

TECHNICAL DOCUMENTATION

SUPPLEMENT  
FREQUENCIES 2018

# Farnsworth Peak



BROADCAST

**773941**



UHF Auxiliary Antenna  
04.04.2018

**KATHREIN**

KATHREIN-Werke KG  
Anton-Kathrein-Straße 1-3  
83022 Rosenheim, Germany  
Phone +49 8031 184-0  
Fax +49 8031 184-495  
[www.kathrein.com](http://www.kathrein.com) | [broadcast@kathrein.de](mailto:broadcast@kathrein.de)

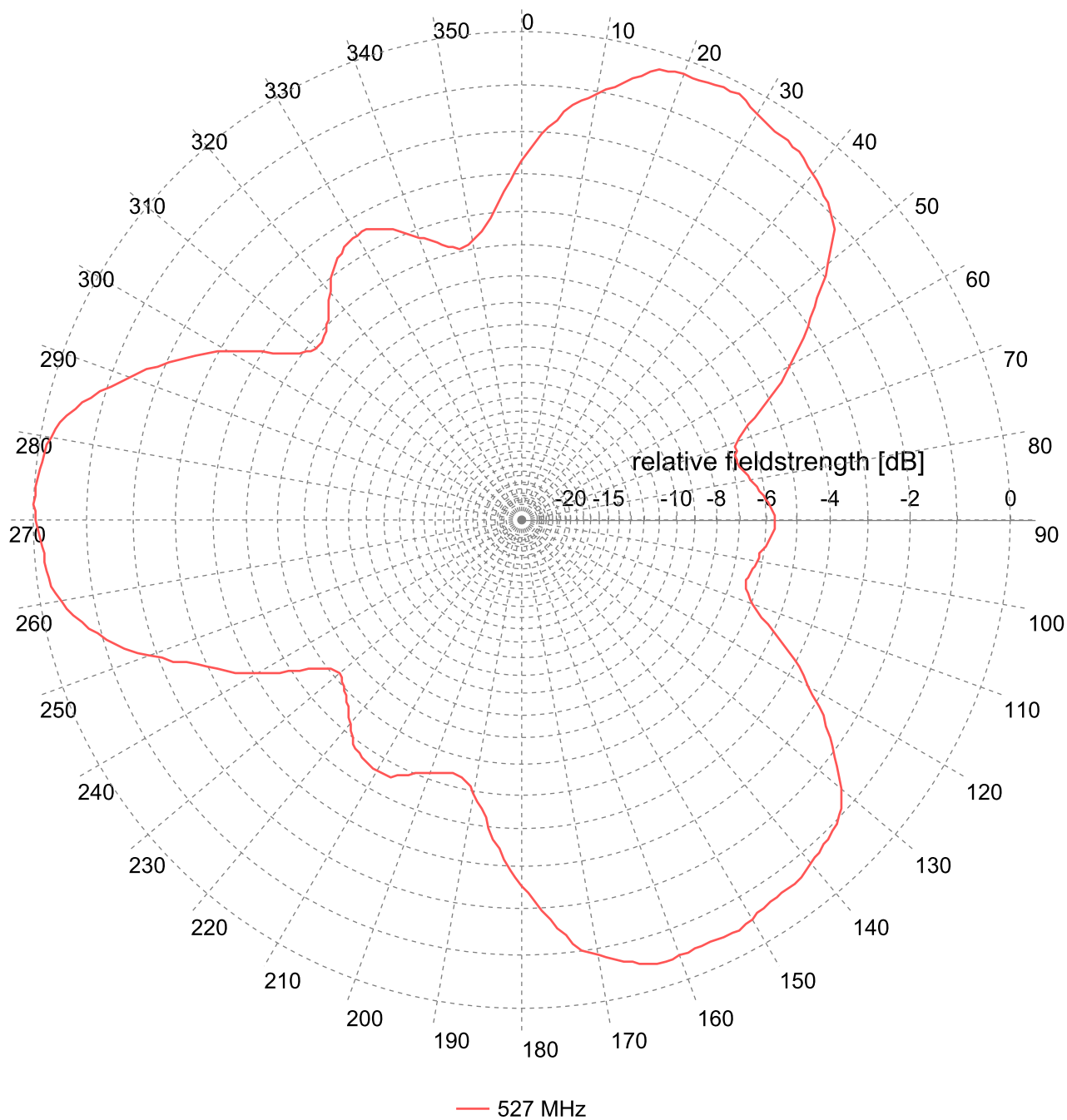
Operating channel 17 / 19 / 23 / 27 / 30 / 34 / 35 / 36

