

Kalibrierstelle für Antennen und Feldsonden
Calibration Body for Antennas and Field Probes

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AKKREDITIERUNG AUSTRIA



Kalibrierschein nach ISO/IEC 17025
Calibration Certificate according to ISO/IEC 17025

Kalibrierzeichen
Calibration mark

EH-A687/26
0612
16.04.2026

Gegenstand <i>Object</i>	Hybrid Antenna
Hersteller & Typ <i>Manufacturer & Type</i>	TEKBOX TBMA12
Herstellernummer <i>Serial number</i>	TBMA12260001
Auftraggeber <i>Customer</i>	TekBox Digital Solutions Vietnam Co. Ltd. Saigon Hi-Tech Park, Factory 4, 5F, Lot I-3B-1, N6 Str., Tan Phu Ward, D 9 70000 Ho Chi Minh Vietnam
Auftragsnummer <i>Order Nr.</i>	L.L7.00059.0.0-A-13675_4 Ext. Order No.: P03699
Anzahl der Seiten des Kalibrierscheines <i>Number of pages of the certificate</i>	1 - 21
Datum und Ort der Kalibrierung <i>Date and place of calibration</i>	16.04.2026 Seibersdorf

Akkreditierung Austria ist Vollmitglied bei der International Laboratory Accreditation Cooperation ILAC und Unterzeichner der MRAs für die Bereiche „Testing, Calibration and Inspection“.

Die Kalibrierung erfolgt auf der gesetzlichen Grundlage des Akkreditierungsgesetzes in gültiger Fassung entsprechend den Anforderungen der ÖVE/ÖNORM EN ISO/IEC 17025.

Dieser Kalibrierschein dokumentiert die Rückführbarkeit auf nationale Normale zur Darstellung der physikalischen Einheiten in Übereinstimmung mit dem Internationalen Einheitensystem (SI).

Für die Einhaltung einer angemessenen Frist zur Wiederholung der Kalibrierung ist der Benutzer verantwortlich.

Akkreditierung Austria is a full member of the International Laboratory Accreditation Cooperation ILAC and a signatory of the MRA for "Testing, Calibration and Inspection".

The calibration is performed in accordance with the Akkreditierungsgesetz in the amended version and the requirements of ÖVE/ÖNORM EN ISO/IEC 17025.

This calibration certificate documents the traceability to national standards, which realize the physical units or measurements according to the International System of Units (SI).

The user is obliged to have the object recalibrated at appropriate intervals.

Dieser Kalibrierschein gilt ausschließlich für den kalibrierten Gegenstand und darf nur vollständig und unverändert weiterverarbeitet werden. Auszüge oder Änderungen sind unzulässig. Kalibrierscheine ohne Unterschrift haben keine Gültigkeit.

This calibration certificate is valid only for the calibrated object and may not be reproduced other than in full. Calibration certificates without signature are not valid.

Datum
Date

Zeichnungsberechtigter
Authorized person

Bearbeiter
Person responsible

16.04.2026

Patrick Preiner

Markus Vaclav

Calibration Procedure

Calibration of the **antenna factor** is carried out according to the 3-Antenna Method also known as Standard-Site Method (SSM) described in internal process guideline LE-EH-VA-A01 (2023-12). The calibration fulfils the requirements given in ANSI C63.5, ANSI C63.4 and CISPR 16-1-6, CISPR 16-1-4. The distance between the antennas is measured from the feedpoint (dipole like antenna) or reference point (log periodic or hybrid antenna).

Calibration of the **voltage reflection coefficient** (VRC) is carried out according to the method described in internal process guideline LE-EH-VA-L02 (2025-11) using a network analyser. Results are shown as voltage standing wave ration (VSWR) calculated from the voltage reflection coefficient as following:

$$VSWR = \frac{1 + VRC}{1 - VRC}$$

Calibration of the **antenna symmetry** (balun imbalance) is carried out according to the method described in internal process guideline LE-EH-VA-A03 (2022-06).

Calibration of the **cross polarisation** (cross polarisation decoupling) is carried out according to the method described in internal process guideline LE-EH-VA-A04 (2022-06). The calibration fulfils the requirements given in ANSI C63.5 and CISPR 16-1-6.

The cross polarisation is measured against a reference antenna by rotating the antenna under test by 90° and is given relative to co-polarisation in the main axis of the antenna.

Test Equipment

Type	Identification
Antenna Mast Maturo	LE0597
Network Analyzer R&S ZVA8	E0156
Hybrid Antenna Schwarzbeck VULB 9163	E1611
Hybrid Antenna Schwarzbeck VULB 9163	E1612
Open Area Test Site	E1010
Network Analyzer Keysight E5080B	LE0406
Double Ridged Horn ETS 3115	LE0413
PRD	E0587
Fully Anechoic Chamber	LE0455
Network Analyzer Keysight N5244B	E0190
Double Ridged Horn ETS 3115	E0540
Double Ridged Horn ETS 3115	E0599
Fully Anechoic Chamber	LE0128
NWA Calibration Kit	E0117
CalStan 11	E0921

Environmental Conditions

Site Temperature	20°C - 27°C
Site Humidity	30% - 80%
Control Temperature	20°C - 27°C
Control Humidity	30% - 80%

Results

Type	Description	Fig./Table
Antenna Factor	30MHz-1000MHz, d=10m (referencepoint)	1
Antenna Factor	1000MHz-6000MHz, d=3m (referencepoint)	2
VSWR	30MHz-6000MHz	3
Antenna Symmetry	30MHz-300MHz, d=10m (referencepoint)	4
Cross Polarisation	30MHz-6000MHz, d=3m (referencepoint)	5

Uncertainty

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k = 2$, which for a normal distribution corresponds to a coverage probability of approximately 95%. The standard uncertainty of measurement has been determined in accordance with EAL Publication EA 4/02.

References

- [1] CISPR 16-1-6:2014+AMD1:2017+AMD2:2022 CSV, Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-6: Radio disturbance and immunity measuring apparatus - EMC antenna calibration
- [2] CISPR 16-1-4:2019/AMD1:2020/AMD2:2023 Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-4: Radio disturbance and immunity measuring apparatus - Antennas and test sites for radiated disturbance measurements
- [3] ANSI C63.5-2017/Cor 1-2019 American National Standard for Electromagnetic Compatibility--Radiated Emission Measurements in Electromagnetic Interference (EMI) Control - Calibration and Qualification of Antennas (9 kHz to 40 GHz) – Corrigendum 1
- [4] ANSI C63.4-2014/ANSI C63.4a-2017 American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
- [5] EA-4/02 M: 2022 Evaluation of the Uncertainty of Measurement in calibration

Figure 1: Antenna Factor; 30MHz-1000MHz, d=10m (referencepoint)

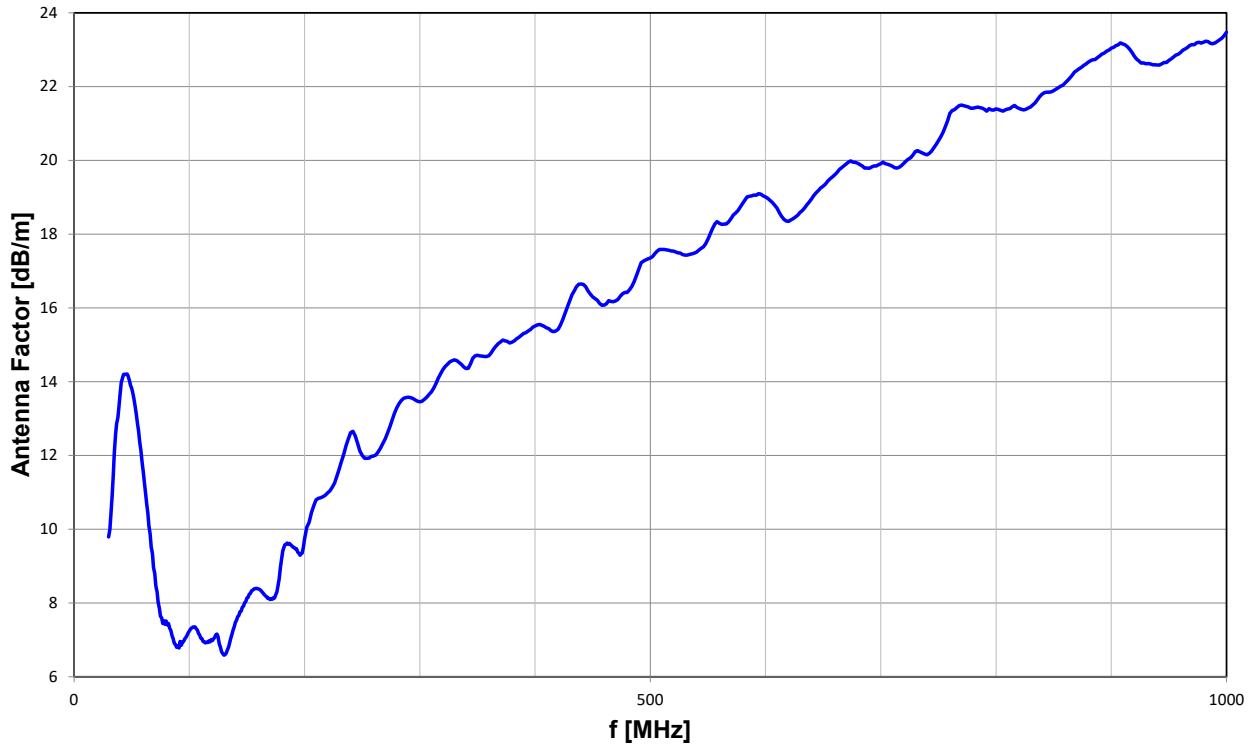


Table 1: Antenna Factor; 30MHz-1000MHz, d=10m (referencepoint)

f [MHz]	AF1 [dB/m]	U [dB]	f [MHz]	AF1 [dB/m]	U [dB]	f [MHz]	AF1 [dB/m]	U [dB]
30	9.79	±1.00	60	11.58	±1.00	90	6.84	±1.00
31	9.99	±1.00	61	11.25	±1.00	91	6.78	±1.00
32	10.40	±1.00	62	11.00	±1.00	92	6.95	±1.00
33	10.92	±1.00	63	10.67	±1.00	93	6.85	±1.00
34	11.44	±1.00	64	10.44	±1.00	94	6.94	±1.00
35	12.06	±1.00	65	10.10	±1.00	95	6.95	±1.00
36	12.57	±1.00	66	9.87	±1.00	96	7.02	±1.00
37	12.86	±1.00	67	9.52	±1.00	97	7.06	±1.00
38	13.02	±1.00	68	9.34	±1.00	98	7.12	±1.00
39	13.31	±1.00	69	8.96	±1.00	99	7.18	±1.00
40	13.69	±1.00	70	8.79	±1.00	100	7.24	±1.00
41	13.97	±1.00	71	8.46	±1.00	101	7.28	±1.00
42	14.10	±1.00	72	8.30	±1.00	102	7.32	±1.00
43	14.19	±1.00	73	8.01	±1.00	103	7.34	±1.00
44	14.20	±1.00	74	7.85	±1.00	104	7.35	±1.00
45	14.20	±1.00	75	7.64	±1.00	105	7.35	±1.00
46	14.20	±1.00	76	7.59	±1.00	106	7.30	±1.00
47	14.15	±1.00	77	7.44	±1.00	107	7.26	±1.00
48	14.02	±1.00	78	7.52	±1.00	108	7.17	±1.00
49	13.90	±1.00	79	7.42	±1.00	109	7.13	±1.00
50	13.83	±1.00	80	7.51	±1.00	110	7.05	±1.00
51	13.69	±1.00	81	7.40	±1.00	111	7.03	±1.00
52	13.53	±1.00	82	7.44	±1.00	112	6.96	±1.00
53	13.33	±1.00	83	7.31	±1.00	113	6.94	±1.00
54	13.13	±1.00	84	7.26	±1.00	114	6.91	±1.00
55	12.87	±1.00	85	7.11	±1.00	115	6.94	±1.00
56	12.67	±1.00	86	7.03	±1.00	116	6.92	±1.00
57	12.34	±1.00	87	6.90	±1.00	117	6.97	±1.00
58	12.14	±1.00	88	6.87	±1.00	118	6.95	±1.00
59	11.81	±1.00	89	6.79	±1.00	119	7.01	±1.00

