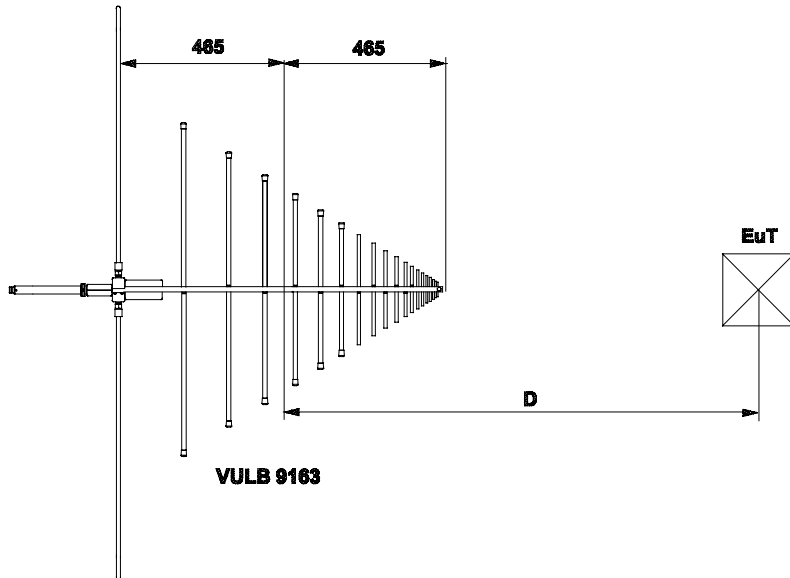


SCHWARZBECK MESS - ELEKTRONIK

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

VULB 9163 Kalibrierdaten für kurze Messentfernungen VULB 9163 Calibration Data for short Measuring Distance

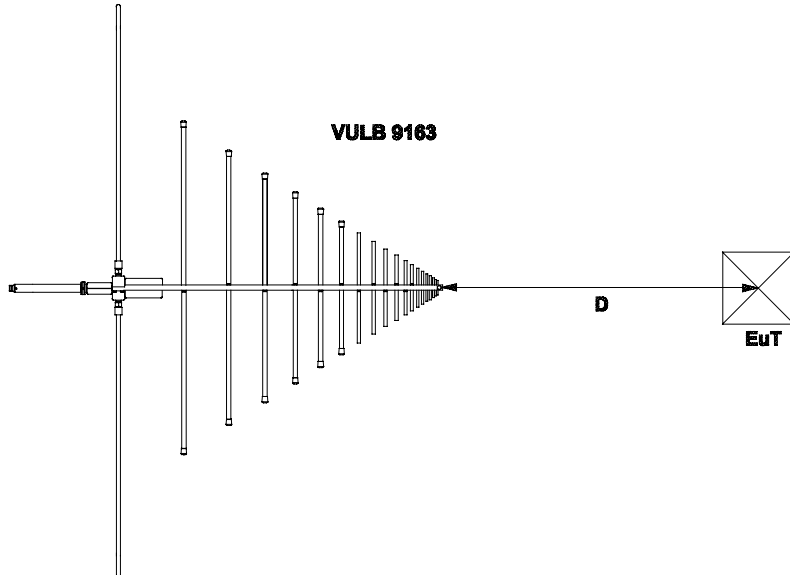


Mitte-Prüfling

Diese Anordnung wird vorwiegend für Emissionsmessungen verwendet.

Center-EuT

This setup is most popular for Emission testing.



Spitze-Prüfling

Diese Anordnung wird vorwiegend für Immunitätsprüfungen verwendet.

Tip-EuT

This setup is most popular for Immunity testing.

SCHWARZBECK MESS - ELEKTRONIK

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

VULB 9163 Kalibrierdaten für kurze Messentfernungen VULB 9163 Calibration Data for short Measuring Distance

Frequency	Gain Farfield	Ant.-Fact k Farfield	gi (10 m) Center	k (10m) Center	gi (3m) Center	k (3m) Center
Frequenz	Gewinn Fernfeld	Ant.Faktor Fernfeld	gi (10 m) Mitte	k (10m) Mitte	gi (3m) Mitte	k (3m) Mitte
MHz	dBi	dB/m	dBi	dB/m	dBi	dB/m
25.0	-15.60	13.78	-15.99	14.17	-16.83	15.01
26.0	-14.46	12.97	-14.85	13.37	-15.69	14.21
27.0	-13.25	12.10	-13.64	12.48	-14.48	13.32
28.0	-12.31	11.47	-12.70	11.86	-13.54	12.70
29.0	-11.45	10.92	-11.84	11.30	-12.68	12.14
30.0	-10.68	10.45	-11.07	10.83	-11.91	11.67
31.0	-10.04	10.09	-10.43	10.47	-11.27	11.31
32.0	-9.81	10.13	-10.20	10.52	-11.04	11.36
33.0	-9.66	10.25	-10.05	10.64	-10.89	11.48
34.0	-9.58	10.43	-9.97	10.82	-10.81	11.66
35.0	-9.57	10.67	-9.96	11.06	-10.80	11.90
36.0	-9.67	11.02	-10.06	11.40	-10.90	12.24
37.0	-9.92	11.50	-10.31	11.89	-11.15	12.73
38.0	-10.04	11.86	-10.43	12.24	-11.27	13.08
39.0	-10.02	12.06	-10.41	12.45	-11.25	13.29
40.0	-10.00	12.26	-10.39	12.65	-11.23	13.49
41.0	-10.13	12.61	-10.52	12.99	-11.36	13.83
42.0	-10.28	12.96	-10.67	13.35	-11.51	14.19
43.0	-10.22	13.11	-10.61	13.50	-11.45	14.34
44.0	-10.05	13.14	-10.44	13.53	-11.28	14.37
45.0	-9.93	13.22	-10.32	13.60	-11.16	14.44
46.0	-9.78	13.26	-10.17	13.64	-11.01	14.48
47.0	-9.59	13.25	-9.98	13.64	-10.82	14.48
48.0	-9.44	13.28	-9.83	13.67	-10.67	14.51
49.0	-9.32	13.34	-9.71	13.73	-10.55	14.57
50.0	-9.01	13.21	-9.40	13.60	-10.24	14.44
52.0	-8.66	13.20	-9.05	13.59	-9.89	14.43
54.0	-8.19	13.06	-8.58	13.44	-9.42	14.28
56.0	-7.35	12.54	-7.74	12.92	-8.58	13.76
58.0	-6.45	11.94	-6.84	12.33	-7.68	13.17
60.0	-5.83	11.61	-6.22	12.00	-7.06	12.84
62.0	-5.24	11.31	-5.63	11.69	-6.47	12.53
64.0	-4.90	11.24	-5.29	11.63	-6.13	12.47
66.0	-4.06	10.67	-4.45	11.06	-5.29	11.90
68.0	-2.95	9.82	-3.34	10.21	-4.18	11.05
70.0	-1.83	8.95	-2.22	9.34	-3.06	10.18
72.0	-0.71	8.07	-1.10	8.46	-1.94	9.30
74.0	0.11	7.50	-0.28	7.88	-1.12	8.72
76.0	0.82	7.02	0.43	7.40	-0.41	8.24
78.0	1.10	6.96	0.71	7.35	-0.13	8.19
80.0	1.22	7.07	0.83	7.45	-0.01	8.29
82.0	1.19	7.30	0.80	7.69	-0.04	8.53
84.0	0.89	7.82	0.50	8.20	-0.34	9.04
86.0	0.65	8.26	0.26	8.65	-0.58	9.49
88.0	0.26	8.85	-0.13	9.24	-0.97	10.08
90.0	-0.11	9.41	-0.50	9.80	-1.34	10.64
92.0	-0.35	9.85	-0.74	10.23	-1.58	11.07
94.0	-0.49	10.18	-0.88	10.56	-1.72	11.40
96.0	-0.60	10.46	-0.99	10.85	-1.83	11.69
98.0	-0.71	10.75	-1.10	11.14	-1.94	11.98
100.0	-0.79	11.01	-1.18	11.40	-2.02	12.24