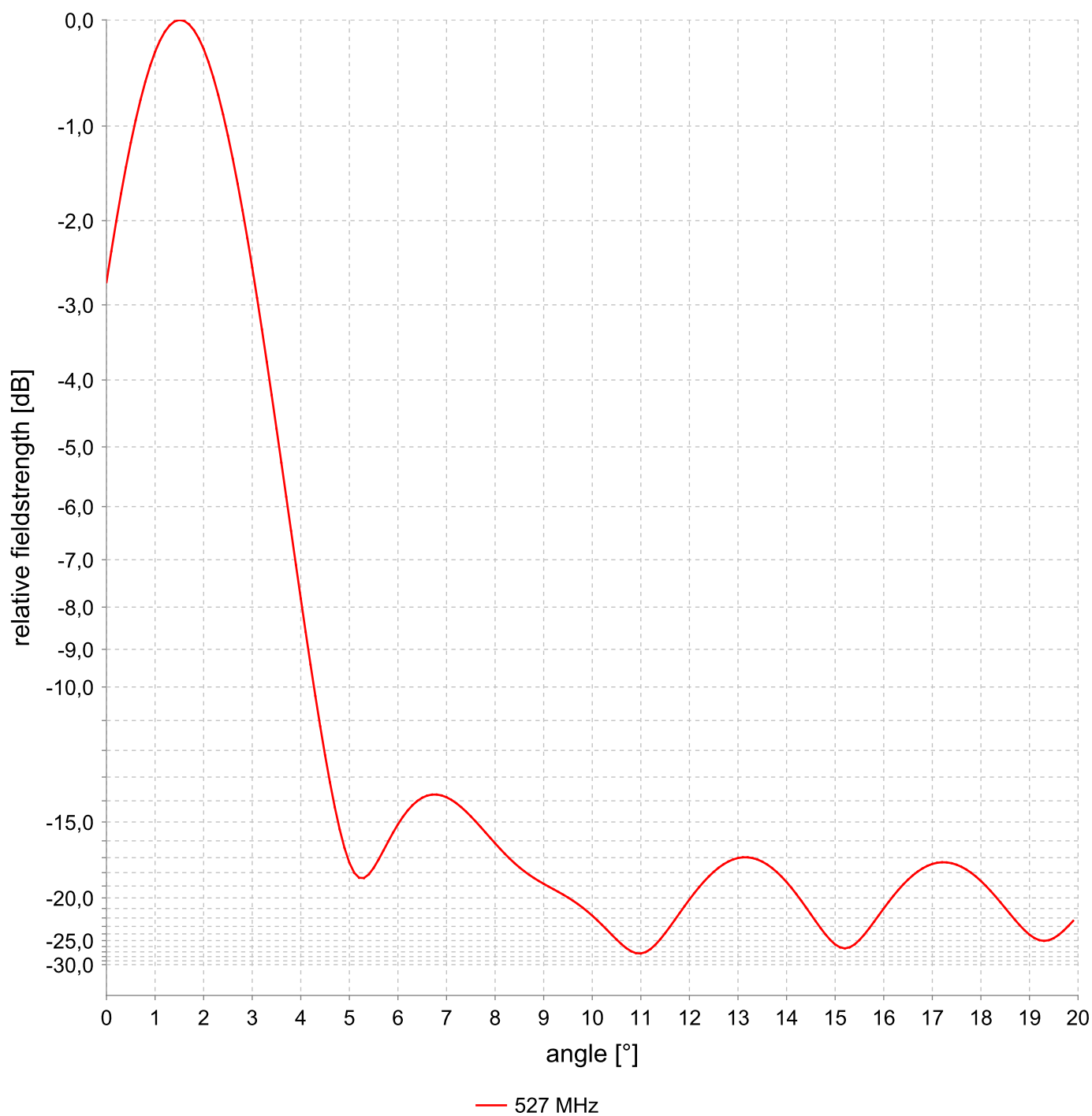
Gain\* (reference:  $\lambda/2$  dipole) in dB 14.5 / 14.4 / 14.4 / 14.2 / 14.0 / 14.4 / 14.3 / 14.3