f [MHz]	AF1 [dB/m]	U [dB]	f [MHz]	AF1 [dB/m]	U [dB]	f [MHz]	AF1 [dB/m]	U [dB]
120	6.98	±1.00	185	9.62	±1.00	300	13.45	±1.00
121	7.03	±1.00	186	9.60	±1.00	302	13.47	±1.00
122	7.06	±1.00	187	9.61	±1.00	304	13.52	±1.00
123	7.14	±1.00	188	9.57	±1.00	306	13.58	±1.00
124	7.15	±1.00	189	9.55	±1.00	308	13.65	±1.00
125	7.08	±1.00	190	9.51	±1.00	310	13.72	±1.00
126	6.88	±1.00	191	9.50	±1.00	312	13.82	±1.00
127	6.81	±1.00	192	9.47	±1.00	314	13.95	±1.00
128	6.67	±1.00	193	9.47	±1.00	316	14.08	±1.00
129	6.63	±1.00	194	9.38	±1.00	318	14.21	±1.00
130	6.59	±1.00	195	9.35	±1.00	320	14.32	±1.00
131	6.59	±1.00	196	9.29	±1.00	322	14.41	±1.00
132	6.64	±1.00	197	9.33	±1.00	324	14.47	±1.00
133	6.72	±1.00	198	9.35	±1.00	326	14.53	±1.00
134	6.80	±1.00	199	9.51	±1.00	328	14.57	±1.00
135	6.92	±1.00	200	9.72	±1.00	330	14.59	±1.00
136	7.05	±1.00	202	10.05	±1.00	332	14.57	±1.00
137	7.15	±1.00	204	10.19	±1.00	334	14.52	±1.00
138	7.28	±1.00	206	10.45	±1.00	336	14.47	±1.00
139	7.36	±1.00	208	10.64	±1.00	338	14.40	±1.00
140	7.47	±1.00	210	10.80	±1.00	340	14.35	±1.00
141	7.53	±1.00	212	10.83	±1.00	342	14.36	±1.00
142	7.62	±1.00	214	10.85	±1.00	344	14.49	±1.00
143	7.66	±1.00	216	10.88	±1.00	346	14.63	±1.00
144	7.76	±1.00	218	10.92	±1.00	348	14.70	±1.00
145	7.78	±1.00	220	10.98	±1.00	350	14.72	±1.00
146	7.88	±1.00	222	11.04	±1.00	352	14.70	±1.00
147	7.91	±1.00	224	11.14	±1.00	354	14.69	±1.00
148	8.00	±1.00	226	11.25	±1.00	356	14.68	±1.00
149	8.04	±1.00	228	11.42	±1.00	358	14.68	±1.00
150	8.13	±1.00	230	11.62	±1.00	360	14.70	±1.00
151	8.15	±1.00	232	11.83	±1.00	362	14.78	±1.00
152	8.23	±1.00	234	12.02	±1.00	364	14.88	±1.00
153	8.26	±1.00	236	12.26	±1.00	366	14.96	±1.00
154	8.33	±1.00	238	12.45	±1.00	368	15.03	±1.00
155	8.34	±1.00	240	12.62	±1.00	370	15.07	±1.00
156	8.38	±1.00	242	12.65	±1.00	372	15.13	±1.00
157	8.38	±1.00	244	12.53	±1.00	374	15.10	±1.00
158	8.39	±1.00	246	12.33	±1.00	376	15.09	±1.00
159	8.39	±1.00	248	12.11	±1.00	378	15.05	±1.00
160	8.37	±1.00	250	12.00	±1.00	380	15.07	±1.00
161	8.36	±1.00	252	11.92	±1.00	382	15.10	±1.00
162	8.34	±1.00	254	11.92	±1.00	384	15.16	±1.00
163	8.30	±1.00	256	11.93	±1.00	386	15.20	±1.00
164	8.26	±1.00	258	11.97	±1.00	388	15.25	±1.00
165	8.23	±1.00	260	11.98	±1.00	390	15.30	±1.00
166	8.19	±1.00	262	12.01	±1.00	392	15.33	±1.00
167	8.17	±1.00	264	12.10	±1.00	394	15.37	±1.00
168	8.12	±1.00	266	12.20	±1.00	396	15.41	±1.00
169	8.12	±1.00	268	12.33	±1.00	398	15.47	±1.00
170	8.09	±1.00	270	12.45	±1.00	400	15.51	±1.00
171	8.10	±1.00	272	12.61	±1.00	402	15.54	±1.00
172	8.10	±1.00	274	12.77	±1.00	404	15.55	±1.00
173	8.14	±1.00	276	12.96	±1.00	406	15.52	±1.00
174	8.13	±1.00	278	13.14	±1.00	408	15.50	±1.00
175	8.23	±1.00	280	13.29	±1.00	410	15.46	±1.00
176	8.29	±1.00	282	13.41	±1.00	412	15.43	±1.00
177	8.48	±1.00	284	13.49	±1.00	414	15.38	±1.00
178	8.65	±1.00	286	13.55	±1.00	416	15.36	±1.00
179	8.96	±1.00	288	13.57	±1.00	418	15.37	±1.00
180	9.17	±1.00	290	13.58	±1.00	420	15.42	±1.00
181	9.41	±1.00	292	13.57	±1.00	422	15.53	±1.00
182	9.50	±1.00	294	13.54	±1.00	424	15.68	±1.00
183	9.58	±1.00	296	13.50	±1.00	426	15.85	±1.00
184	9.59	±1.00	298	13.47	±1.00	428	16.03	±1.00



f [MHz]	AF1 [dB/m]	U [dB]	f [MHz]	AF1 [dB/m]	U [dB]	f [MHz]	AF1 [dB/m]	U [dB]
430	16.19	±1.00	560	18.29	±1.00	690	19.78	±1.00
432	16.35	±1.00	562	18.27	±1.00	692	19.82	±1.00
434	16.47	±1.00	564	18.27	±1.00	694	19.85	±1.00
436	16.57	±1.00	566	18.28	±1.00	696	19.85	±1.00
438	16.64	±1.00	568	18.33	±1.00	698	19.88	±1.00
440	16.65	±1.00	570	18.42	±1.00	700	19.91	±1.00
442	16.63	±1.00	572	18.52	±1.00	702	19.95	±1.00
444	16.57	±1.00	574	18.57	±1.00	704	19.91	±1.00
446	16.46	±1.00	576	18.63	±1.00	706	19.89	±1.00
448	16.37	±1.00	578	18.73	±1.00	708	19.87	±1.00
450	16.30	±1.00	580	18.83	±1.00	710	19.84	±1.00
452	16.25	±1.00	582	18.92	±1.00	712	19.80	±1.00
454	16.20	±1.00	584	19.00	±1.00	714	19.79	±1.00
456	16.12	±1.00	586	19.02	±1.00	716	19.81	±1.00
458	16.07	±1.00	588	19.03	±1.00	718	19.86	±1.00
460	16.08	±1.00	590	19.06	±1.00	720	19.92	±1.00
462	16.12	±1.00	592	19.05	±1.00	722	19.98	±1.00
464	16.19	±1.00	594	19.10	±1.00	724	20.04	±1.00
466	16.17	±1.00	596	19.08	±1.00	726	20.07	±1.00
468	16.16	±1.00	598	19.04	±1.00	728	20.15	±1.00
470	16.19	±1.00	600	19.01	±1.00	730	20.24	±1.00
472	16.23	±1.00	602	18.97	±1.00	732	20.26	±1.00
474	16.32	±1.00	604	18.91	±1.00	734	20.23	±1.00
476	16.38	±1.00	606	18.85	±1.00	736	20.20	±1.00
478	16.42	±1.00	608	18.78	±1.00	738	20.17	±1.00
480	16.42	±1.00	610	18.70	±1.00	740	20.15	±1.00
482	16.49	±1.00	612	18.59	±1.00	742	20.18	±1.00
484	16.58	±1.00	614	18.48	±1.00	744	20.24	±1.00
486	16.71	±1.00	616	18.40	±1.00	746	20.34	±1.00
488	16.88	±1.00	618	18.35	±1.00	748	20.43	±1.00
490	17.05	±1.00	620	18.34	±1.00	750	20.53	±1.00
492	17.22	±1.00	622	18.38	±1.00	752	20.64	±1.00
494	17.26	±1.00	624	18.42	±1.00	754	20.76	±1.00
496	17.30	±1.00	626	18.46	±1.00	756	20.92	±1.00
498	17.32	±1.00	628	18.51	±1.00	758	21.08	±1.00
500	17.35	±1.00	630	18.59	±1.00	760	21.27	±1.00
502	17.39	±1.00	632	18.64	±1.00	762	21.35	±1.00
504	17.47	±1.00	634	18.72	±1.00	764	21.37	±1.00
506	17.54	±1.00	636	18.80	±1.00	766	21.43	±1.00
508	17.59	±1.00	638	18.88	±1.00	768	21.48	±1.00
510	17.59	±1.00	640	18.96	±1.00	770	21.50	±1.00
512	17.58	±1.00	642	19.05	±1.00	772	21.48	±1.00
514	17.57	±1.00	644	19.12	±1.00	774	21.47	±1.00
516	17.56	±1.00	646	19.18	±1.00	776	21.45	±1.00
518	17.54	±1.00	648	19.25	±1.00	778	21.41	±1.00
520	17.54	±1.00	650	19.30	±1.00	780	21.41	±1.00
522	17.52	±1.00	652	19.36	±1.00	782	21.43	±1.00
524	17.49	±1.00	654	19.44	±1.00	784	21.44	±1.00
526	17.49	±1.00	656	19.50	±1.00	786	21.43	±1.00
528	17.45	±1.00	658	19.55	±1.00	788	21.41	±1.00
530	17.43	±1.00	660	19.61	±1.00	790	21.39	±1.00
532	17.43	±1.00	662	19.67	±1.00	792	21.33	±1.00
534	17.45	±1.00	664	19.75	±1.00	794	21.40	±1.00
536	17.46	±1.00	666	19.80	±1.00	796	21.37	±1.00
538	17.48	±1.00	668	19.85	±1.00	798	21.36	±1.00
540	17.51	±1.00	670	19.91	±1.00	800	21.39	±1.00
542	17.56	±1.00	672	19.95	±1.00	802	21.38	±1.00
544	17.61	±1.00	674	19.98	±1.00	804	21.35	±1.00
546	17.65	±1.00	676	19.95	±1.00	806	21.33	±1.00
548	17.74	±1.00	678	19.94	±1.00	808	21.37	±1.00
550	17.86	±1.00	680	19.92	±1.00	810	21.39	±1.00
552	18.01	±1.00	682	19.88	±1.00	812	21.40	±1.00
554	18.15	±1.00	684	19.84	±1.00	814	21.45	±1.00
556	18.27	±1.00	686	19.79	±1.00	816	21.49	±1.00
558	18.34	±1.00	688	19.79	±1.00	818	21.43	±1.00

f [MHz]	AF1 [dB/m]	U [dB]	f [MHz]	AF1 [dB/m]	U [dB]	f [MHz]	AF1 [dB/m]	U [dB]
820	21.41	±1.00	882	22.70	±1.00	944	22.62	±1.00
822	21.38	±1.00	884	22.72	±1.00	946	22.65	±1.00
824	21.37	±1.00	886	22.73	±1.00	948	22.65	±1.00
826	21.39	±1.00	888	22.78	±1.00	950	22.71	±1.00
828	21.42	±1.00	890	22.83	±1.00	952	22.75	±1.00
830	21.44	±1.00	892	22.88	±1.00	954	22.80	±1.00
832	21.50	±1.00	894	22.91	±1.00	956	22.85	±1.00
834	21.56	±1.00	896	22.96	±1.00	958	22.88	±1.00
836	21.65	±1.00	898	22.99	±1.00	960	22.92	±1.00
838	21.73	±1.00	900	23.04	±1.00	962	22.98	±1.00
840	21.79	±1.00	902	23.06	±1.00	964	23.02	±1.00
842	21.83	±1.00	904	23.11	±1.00	966	23.06	±1.00
844	21.85	±1.00	906	23.13	±1.00	968	23.11	±1.00
846	21.85	±1.00	908	23.18	±1.00	970	23.14	±1.00
848	21.86	±1.00	910	23.16	±1.00	972	23.13	±1.00
850	21.89	±1.00	912	23.13	±1.00	974	23.18	±1.00
852	21.92	±1.00	914	23.08	±1.00	976	23.20	±1.00
854	21.97	±1.00	916	23.01	±1.00	978	23.18	±1.00
856	22.01	±1.00	918	22.93	±1.00	980	23.20	±1.00
858	22.04	±1.00	920	22.83	±1.00	982	23.23	±1.00
860	22.10	±1.00	922	22.75	±1.00	984	23.22	±1.00
862	22.16	±1.00	924	22.69	±1.00	986	23.17	±1.00
864	22.23	±1.00	926	22.64	±1.00	988	23.16	±1.00
866	22.31	±1.00	928	22.64	±1.00	990	23.19	±1.00
868	22.39	±1.00	930	22.62	±1.00	992	23.23	±1.00
870	22.44	±1.00	932	22.63	±1.00	994	23.27	±1.00
872	22.48	±1.00	934	22.61	±1.00	996	23.32	±1.00
874	22.52	±1.00	936	22.59	±1.00	998	23.38	±1.00
876	22.57	±1.00	938	22.59	±1.00	1 000	23.47	±1.00
878	22.61	±1.00	940	22.58	±1.00			
880	22.66	±1.00	942	22.58	±1.00			

Figure 2: Antenna Factor; 1000MHz-6000MHz, d=3m (referencepoint)

