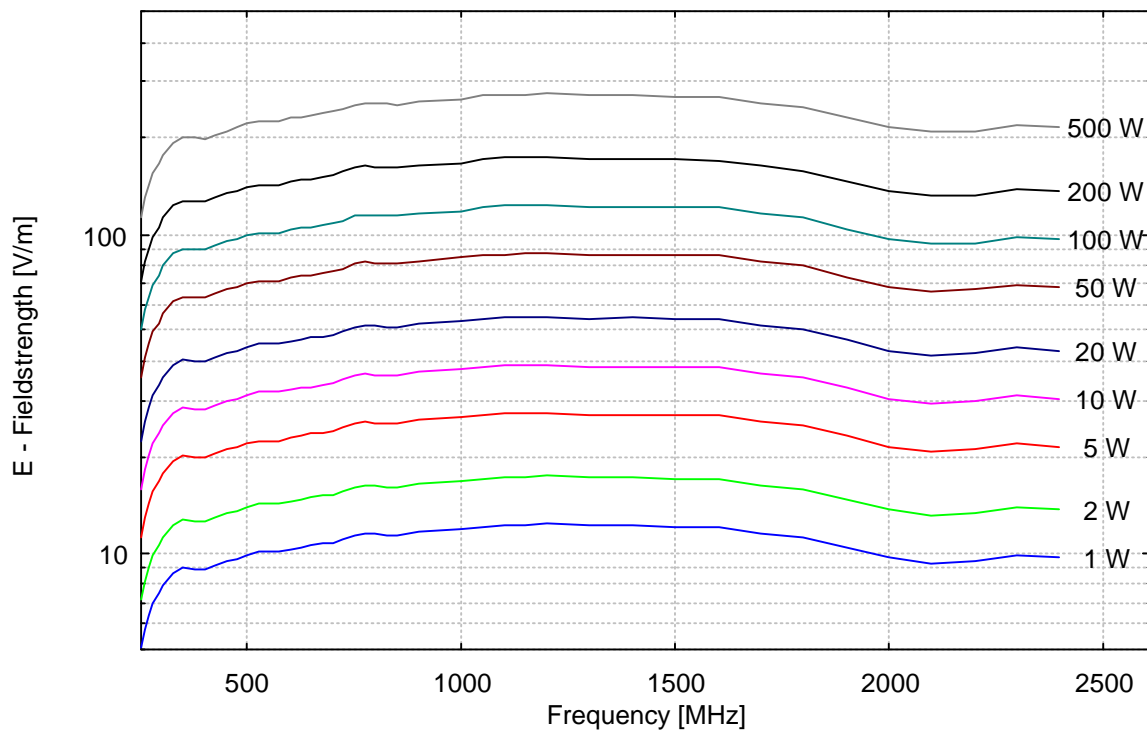
Seriennummer:	UHALP 9108-A0453	Serial Number:
Ergebnis:	o.k.	Test result:
Bearbeiter:	Dipl.-Ing. D. Schwarzbeck	Operator:
Datum:		Date:

SCHWARZBECK MESS - ELEKTRONIK

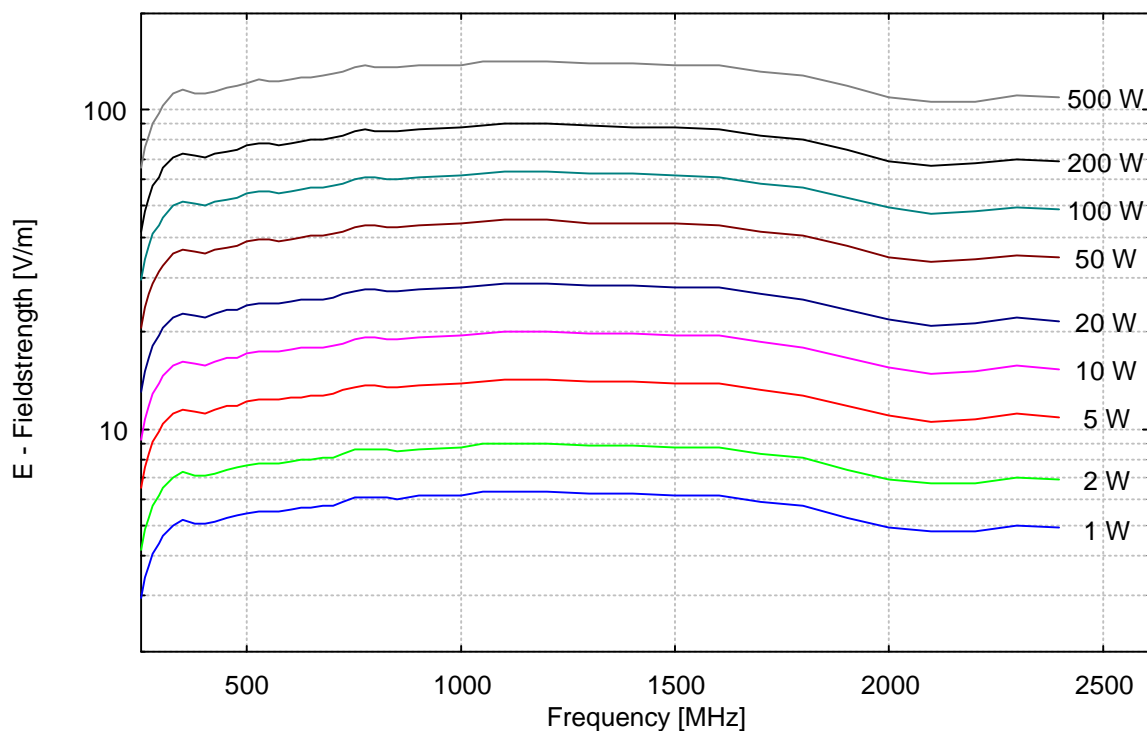
An der Klinge 29 D-69250 Schönau Tel.: 06228/1001 Fax.: (49)6228/1003

UHALP 9108 A 1 Erzeugte Elektrische Feldstärke vor der Antennenspitze unmoduliert, Eingangsleistung an N-Buchse, Reflexionsfreie Umgebung
UHALP 9108 A 1 Generated Electrical Fieldstrength in front of Antenna Tip no modulation, Input Power at N-Connector, Anechoic Environmental Conditions