Max. power rate at feeder line input ATSC 1: 50 kW  
(80 m 6 1/8" feeder line) ATSC 3: 48 kW

**\*Remark:** The gain figures are referred to input of main splitter level. Distribution cable losses have already been taken into consideration. Tolerance  $\pm 0.3$  dB.

<b>KATHREIN</b>	Date	UHF Auxiliary Antenna Farnsworth Peak Salt Lake City / Utah	Type No.:
	04.04.2018		773941
	Name		Sheet: 111
	Ge/BSR		





KSL CH23 AUX ANT KAT 773941

Elevation Pattern									
Angle	Relative Field	Angle	Relative Field	Angle	Relative Field	Angle	Relative Field	Angle	Relative Field
0.0	0.731	4.0	0.407	8.0	0.156	12.0	0.098	16.0	0.089
0.1	0.763	4.1	0.373	8.1	0.151	12.1	0.105	16.1	0.096
0.2	0.793	4.2	0.339	8.2	0.145	12.2	0.111	16.2	0.102
0.3	0.822	4.3	0.307	8.3	0.140	12.3	0.117	16.3	0.108
0.4	0.849	4.4	0.276	8.4	0.136	12.4	0.122	16.4	0.114
0.5	0.874	4.5	0.246	8.5	0.131	12.5	0.127	16.5	0.119
0.6	0.897	4.6	0.218	8.6	0.127	12.6	0.131	16.6	0.123
0.7	0.918	4.7	0.193	8.7	0.124	12.7	0.134	16.7	0.127
0.8	0.937	4.8	0.170	8.8	0.120	12.8	0.137	16.8	0.130
0.9	0.953	4.9	0.151	8.9	0.117	12.9	0.139	16.9	0.133
1.0	0.967	5.0	0.136	9.0	0.114	13.0	0.141	17.0	0.135
1.1	0.979	5.1	0.126	9.1	0.112	13.1	0.142	17.1	0.136
1.2	0.988	5.2	0.121	9.2	0.109	13.2	0.142	17.2	0.137
1.3	0.994	5.3	0.120	9.3	0.106	13.3	0.141	17.3	0.136
1.4	0.998	5.4	0.124	9.4	0.103	13.4	0.139	17.4	0.136
1.5	1.000	5.5	0.131	9.5	0.100	13.5	0.137	17.5	0.134
1.6	0.999	5.6	0.139	9.6	0.097	13.6	0.134	17.6	0.132
1.7	0.996	5.7	0.148	9.7	0.094	13.7	0.131	17.7	0.129
1.8	0.990	5.8	0.158	9.8	0.090	13.8	0.126	17.8	0.126
1.9	0.981	5.9	0.167	9.9	0.086	13.9	0.122	17.9	0.122
2.0	0.970	6.0	0.175	10.0	0.082	14.0	0.116	18.0	0.117
2.1	0.957	6.1	0.183	10.1	0.077	14.1	0.110	18.1	0.112
2.2	0.941	6.2	0.190	10.2	0.072	14.2	0.104	18.2	0.107
2.3	0.923	6.3	0.195	10.3	0.067	14.3	0.097	18.3	0.102
2.4	0.903	6.4	0.199	10.4	0.062	14.4	0.090	18.4	0.096
2.5	0.881	6.5	0.203	10.5	0.057	14.5	0.083	18.5	0.090
2.6	0.858	6.6	0.205	10.6	0.053	14.6	0.076	18.6	0.084
2.7	0.832	6.7	0.206	10.7	0.049	14.7	0.069	18.7	0.078
2.8	0.805	6.8	0.206	10.8	0.045	14.8	0.063	18.8	0.072
2.9	0.776	6.9	0.205	10.9	0.043	14.9	0.057	18.9	0.067
3.0	0.746	7.0	0.203	11.0	0.043	15.0	0.052	19.0	0.062
3.1	0.715	7.1	0.201	11.1	0.044	15.1	0.049	19.1	0.059
3.2	0.683	7.2	0.197	11.2	0.048	15.2	0.048	19.2	0.057
3.3	0.649	7.3	0.193	11.3	0.052	15.3	0.049	19.3	0.056
3.4	0.616	7.4	0.189	11.4	0.058	15.4	0.052	19.4	0.057
3.5	0.581	7.5	0.184	11.5	0.064	15.5	0.057	19.5	0.059
3.6	0.546	7.6	0.178	11.6	0.071	15.6	0.062	19.6	0.062
3.7	0.511	7.7	0.173	11.7	0.078	15.7	0.069	19.7	0.066
3.8	0.476	7.8	0.167	11.8	0.085	15.8	0.075	19.8	0.071
3.9	0.441	7.9	0.162	11.9	0.092	15.9	0.082	19.9	0.077