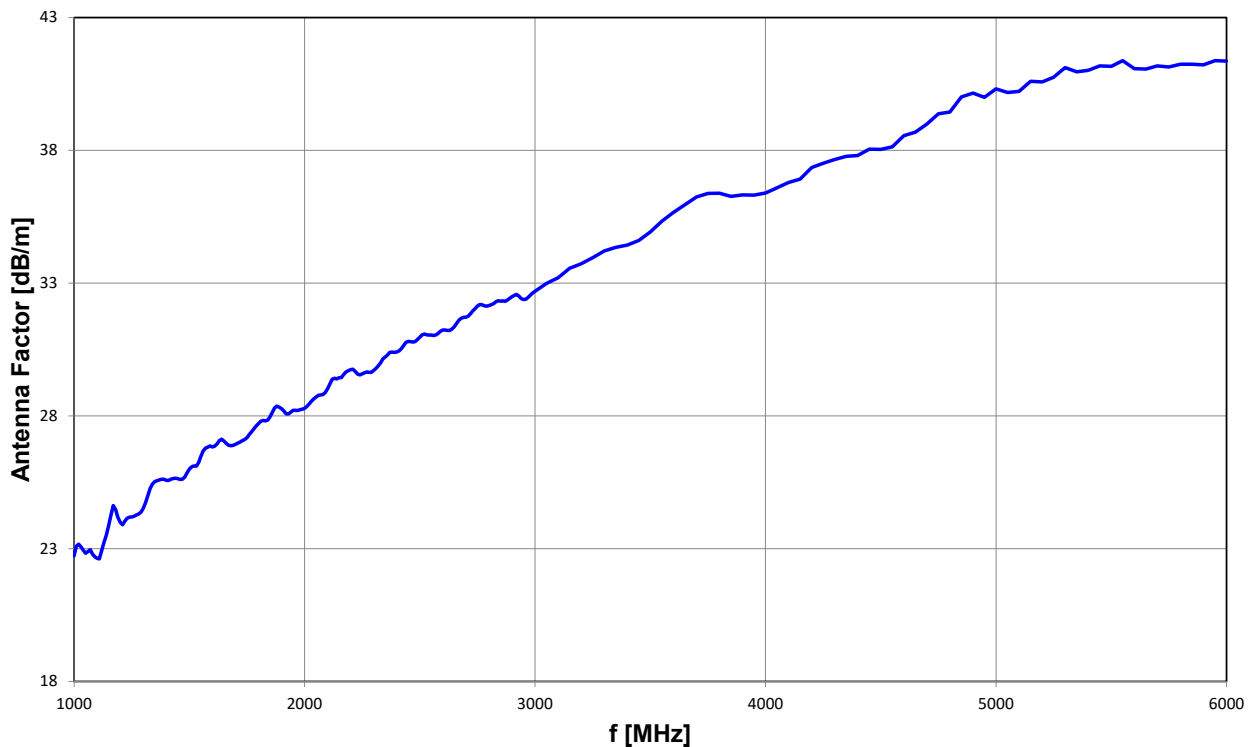


Table 2: Antenna Factor; 1000MHz-6000MHz, d=3m (referencepoint)

f [MHz]	AF2 [dB/m]	U [dB]	f [MHz]	AF2 [dB/m]	U [dB]	f [MHz]	AF2 [dB/m]	U [dB]
1 000	22.72	±1.00	1 620	26.94	±1.00	2 240	29.54	±1.00
1 010	23.09	±1.00	1 630	27.06	±1.00	2 250	29.58	±1.00
1 020	23.17	±1.00	1 640	27.12	±1.00	2 260	29.62	±1.00
1 030	23.06	±1.00	1 650	27.05	±1.00	2 270	29.65	±1.00
1 040	22.94	±1.00	1 660	26.96	±1.00	2 280	29.63	±1.00
1 050	22.83	±1.00	1 670	26.89	±1.00	2 290	29.64	±1.00
1 060	22.89	±1.00	1 680	26.87	±1.00	2 300	29.70	±1.00
1 070	22.96	±1.00	1 690	26.89	±1.00	2 310	29.79	±1.00
1 080	22.79	±1.00	1 700	26.93	±1.00	2 320	29.88	±1.00
1 090	22.69	±1.00	1 710	26.97	±1.00	2 330	29.99	±1.00
1 100	22.64	±1.00	1 720	27.01	±1.00	2 340	30.14	±1.00
1 110	22.61	±1.00	1 730	27.07	±1.00	2 350	30.22	±1.00
1 120	22.92	±1.00	1 740	27.10	±1.00	2 360	30.29	±1.00
1 130	23.23	±1.00	1 750	27.18	±1.00	2 370	30.39	±1.00
1 140	23.50	±1.00	1 760	27.30	±1.00	2 380	30.40	±1.00
1 150	23.86	±1.00	1 770	27.40	±1.00	2 390	30.39	±1.00
1 160	24.25	±1.00	1 780	27.51	±1.00	2 400	30.40	±1.00
1 170	24.62	±1.00	1 790	27.62	±1.00	2 410	30.44	±1.00
1 180	24.48	±1.00	1 800	27.71	±1.00	2 420	30.53	±1.00
1 190	24.17	±1.00	1 810	27.79	±1.00	2 430	30.65	±1.00
1 200	23.99	±1.00	1 820	27.83	±1.00	2 440	30.76	±1.00
1 210	23.90	±1.00	1 830	27.81	±1.00	2 450	30.81	±1.00
1 220	24.03	±1.00	1 840	27.83	±1.00	2 460	30.79	±1.00
1 230	24.14	±1.00	1 850	27.95	±1.00	2 470	30.78	±1.00
1 240	24.18	±1.00	1 860	28.12	±1.00	2 480	30.79	±1.00
1 250	24.19	±1.00	1 870	28.29	±1.00	2 490	30.87	±1.00
1 260	24.21	±1.00	1 880	28.36	±1.00	2 500	30.96	±1.00
1 270	24.26	±1.00	1 890	28.33	±1.00	2 510	31.04	±1.00
1 280	24.30	±1.00	1 900	28.27	±1.00	2 520	31.08	±1.00
1 290	24.36	±1.00	1 910	28.18	±1.00	2 530	31.05	±1.00
1 300	24.51	±1.00	1 920	28.07	±1.00	2 540	31.04	±1.00
1 310	24.72	±1.00	1 930	28.07	±1.00	2 550	31.04	±1.00
1 320	24.99	±1.00	1 940	28.14	±1.00	2 560	31.02	±1.00
1 330	25.26	±1.00	1 950	28.20	±1.00	2 570	31.05	±1.00
1 340	25.43	±1.00	1 960	28.21	±1.00	2 580	31.10	±1.00
1 350	25.53	±1.00	1 970	28.20	±1.00	2 590	31.18	±1.00
1 360	25.55	±1.00	1 980	28.23	±1.00	2 600	31.23	±1.00
1 370	25.59	±1.00	1 990	28.24	±1.00	2 610	31.23	±1.00
1 380	25.61	±1.00	2 000	28.28	±1.00	2 620	31.21	±1.00
1 390	25.61	±1.00	2 010	28.35	±1.00	2 630	31.21	±1.00
1 400	25.57	±1.00	2 020	28.44	±1.00	2 640	31.27	±1.00
1 410	25.56	±1.00	2 030	28.55	±1.00	2 650	31.35	±1.00
1 420	25.61	±1.00	2 040	28.64	±1.00	2 660	31.48	±1.00
1 430	25.63	±1.00	2 050	28.71	±1.00	2 670	31.61	±1.00
1 440	25.65	±1.00	2 060	28.77	±1.00	2 680	31.68	±1.00
1 450	25.63	±1.00	2 070	28.78	±1.00	2 690	31.71	±1.00
1 460	25.61	±1.00	2 080	28.80	±1.00	2 700	31.71	±1.00
1 470	25.61	±1.00	2 090	28.88	±1.00	2 710	31.75	±1.00
1 480	25.69	±1.00	2 100	29.02	±1.00	2 720	31.85	±1.00
1 490	25.85	±1.00	2 110	29.20	±1.00	2 730	31.94	±1.00
1 500	25.99	±1.00	2 120	29.38	±1.00	2 740	32.03	±1.00
1 510	26.08	±1.00	2 130	29.42	±1.00	2 750	32.13	±1.00
1 520	26.11	±1.00	2 140	29.39	±1.00	2 760	32.19	±1.00
1 530	26.11	±1.00	2 150	29.44	±1.00	2 770	32.19	±1.00
1 540	26.24	±1.00	2 160	29.44	±1.00	2 780	32.14	±1.00
1 550	26.46	±1.00	2 170	29.56	±1.00	2 790	32.13	±1.00
1 560	26.66	±1.00	2 180	29.65	±1.00	2 800	32.15	±1.00
1 570	26.78	±1.00	2 190	29.70	±1.00	2 810	32.18	±1.00
1 580	26.81	±1.00	2 200	29.74	±1.00	2 820	32.22	±1.00
1 590	26.86	±1.00	2 210	29.76	±1.00	2 830	32.29	±1.00
1 600	26.82	±1.00	2 220	29.67	±1.00	2 840	32.33	±1.00
1 610	26.86	±1.00	2 230	29.57	±1.00	2 850	32.32	±1.00

f [MHz]	AF2 [dB/m]	U [dB]	f [MHz]	AF2 [dB/m]	U [dB]	f [MHz]	AF2 [dB/m]	U [dB]
2 860	32.32	±1.00	3 550	35.33	±1.20	4 800	39.44	±1.20
2 870	32.31	±1.00	3 600	35.66	±1.20	4 850	40.01	±1.20
2 880	32.36	±1.00	3 650	35.95	±1.20	4 900	40.15	±1.20
2 890	32.42	±1.00	3 700	36.24	±1.20	4 950	40.00	±1.20
2 900	32.48	±1.00	3 750	36.37	±1.20	5 000	40.31	±1.20
2 910	32.54	±1.00	3 800	36.38	±1.20	5 050	40.18	±1.20
2 920	32.57	±1.00	3 850	36.26	±1.20	5 100	40.21	±1.20
2 930	32.51	±1.00	3 900	36.32	±1.20	5 150	40.60	±1.20
2 940	32.41	±1.00	3 950	36.31	±1.20	5 200	40.57	±1.20
2 950	32.38	±1.00	4 000	36.39	±1.20	5 250	40.75	±1.20
2 960	32.39	±1.00	4 050	36.59	±1.20	5 300	41.11	±1.20
2 970	32.46	±1.00	4 100	36.79	±1.20	5 350	40.95	±1.20
2 980	32.55	±1.00	4 150	36.91	±1.20	5 400	41.01	±1.20
2 990	32.62	±1.00	4 200	37.35	±1.20	5 450	41.18	±1.20
3 000	32.69	±1.00	4 250	37.51	±1.20	5 500	41.16	±1.20
3 050	32.98	±1.20	4 300	37.65	±1.20	5 550	41.38	±1.20
3 100	33.20	±1.20	4 350	37.77	±1.20	5 600	41.07	±1.20
3 150	33.55	±1.20	4 400	37.80	±1.20	5 650	41.06	±1.20
3 200	33.72	±1.20	4 450	38.04	±1.20	5 700	41.17	±1.20
3 250	33.96	±1.20	4 500	38.03	±1.20	5 750	41.13	±1.20
3 300	34.20	±1.20	4 550	38.13	±1.20	5 800	41.24	±1.20
3 350	34.34	±1.20	4 600	38.55	±1.20	5 850	41.24	±1.20
3 400	34.43	±1.20	4 650	38.68	±1.20	5 900	41.22	±1.20
3 450	34.60	±1.20	4 700	38.98	±1.20	5 950	41.38	±1.20
3 500	34.92	±1.20	4 750	39.38	±1.20	6 000	41.36	±1.20