UHALP 9108 A1 1m Tip-EuT



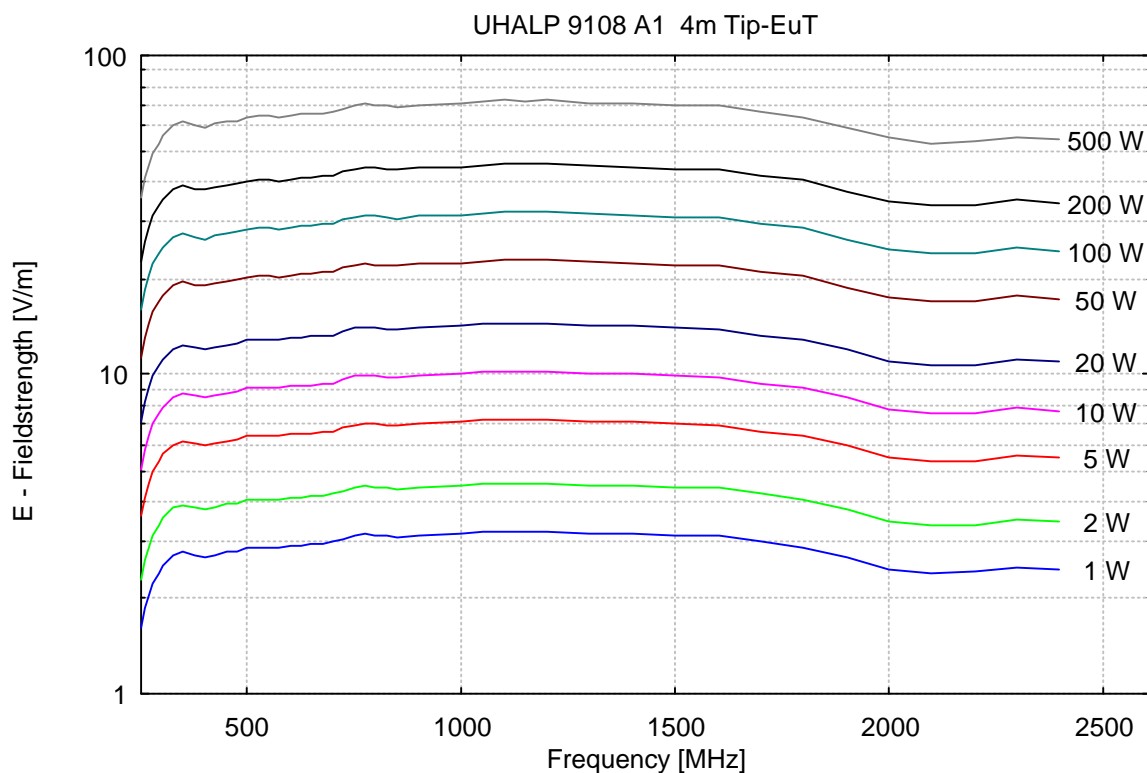
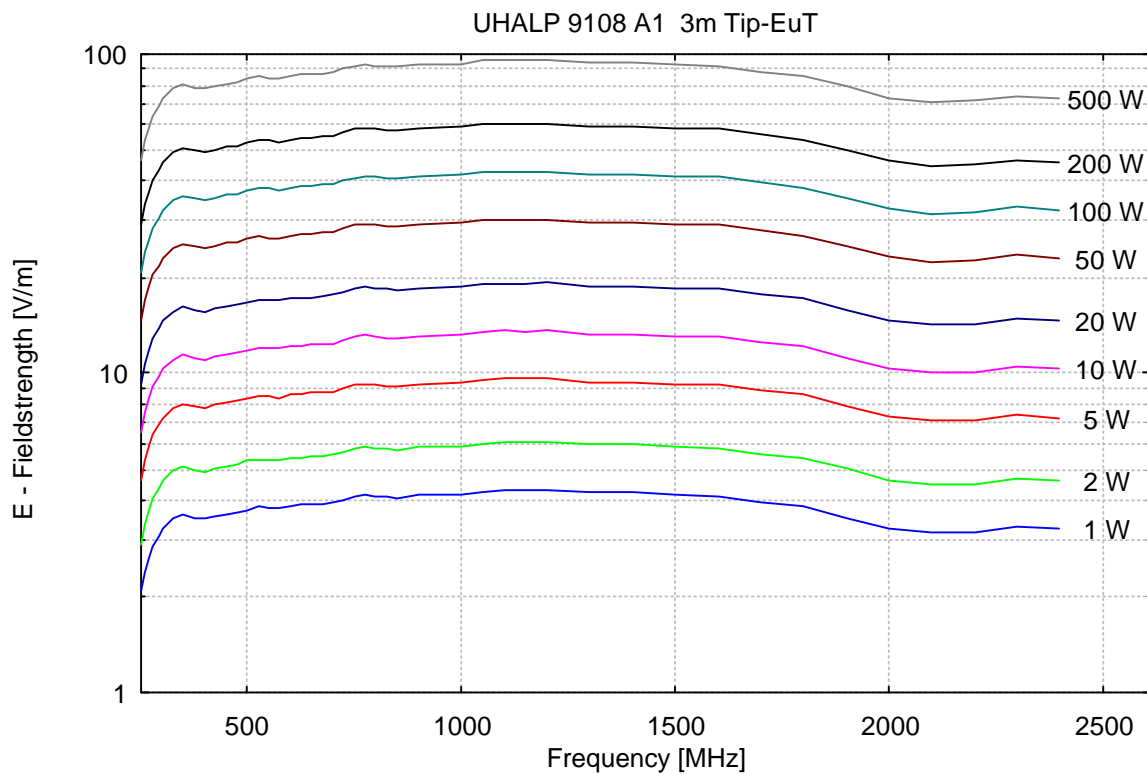
UHALP 9108 A1 2m Tip-EuT



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UHALP 9108 A 1 Erzeugte Elektrische Feldstärke vor der Antennenspitze unmoduliert, Eingangsleistung an N-Buchse, Reflexionsfreie Umgebung
UHALP 9108 A 1 Generated Electrical Fieldstrength in front of Antenna Tip no modulation, Input Power at N-Connector, Anechoic Environmental Conditions



SCHWARZBECK MESS - ELEKTRONIK

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

UHALP 9108 A 1 Erzeugte Elektrische Feldstärke vor der Antennenspitze unmoduliert, Eingangsleistung an N-Buchse, Reflexionsfreie Umgebung
UHALP 9108 A 1 Generated Electrical Fieldstrength in front of Antenna Tip no modulation, Input Power at N-Connector, Anechoic Environmental Conditions