KSL CH23 AUX ANT KAT 773941

Azimuth Pattern

AZIMUTH RELATIVE		AZIMUTH RELATIVE		AZIMUTH RELATIVE		AZIMUTH RELATIVE		AZIMUTH RELATIVE		AZIMUTH RELATIVE		AZIMUTH RELATIVE		AZIMUTH RELATIVE		AZIMUTH	RELATIVE
FIELD		FIELD		FIELD		FIELD		FIELD		FIELD		FIELD		FIELD			FIELD
0	0.735	41	0.921	82	0.486	123	0.734	164	0.943	205	0.576	246	0.727	287	0.900	328	0.670
1	0.755	42	0.914	83	0.491	124	0.752	165	0.938	206	0.582	247	0.746	288	0.885	329	0.672
2	0.775	43	0.908	84	0.496	125	0.770	166	0.932	207	0.588	248	0.767	289	0.871	330	0.674
3	0.791	44	0.902	85	0.501	126	0.787	167	0.925	208	0.590	249	0.788	290	0.856	331	0.674
4	0.807	45	0.894	86	0.505	127	0.804	168	0.919	209	0.591	250	0.810	291	0.841	332	0.674
5	0.823	46	0.884	87	0.509	128	0.820	169	0.912	210	0.591	251	0.831	292	0.827	333	0.670
6	0.839	47	0.874	88	0.513	129	0.836	170	0.905	211	0.590	252	0.852	293	0.809	334	0.664
7	0.856	48	0.857	89	0.516	130	0.851	171	0.896	212	0.587	253	0.868	294	0.792	335	0.658
8	0.866	49	0.838	90	0.517	131	0.865	172	0.887	213	0.586	254	0.883	295	0.776	336	0.650
9	0.876	50	0.819	91	0.517	132	0.879	173	0.871	214	0.584	255	0.898	296	0.761	337	0.642
10	0.887	51	0.799	92	0.516	133	0.887	174	0.854	215	0.581	256	0.911	297	0.747	338	0.633
11	0.897	52	0.778	93	0.513	134	0.894	175	0.837	216	0.576	257	0.924	298	0.729	339	0.625
12	0.907	53	0.759	94	0.509	135	0.900	176	0.819	217	0.570	258	0.936	299	0.711	340	0.616
13	0.920	54	0.740	95	0.505	136	0.904	177	0.800	218	0.562	259	0.946	300	0.692	341	0.609
14	0.932	55	0.722	96	0.500	137	0.908	178	0.781	219	0.554	260	0.955	301	0.672	342	0.603
15	0.944	56	0.705	97	0.496	138	0.912	179	0.763	220	0.545	261	0.964	302	0.653	343	0.594
16	0.954	57	0.687	98	0.493	139	0.916	180	0.746	221	0.537	262	0.970	303	0.632	344	0.587
17	0.963	58	0.669	99	0.490	140	0.920	181	0.730	222	0.529	263	0.973	304	0.613	345	0.580
18	0.967	59	0.652	100	0.487	141	0.924	182	0.715	223	0.522	264	0.976	305	0.596	346	0.574