Figure 3: VSWR; 30MHz-6000MHz

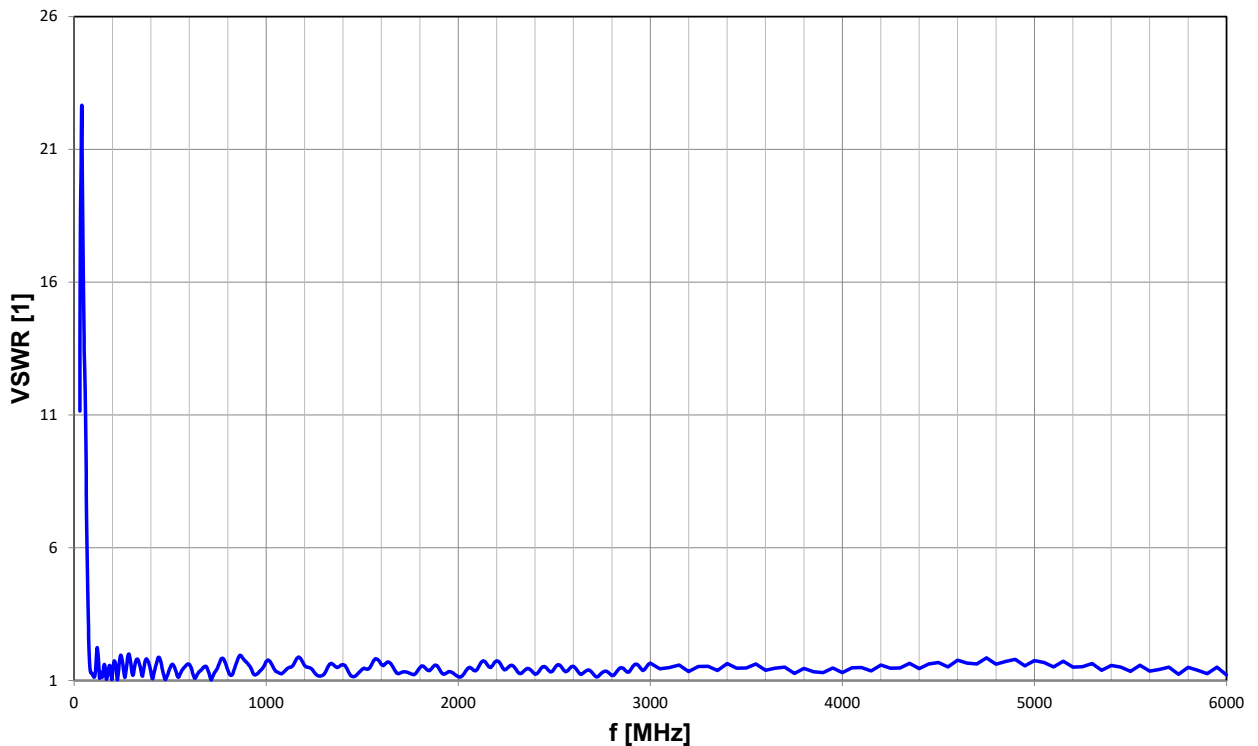


Table 3: VSWR; 30MHz-6000MHz

f [MHz]	VSWR [1]	U [1]	f [MHz]	VSWR [1]	U [1]	f [MHz]	VSWR [1]	U [1]
30	11.14	-1.60/2.17	91	1.28	-0.06/0.07	152	1.37	-0.07/0.07
31	13.54	-2.24/3.23	92	1.27	-0.06/0.07	153	1.43	-0.07/0.08
32	15.84	-2.93/4.49	93	1.27	-0.06/0.07	154	1.49	-0.08/0.08
33	17.64	-3.52/5.66	94	1.26	-0.06/0.07	155	1.54	-0.08/0.08
34	18.81	-3.93/6.52	95	1.25	-0.06/0.06	156	1.57	-0.08/0.09
35	19.42	-4.15/7.00	96	1.23	-0.06/0.06	157	1.59	-0.08/0.09
36	19.86	-4.31/7.35	97	1.22	-0.06/0.06	158	1.60	-0.08/0.09
37	20.63	-4.60/8.01	98	1.20	-0.06/0.06	159	1.59	-0.08/0.09
38	21.78	-5.05/9.07	99	1.19	-0.06/0.06	160	1.56	-0.08/0.08
39	22.61	-5.38/9.88	100	1.17	-0.06/0.06	161	1.52	-0.08/0.08
40	22.66	-5.40/9.93	101	1.15	-0.06/0.06	162	1.46	-0.07/0.08
41	22.08	-5.17/9.36	102	1.14	-0.06/0.06	163	1.39	-0.07/0.07
42	21.23	-4.83/8.55	103	1.13	-0.06/0.06	164	1.32	-0.07/0.07
43	20.32	-4.49/7.75	104	1.12	-0.05/0.06	165	1.24	-0.06/0.06
44	19.49	-4.18/7.06	105	1.12	-0.05/0.06	166	1.17	-0.06/0.06
45	18.67	-3.88/6.41	106	1.13	-0.06/0.06	167	1.11	-0.05/0.06
46	17.86	-3.60/5.82	107	1.15	-0.06/0.06	168	1.06	-0.05/0.05
47	17.07	-3.33/5.27	108	1.17	-0.06/0.06	169	1.04	-0.05/0.05
48	16.34	-3.09/4.80	109	1.20	-0.06/0.06	170	1.06	-0.05/0.05
49	15.66	-2.87/4.38	110	1.23	-0.06/0.06	171	1.08	-0.05/0.06
50	15.01	-2.67/4.00	111	1.27	-0.06/0.07	172	1.11	-0.05/0.06
51	14.42	-2.49/3.68	112	1.35	-0.07/0.07	173	1.14	-0.06/0.06
52	13.89	-2.34/3.40	113	1.46	-0.07/0.08	174	1.18	-0.06/0.06
53	13.49	-2.22/3.21	114	1.59	-0.08/0.09	175	1.22	-0.06/0.06
54	13.19	-2.14/3.06	115	1.73	-0.09/0.10	176	1.25	-0.06/0.07
55	12.93	-2.07/2.94	116	1.87	-0.10/0.11	177	1.29	-0.06/0.07
56	12.63	-1.98/2.80	117	2.00	-0.11/0.12	178	1.33	-0.07/0.07
57	12.25	-1.88/2.63	118	2.10	-0.12/0.13	179	1.38	-0.07/0.07
58	11.82	-1.77/2.44	119	2.18	-0.12/0.13	180	1.43	-0.07/0.08
59	11.34	-1.65/2.25	120	2.23	-0.13/0.14	181	1.47	-0.07/0.08
60	10.83	-1.52/2.05	121	2.24	-0.13/0.14	182	1.52	-0.08/0.08
61	10.24	-1.39/1.84	122	2.21	-0.12/0.13	183	1.55	-0.08/0.08
62	9.58	-1.24/1.61	123	2.13	-0.12/0.13	184	1.56	-0.08/0.08
63	8.85	-1.08/1.38	124	2.04	-0.11/0.12	185	1.56	-0.08/0.08
64	8.06	-0.92/1.16	125	1.98	-0.11/0.12	186	1.55	-0.08/0.08
65	7.38	-0.79/0.98	126	1.89	-0.10/0.11	187	1.53	-0.08/0.08
66	6.82	-0.70/0.85	127	1.78	-0.09/0.10	188	1.49	-0.08/0.08
67	6.32	-0.61/0.74	128	1.64	-0.08/0.09	189	1.45	-0.07/0.08
68	5.85	-0.54/0.64	129	1.50	-0.08/0.08	190	1.39	-0.07/0.07
69	5.38	-0.47/0.55	130	1.37	-0.07/0.07	191	1.34	-0.07/0.07
70	4.91	-0.41/0.47	131	1.25	-0.06/0.07	192	1.27	-0.06/0.07
71	4.46	-0.35/0.40	132	1.15	-0.06/0.06	193	1.21	-0.06/0.06
72	4.04	-0.30/0.34	133	1.08	-0.05/0.06	194	1.15	-0.06/0.06
73	3.65	-0.26/0.29	134	1.08	-0.05/0.06	195	1.09	-0.05/0.06
74	3.30	-0.22/0.24	135	1.13	-0.06/0.06	196	1.04	-0.05/0.05
75	2.97	-0.19/0.21	136	1.19	-0.06/0.06	197	1.06	-0.05/0.05
76	2.67	-0.16/0.18	137	1.24	-0.06/0.06	198	1.12	-0.05/0.06
77	2.40	-0.14/0.15	138	1.28	-0.06/0.07	199	1.19	-0.06/0.06
78	2.17	-0.12/0.13	139	1.30	-0.06/0.07	200	1.26	-0.06/0.07
79	1.96	-0.11/0.11	140	1.31	-0.06/0.07	202	1.40	-0.07/0.07
80	1.78	-0.09/0.10	141	1.30	-0.06/0.07	204	1.54	-0.08/0.08
81	1.63	-0.08/0.09	142	1.28	-0.06/0.07	206	1.64	-0.08/0.09
82	1.51	-0.08/0.08	143	1.25	-0.06/0.07	208	1.71	-0.09/0.10
83	1.43	-0.07/0.08	144	1.21	-0.06/0.06	210	1.74	-0.09/0.10
84	1.37	-0.07/0.07	145	1.17	-0.06/0.06	212	1.73	-0.09/0.10
85	1.33	-0.07/0.07	146	1.13	-0.06/0.06	214	1.68	-0.09/0.09
86	1.31	-0.06/0.07	147	1.12	-0.05/0.06	216	1.61	-0.08/0.09
87	1.29	-0.06/0.07	148	1.14	-0.06/0.06	218	1.51	-0.08/0.08
88	1.28	-0.06/0.07	149	1.18	-0.06/0.06	220	1.38	-0.07/0.07
89	1.28	-0.06/0.07	150	1.24	-0.06/0.06	222	1.25	-0.06/0.07
90	1.28	-0.06/0.07	151	1.30	-0.06/0.07	224	1.12	-0.05/0.06



f [MHz]	VSWR [1]	U [1]	f [MHz]	VSWR [1]	U [1]	f [MHz]	VSWR [1]	U [1]
226	1.02	-0.05/0.05	356	1.16	-0.06/0.06	486	1.19	-0.06/0.06
228	1.14	-0.06/0.06	358	1.22	-0.06/0.06	488	1.23	-0.06/0.06
230	1.27	-0.06/0.07	360	1.30	-0.06/0.07	490	1.27	-0.06/0.07
232	1.40	-0.07/0.07	362	1.39	-0.07/0.07	492	1.31	-0.07/0.07
234	1.54	-0.08/0.08	364	1.48	-0.07/0.08	494	1.36	-0.07/0.07
236	1.68	-0.09/0.09	366	1.56	-0.08/0.08	496	1.40	-0.07/0.07
238	1.80	-0.09/0.10	368	1.64	-0.08/0.09	498	1.44	-0.07/0.08
240	1.89	-0.10/0.11	370	1.71	-0.09/0.09	500	1.48	-0.07/0.08
242	1.95	-0.10/0.11	372	1.76	-0.09/0.10	502	1.51	-0.08/0.08
244	1.96	-0.11/0.11	374	1.80	-0.09/0.10	504	1.54	-0.08/0.08
246	1.92	-0.10/0.11	376	1.81	-0.10/0.10	506	1.57	-0.08/0.09
248	1.86	-0.10/0.11	378	1.81	-0.10/0.10	508	1.59	-0.08/0.09
250	1.78	-0.09/0.10	380	1.79	-0.09/0.10	510	1.60	-0.08/0.09
252	1.69	-0.09/0.09	382	1.77	-0.09/0.10	512	1.61	-0.08/0.09
254	1.59	-0.08/0.09	384	1.74	-0.09/0.10	514	1.60	-0.08/0.09
256	1.50	-0.08/0.08	386	1.71	-0.09/0.09	516	1.59	-0.08/0.09
258	1.39	-0.07/0.07	388	1.68	-0.09/0.09	518	1.57	-0.08/0.09
260	1.28	-0.06/0.07	390	1.64	-0.08/0.09	520	1.54	-0.08/0.08
262	1.18	-0.06/0.06	392	1.59	-0.08/0.09	522	1.51	-0.08/0.08
264	1.11	-0.05/0.06	394	1.53	-0.08/0.08	524	1.47	-0.07/0.08
266	1.14	-0.06/0.06	396	1.46	-0.07/0.08	526	1.44	-0.07/0.08
268	1.22	-0.06/0.06	398	1.38	-0.07/0.07	528	1.40	-0.07/0.07
270	1.33	-0.07/0.07	400	1.31	-0.06/0.07	530	1.35	-0.07/0.07
272	1.44	-0.07/0.08	402	1.24	-0.06/0.06	532	1.31	-0.06/0.07
274	1.56	-0.08/0.08	404	1.17	-0.06/0.06	534	1.26	-0.06/0.07
276	1.68	-0.09/0.09	406	1.11	-0.05/0.06	536	1.21	-0.06/0.06
278	1.80	-0.09/0.10	408	1.07	-0.05/0.05	538	1.17	-0.06/0.06
280	1.90	-0.10/0.11	410	1.07	-0.05/0.06	540	1.14	-0.06/0.06
282	1.97	-0.11/0.11	412	1.12	-0.05/0.06	542	1.12	-0.05/0.06
284	1.99	-0.11/0.12	414	1.19	-0.06/0.06	544	1.12	-0.05/0.06
286	1.99	-0.11/0.12	416	1.26	-0.06/0.07	546	1.14	-0.06/0.06
288	1.96	-0.11/0.11	418	1.33	-0.07/0.07	548	1.17	-0.06/0.06
290	1.89	-0.10/0.11	420	1.40	-0.07/0.07	550	1.20	-0.06/0.06
292	1.81	-0.10/0.10	422	1.45	-0.07/0.08	552	1.23	-0.06/0.06
294	1.72	-0.09/0.10	424	1.51	-0.08/0.08	554	1.27	-0.06/0.07
296	1.61	-0.08/0.09	426	1.55	-0.08/0.08	556	1.30	-0.06/0.07
298	1.49	-0.08/0.08	428	1.61	-0.08/0.09	558	1.34	-0.07/0.07
300	1.39	-0.07/0.07	430	1.66	-0.09/0.09	560	1.36	-0.07/0.07
302	1.29	-0.06/0.07	432	1.72	-0.09/0.10	562	1.38	-0.07/0.07
304	1.22	-0.06/0.06	434	1.78	-0.09/0.10	564	1.40	-0.07/0.07
306	1.19	-0.06/0.06	436	1.83	-0.10/0.10	566	1.42	-0.07/0.08
308	1.21	-0.06/0.06	438	1.86	-0.10/0.11	568	1.44	-0.07/0.08
310	1.28	-0.06/0.07	440	1.87	-0.10/0.11	570	1.46	-0.07/0.08
312	1.36	-0.07/0.07	442	1.87	-0.10/0.11	572	1.48	-0.07/0.08
314	1.45	-0.07/0.08	444	1.86	-0.10/0.11	574	1.49	-0.08/0.08
316	1.55	-0.08/0.08	446	1.84	-0.10/0.10	576	1.51	-0.08/0.08
318	1.63	-0.08/0.09	448	1.80	-0.09/0.10	578	1.53	-0.08/0.08
320	1.70	-0.09/0.09	450	1.75	-0.09/0.10	580	1.54	-0.08/0.08
322	1.75	-0.09/0.10	452	1.70	-0.09/0.09	582	1.56	-0.08/0.08
324	1.78	-0.09/0.10	454	1.63	-0.08/0.09	584	1.57	-0.08/0.09
326	1.79	-0.09/0.10	456	1.56	-0.08/0.08	586	1.58	-0.08/0.09
328	1.80	-0.09/0.10	458	1.49	-0.07/0.08	588	1.60	-0.08/0.09
330	1.80	-0.09/0.10	460	1.41	-0.07/0.08	590	1.61	-0.08/0.09
332	1.79	-0.09/0.10	462	1.34	-0.07/0.07	592	1.61	-0.08/0.09
334	1.77	-0.09/0.10	464	1.28	-0.06/0.07	594	1.62	-0.08/0.09
336	1.73	-0.09/0.10	466	1.22	-0.06/0.06	596	1.62	-0.08/0.09
338	1.68	-0.09/0.09	468	1.17	-0.06/0.06	598	1.61	-0.08/0.09
340	1.62	-0.08/0.09	470	1.12	-0.05/0.06	600	1.60	-0.08/0.09
342	1.57	-0.08/0.08	472	1.08	-0.05/0.06	602	1.58	-0.08/0.09
344	1.52	-0.08/0.08	474	1.04	-0.05/0.05	604	1.56	-0.08/0.08
346	1.47	-0.07/0.08	476	1.03	-0.05/0.05	606	1.54	-0.08/0.08
348	1.40	-0.07/0.07	478	1.05	-0.05/0.05	608	1.51	-0.08/0.08
350	1.31	-0.06/0.07	480	1.09	-0.05/0.06	610	1.47	-0.07/0.08
352	1.23	-0.06/0.06	482	1.12	-0.05/0.06	612	1.42	-0.07/0.08
354	1.16	-0.06/0.06	484	1.16	-0.06/0.06	614	1.37	-0.07/0.07