SCHWARZBECK MESS - ELEKTRONIK

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

VULB 9163 Kalibrierdaten für kurze Messentfernungen VULB 9163 Calibration Data for short Measuring Distance

Frequency	Gain Farfield	Ant.-Fact k Farfield	gi (10 m) Center	k (10m) Center	gi (3m) Center	k (3m) Center
Frequenz	Gewinn Fernfeld	Ant.Faktor Fernfeld	gi (10 m) Mitte	k (10m) Mitte	gi (3m) Mitte	k (3m) Mitte
MHz	dBi	dB/m	dBi	dB/m	dBi	dB/m
105.0	-0.65	11.29	-1.04	11.68	-1.88	12.52
110.0	0.13	10.92	-0.26	11.30	-1.10	12.14
115.0	1.31	10.12	0.92	10.51	0.08	11.35
120.0	2.61	9.20	2.22	9.58	1.38	10.42
125.0	4.06	8.10	3.67	8.48	2.83	9.32
130.0	4.83	7.67	4.44	8.06	3.60	8.90
135.0	5.46	7.37	5.07	7.75	4.23	8.59
140.0	5.94	7.20	5.55	7.59	4.71	8.43
145.0	6.27	7.17	5.91	7.54	5.12	8.33
150.0	6.38	7.36	6.04	7.70	5.31	8.44
155.0	6.41	7.61	6.10	7.93	5.41	8.61
160.0	6.40	7.90	6.11	8.19	5.47	8.83
165.0	6.41	8.16	6.14	8.43	5.54	9.03
170.0	6.49	8.34	6.24	8.59	5.69	9.14
175.0	6.52	8.56	6.29	8.79	5.77	9.31
180.0	6.37	8.96	6.16	9.17	5.69	9.64
185.0	6.17	9.40	5.98	9.59	5.54	10.02
190.0	5.81	9.99	5.63	10.17	5.22	10.57
195.0	5.48	10.54	5.32	10.70	4.95	11.07
200.0	5.33	10.91	5.18	11.06	4.84	11.40
205.0	5.73	10.72	5.59	10.86	5.28	11.18
210.0	6.10	10.56	5.97	10.69	5.69	10.97
215.0	6.16	10.71	6.05	10.82	5.79	11.08
220.0	6.14	10.93	6.04	11.03	5.81	11.26
225.0	5.98	11.28	5.89	11.37	5.70	11.57
230.0	5.86	11.59	5.78	11.67	5.60	11.85
235.0	5.87	11.78	5.81	11.84	5.66	11.99
240.0	5.89	11.93	5.83	11.99	5.70	12.12
245.0	5.96	12.05	5.91	12.09	5.80	12.20
250.0	6.02	12.16	5.98	12.20	5.89	12.29
255.0	6.07	12.29	6.04	12.31	5.97	12.38
260.0	6.12	12.40	6.10	12.42	6.05	12.47
265.0	6.22	12.47	6.21	12.48	6.18	12.51
270.0	6.33	12.52	6.33	12.52	6.32	12.53
275.0	6.37	12.64	6.37	12.63	6.38	12.62
280.0	6.40	12.77	6.41	12.75	6.44	12.72
285.0	6.41	12.91	6.43	12.89	6.47	12.85
290.0	6.46	13.01	6.49	12.98	6.55	12.92
295.0	6.53	13.09	6.56	13.06	6.63	12.98
300.0	6.59	13.18	6.63	13.13	6.72	13.04
310.0	6.68	13.37	6.73	13.31	6.86	13.19
320.0	6.72	13.61	6.78	13.54	6.93	13.40
330.0	6.60	13.99	6.67	13.92	6.85	13.74
340.0	6.38	14.47	6.46	14.39	6.66	14.19
350.0	6.27	14.83	6.36	14.74	6.58	14.52
360.0	6.65	14.69	6.75	14.60	6.99	14.36
370.0	6.93	14.66	7.04	14.54	7.30	14.28
380.0	6.86	14.96	6.98	14.84	7.26	14.56
390.0	6.87	15.17	7.00	15.04	7.30	14.74
400.0	6.84	15.42	6.98	15.29	7.30	14.96
410.0	6.80	15.68	6.94	15.54	7.28	15.20
420.0	6.81	15.87	6.96	15.73	7.32	15.37

SCHWARZBECK MESS - ELEKTRONIK

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

VULB 9163 Kalibrierdaten für kurze Messentfernungen VULB 9163 Calibration Data for short Measuring Distance