19	0.969	60	0.634	101	0.484	142	0.929	183	0.695	224	0.515	265	0.978	306	0.582	347	0.571
20	0.971	61	0.618	102	0.482	143	0.929	184	0.674	225	0.508	266	0.980	307	0.571	348	0.572
21	0.971	62	0.602	103	0.479	144	0.929	185	0.653	226	0.503	267	0.982	308	0.561	349	0.575
22	0.971	63	0.581	104	0.477	145	0.929	186	0.633	227	0.498	268	0.986	309	0.554	350	0.580
23	0.973	64	0.559	105	0.476	146	0.930	187	0.614	228	0.492	269	0.989	310	0.549	351	0.587
24	0.974	65	0.539	106	0.478	147	0.931	188	0.596	229	0.489	270	0.993	311	0.547	352	0.597
25	0.976	66	0.519	107	0.481	148	0.934	189	0.581	230	0.488	271	0.996	312	0.548	353	0.608
26	0.977	67	0.502	108	0.486	149	0.937	190	0.567	231	0.490	272	1.000	313	0.552	354	0.622
27	0.979	68	0.488	109	0.493	150	0.940	191	0.555	232	0.494	273	0.997	314	0.557	355	0.638
28	0.973	69	0.476	110	0.503	151	0.944	192	0.546	233	0.503	274	0.995	315	0.564	356	0.656
29	0.967	70	0.468	111	0.515	152	0.949	193	0.541	234	0.515	275	0.992	316	0.572	357	0.676
30	0.962	71	0.463	112	0.529	153	0.947	194	0.538	235	0.530	276	0.990	317	0.580	358	0.695
31	0.957	72	0.461	113	0.546	154	0.946	195	0.536	236	0.547	277	0.987	318	0.589	359	0.715
32	0.952	73	0.457	114	0.565	155	0.946	196	0.537	237	0.566	278	0.985	319	0.599		
33	0.950	74	0.456	115	0.584	156	0.945	197	0.540	238	0.585	279	0.982	320	0.610		
34	0.949	75	0.457	116	0.605	157	0.945	198	0.542	239	0.605	280	0.978	321	0.621		
35	0.947	76	0.459	117	0.625	158	0.945	199	0.545	240	0.625	281	0.973	322	0.632		
36	0.946	77	0.463	118	0.641	159	0.946	200	0.548	241	0.644	282	0.967	323	0.641		
37	0.945	78	0.467	119	0.658	160	0.947	201	0.553	242	0.664	283	0.955	324	0.649		
38	0.939	79	0.472	120	0.676	161	0.948	202	0.557	243	0.678	284	0.942	325	0.655		
39	0.933	80	0.477	121	0.695	162	0.950	203	0.563	244	0.693	285	0.929	326	0.661		
40	0.927	81	0.482	122	0.716	163	0.947	204	0.569	245	0.710	286	0.915	327	0.665		