f [MHz]	VSWR [1]	U [1]	f [MHz]	VSWR [1]	U [1]	f [MHz]	VSWR [1]	U [1]
616	1.32	-0.07/0.07	746	1.46	-0.07/0.08	876	1.86	-0.10/0.11
618	1.27	-0.06/0.07	748	1.49	-0.08/0.08	878	1.84	-0.10/0.10
620	1.22	-0.06/0.06	750	1.53	-0.08/0.08	880	1.82	-0.10/0.10
622	1.17	-0.06/0.06	752	1.56	-0.08/0.08	882	1.81	-0.10/0.10
624	1.13	-0.06/0.06	754	1.60	-0.08/0.09	884	1.79	-0.09/0.10
626	1.10	-0.05/0.06	756	1.64	-0.08/0.09	886	1.77	-0.09/0.10
628	1.08	-0.05/0.06	758	1.68	-0.09/0.09	888	1.75	-0.09/0.10
630	1.08	-0.05/0.06	760	1.71	-0.09/0.10	890	1.74	-0.09/0.10
632	1.10	-0.05/0.06	762	1.75	-0.09/0.10	892	1.72	-0.09/0.10
634	1.12	-0.05/0.06	764	1.78	-0.09/0.10	894	1.70	-0.09/0.09
636	1.15	-0.06/0.06	766	1.81	-0.10/0.10	896	1.69	-0.09/0.09
638	1.17	-0.06/0.06	768	1.82	-0.10/0.10	898	1.68	-0.09/0.09
640	1.20	-0.06/0.06	770	1.83	-0.10/0.10	900	1.67	-0.09/0.09
642	1.23	-0.06/0.06	772	1.84	-0.10/0.10	902	1.65	-0.09/0.09
644	1.25	-0.06/0.07	774	1.83	-0.10/0.10	904	1.64	-0.08/0.09
646	1.27	-0.06/0.07	776	1.82	-0.10/0.10	906	1.62	-0.08/0.09
648	1.30	-0.06/0.07	778	1.81	-0.10/0.10	908	1.60	-0.08/0.09
650	1.32	-0.07/0.07	780	1.79	-0.09/0.10	910	1.58	-0.08/0.09
652	1.33	-0.07/0.07	782	1.76	-0.09/0.10	912	1.56	-0.08/0.08
654	1.34	-0.07/0.07	784	1.73	-0.09/0.10	914	1.54	-0.08/0.08
656	1.36	-0.07/0.07	786	1.69	-0.09/0.09	916	1.52	-0.08/0.08
658	1.37	-0.07/0.07	788	1.65	-0.09/0.09	918	1.50	-0.08/0.08
660	1.38	-0.07/0.07	790	1.61	-0.08/0.09	920	1.47	-0.07/0.08
662	1.39	-0.07/0.07	792	1.57	-0.08/0.08	922	1.44	-0.07/0.08
664	1.41	-0.07/0.07	794	1.52	-0.08/0.08	924	1.41	-0.07/0.07
666	1.42	-0.07/0.08	796	1.48	-0.07/0.08	926	1.38	-0.07/0.07
668	1.44	-0.07/0.08	798	1.43	-0.07/0.08	928	1.34	-0.07/0.07
670	1.46	-0.07/0.08	800	1.39	-0.07/0.07	930	1.31	-0.06/0.07
672	1.48	-0.07/0.08	802	1.36	-0.07/0.07	932	1.27	-0.06/0.07
674	1.50	-0.08/0.08	804	1.32	-0.07/0.07	934	1.25	-0.06/0.06
676	1.51	-0.08/0.08	806	1.29	-0.06/0.07	936	1.23	-0.06/0.06
678	1.52	-0.08/0.08	808	1.26	-0.06/0.07	938	1.21	-0.06/0.06
680	1.53	-0.08/0.08	810	1.23	-0.06/0.06	940	1.21	-0.06/0.06
682	1.53	-0.08/0.08	812	1.21	-0.06/0.06	942	1.20	-0.06/0.06
684	1.53	-0.08/0.08	814	1.20	-0.06/0.06	944	1.21	-0.06/0.06
686	1.53	-0.08/0.08	816	1.19	-0.06/0.06	946	1.21	-0.06/0.06
688	1.52	-0.08/0.08	818	1.19	-0.06/0.06	948	1.22	-0.06/0.06
690	1.50	-0.08/0.08	820	1.19	-0.06/0.06	950	1.23	-0.06/0.06
692	1.48	-0.07/0.08	822	1.20	-0.06/0.06	952	1.24	-0.06/0.06
694	1.44	-0.07/0.08	824	1.23	-0.06/0.06	954	1.25	-0.06/0.07
696	1.41	-0.07/0.07	826	1.26	-0.06/0.07	956	1.26	-0.06/0.07
698	1.36	-0.07/0.07	828	1.29	-0.06/0.07	958	1.27	-0.06/0.07
700	1.32	-0.07/0.07	830	1.33	-0.07/0.07	960	1.29	-0.06/0.07
702	1.28	-0.06/0.07	832	1.38	-0.07/0.07	962	1.31	-0.06/0.07
704	1.23	-0.06/0.06	834	1.42	-0.07/0.08	964	1.32	-0.07/0.07
706	1.18	-0.06/0.06	836	1.46	-0.07/0.08	966	1.34	-0.07/0.07
708	1.14	-0.06/0.06	838	1.51	-0.08/0.08	968	1.36	-0.07/0.07
710	1.09	-0.05/0.06	840	1.55	-0.08/0.08	970	1.37	-0.07/0.07
712	1.05	-0.05/0.05	842	1.59	-0.08/0.09	972	1.38	-0.07/0.07
714	1.01	-0.05/0.05	844	1.63	-0.08/0.09	974	1.40	-0.07/0.07
716	1.04	-0.05/0.05	846	1.67	-0.09/0.09	976	1.41	-0.07/0.08
718	1.08	-0.05/0.06	848	1.71	-0.09/0.10	978	1.43	-0.07/0.08
720	1.11	-0.05/0.06	850	1.75	-0.09/0.10	980	1.45	-0.07/0.08
722	1.15	-0.06/0.06	852	1.79	-0.09/0.10	982	1.46	-0.07/0.08
724	1.18	-0.06/0.06	854	1.83	-0.10/0.10	984	1.48	-0.07/0.08
726	1.21	-0.06/0.06	856	1.86	-0.10/0.11	986	1.51	-0.08/0.08
728	1.24	-0.06/0.06	858	1.89	-0.10/0.11	988	1.53	-0.08/0.08
730	1.27	-0.06/0.07	860	1.92	-0.10/0.11	990	1.56	-0.08/0.08
732	1.30	-0.06/0.07	862	1.93	-0.10/0.11	992	1.59	-0.08/0.09
734	1.32	-0.07/0.07	864	1.94	-0.10/0.11	994	1.62	-0.08/0.09
736	1.34	-0.07/0.07	866	1.95	-0.10/0.11	996	1.65	-0.09/0.09
738	1.36	-0.07/0.07	868	1.94	-0.10/0.11	998	1.68	-0.09/0.09
740	1.38	-0.07/0.07	870	1.93	-0.10/0.11	1 000	1.71	-0.09/0.09
742	1.41	-0.07/0.07	872	1.91	-0.10/0.11	1 010	1.77	-0.21/0.25
744	1.43	-0.07/0.08	874	1.89	-0.10/0.11	1 020	1.72	-0.21/0.24

f [MHz]	VSWR [1]	U [1]	f [MHz]	VSWR [1]	U [1]	f [MHz]	VSWR [1]	U [1]
1 030	1.59	-0.19/0.22	1 680	1.27	-0.14/0.17	2 330	1.27	-0.15/0.17
1 040	1.44	-0.17/0.19	1 690	1.25	-0.14/0.16	2 340	1.34	-0.15/0.18
1 050	1.34	-0.15/0.18	1 700	1.28	-0.15/0.17	2 350	1.41	-0.16/0.19
1 060	1.31	-0.15/0.17	1 710	1.32	-0.15/0.17	2 360	1.45	-0.17/0.19
1 070	1.27	-0.15/0.17	1 720	1.32	-0.15/0.17	2 370	1.44	-0.17/0.19
1 080	1.24	-0.14/0.16	1 730	1.32	-0.15/0.17	2 380	1.38	-0.16/0.18
1 090	1.30	-0.15/0.17	1 740	1.30	-0.15/0.17	2 390	1.30	-0.15/0.17
1 100	1.37	-0.16/0.18	1 750	1.27	-0.14/0.17	2 400	1.23	-0.14/0.16
1 110	1.44	-0.17/0.19	1 760	1.23	-0.14/0.16	2 410	1.25	-0.14/0.16
1 120	1.49	-0.17/0.20	1 770	1.22	-0.14/0.16	2 420	1.34	-0.15/0.18
1 130	1.50	-0.17/0.20	1 780	1.27	-0.14/0.17	2 430	1.44	-0.17/0.19
1 140	1.56	-0.18/0.21	1 790	1.38	-0.16/0.18	2 440	1.52	-0.18/0.21
1 150	1.70	-0.20/0.24	1 800	1.48	-0.17/0.20	2 450	1.53	-0.18/0.21
1 160	1.83	-0.22/0.26	1 810	1.54	-0.18/0.21	2 460	1.47	-0.17/0.20
1 170	1.88	-0.23/0.27	1 820	1.53	-0.18/0.21	2 470	1.38	-0.16/0.18
1 180	1.82	-0.22/0.26	1 830	1.46	-0.17/0.20	2 480	1.32	-0.15/0.17
1 190	1.70	-0.20/0.24	1 840	1.39	-0.16/0.18	2 490	1.34	-0.15/0.18
1 200	1.56	-0.18/0.21	1 850	1.37	-0.16/0.18	2 500	1.45	-0.17/0.19
1 210	1.50	-0.17/0.20	1 860	1.44	-0.17/0.19	2 510	1.55	-0.18/0.21
1 220	1.49	-0.17/0.20	1 870	1.53	-0.18/0.21	2 520	1.60	-0.19/0.22
1 230	1.47	-0.17/0.20	1 880	1.58	-0.19/0.22	2 530	1.57	-0.18/0.21
1 240	1.41	-0.16/0.19	1 890	1.55	-0.18/0.21	2 540	1.48	-0.17/0.20
1 250	1.31	-0.15/0.17	1 900	1.45	-0.17/0.19	2 550	1.38	-0.16/0.18
1 260	1.22	-0.14/0.16	1 910	1.33	-0.15/0.17	2 560	1.32	-0.15/0.17
1 270	1.17	-0.13/0.15	1 920	1.24	-0.14/0.16	2 570	1.36	-0.16/0.18
1 280	1.16	-0.13/0.15	1 930	1.24	-0.14/0.16	2 580	1.45	-0.17/0.19
1 290	1.17	-0.13/0.15	1 940	1.29	-0.15/0.17	2 590	1.52	-0.18/0.21
1 300	1.22	-0.14/0.16	1 950	1.33	-0.15/0.18	2 600	1.53	-0.18/0.21
1 310	1.34	-0.15/0.18	1 960	1.33	-0.15/0.17	2 610	1.47	-0.17/0.20
1 320	1.49	-0.17/0.20	1 970	1.29	-0.15/0.17	2 620	1.37	-0.16/0.18
1 330	1.61	-0.19/0.22	1 980	1.24	-0.14/0.16	2 630	1.27	-0.14/0.17
1 340	1.64	-0.19/0.23	1 990	1.19	-0.13/0.15	2 640	1.23	-0.14/0.16
1 350	1.60	-0.19/0.22	2 000	1.14	-0.13/0.15	2 650	1.27	-0.14/0.17
1 360	1.53	-0.18/0.21	2 010	1.12	-0.13/0.14	2 660	1.34	-0.15/0.18
1 370	1.48	-0.17/0.20	2 020	1.16	-0.13/0.15	2 670	1.38	-0.16/0.18
1 380	1.52	-0.18/0.21	2 030	1.26	-0.14/0.16	2 680	1.40	-0.16/0.19
1 390	1.58	-0.18/0.22	2 040	1.37	-0.16/0.18	2 690	1.35	-0.15/0.18
1 400	1.60	-0.19/0.22	2 050	1.46	-0.17/0.20	2 700	1.27	-0.14/0.17
1 410	1.56	-0.18/0.21	2 060	1.49	-0.17/0.20	2 710	1.18	-0.13/0.15
1 420	1.45	-0.17/0.19	2 070	1.45	-0.17/0.19	2 720	1.13	-0.13/0.15
1 430	1.30	-0.15/0.17	2 080	1.39	-0.16/0.18	2 730	1.15	-0.13/0.15
1 440	1.19	-0.13/0.15	2 090	1.36	-0.16/0.18	2 740	1.23	-0.14/0.16
1 450	1.14	-0.13/0.15	2 100	1.42	-0.16/0.19	2 750	1.30	-0.15/0.17
1 460	1.14	-0.13/0.15	2 110	1.55	-0.18/0.21	2 760	1.34	-0.15/0.18
1 470	1.19	-0.14/0.15	2 120	1.69	-0.20/0.24	2 770	1.35	-0.15/0.18
1 480	1.28	-0.15/0.17	2 130	1.74	-0.21/0.25	2 780	1.31	-0.15/0.17
1 490	1.35	-0.15/0.18	2 140	1.71	-0.20/0.24	2 790	1.25	-0.14/0.16
1 500	1.42	-0.16/0.19	2 150	1.60	-0.19/0.22	2 800	1.18	-0.13/0.15
1 510	1.46	-0.17/0.20	2 160	1.51	-0.18/0.20	2 810	1.19	-0.14/0.15
1 520	1.43	-0.17/0.19	2 170	1.49	-0.17/0.20	2 820	1.28	-0.15/0.17
1 530	1.42	-0.16/0.19	2 180	1.57	-0.18/0.21	2 830	1.38	-0.16/0.18
1 540	1.48	-0.17/0.20	2 190	1.68	-0.20/0.23	2 840	1.46	-0.17/0.20
1 550	1.60	-0.19/0.22	2 200	1.74	-0.21/0.25	2 850	1.48	-0.17/0.20
1 560	1.75	-0.21/0.25	2 210	1.71	-0.20/0.24	2 860	1.45	-0.17/0.19
1 570	1.82	-0.22/0.26	2 220	1.62	-0.19/0.22	2 870	1.37	-0.16/0.18
1 580	1.80	-0.22/0.26	2 230	1.49	-0.17/0.20	2 880	1.31	-0.15/0.17
1 590	1.72	-0.20/0.24	2 240	1.40	-0.16/0.19	2 890	1.32	-0.15/0.17
1 600	1.60	-0.19/0.22	2 250	1.42	-0.16/0.19	2 900	1.42	-0.16/0.19
1 610	1.55	-0.18/0.21	2 260	1.49	-0.17/0.20	2 910	1.53	-0.18/0.21
1 620	1.62	-0.19/0.22	2 270	1.56	-0.18/0.21	2 920	1.60	-0.19/0.22
1 630	1.69	-0.20/0.24	2 280	1.57	-0.18/0.21	2 930	1.61	-0.19/0.22
1 640	1.69	-0.20/0.24	2 290	1.53	-0.18/0.21	2 940	1.55	-0.18/0.21
1 650	1.62	-0.19/0.22	2 300	1.42	-0.16/0.19	2 950	1.45	-0.17/0.19
1 660	1.52	-0.18/0.21	2 310	1.31	-0.15/0.17	2 960	1.38	-0.16/0.18
1 670	1.37	-0.16/0.18	2 320	1.26	-0.14/0.16	2 970	1.41	-0.16/0.19