Frequency	Gain Farfield	Ant.-Fact k Farfield	gi (10 m) Center	k (10m) Center	gi (3m) Center	k (3m) Center
Frequenz	Gewinn Fernfeld	Ant.Faktor Fernfeld	gi (10 m) Mitte	k (10m) Mitte	gi (3m) Mitte	k (3m) Mitte
MHz	dBi	dB/m	dBi	dB/m	dBi	dB/m
430.0	6.89	16.00	7.04	15.85	7.41	15.48
440.0	7.05	16.04	7.21	15.88	7.60	15.49
450.0	7.20	16.08	7.37	15.92	7.77	15.52
460.0	7.26	16.22	7.43	16.04	7.84	15.63
470.0	7.25	16.41	7.43	16.24	7.85	15.81
480.0	7.19	16.65	7.37	16.47	7.82	16.02
490.0	7.20	16.82	7.39	16.64	7.85	16.18
500.0	7.17	17.03	7.36	16.84	7.83	16.37
520.0	7.16	17.38	7.36	17.18	7.85	16.69
540.0	7.19	17.67	7.40	17.47	7.91	16.95
560.0	7.30	17.89	7.52	17.67	8.04	17.14
580.0	7.03	18.45	7.25	18.23	7.80	17.69
600.0	6.74	19.04	6.97	18.81	7.54	18.24
620.0	6.98	19.09	7.22	18.85	7.80	18.27
640.0	7.08	19.26	7.32	19.02	7.92	18.43
660.0	7.12	19.49	7.37	19.24	7.97	18.64
680.0	7.23	19.64	7.49	19.38	8.11	18.76
700.0	7.33	19.79	7.59	19.53	8.23	18.89
720.0	7.27	20.10	7.53	19.83	8.19	19.18
740.0	7.10	20.51	7.37	20.24	8.03	19.57
760.0	7.07	20.77	7.34	20.49	8.02	19.82
780.0	7.23	20.83	7.51	20.55	8.19	19.87
800.0	7.36	20.92	7.64	20.64	8.32	19.96
820.0	7.43	21.06	7.71	20.78	8.41	20.09
840.0	7.43	21.28	7.72	20.99	8.43	20.28
860.0	7.33	21.58	7.62	21.29	8.34	20.57
880.0	7.22	21.89	7.51	21.60	8.23	20.88
900.0	7.25	22.06	7.55	21.76	8.28	21.03
920.0	7.36	22.14	7.66	21.84	8.40	21.09
940.0	7.50	22.18	7.80	21.88	8.54	21.14
960.0	7.55	22.31	7.85	22.01	8.61	21.25
980.0	7.56	22.48	7.86	22.18	8.62	21.42
1000.0	7.54	22.68	7.85	22.37	8.62	21.60
1020.0	7.42	22.97	7.73	22.66	8.51	21.88
1040.0	7.23	23.33	7.54	23.02	8.32	22.24
1060.0	7.00	23.72	7.31	23.41	8.09	22.63
1080.0	6.92	23.97	7.24	23.65	8.03	22.86
1100.0	7.07	23.98	7.39	23.66	8.18	22.87
1120.0	7.36	23.84	7.68	23.52	8.49	22.72
1140.0	7.60	23.76	7.92	23.44	8.73	22.63
1160.0	7.72	23.79	8.05	23.46	8.86	22.65
1180.0	7.74	23.92	8.07	23.59	8.88	22.77
1200.0	7.69	24.12	8.02	23.79	8.83	22.97
1220.0	7.59	24.36	7.92	24.03	8.75	23.20
1240.0	7.53	24.56	7.86	24.23	8.69	23.40
1260.0	7.41	24.82	7.74	24.49	8.57	23.66
1280.0	7.32	25.04	7.66	24.71	8.50	23.87
1300.0	7.35	25.15	7.69	24.81	8.53	23.97
1320.0	7.48	25.15	7.82	24.81	8.66	23.98
1340.0	7.64	25.12	7.98	24.78	8.83	23.93
1360.0	7.82	25.07	8.16	24.73	9.01	23.88
1380.0	7.90	25.12	8.24	24.78	9.09	23.92

SCHWARZBECK MESS - ELEKTRONIK

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

VULB 9163 Kalibrierdaten für kurze Messentfernungen VULB 9163 Calibration Data for short Measuring Distance

Frequency	Gain Farfield	Ant.-Fact k Farfield	gi (10 m) Center	k (10m) Center	gi (3m) Center	k (3m) Center
Frequenz	Gewinn Fernfeld	Ant.Faktor Fernfeld	gi (10 m) Mitte	k (10m) Mitte	gi (3m) Mitte	k (3m) Mitte
MHz	dBi	dB/m	dBi	dB/m	dBi	dB/m
1400.0	7.92	25.23	8.26	24.88	9.11	24.03
1420.0	7.90	25.37	8.25	25.02	9.11	24.16
1440.0	7.86	25.52	8.21	25.18	9.07	24.32
1460.0	7.70	25.80	8.05	25.46	8.91	24.60
1480.0	7.58	26.04	7.93	25.70	8.81	24.82
1500.0	7.43	26.31	7.78	25.96	8.66	25.09
1520.0	7.30	26.56	7.65	26.21	8.53	25.33
1540.0	7.17	26.80	7.52	26.45	8.40	25.57
1560.0	7.17	26.91	7.52	26.56	8.40	25.69
1580.0	7.25	26.95	7.60	26.59	8.49	25.70
1600.0	7.37	26.93	7.72	26.58	8.61	25.69
1620.0	7.49	26.92	7.84	26.57	8.73	25.68
1640.0	7.58	26.94	7.93	26.58	8.82	25.69
1660.0	7.66	26.96	8.01	26.61	8.90	25.72
1680.0	7.71	27.01	8.07	26.66	8.97	25.76
1700.0	7.70	27.13	8.06	26.77	8.96	25.87
1720.0	7.65	27.28	8.01	26.92	8.91	26.02
1740.0	7.58	27.45	7.94	27.09	8.84	26.19
1760.0	7.46	27.67	7.82	27.31	8.72	26.41
1780.0	7.31	27.91	7.67	27.56	8.57	26.66
1800.0	7.21	28.12	7.57	27.75	8.49	26.84
1820.0	7.18	28.24	7.54	27.88	8.46	26.96
1840.0	7.09	28.42	7.45	28.06	8.37	27.15
1860.0	7.06	28.55	7.42	28.19	8.34	27.27
1880.0	7.15	28.55	7.51	28.19	8.43	27.28
1900.0	7.29	28.51	7.65	28.14	8.57	27.23
1920.0	7.39	28.50	7.76	28.13	8.68	27.20
1940.0	7.59	28.39	7.96	28.02	8.88	27.09
1960.0	7.76	28.31	8.13	27.94	9.05	27.01
1980.0	7.84	28.32	8.21	27.95	9.13	27.02
2000.0	7.89	28.36	8.26	27.98	9.18	27.06
2020.0	7.92	28.41	8.29	28.04	9.21	27.11
2040.0	7.86	28.55	8.23	28.18	9.15	27.26
2060.0	7.83	28.66	8.20	28.30	9.12	27.37
2080.0	7.69	28.89	8.06	28.52	9.00	27.58
2100.0	7.62	29.04	7.99	28.67	8.93	27.73
2120.0	7.38	29.37	7.75	28.99	8.69	28.06
2140.0	7.14	29.69	7.51	29.32	8.45	28.38
2160.0	7.05	29.86	7.42	29.49	8.36	28.55
2180.0	6.83	30.16	7.20	29.79	8.14	28.85
2200.0	6.75	30.32	7.12	29.95	8.06	29.01
2220.0	6.58	30.56	6.95	30.19	7.89	29.26
2240.0	6.55	30.68	6.93	30.30	7.88	29.35
2260.0	6.45	30.85	6.83	30.47	7.78	29.53
2280.0	6.42	30.95	6.80	30.58	7.75	29.63
2300.0	6.35	31.10	6.73	30.73	7.68	29.78
2320.0	6.34	31.19	6.72	30.81	7.67	29.86
2340.0	6.32	31.28	6.70	30.91	7.65	29.96
2360.0	6.25	31.43	6.63	31.05	7.58	30.10
2380.0	6.20	31.55	6.58	31.17	7.53	30.22
2400.0	6.00	31.82	6.38	31.45	7.33	30.50
2420.0	5.92	31.98	6.30	31.60	7.25	30.65

SCHWARZBECK MESS - ELEKTRONIK

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

VULB 9163 Kalibrierdaten für kurze Messentfernungen VULB 9163 Calibration Data for short Measuring Distance