f [MHz]	VSWR [1]	U [1]	f [MHz]	VSWR [1]	U [1]	f [MHz]	VSWR [1]	U [1]
2 980	1.51	-0.18/0.20	3 950	1.47	-0.17/0.20	5 000	1.75	-0.21/0.25
2 990	1.60	-0.19/0.22	4 000	1.30	-0.15/0.17	5 050	1.68	-0.20/0.23
3 000	1.65	-0.20/0.23	4 050	1.47	-0.17/0.20	5 100	1.51	-0.18/0.20
3 050	1.44	-0.17/0.19	4 100	1.48	-0.17/0.20	5 150	1.72	-0.21/0.24
3 100	1.49	-0.17/0.20	4 150	1.36	-0.16/0.18	5 200	1.50	-0.17/0.20
3 150	1.58	-0.19/0.22	4 200	1.58	-0.19/0.22	5 250	1.52	-0.18/0.21
3 200	1.33	-0.15/0.18	4 250	1.46	-0.17/0.20	5 300	1.64	-0.19/0.23
3 250	1.53	-0.18/0.21	4 300	1.47	-0.17/0.20	5 350	1.38	-0.16/0.18
3 300	1.53	-0.18/0.21	4 350	1.65	-0.19/0.23	5 400	1.56	-0.18/0.21
3 350	1.37	-0.16/0.18	4 400	1.45	-0.17/0.19	5 450	1.50	-0.17/0.20
3 400	1.64	-0.19/0.23	4 450	1.62	-0.19/0.22	5 500	1.34	-0.15/0.18
3 450	1.46	-0.17/0.20	4 500	1.67	-0.20/0.23	5 550	1.57	-0.18/0.21
3 500	1.47	-0.17/0.20	4 550	1.51	-0.18/0.20	5 600	1.35	-0.15/0.18
3 550	1.62	-0.19/0.22	4 600	1.76	-0.21/0.25	5 650	1.41	-0.16/0.19
3 600	1.38	-0.16/0.18	4 650	1.65	-0.20/0.23	5 700	1.50	-0.17/0.20
3 650	1.46	-0.17/0.20	4 700	1.62	-0.19/0.22	5 750	1.23	-0.14/0.16
3 700	1.50	-0.17/0.20	4 750	1.85	-0.22/0.27	5 800	1.49	-0.17/0.20
3 750	1.26	-0.14/0.16	4 800	1.61	-0.19/0.22	5 850	1.38	-0.16/0.18
3 800	1.45	-0.17/0.19	4 850	1.71	-0.20/0.24	5 900	1.25	-0.14/0.16
3 850	1.32	-0.15/0.17	4 900	1.80	-0.22/0.26	5 950	1.50	-0.17/0.20
3 900	1.30	-0.15/0.17	4 950	1.55	-0.18/0.21	6 000	1.21	-0.14/0.16

Figure 4: Antenna Symmetry; 30MHz-300MHz, d=10m (referencepoint)

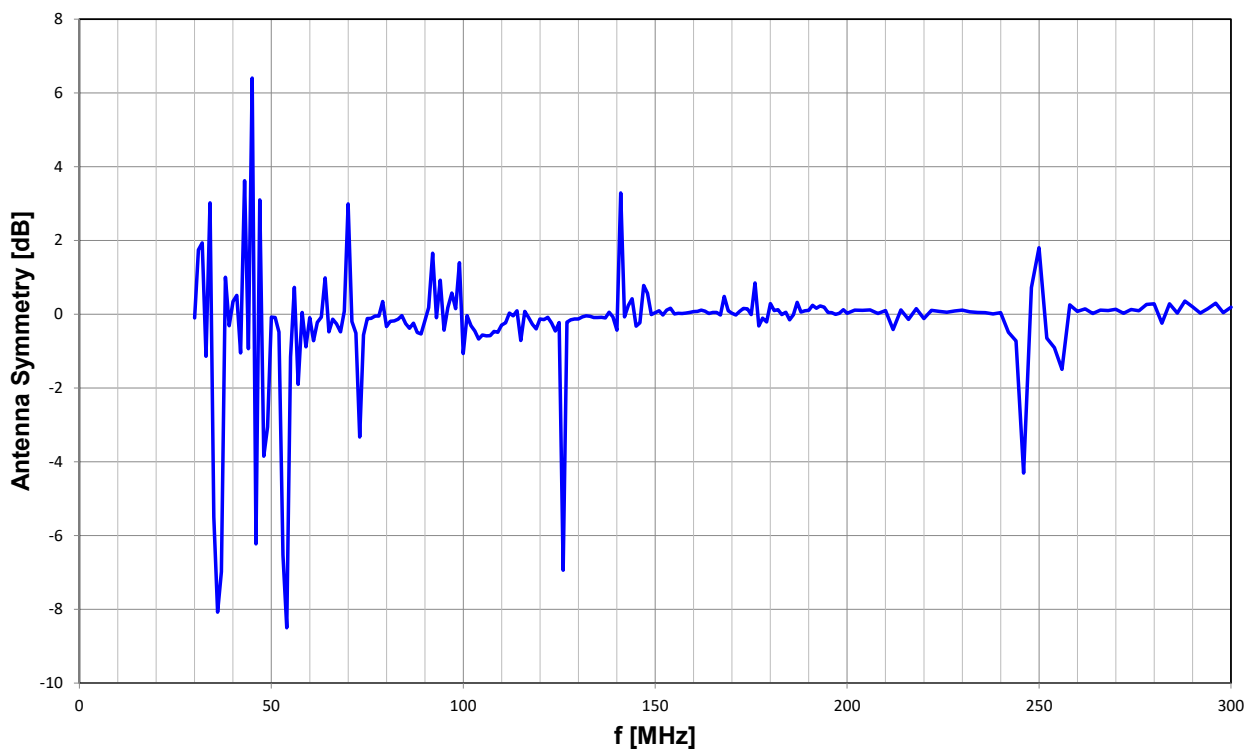


Table 4: Antenna Symmetry; 30MHz-300MHz, d=10m (referencepoint)

f [MHz]	Antenna Symmetry [dB]	U [dB]	f [MHz]	Antenna Symmetry [dB]	U [dB]	f [MHz]	Antenna Symmetry [dB]	U [dB]
30	-0.104	±0.20	33	-1.142	±0.20	36	-8.082	±0.20
31	1.744	±0.20	34	3.018	±0.20	37	-6.984	±0.20
32	1.929	±0.20	35	-5.505	±0.20	38	1.000	±0.20

f [MHz]	Antenna Symmetry [dB]	U [dB]	f [MHz]	Antenna Symmetry [dB]	U [dB]	f [MHz]	Antenna Symmetry [dB]	U [dB]
39	-0.315	±0.20	103	-0.456	±0.20	167	-0.024	±0.20
40	0.341	±0.20	104	-0.675	±0.20	168	0.481	±0.20
41	0.508	±0.20	105	-0.565	±0.20	169	0.093	±0.20
42	-1.050	±0.20	106	-0.586	±0.20	170	0.023	±0.20
43	3.616	±0.20	107	-0.582	±0.20	171	-0.021	±0.20
44	-0.936	±0.20	108	-0.468	±0.20	172	0.077	±0.20
45	6.403	±0.20	109	-0.491	±0.20	173	0.156	±0.20
46	-6.230	±0.20	110	-0.299	±0.20	174	0.141	±0.20
47	3.101	±0.20	111	-0.232	±0.20	175	-0.012	±0.20
48	-3.849	±0.20	112	0.030	±0.20	176	0.849	±0.20
49	-3.058	±0.20	113	-0.043	±0.20	177	-0.320	±0.20
50	-0.082	±0.20	114	0.094	±0.20	178	-0.109	±0.20
51	-0.088	±0.20	115	-0.713	±0.20	179	-0.208	±0.20
52	-0.486	±0.20	116	0.075	±0.20	180	0.284	±0.20
53	-6.530	±0.20	117	-0.091	±0.20	181	0.097	±0.20
54	-8.502	±0.20	118	-0.274	±0.20	182	0.119	±0.20
55	-1.157	±0.20	119	-0.401	±0.20	183	-0.012	±0.20
56	0.724	±0.20	120	-0.134	±0.20	184	0.055	±0.20
57	-1.903	±0.20	121	-0.147	±0.20	185	-0.153	±0.20
58	0.045	±0.20	122	-0.085	±0.20	186	-0.015	±0.20
59	-0.883	±0.20	123	-0.239	±0.20	187	0.319	±0.20
60	-0.095	±0.20	124	-0.455	±0.20	188	0.057	±0.20
61	-0.718	±0.20	125	-0.229	±0.20	189	0.093	±0.20
62	-0.222	±0.20	126	-6.944	±0.20	190	0.103	±0.20
63	-0.079	±0.20	127	-0.218	±0.20	191	0.239	±0.20
64	0.984	±0.20	128	-0.152	±0.20	192	0.162	±0.20
65	-0.477	±0.20	129	-0.130	±0.20	193	0.222	±0.20
66	-0.138	±0.20	130	-0.132	±0.20	194	0.190	±0.20
67	-0.263	±0.20	131	-0.072	±0.20	195	0.044	±0.20
68	-0.479	±0.20	132	-0.044	±0.20	196	0.043	±0.20
69	0.082	±0.20	133	-0.057	±0.20	197	-0.004	±0.20
70	2.991	±0.20	134	-0.090	±0.20	198	0.024	±0.20
71	-0.201	±0.20	135	-0.088	±0.20	199	0.122	±0.20
72	-0.511	±0.20	136	-0.087	±0.20	200	0.026	±0.20
73	-3.333	±0.20	137	-0.102	±0.20	202	0.109	±0.20
74	-0.563	±0.20	138	0.052	±0.20	204	0.103	±0.20
75	-0.120	±0.20	139	-0.074	±0.20	206	0.117	±0.20
76	-0.113	±0.20	140	-0.431	±0.20	208	0.016	±0.20
77	-0.052	±0.20	141	3.285	±0.20	210	0.098	±0.20
78	-0.052	±0.20	142	-0.072	±0.20	212	-0.414	±0.20
79	0.344	±0.20	143	0.234	±0.20	214	0.117	±0.20
80	-0.339	±0.20	144	0.415	±0.20	216	-0.144	±0.20
81	-0.193	±0.20	145	-0.326	±0.20	218	0.149	±0.20
82	-0.185	±0.20	146	-0.232	±0.20	220	-0.118	±0.20
83	-0.139	±0.20	147	0.778	±0.20	222	0.105	±0.20
84	-0.040	±0.20	148	0.564	±0.20	224	0.077	±0.20
85	-0.257	±0.20	149	-0.011	±0.20	226	0.054	±0.20
86	-0.385	±0.20	150	0.040	±0.20	228	0.086	±0.20
87	-0.247	±0.20	151	0.090	±0.20	230	0.107	±0.20
88	-0.495	±0.20	152	-0.025	±0.20	232	0.062	±0.20
89	-0.538	±0.20	153	0.111	±0.20	234	0.046	±0.20
90	-0.180	±0.20	154	0.158	±0.20	236	0.043	±0.20
91	0.178	±0.20	155	0.006	±0.20	238	0.006	±0.20
92	1.652	±0.20	156	0.024	±0.20	240	0.043	±0.20
93	-0.095	±0.20	157	0.019	±0.20	242	-0.491	±0.20
94	0.918	±0.20	158	0.031	±0.20	244	-0.727	±0.20
95	-0.435	±0.20	159	0.045	±0.20	246	-4.309	±0.20
96	0.177	±0.20	160	0.068	±0.20	248	0.722	±0.20
97	0.574	±0.20	161	0.077	±0.20	250	1.801	±0.20
98	0.151	±0.20	162	0.106	±0.20	252	-0.652	±0.20
99	1.395	±0.20	163	0.082	±0.20	254	-0.908	±0.20
100	-1.069	±0.20	164	0.018	±0.20	256	-1.499	±0.20
101	-0.042	±0.20	165	0.046	±0.20	258	0.252	±0.20
102	-0.315	±0.20	166	0.045	±0.20	260	0.077	±0.20

f [MHz]	Antenna Symmetry [dB]	U [dB]	f [MHz]	Antenna Symmetry [dB]	U [dB]	f [MHz]	Antenna Symmetry [dB]	U [dB]
262	0.146	±0.20	278	0.264	±0.20	294	0.149	±0.20
264	0.016	±0.20	280	0.280	±0.20	296	0.297	±0.20
266	0.108	±0.20	282	-0.247	±0.20	298	0.039	±0.20
268	0.100	±0.20	284	0.283	±0.20	300	0.188	±0.20
270	0.131	±0.20	286	0.028	±0.20			
272	0.026	±0.20	288	0.357	±0.20			
274	0.125	±0.20	290	0.199	±0.20			
276	0.090	±0.20	292	0.031	±0.20			

Figure 5: Cross Polarisation; 30MHz-6000MHz, d=3m (referencepoint)

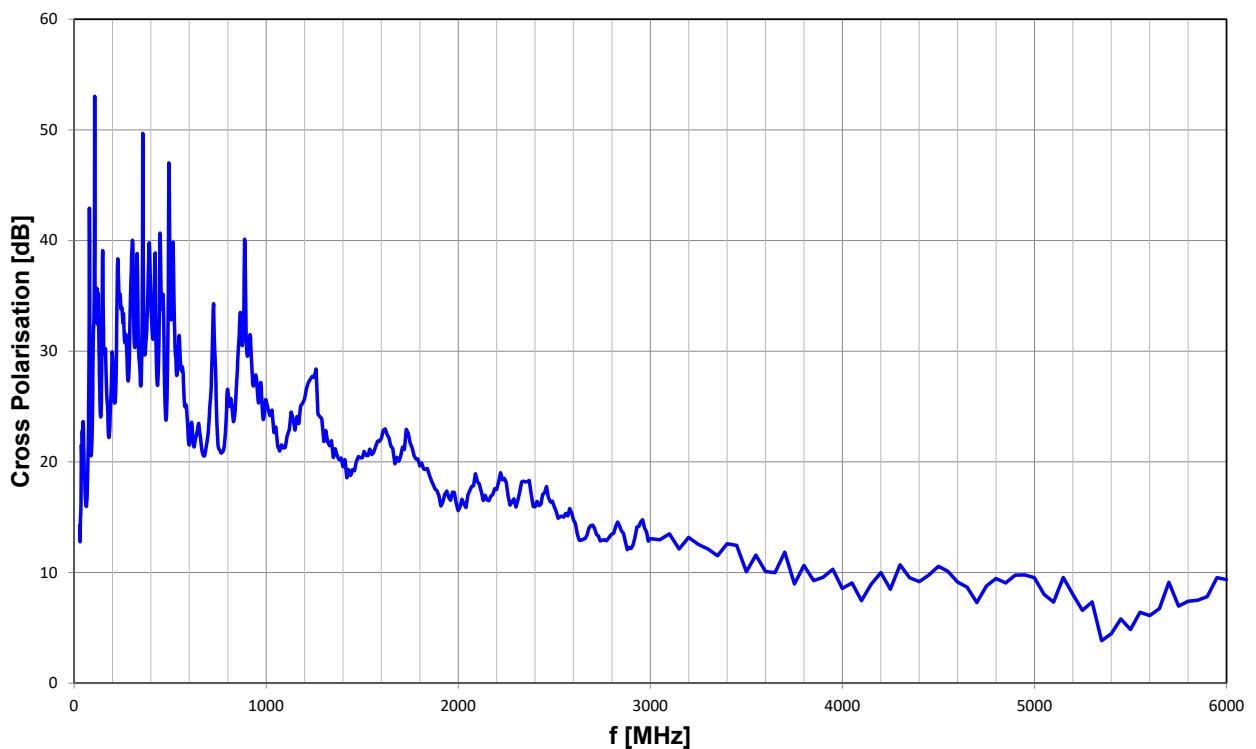


Table 5: Cross Polarisation; 30MHz-6000MHz, d=3m (referencepoint)

f [MHz]	Cross Polarisation [dB]	U [dB]	f [MHz]	Cross Polarisation [dB]	U [dB]	f [MHz]	Cross Polarisation [dB]	U [dB]
30	14.25	±2.20	45	21.83	±2.20	60	16.43	±2.20
31	13.45	±2.20	46	22.39	±2.20	61	16.24	±2.20
32	12.77	±2.20	47	23.64	±2.20	62	16.04	±2.20
33	14.45	±2.20	48	23.26	±2.20	63	16.09	±2.20
34	15.04	±2.20	49	22.62	±2.20	64	16.10	±2.20
35	15.31	±2.20	50	21.30	±2.20	65	15.97	±2.20
36	16.04	±2.20	51	20.62	±2.20	66	16.33	±2.20
37	18.89	±2.20	52	19.58	±2.20	67	16.47	±2.20
38	21.54	±2.20	53	18.97	±2.20	68	16.90	±2.20
39	20.94	±2.20	54	18.41	±2.20	69	17.57	±2.20
40	20.03	±2.20	55	18.70	±2.20	70	18.42	±2.20
41	21.53	±2.20	56	18.53	±2.20	71	19.15	±2.20
42	22.63	±2.20	57	17.60	±2.20	72	20.08	±2.20
43	22.69	±2.20	58	17.02	±2.20	73	21.04	±2.20
44	22.87	±2.20	59	16.62	±2.20	74	22.00	±2.20

f [MHz]	Cross Polarisation [dB]	U [dB]	f [MHz]	Cross Polarisation [dB]	U [dB]	f [MHz]	Cross Polarisation [dB]	U [dB]
75	23.09	±2.20	138	24.05	±2.20	202	29.03	±2.20
76	24.74	±2.20	139	24.05	±2.20	204	27.83	±2.20
77	26.45	±2.20	140	24.33	±2.20	206	26.62	±2.20
78	28.89	±2.20	141	24.82	±2.20	208	25.78	±2.20
79	33.42	±2.20	142	25.52	±2.20	210	25.41	±2.20
80	42.92	±2.20	143	26.54	±2.20	212	25.30	±2.20
81	39.57	±2.20	144	27.85	±2.20	214	25.38	±2.20
82	30.78	±2.20	145	29.68	±2.20	216	25.94	±2.20
83	27.05	±2.20	146	32.06	±2.20	218	27.13	±2.20
84	24.38	±2.20	147	35.06	±2.20	220	29.14	±2.20
85	22.75	±2.20	148	38.42	±2.20	222	31.78	±2.20
86	21.85	±2.20	149	39.09	±2.20	224	34.60	±2.20
87	21.12	±2.20	150	36.82	±2.20	226	37.60	±2.20
88	20.69	±2.20	151	34.41	±2.20	228	38.35	±2.20
89	20.53	±2.20	152	32.89	±2.20	230	37.06	±2.20
90	20.73	±2.20	153	31.93	±2.20	232	35.88	±2.20
91	20.96	±2.20	154	30.91	±2.20	234	35.10	±2.20
92	21.46	±2.20	155	30.33	±2.20	236	34.83	±2.20
93	21.94	±2.20	156	29.98	±2.20	238	34.86	±2.20
94	22.62	±2.20	157	29.79	±2.20	240	35.15	±2.20
95	23.63	±2.20	158	29.70	±2.20	242	34.40	±2.20
96	24.87	±2.20	159	29.87	±2.20	244	33.83	±2.20
97	26.24	±2.20	160	30.08	±2.20	246	33.78	±2.20
98	27.61	±2.20	161	29.87	±2.20	248	33.97	±2.20
99	29.37	±2.20	162	30.18	±2.20	250	33.81	±2.20
100	30.69	±2.20	163	30.23	±2.20	252	33.12	±2.20
101	31.68	±2.20	164	29.96	±2.20	254	32.54	±2.20
102	32.33	±2.20	165	29.45	±2.20	256	33.28	±2.20
103	32.43	±2.20	166	28.78	±2.20	258	33.39	±2.20
104	33.53	±2.20	167	27.99	±2.20	260	32.00	±2.20
105	35.54	±2.20	168	27.37	±2.20	262	31.09	±2.20
106	40.00	±2.20	169	26.68	±2.20	264	30.77	±2.20
107	53.04	±2.20	170	26.19	±2.20	266	30.93	±2.20
108	41.55	±2.20	171	25.79	±2.20	268	31.47	±2.20
109	37.21	±2.20	172	25.47	±2.20	270	31.52	±2.20
110	34.48	±2.20	173	25.28	±2.20	272	30.94	±2.20
111	33.46	±2.20	174	25.09	±2.20	274	29.95	±2.20
112	32.68	±2.20	175	24.75	±2.20	276	29.13	±2.20
113	32.92	±2.20	176	24.22	±2.20	278	28.17	±2.20
114	33.30	±2.20	177	23.67	±2.20	280	27.53	±2.20
115	33.51	±2.20	178	23.06	±2.20	282	27.30	±2.20
116	34.15	±2.20	179	22.53	±2.20	284	27.55	±2.20
117	34.89	±2.20	180	22.23	±2.20	286	28.28	±2.20
118	35.70	±2.20	181	22.20	±2.20	288	29.59	±2.20
119	35.43	±2.20	182	22.20	±2.20	290	31.45	±2.20
120	34.72	±2.20	183	22.36	±2.20	292	33.41	±2.20
121	33.33	±2.20	184	22.63	±2.20	294	35.01	±2.20
122	32.66	±2.20	185	22.88	±2.20	296	36.38	±2.20
123	32.43	±2.20	186	23.26	±2.20	298	37.33	±2.20
124	33.30	±2.20	187	23.74	±2.20	300	38.46	±2.20
125	35.13	±2.20	188	24.13	±2.20	302	39.30	±2.20
126	35.24	±2.20	189	24.50	±2.20	304	40.01	±2.20
127	34.02	±2.20	190	24.99	±2.20	306	39.75	±2.20
128	32.22	±2.20	191	25.40	±2.20	308	36.91	±2.20
129	30.97	±2.20	192	25.84	±2.20	310	33.72	±2.20
130	29.63	±2.20	193	26.34	±2.20	312	31.70	±2.20
131	28.84	±2.20	194	26.90	±2.20	314	30.69	±2.20
132	28.00	±2.20	195	27.61	±2.20	316	30.33	±2.20
133	27.30	±2.20	196	28.37	±2.20	318	30.34	±2.20
134	26.56	±2.20	197	29.12	±2.20	320	30.86	±2.20
135	25.51	±2.20	198	29.65	±2.20	322	31.86	±2.20
136	24.73	±2.20	199	29.92	±2.20	324	33.60	±2.20
137	24.27	±2.20	200	29.78	±2.20	326	36.20	±2.20

f [MHz]	Cross Polarisation [dB]	U [dB]	f [MHz]	Cross Polarisation [dB]	U [dB]	f [MHz]	Cross Polarisation [dB]	U [dB]
328	38.82	±2.20	454	34.41	±2.20	580	25.04	±2.20
330	37.31	±2.20	456	33.81	±2.20	582	25.17	±2.20
332	34.42	±2.20	458	33.90	±2.20	584	25.13	±2.20
334	31.99	±2.20	460	34.40	±2.20	586	24.73	±2.20
336	30.27	±2.20	462	35.17	±2.20	588	24.14	±2.20
338	29.35	±2.20	464	34.94	±2.20	590	23.61	±2.20
340	28.99	±2.20	466	33.14	±2.20	592	23.05	±2.20
342	28.53	±2.20	468	30.66	±2.20	594	22.42	±2.20
344	27.74	±2.20	470	28.33	±2.20	596	21.87	±2.20
346	26.92	±2.20	472	26.46	±2.20	598	21.57	±2.20
348	26.84	±2.20	474	25.11	±2.20	600	21.51	±2.20
350	27.61	±2.20	476	24.24	±2.20	602	21.65	±2.20
352	29.35	±2.20	478	23.75	±2.20	604	22.07	±2.20
354	32.47	±2.20	480	23.77	±2.20	606	22.66	±2.20
356	39.03	±2.20	482	24.39	±2.20	608	23.18	±2.20
358	49.67	±2.20	484	25.70	±2.20	610	23.49	±2.20
360	38.93	±2.20	486	27.85	±2.20	612	23.57	±2.20
362	34.05	±2.20	488	30.85	±2.20	614	23.29	±2.20
364	31.52	±2.20	490	34.89	±2.20	616	22.85	±2.20
366	30.17	±2.20	492	40.04	±2.20	618	22.39	±2.20
368	29.63	±2.20	494	47.02	±2.20	620	21.92	±2.20
370	29.67	±2.20	496	44.76	±2.20	622	21.54	±2.20
372	30.25	±2.20	498	38.77	±2.20	624	21.34	±2.20
374	30.80	±2.20	500	35.60	±2.20	626	21.38	±2.20
376	31.33	±2.20	502	33.75	±2.20	628	21.58	±2.20
378	31.88	±2.20	504	32.92	±2.20	630	21.87	±2.20
380	32.66	±2.20	506	32.81	±2.20	632	22.10	±2.20
382	33.56	±2.20	508	33.19	±2.20	634	22.23	±2.20
384	34.99	±2.20	510	34.07	±2.20	636	22.34	±2.20
386	36.81	±2.20	512	35.78	±2.20	638	22.46	±2.20
388	38.18	±2.20	514	38.65	±2.20	640	22.64	±2.20
390	39.06	±2.20	516	39.85	±2.20	642	22.80	±2.20
392	39.79	±2.20	518	37.41	±2.20	644	23.09	±2.20
394	38.80	±2.20	520	34.65	±2.20	646	23.32	±2.20
396	37.13	±2.20	522	32.66	±2.20	648	23.47	±2.20
398	35.81	±2.20	524	31.31	±2.20	650	23.36	±2.20
400	34.59	±2.20	526	30.35	±2.20	652	23.02	±2.20
402	33.78	±2.20	528	29.61	±2.20	654	22.67	±2.20
404	32.87	±2.20	530	29.46	±2.20	656	22.41	±2.20
406	32.08	±2.20	532	28.17	±2.20	658	22.22	±2.20
408	31.44	±2.20	534	27.79	±2.20	660	21.95	±2.20
410	31.07	±2.20	536	27.84	±2.20	662	21.60	±2.20
412	31.11	±2.20	538	28.29	±2.20	664	21.26	±2.20
414	31.70	±2.20	540	29.07	±2.20	666	20.98	±2.20
416	32.81	±2.20	542	29.95	±2.20	668	20.81	±2.20
418	35.13	±2.20	544	30.66	±2.20	670	20.70	±2.20
420	38.36	±2.20	546	31.28	±2.20	672	20.63	±2.20
422	38.87	±2.20	548	31.40	±2.20	674	20.55	±2.20
424	35.19	±2.20	550	30.61	±2.20	676	20.51	±2.20
426	31.91	±2.20	552	29.61	±2.20	678	20.52	±2.20
428	29.65	±2.20	554	28.85	±2.20	680	20.56	±2.20
430	28.10	±2.20	556	28.39	±2.20	682	20.69	±2.20
432	27.18	±2.20	558	28.22	±2.20	684	20.90	±2.20
434	26.89	±2.20	560	28.29	±2.20	686	21.13	±2.20
436	27.01	±2.20	562	28.47	±2.20	688	21.37	±2.20
438	27.73	±2.20	564	28.57	±2.20	690	21.61	±2.20
440	29.05	±2.20	566	28.29	±2.20	692	21.81	±2.20
442	30.99	±2.20	568	27.86	±2.20	694	22.01	±2.20
444	33.64	±2.20	570	27.14	±2.20	696	22.21	±2.20
446	37.27	±2.20	572	26.23	±2.20	698	22.56	±2.20
448	40.66	±2.20	574	25.46	±2.20	700	23.03	±2.20
450	39.40	±2.20	576	25.03	±2.20	702	23.62	±2.20
452	36.30	±2.20	578	24.94	±2.20	704	24.19	±2.20