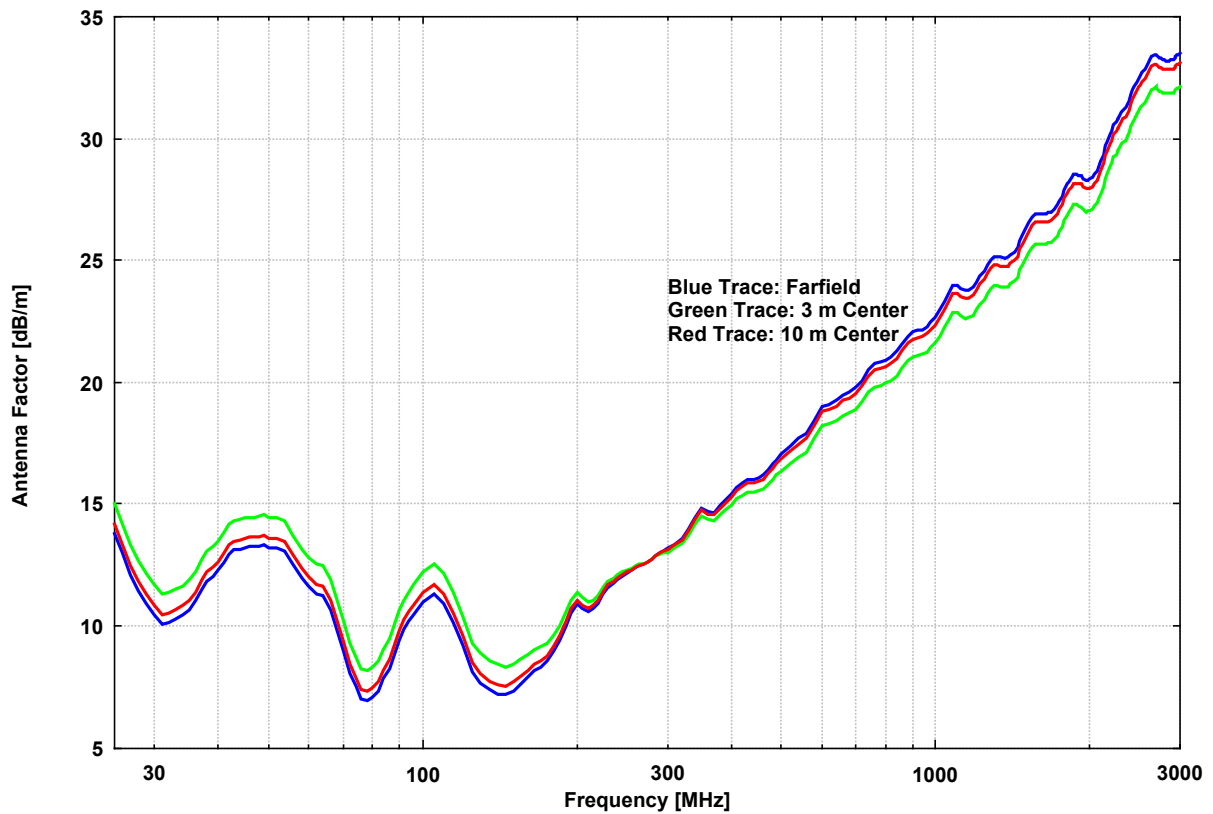
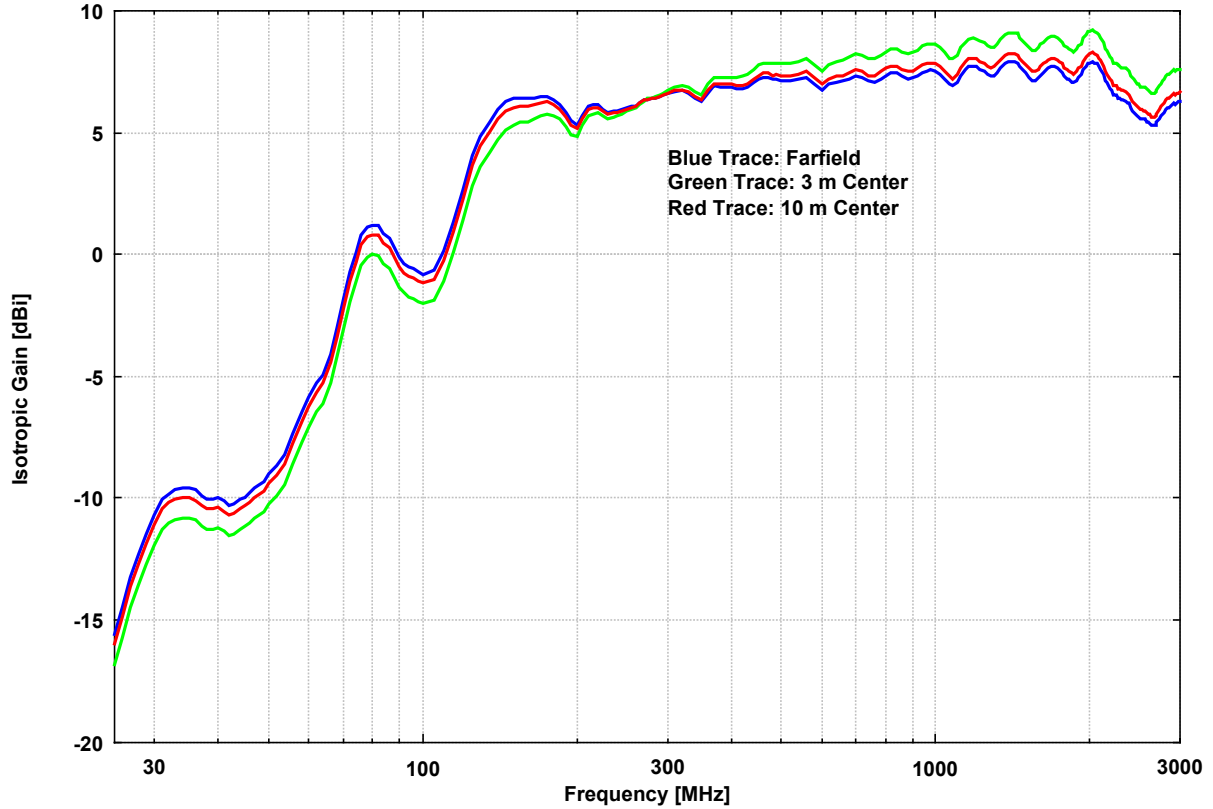
Frequency	Gain Farfield	Ant.-Fact k Farfield	gi (10 m) Center	k (10m) Center	gi (3m) Center	k (3m) Center
Frequenz	Gewinn Fernfeld	Ant.Faktor Fernfeld	gi (10 m) Mitte	k (10m) Mitte	gi (3m) Mitte	k (3m) Mitte
MHz	dBi	dB/m	dBi	dB/m	dBi	dB/m
2440.0	5.86	32.11	6.24	31.73	7.19	30.78
2460.0	5.69	32.35	6.07	31.97	7.03	31.00
2480.0	5.63	32.48	6.01	32.10	6.97	31.14
2500.0	5.56	32.62	5.94	32.24	6.90	31.28
2520.0	5.56	32.69	5.94	32.31	6.90	31.34
2540.0	5.55	32.77	5.93	32.38	6.89	31.42
2560.0	5.55	32.84	5.93	32.45	6.89	31.49
2580.0	5.46	32.99	5.84	32.61	6.80	31.65
2600.0	5.41	33.11	5.79	32.73	6.75	31.77
2620.0	5.36	33.23	5.74	32.84	6.70	31.88
2640.0	5.28	33.37	5.66	32.99	6.62	32.03
2660.0	5.29	33.42	5.67	33.05	6.63	32.08
2680.0	5.34	33.44	5.72	33.06	6.68	32.10
2700.0	5.41	33.44	5.80	33.05	6.77	32.08
2720.0	5.59	33.33	5.98	32.94	6.95	31.96
2740.0	5.68	33.29	6.07	32.91	7.04	31.93
2760.0	5.78	33.26	6.17	32.87	7.14	31.90
2780.0	5.86	33.24	6.25	32.85	7.22	31.88
2800.0	5.95	33.21	6.34	32.83	7.31	31.85
2820.0	6.02	33.21	6.41	32.82	7.38	31.84
2840.0	6.06	33.22	6.45	32.84	7.42	31.87
2860.0	6.10	33.25	6.49	32.86	7.46	31.89
2880.0	6.15	33.26	6.54	32.87	7.51	31.90
2900.0	6.20	33.27	6.59	32.88	7.56	31.91
2920.0	6.19	33.33	6.58	32.95	7.55	31.98
2940.0	6.19	33.39	6.58	33.01	7.55	32.04
2960.0	6.23	33.42	6.62	33.03	7.59	32.06
2980.0	6.26	33.44	6.65	33.06	7.62	32.08
3000.0	6.27	33.49	6.66	33.11	7.63	32.13

SCHWARZBECK MESS - ELEKTRONIK

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

VULB 9163 Kalibrierdaten für kurze Messentfernungen VULB 9163 Calibration Data for short Measuring Distance

Bezugspunkt: Antennenmitte
Reference Point: Antenna Center



SCHWARZBECK MESS - ELEKTRONIK

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

VULB 9163 Kalibrierdaten für kurze Messentfernungen VULB 9163 Calibration Data for short Measuring Distance

Frequency	Gain Farfield	Ant.-Fact k Farfield	gi (10 m) Tip	k (10m) Tip	gi (3m) Tip	k (3m) Tip	gi (1m) Tip	k (1m) Tip
Frequenz	Gewinn Fernfeld	Ant.Faktor Fernfeld	gi (10 m) Spitze	k (10m) Spitze	gi (3m) Spitze	k (3m) Spitze	gi (1m) Spitze	k (1m) Spitze
MHz	dBi	dB/m	dBi	dB/m	dBi	dB/m	dBi	dB/m
25.0	-15.60	13.78	-16.35	14.53	-17.89	16.07	-21.20	19.38
26.0	-14.46	12.97	-15.21	13.73	-16.75	15.27	-20.06	18.58
27.0	-13.25	12.10	-14.00	12.85	-15.54	14.39	-18.85	17.70
28.0	-12.31	11.47	-13.06	12.23	-14.60	13.76	-17.91	17.07
29.0	-11.45	10.92	-12.20	11.67	-13.74	13.21	-17.05	16.52
30.0	-10.68	10.45	-11.43	11.19	-12.97	12.73	-16.28	16.04
31.0	-10.04	10.09	-10.79	10.84	-12.33	12.38	-15.64	15.69
32.0	-9.81	10.13	-10.56	10.89	-12.10	12.42	-15.41	15.73
33.0	-9.66	10.25	-10.41	11.00	-11.95	12.54	-15.26	15.85
34.0	-9.58	10.43	-10.33	11.18	-11.87	12.72	-15.18	16.03
35.0	-9.57	10.67	-10.32	11.42	-11.86	12.96	-15.17	16.27
36.0	-9.67	11.02	-10.42	11.77	-11.96	13.31	-15.27	16.61
37.0	-9.92	11.50	-10.67	12.26	-12.21	13.79	-15.52	17.10
38.0	-10.04	11.86	-10.79	12.61	-12.33	14.15	-15.64	17.45
39.0	-10.02	12.06	-10.77	12.81	-12.31	14.35	-15.62	17.66
40.0	-10.00	12.26	-10.75	13.01	-12.29	14.55	-15.60	17.86
41.0	-10.13	12.61	-10.88	13.36	-12.42	14.90	-15.73	18.20
42.0	-10.28	12.96	-11.03	13.72	-12.57	15.25	-15.88	18.56
43.0	-10.22	13.11	-10.97	13.86	-12.51	15.40	-15.82	18.71
44.0	-10.05	13.14	-10.80	13.89	-12.34	15.43	-15.65	18.74
45.0	-9.93	13.22	-10.68	13.97	-12.22	15.50	-15.53	18.81
46.0	-9.78	13.26	-10.53	14.01	-12.07	15.55	-15.38	18.85
47.0	-9.59	13.25	-10.34	14.00	-11.88	15.54	-15.19	18.85
48.0	-9.44	13.28	-10.19	14.04	-11.73	15.57	-15.04	18.88
49.0	-9.32	13.34	-10.07	14.10	-11.61	15.63	-14.92	18.94
50.0	-9.01	13.21	-9.76	13.96	-11.30	15.50	-14.61	18.81
52.0	-8.66	13.20	-9.41	13.95	-10.95	15.49	-14.26	18.80
54.0	-8.19	13.06	-8.94	13.81	-10.48	15.35	-13.79	18.66
56.0	-7.35	12.54	-8.10	13.29	-9.64	14.82	-12.95	18.13
58.0	-6.45	11.94	-7.20	12.69	-8.74	14.23	-12.05	17.54
60.0	-5.83	11.61	-6.58	12.37	-8.12	13.90	-11.43	17.21
62.0	-5.24	11.31	-5.99	12.06	-7.53	13.60	-10.84	16.91
64.0	-4.90	11.24	-5.65	12.00	-7.19	13.53	-10.50	16.84
66.0	-4.06	10.67	-4.81	11.42	-6.35	12.96	-9.66	16.27
68.0	-2.95	9.82	-3.70	10.57	-5.24	12.11	-8.55	15.42
70.0	-1.83	8.95	-2.58	9.70	-4.12	11.24	-7.43	14.55
72.0	-0.71	8.07	-1.46	8.83	-3.00	10.37	-6.31	13.67
74.0	0.11	7.50	-0.64	8.25	-2.18	9.78	-5.49	13.09
76.0	0.82	7.02	0.07	7.77	-1.47	9.31	-4.78	12.61
78.0	1.10	6.96	0.35	7.71	-1.19	9.25	-4.50	12.56
80.0	1.22	7.07	0.47	7.81	-1.07	9.35	-4.38	12.66
82.0	1.19	7.30	0.44	8.06	-1.10	9.60	-4.41	12.90
84.0	0.89	7.82	0.14	8.57	-1.40	10.11	-4.71	13.41
86.0	0.65	8.26	-0.10	9.01	-1.64	10.55	-4.95	13.86
88.0	0.26	8.85	-0.49	9.60	-2.03	11.14	-5.34	14.45
90.0	-0.11	9.41	-0.86	10.17	-2.40	11.70	-5.71	15.01
92.0	-0.35	9.85	-1.10	10.60	-2.64	12.14	-5.95	15.44
94.0	-0.49	10.18	-1.24	10.93	-2.78	12.46	-6.09	15.77
96.0	-0.60	10.46	-1.35	11.22	-2.89	12.76	-6.20	16.06
98.0	-0.71	10.75	-1.46	11.51	-3.00	13.04	-6.31	16.35
100.0	-0.79	11.01	-1.54	11.76	-3.08	13.30	-6.39	16.61