f [MHz]	Cross Polarisation [dB]	U [dB]	f [MHz]	Cross Polarisation [dB]	U [dB]	f [MHz]	Cross Polarisation [dB]	U [dB]
706	24.71	±2.20	832	23.71	±2.20	958	25.55	±2.20
708	25.18	±2.20	834	23.93	±2.20	960	25.32	±2.20
710	25.63	±2.20	836	24.18	±2.20	962	25.39	±2.20
712	26.16	±2.20	838	24.53	±2.20	964	25.75	±2.20
714	26.85	±2.20	840	25.01	±2.20	966	26.28	±2.20
716	27.79	±2.20	842	25.64	±2.20	968	26.75	±2.20
718	28.98	±2.20	844	26.35	±2.20	970	27.12	±2.20
720	30.37	±2.20	846	27.08	±2.20	972	27.16	±2.20
722	31.97	±2.20	848	27.72	±2.20	974	26.84	±2.20
724	33.62	±2.20	850	28.33	±2.20	976	26.23	±2.20
726	34.30	±2.20	852	29.00	±2.20	978	25.47	±2.20
728	33.11	±2.20	854	29.74	±2.20	980	24.77	±2.20
730	31.38	±2.20	856	30.38	±2.20	982	24.20	±2.20
732	30.18	±2.20	858	30.93	±2.20	984	23.90	±2.20
734	29.37	±2.20	860	31.61	±2.20	986	23.82	±2.20
736	28.54	±2.20	862	32.35	±2.20	988	23.95	±2.20
738	27.28	±2.20	864	33.15	±2.20	990	24.25	±2.20
740	25.78	±2.20	866	33.51	±2.20	992	24.68	±2.20
742	24.41	±2.20	868	33.00	±2.20	994	25.11	±2.20
744	23.29	±2.20	870	31.97	±2.20	996	25.47	±2.20
746	22.45	±2.20	872	31.06	±2.20	998	25.61	±2.20
748	21.85	±2.20	874	30.56	±2.20	1 000	25.54	±2.20
750	21.46	±2.20	876	30.49	±2.20	1 010	24.78	±2.20
752	21.30	±2.20	878	30.83	±2.20	1 020	24.17	±2.20
754	21.17	±2.20	880	31.45	±2.20	1 030	24.67	±2.20
756	21.11	±2.20	882	32.51	±2.20	1 040	22.64	±2.20
758	21.05	±2.20	884	34.32	±2.20	1 050	23.14	±2.20
760	21.01	±2.20	886	37.11	±2.20	1 060	21.41	±2.20
762	20.99	±2.20	888	40.11	±2.20	1 070	20.97	±2.20
764	20.83	±2.20	890	39.61	±2.20	1 080	21.53	±2.20
766	20.86	±2.20	892	36.34	±2.20	1 090	21.24	±2.20
768	20.81	±2.20	894	33.63	±2.20	1 100	21.30	±2.20
770	20.86	±2.20	896	31.67	±2.20	1 110	22.35	±2.20
772	20.90	±2.20	898	30.45	±2.20	1 120	22.89	±2.20
774	20.92	±2.20	900	29.76	±2.20	1 130	24.49	±2.20
776	20.95	±2.20	902	29.54	±2.20	1 140	23.86	±2.20
778	21.03	±2.20	904	29.57	±2.20	1 150	22.86	±2.20
780	21.21	±2.20	906	29.76	±2.20	1 160	24.07	±2.20
782	21.44	±2.20	908	30.10	±2.20	1 170	23.46	±2.20
784	21.75	±2.20	910	30.41	±2.20	1 180	25.08	±2.20
786	22.13	±2.20	912	30.92	±2.20	1 190	25.28	±2.20
788	22.65	±2.20	914	31.35	±2.20	1 200	25.63	±2.20
790	23.24	±2.20	916	31.48	±2.20	1 210	26.65	±2.20
792	23.98	±2.20	918	31.24	±2.20	1 220	27.19	±2.20
794	24.92	±2.20	920	30.63	±2.20	1 230	27.47	±2.20
796	25.91	±2.20	922	29.86	±2.20	1 240	27.71	±2.20
798	26.50	±2.20	924	29.05	±2.20	1 250	27.62	±2.20
800	26.56	±2.20	926	28.37	±2.20	1 260	28.39	±2.20
802	26.19	±2.20	928	27.70	±2.20	1 270	24.31	±2.20
804	25.71	±2.20	930	27.20	±2.20	1 280	24.08	±2.20
806	25.26	±2.20	932	26.89	±2.20	1 290	23.90	±2.20
808	25.03	±2.20	934	26.85	±2.20	1 300	21.82	±2.20
810	25.10	±2.20	936	26.96	±2.20	1 310	22.82	±2.20
812	25.36	±2.20	938	27.19	±2.20	1 320	21.81	±2.20
814	25.63	±2.20	940	27.47	±2.20	1 330	21.44	±2.20
816	25.72	±2.20	942	27.68	±2.20	1 340	21.90	±2.20
818	25.56	±2.20	944	27.82	±2.20	1 350	20.39	±2.20
820	25.29	±2.20	946	27.84	±2.20	1 360	21.19	±2.20
822	24.97	±2.20	948	27.70	±2.20	1 370	20.55	±2.20
824	24.58	±2.20	950	27.43	±2.20	1 380	20.16	±2.20
826	24.15	±2.20	952	27.08	±2.20	1 390	20.35	±2.20
828	23.80	±2.20	954	26.56	±2.20	1 400	19.53	±2.20
830	23.62	±2.20	956	25.99	±2.20	1 410	20.18	±2.20

f [MHz]	Cross Polarisation [dB]	U [dB]	f [MHz]	Cross Polarisation [dB]	U [dB]	f [MHz]	Cross Polarisation [dB]	U [dB]
1 420	18.56	±2.20	2 050	16.97	±2.20	2 680	14.00	±2.20
1 430	19.29	±2.20	2 060	17.40	±2.20	2 690	14.23	±2.20
1 440	18.77	±2.20	2 070	17.78	±2.20	2 700	14.27	±2.20
1 450	19.30	±2.20	2 080	17.82	±2.20	2 710	13.98	±2.20
1 460	19.18	±2.20	2 090	18.92	±2.20	2 720	13.43	±2.20
1 470	20.02	±2.20	2 100	18.24	±2.20	2 730	13.31	±2.20
1 480	20.47	±2.20	2 110	17.98	±2.20	2 740	12.84	±2.20
1 490	20.35	±2.20	2 120	17.27	±2.20	2 750	12.92	±2.20
1 500	20.37	±2.20	2 130	16.50	±2.20	2 760	12.95	±2.20
1 510	20.94	±2.20	2 140	16.97	±2.20	2 770	12.86	±2.20
1 520	20.57	±2.20	2 150	16.55	±2.20	2 780	13.03	±2.20
1 530	20.55	±2.20	2 160	16.48	±2.20	2 790	13.27	±2.20
1 540	21.15	±2.20	2 170	16.90	±2.20	2 800	13.46	±2.20
1 550	20.64	±2.20	2 180	17.04	±2.20	2 810	13.55	±2.20
1 560	20.85	±2.20	2 190	17.56	±2.20	2 820	14.16	±2.20
1 570	21.35	±2.20	2 200	17.50	±2.20	2 830	14.55	±2.20
1 580	21.88	±2.20	2 210	18.17	±2.20	2 840	14.17	±2.20
1 590	21.85	±2.20	2 220	19.01	±2.20	2 850	13.73	±2.20
1 600	22.14	±2.20	2 230	18.36	±2.20	2 860	13.55	±2.20
1 610	22.86	±2.20	2 240	18.49	±2.20	2 870	12.77	±2.20
1 620	22.97	±2.20	2 250	18.14	±2.20	2 880	12.07	±2.20
1 630	22.46	±2.20	2 260	16.89	±2.20	2 890	12.26	±2.20
1 640	22.13	±2.20	2 270	16.07	±2.20	2 900	12.14	±2.20
1 650	21.41	±2.20	2 280	16.36	±2.20	2 910	12.46	±2.20
1 660	21.19	±2.20	2 290	16.65	±2.20	2 920	13.11	±2.20
1 670	19.81	±2.20	2 300	15.90	±2.20	2 930	14.11	±2.20
1 680	20.40	±2.20	2 310	16.52	±2.20	2 940	14.16	±2.20
1 690	20.05	±2.20	2 320	17.28	±2.20	2 950	14.56	±2.20
1 700	20.50	±2.20	2 330	18.16	±2.20	2 960	14.77	±2.20
1 710	21.32	±2.20	2 340	18.25	±2.20	2 970	14.01	±2.20
1 720	21.11	±2.20	2 350	18.18	±2.20	2 980	13.69	±2.20
1 730	22.94	±2.20	2 360	18.21	±2.20	2 990	12.81	±2.20
1 740	22.59	±2.20	2 370	18.31	±2.20	3 000	13.04	±2.20
1 750	21.72	±2.20	2 380	17.12	±2.20	3 050	12.95	±2.20
1 760	21.25	±2.20	2 390	15.96	±2.20	3 100	13.50	±2.20
1 770	20.53	±2.20	2 400	15.92	±2.20	3 150	12.11	±2.20
1 780	20.24	±2.20	2 410	16.43	±2.20	3 200	13.15	±2.20
1 790	20.24	±2.20	2 420	16.03	±2.20	3 250	12.54	±2.20
1 800	19.63	±2.20	2 430	16.14	±2.20	3 300	12.12	±2.20
1 810	19.89	±2.20	2 440	17.06	±2.20	3 350	11.51	±2.20
1 820	19.36	±2.20	2 450	17.19	±2.20	3 400	12.59	±2.20
1 830	19.29	±2.20	2 460	17.76	±2.20	3 450	12.44	±2.20
1 840	19.39	±2.20	2 470	16.77	±2.20	3 500	10.06	±2.20
1 850	18.77	±2.20	2 480	16.37	±2.20	3 550	11.56	±2.20
1 860	18.30	±2.20	2 490	16.45	±2.20	3 600	10.07	±2.20
1 870	17.91	±2.20	2 500	15.93	±2.20	3 650	9.98	±2.20
1 880	17.53	±2.20	2 510	15.51	±2.20	3 700	11.82	±2.20
1 890	17.38	±2.20	2 520	14.90	±2.20	3 750	8.96	±2.20
1 900	16.90	±2.20	2 530	15.04	±2.20	3 800	10.62	±2.20
1 910	15.99	±2.20	2 540	15.08	±2.20	3 850	9.26	±2.20
1 920	16.34	±2.20	2 550	14.98	±2.20	3 900	9.57	±2.20
1 930	17.02	±2.20	2 560	15.34	±2.20	3 950	10.28	±2.20
1 940	17.35	±2.20	2 570	15.11	±2.20	4 000	8.55	±2.20
1 950	16.78	±2.20	2 580	15.78	±2.20	4 050	9.04	±2.20
1 960	16.52	±2.20	2 590	15.41	±2.20	4 100	7.46	±2.20
1 970	17.26	±2.20	2 600	14.75	±2.20	4 150	8.93	±2.20
1 980	17.21	±2.20	2 610	14.41	±2.20	4 200	9.98	±2.20
1 990	16.23	±2.20	2 620	13.50	±2.20	4 250	8.47	±2.20
2 000	15.59	±2.20	2 630	12.92	±2.20	4 300	10.68	±2.20
2 010	15.93	±2.20	2 640	12.89	±2.20	4 350	9.52	±2.20
2 020	16.62	±2.20	2 650	12.99	±2.20	4 400	9.17	±2.20
2 030	16.16	±2.20	2 660	13.05	±2.20	4 450	9.75	±2.20
2 040	15.86	±2.20	2 670	13.36	±2.20	4 500	10.56	±2.20

f [MHz]	Cross Polarisation [dB]	U [dB]	f [MHz]	Cross Polarisation [dB]	U [dB]	f [MHz]	Cross Polarisation [dB]	U [dB]
4 550	10.10	±2.20	5 050	8.01	±2.20	5 550	6.41	±2.20
4 600	9.12	±2.20	5 100	7.31	±2.20	5 600	6.10	±2.20
4 650	8.68	±2.20	5 150	9.54	±2.20	5 650	6.72	±2.20
4 700	7.28	±2.20	5 200	8.01	±2.20	5 700	9.11	±2.20
4 750	8.79	±2.20	5 250	6.57	±2.20	5 750	6.95	±2.20
4 800	9.44	±2.20	5 300	7.33	±2.20	5 800	7.39	±2.20
4 850	9.04	±2.20	5 350	3.82	±2.20	5 850	7.48	±2.20
4 900	9.75	±2.20	5 400	4.46	±2.20	5 900	7.82	±2.20
4 950	9.77	±2.20	5 450	5.79	±2.20	5 950	9.52	±2.20
5 000	9.53	±2.20	5 500	4.83	±2.20	6 000	9.35	±2.20