SCHWARZBECK MESS - ELEKTRONIK

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

VULB 9163 Kalibrierdaten für kurze Messentfernungen VULB 9163 Calibration Data for short Measuring Distance

Frequency	Gain Farfield	Ant.-Fact k Farfield	gi (10 m) Tip	k (10m) Tip	gi (3m) Tip	k (3m) Tip	gi (1m) Tip	k (1m) Tip
Frequenz	Gewinn Fernfeld	Ant.Faktor Fernfeld	gi (10 m) Spitze	k (10m) Spitze	gi (3m) Spitze	k (3m) Spitze	gi (1m) Spitze	k (1m) Spitze
MHz	dBi	dB/m	dBi	dB/m	dBi	dB/m	dBi	dB/m
105.0	-0.65	11.29	-1.40	12.05	-2.94	13.58	-6.25	16.89
110.0	0.13	10.92	-0.62	11.67	-2.16	13.21	-5.47	16.52
115.0	1.31	10.12	0.56	10.88	-0.98	12.41	-4.29	15.72
120.0	2.61	9.20	1.86	9.95	0.32	11.48	-2.99	14.79
125.0	4.06	8.10	3.31	8.85	1.77	10.39	-1.54	13.70
130.0	4.83	7.67	4.08	8.42	2.54	9.96	-0.77	13.27
135.0	5.46	7.37	4.71	8.12	3.17	9.66	-0.14	12.96
140.0	5.94	7.20	5.19	7.96	3.65	9.49	0.34	12.80
145.0	6.27	7.17	5.54	7.91	4.05	9.40	0.81	12.64
150.0	6.38	7.36	5.68	8.07	4.22	9.52	1.06	12.68
155.0	6.41	7.61	5.73	8.30	4.32	9.70	1.23	12.79
160.0	6.40	7.90	5.74	8.56	4.37	9.93	1.34	12.96
165.0	6.41	8.16	5.77	8.80	4.44	10.13	1.48	13.09
170.0	6.49	8.34	5.87	8.96	4.57	10.25	1.68	13.15
175.0	6.52	8.56	5.92	9.16	4.65	10.43	1.81	13.27
180.0	6.37	8.96	5.79	9.54	4.56	10.77	1.79	13.54
185.0	6.17	9.40	5.60	9.96	4.41	11.16	1.69	13.87
190.0	5.81	9.99	5.25	10.54	4.08	11.71	1.41	14.39
195.0	5.48	10.54	4.94	11.08	3.80	12.22	1.18	14.84
200.0	5.33	10.91	4.80	11.44	3.69	12.55	1.11	15.13
205.0	5.73	10.72	5.22	11.24	4.12	12.33	1.59	14.86
210.0	6.10	10.56	5.60	11.07	4.53	12.14	2.04	14.62
215.0	6.16	10.71	5.67	11.20	4.62	12.24	2.19	14.68
220.0	6.14	10.93	5.66	11.41	4.64	12.43	2.25	14.82
225.0	5.98	11.28	5.51	11.75	4.52	12.75	2.17	15.09
230.0	5.86	11.59	5.40	12.05	4.42	13.03	2.11	15.34
235.0	5.87	11.78	5.43	12.22	4.47	13.17	2.20	15.44
240.0	5.89	11.93	5.45	12.37	4.51	13.31	2.28	15.54
245.0	5.96	12.05	5.53	12.47	4.61	13.39	2.41	15.59
250.0	6.02	12.16	5.60	12.58	4.69	13.49	2.53	15.65
255.0	6.07	12.29	5.66	12.69	4.77	13.58	2.64	15.72
260.0	6.12	12.40	5.72	12.80	4.84	13.68	2.74	15.78
265.0	6.22	12.47	5.83	12.86	4.97	13.72	2.90	15.78
270.0	6.33	12.52	5.94	12.90	5.10	13.74	3.07	15.77
275.0	6.37	12.64	5.99	13.01	5.17	13.84	3.17	15.83
280.0	6.40	12.77	6.03	13.13	5.22	13.94	3.26	15.90
285.0	6.41	12.91	6.04	13.27	5.25	14.07	3.30	16.01
290.0	6.46	13.01	6.10	13.37	5.32	14.15	3.41	16.05
295.0	6.53	13.09	6.18	13.44	5.40	14.21	3.51	16.10
300.0	6.59	13.18	6.25	13.52	5.49	14.27	3.64	16.13
310.0	6.68	13.37	6.35	13.70	5.62	14.43	3.82	16.23
320.0	6.72	13.61	6.40	13.93	5.68	14.64	3.92	16.40
330.0	6.60	13.99	6.29	14.30	5.60	14.99	3.90	16.69
340.0	6.38	14.47	6.08	14.77	5.41	15.44	3.74	17.11
350.0	6.27	14.83	5.98	15.13	5.32	15.78	3.70	17.41
360.0	6.65	14.69	6.36	14.98	5.73	15.62	4.14	17.21
370.0	6.93	14.66	6.65	14.93	6.04	15.55	4.49	17.10
380.0	6.86	14.96	6.59	15.23	5.99	15.82	4.48	17.33
390.0	6.87	15.17	6.61	15.43	6.03	16.01	4.56	17.48
400.0	6.84	15.42	6.59	15.67	6.03	16.24	4.59	17.67
410.0	6.80	15.68	6.55	15.92	6.00	16.48	4.59	17.89
420.0	6.81	15.87	6.57	16.11	6.03	16.65	4.67	18.02

SCHWARZBECK MESS - ELEKTRONIK

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

VULB 9163 Kalibrierdaten für kurze Messentfernungen VULB 9163 Calibration Data for short Measuring Distance

Frequency	Gain Farfield	Ant.-Fact k Farfield	gi (10 m) Tip	k (10m) Tip	gi (3m) Tip	k (3m) Tip	gi (1m) Tip	k (1m) Tip
Frequenz	Gewinn Fernfeld	Ant.Faktor Fernfeld	gi (10 m) Spitze	k (10m) Spitze	gi (3m) Spitze	k (3m) Spitze	gi (1m) Spitze	k (1m) Spitze
MHz	dBi	dB/m	dBi	dB/m	dBi	dB/m	dBi	dB/m
430.0	6.89	16.00	6.65	16.24	6.13	16.76	4.78	18.11
440.0	7.05	16.04	6.82	16.27	6.31	16.77	5.01	18.08
450.0	7.20	16.08	6.98	16.31	6.48	16.81	5.19	18.09
460.0	7.26	16.22	7.04	16.43	6.55	16.92	5.29	18.19
470.0	7.25	16.41	7.04	16.63	6.55	17.11	5.31	18.35
480.0	7.19	16.65	6.98	16.86	6.52	17.32	5.32	18.52
490.0	7.20	16.82	7.00	17.03	6.54	17.48	5.37	18.66
500.0	7.17	17.03	6.97	17.23	6.53	17.67	5.37	18.83
520.0	7.16	17.38	6.97	17.57	6.55	17.99	5.43	19.11
540.0	7.19	17.67	7.01	17.86	6.60	18.27	5.53	19.33
560.0	7.30	17.89	7.12	18.06	6.73	18.46	5.68	19.50
580.0	7.03	18.45	6.86	18.63	6.48	19.01	5.48	20.01
600.0	6.74	19.04	6.58	19.20	6.22	19.56	5.27	20.52
620.0	6.98	19.09	6.83	19.24	6.47	19.59	5.54	20.53
640.0	7.08	19.26	6.93	19.41	6.59	19.76	5.68	20.66
660.0	7.12	19.49	6.97	19.64	6.64	19.97	5.76	20.85
680.0	7.23	19.64	7.09	19.78	6.78	20.09	5.94	20.93
700.0	7.33	19.79	7.20	19.93	6.89	20.23	6.08	21.04
720.0	7.27	20.10	7.14	20.23	6.85	20.52	6.06	21.31
740.0	7.10	20.51	6.97	20.63	6.69	20.91	5.92	21.68
760.0	7.07	20.77	6.95	20.89	6.67	21.16	5.93	21.90
780.0	7.23	20.83	7.11	20.95	6.85	21.21	6.13	21.93
800.0	7.36	20.92	7.24	21.04	6.98	21.30	6.26	22.02
820.0	7.43	21.06	7.32	21.18	7.06	21.43	6.37	22.13
840.0	7.43	21.28	7.32	21.38	7.08	21.63	6.41	22.30
860.0	7.33	21.58	7.23	21.68	6.99	21.92	6.35	22.56
880.0	7.22	21.89	7.12	21.99	6.88	22.23	6.24	22.87
900.0	7.25	22.06	7.15	22.15	6.92	22.38	6.30	23.00
920.0	7.36	22.14	7.26	22.23	7.05	22.45	6.45	23.04
940.0	7.50	22.18	7.40	22.28	7.19	22.50	6.59	23.09
960.0	7.55	22.31	7.46	22.41	7.25	22.61	6.68	23.18
980.0	7.56	22.48	7.47	22.58	7.26	22.78	6.69	23.35
1000.0	7.54	22.68	7.45	22.77	7.26	22.96	6.71	23.51
1020.0	7.42	22.97	7.34	23.05	7.15	23.24	6.63	23.76
1040.0	7.23	23.33	7.15	23.41	6.96	23.60	6.44	24.12
1060.0	7.00	23.72	6.92	23.81	6.73	24.00	6.21	24.51
1080.0	6.92	23.97	6.84	24.05	6.66	24.23	6.17	24.72
1100.0	7.07	23.98	6.99	24.06	6.81	24.23	6.32	24.73
1120.0	7.36	23.84	7.29	23.92	7.12	24.09	6.65	24.55
1140.0	7.60	23.76	7.53	23.83	7.36	24.00	6.89	24.47
1160.0	7.72	23.79	7.65	23.86	7.49	24.02	7.05	24.46
1180.0	7.74	23.92	7.67	23.99	7.51	24.15	7.07	24.59
1200.0	7.69	24.12	7.62	24.18	7.46	24.34	7.02	24.78
1220.0	7.59	24.36	7.53	24.42	7.38	24.57	6.96	24.99
1240.0	7.53	24.56	7.47	24.62	7.32	24.77	6.90	25.19
1260.0	7.41	24.82	7.35	24.88	7.20	25.03	6.78	25.45
1280.0	7.32	25.04	7.26	25.10	7.12	25.24	6.73	25.63
1300.0	7.35	25.15	7.29	25.21	7.15	25.35	6.76	25.74
1320.0	7.48	25.15	7.42	25.21	7.28	25.35	6.89	25.74
1340.0	7.64	25.12	7.58	25.18	7.45	25.31	7.09	25.67
1360.0	7.82	25.07	7.76	25.13	7.63	25.26	7.27	25.62
1380.0	7.90	25.12	7.84	25.17	7.71	25.30	7.35	25.66

SCHWARZBECK MESS - ELEKTRONIK

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

VULB 9163 Kalibrierdaten für kurze Messentfernungen VULB 9163 Calibration Data for short Measuring Distance

Frequency	Gain Farfield	Ant.-Fact k Farfield	gi (10 m) Tip	k (10m) Tip	gi (3m) Tip	k (3m) Tip	gi (1m) Tip	k (1m) Tip
Frequenz	Gewinn Fernfeld	Ant.Faktor Fernfeld	gi (10 m) Spitze	k (10m) Spitze	gi (3m) Spitze	k (3m) Spitze	gi (1m) Spitze	k (1m) Spitze
MHz	dB	dB/m	dB	dB/m	dB	dB/m	dB	dB/m
1400.0	7.92	25.23	7.86	25.28	7.73	25.41	7.37	25.77
1420.0	7.90	25.37	7.85	25.42	7.73	25.54	7.39	25.87
1440.0	7.86	25.52	7.81	25.58	7.69	25.70	7.35	26.03
1460.0	7.70	25.80	7.65	25.86	7.53	25.98	7.19	26.31
1480.0	7.58	26.04	7.53	26.09	7.42	26.20	7.11	26.51
1500.0	7.43	26.31	7.38	26.36	7.27	26.47	6.96	26.78
1520.0	7.30	26.56	7.25	26.60	7.14	26.71	6.83	27.02
1540.0	7.17	26.80	7.12	26.85	7.01	26.96	6.70	27.27
1560.0	7.17	26.91	7.12	26.96	7.01	27.07	6.70	27.38
1580.0	7.25	26.95	7.21	26.99	7.11	27.09	6.83	27.37
1600.0	7.37	26.93	7.33	26.98	7.23	27.08	6.95	27.36
1620.0	7.49	26.92	7.45	26.96	7.35	27.06	7.07	27.34
1640.0	7.58	26.94	7.54	26.98	7.44	27.08	7.16	27.36
1660.0	7.66	26.96	7.62	27.01	7.52	27.11	7.24	27.39
1680.0	7.71	27.01	7.67	27.06	7.58	27.15	7.33	27.40
1700.0	7.70	27.13	7.66	27.17	7.57	27.26	7.32	27.51
1720.0	7.65	27.28	7.61	27.32	7.52	27.41	7.27	27.66
1740.0	7.58	27.45	7.54	27.49	7.45	27.58	7.20	27.83
1760.0	7.46	27.67	7.42	27.71	7.33	27.80	7.08	28.05
1780.0	7.31	27.91	7.27	27.96	7.18	28.05	6.93	28.30
1800.0	7.21	28.12	7.18	28.15	7.09	28.23	6.87	28.46
1820.0	7.18	28.24	7.15	28.28	7.06	28.36	6.84	28.58
1840.0	7.09	28.42	7.06	28.46	6.97	28.54	6.75	28.77
1860.0	7.06	28.55	7.03	28.58	6.94	28.67	6.72	28.89
1880.0	7.15	28.55	7.12	28.59	7.03	28.67	6.81	28.89
1900.0	7.29	28.51	7.26	28.54	7.17	28.62	6.95	28.85
1920.0	7.39	28.50	7.36	28.53	7.29	28.60	7.09	28.79
1940.0	7.59	28.39	7.56	28.42	7.49	28.49	7.29	28.68
1960.0	7.76	28.31	7.73	28.34	7.66	28.41	7.46	28.60
1980.0	7.84	28.32	7.81	28.34	7.74	28.41	7.54	28.61
2000.0	7.89	28.36	7.86	28.38	7.79	28.45	7.59	28.65
2020.0	7.92	28.41	7.89	28.44	7.82	28.51	7.62	28.71
2040.0	7.86	28.55	7.83	28.58	7.76	28.65	7.56	28.85
2060.0	7.83	28.66	7.80	28.70	7.73	28.77	7.53	28.97
2080.0	7.69	28.89	7.66	28.92	7.60	28.98	7.43	29.15
2100.0	7.62	29.04	7.59	29.07	7.53	29.13	7.36	29.30
2120.0	7.38	29.37	7.35	29.39	7.29	29.45	7.12	29.62
2140.0	7.14	29.69	7.11	29.71	7.05	29.77	6.88	29.95
2160.0	7.05	29.86	7.02	29.89	6.96	29.95	6.79	30.12
2180.0	6.83	30.16	6.80	30.19	6.74	30.25	6.57	30.42
2200.0	6.75	30.32	6.72	30.34	6.66	30.40	6.49	30.58
2220.0	6.58	30.56	6.55	30.59	6.49	30.65	6.32	30.82
2240.0	6.55	30.68	6.53	30.70	6.48	30.75	6.34	30.89
2260.0	6.45	30.85	6.43	30.87	6.38	30.92	6.24	31.07
2280.0	6.42	30.95	6.40	30.98	6.35	31.03	6.21	31.17
2300.0	6.35	31.10	6.33	31.13	6.28	31.18	6.14	31.32
2320.0	6.34	31.19	6.32	31.21	6.27	31.26	6.13	31.40
2340.0	6.32	31.28	6.30	31.31	6.25	31.36	6.11	31.50
2360.0	6.25	31.43	6.23	31.45	6.18	31.50	6.04	31.64
2380.0	6.20	31.55	6.18	31.57	6.13	31.62	5.99	31.77
2400.0	6.00	31.82	5.98	31.85	5.93	31.90	5.79	32.04
2420.0	5.92	31.98	5.90	32.00	5.85	32.05	5.71	32.19

SCHWARZBECK MESS - ELEKTRONIK

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

VULB 9163 Kalibrierdaten für kurze Messentfernungen VULB 9163 Calibration Data for short Measuring Distance

Frequency	Gain Farfield	Ant.-Fact k Farfield	gi (10 m) Tip	k (10m) Tip	gi (3m) Tip	k (3m) Tip	gi (1m) Tip	k (1m) Tip
Frequenz	Gewinn Fernfeld	Ant.Faktor Fernfeld	gi (10 m) Spitze	k (10m) Spitze	gi (3m) Spitze	k (3m) Spitze	gi (1m) Spitze	k (1m) Spitze
MHz	dBi	dB/m	dBi	dB/m	dBi	dB/m	dBi	dB/m
2440.0	5.86	32.11	5.84	32.13	5.79	32.18	5.65	32.32
2460.0	5.69	32.35	5.67	32.37	5.63	32.41	5.52	32.52
2480.0	5.63	32.48	5.61	32.50	5.57	32.54	5.46	32.65
2500.0	5.56	32.62	5.54	32.64	5.50	32.68	5.39	32.79
2520.0	5.56	32.69	5.54	32.71	5.50	32.75	5.39	32.86
2540.0	5.55	32.77	5.53	32.78	5.49	32.82	5.38	32.94
2560.0	5.55	32.84	5.53	32.85	5.49	32.89	5.38	33.01
2580.0	5.46	32.99	5.44	33.01	5.40	33.05	5.29	33.16
2600.0	5.41	33.11	5.39	33.13	5.35	33.17	5.24	33.28
2620.0	5.36	33.23	5.34	33.24	5.30	33.28	5.19	33.40
2640.0	5.28	33.37	5.26	33.39	5.22	33.43	5.11	33.54
2660.0	5.29	33.42	5.27	33.44	5.23	33.49	5.12	33.60
2680.0	5.34	33.44	5.32	33.46	5.28	33.50	5.17	33.61
2700.0	5.41	33.44	5.40	33.45	5.37	33.48	5.28	33.57
2720.0	5.59	33.33	5.58	33.33	5.55	33.36	5.46	33.45
2740.0	5.68	33.29	5.67	33.31	5.64	33.34	5.55	33.42
2760.0	5.78	33.26	5.77	33.27	5.74	33.30	5.65	33.39
2780.0	5.86	33.24	5.85	33.25	5.82	33.28	5.73	33.37
2800.0	5.95	33.21	5.94	33.23	5.91	33.26	5.82	33.34
2820.0	6.02	33.21	6.01	33.22	5.98	33.25	5.89	33.33
2840.0	6.06	33.22	6.05	33.24	6.02	33.27	5.93	33.36
2860.0	6.10	33.25	6.09	33.26	6.06	33.29	5.97	33.38
2880.0	6.15	33.26	6.14	33.27	6.11	33.30	6.02	33.39
2900.0	6.20	33.27	6.19	33.28	6.16	33.31	6.07	33.40
2920.0	6.19	33.33	6.18	33.35	6.15	33.38	6.06	33.47
2940.0	6.19	33.39	6.18	33.41	6.15	33.44	6.06	33.53
2960.0	6.23	33.42	6.22	33.43	6.19	33.46	6.10	33.55
2980.0	6.26	33.44	6.25	33.46	6.22	33.49	6.13	33.57
3000.0	6.27	33.49	6.26	33.51	6.23	33.54	6.14	33.62

SCHWARZBECK MESS - ELEKTRONIK

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

VULB 9163 Kalibrierdaten für kurze Messentfernungen VULB 9163 Calibration Data for short Measuring Distance

Bezugspunkt: Antennenspitze
Reference Point: Antenna Tip

