

承認書

客 戶： 深圳派特科技有限公司

品 名： 625发射器天线

料 號：

客戶料號： 0. 1. 4. 07. 625T43-SP-X0

送樣日期： 2024. 05. 12

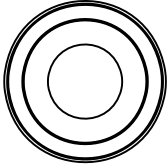
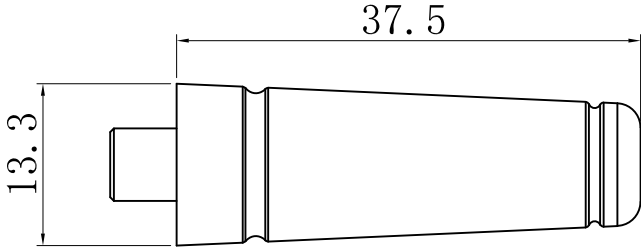
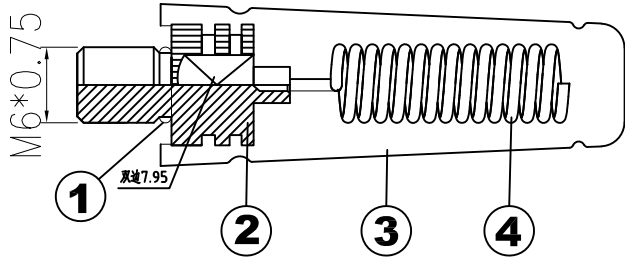
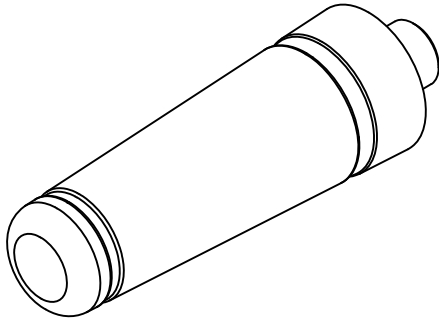
客戶確認			供應廠商	
工程部	品保部	採購部	核准	送樣人
				龚银明

地址： 東莞市沙田鎮楊公洲楊和路75號

TEL : 0769-81663533 FAX: 0769-89361945

E-mail:nogps@nogps.com

Http://www.nogps.com

1		2		3		4		5		6		7		8																																																	
RoHS Compatible		CUSTOMER								REV.		DESCRIPTION		DATE																																																	
		PART NO																																																													
   																																																															
<table><tr><td colspan="6">东莞市亨松电子科技有限公司</td></tr><tr><td colspan="6">PART NAME: 625发射器天线</td></tr><tr><td colspan="4">PART NO. : 0. 1. 4. 07. 625T43-SP-X0</td><td colspan="2">DATE: 2024-05-12</td></tr><tr><td colspan="2">APPROVED BY</td><td colspan="2">CHECKED BY</td><td colspan="2">DESIDNED BY</td><td colspan="2"></td><td colspan="2" rowspan="3">Tolerance X. X ±0. 50 X. XX±0. 15 X° ±3°</td></tr><tr><td colspan="2" rowspan="2"></td><td colspan="2" rowspan="2"></td><td colspan="2" rowspan="2">张雅钧</td><td colspan="2">UNITS: mm</td></tr><tr><td colspan="2">SCALE: 1/1</td></tr><tr><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td colspan="2">REVISION: A</td><td colspan="2"></td></tr></table>																东莞市亨松电子科技有限公司						PART NAME: 625发射器天线						PART NO. : 0. 1. 4. 07. 625T43-SP-X0				DATE: 2024-05-12		APPROVED BY		CHECKED BY		DESIDNED BY				Tolerance X. X ±0. 50 X. XX±0. 15 X° ±3°						张雅钧		UNITS: mm		SCALE: 1/1								REVISION: A			
东莞市亨松电子科技有限公司																																																															
PART NAME: 625发射器天线																																																															
PART NO. : 0. 1. 4. 07. 625T43-SP-X0				DATE: 2024-05-12																																																											
APPROVED BY		CHECKED BY		DESIDNED BY				Tolerance X. X ±0. 50 X. XX±0. 15 X° ±3°																																																							
				张雅钧		UNITS: mm																																																									
						SCALE: 1/1																																																									
						REVISION: A																																																									
<table><tr><td>3</td><td>HX-B693</td><td>弹簧天线</td><td>磷铜</td><td>OD:0.8</td><td>1</td></tr><tr><td>3</td><td>HX-CUM6180-075</td><td>连接头</td><td>铜</td><td>M6*0. 75细牙</td><td>1</td></tr><tr><td>2</td><td>HX-AN37-02</td><td>本体</td><td>PVC</td><td>黑色</td><td>1</td></tr><tr><td>1</td><td>HX-SL35-15</td><td>0型圈</td><td>硅橡胶</td><td>3. 5*6. 5*1. 5</td><td>1</td></tr><tr><td>No.</td><td>Part Number</td><td>Description</td><td>Material</td><td>Finished</td><td>O'ty</td></tr></table>																3	HX-B693	弹簧天线	磷铜	OD:0.8	1	3	HX-CUM6180-075	连接头	铜	M6*0. 75细牙	1	2	HX-AN37-02	本体	PVC	黑色	1	1	HX-SL35-15	0型圈	硅橡胶	3. 5*6. 5*1. 5	1	No.	Part Number	Description	Material	Finished	O'ty																		
3	HX-B693	弹簧天线	磷铜	OD:0.8	1																																																										
3	HX-CUM6180-075	连接头	铜	M6*0. 75细牙	1																																																										
2	HX-AN37-02	本体	PVC	黑色	1																																																										
1	HX-SL35-15	0型圈	硅橡胶	3. 5*6. 5*1. 5	1																																																										
No.	Part Number	Description	Material	Finished	O'ty																																																										
1		2		3		4		5		6		7		8																																																	

Index:

1. Reliability Testing
2. Specification
3. S Parameter Test Data
4. Antenna Radiation Pattern

=====

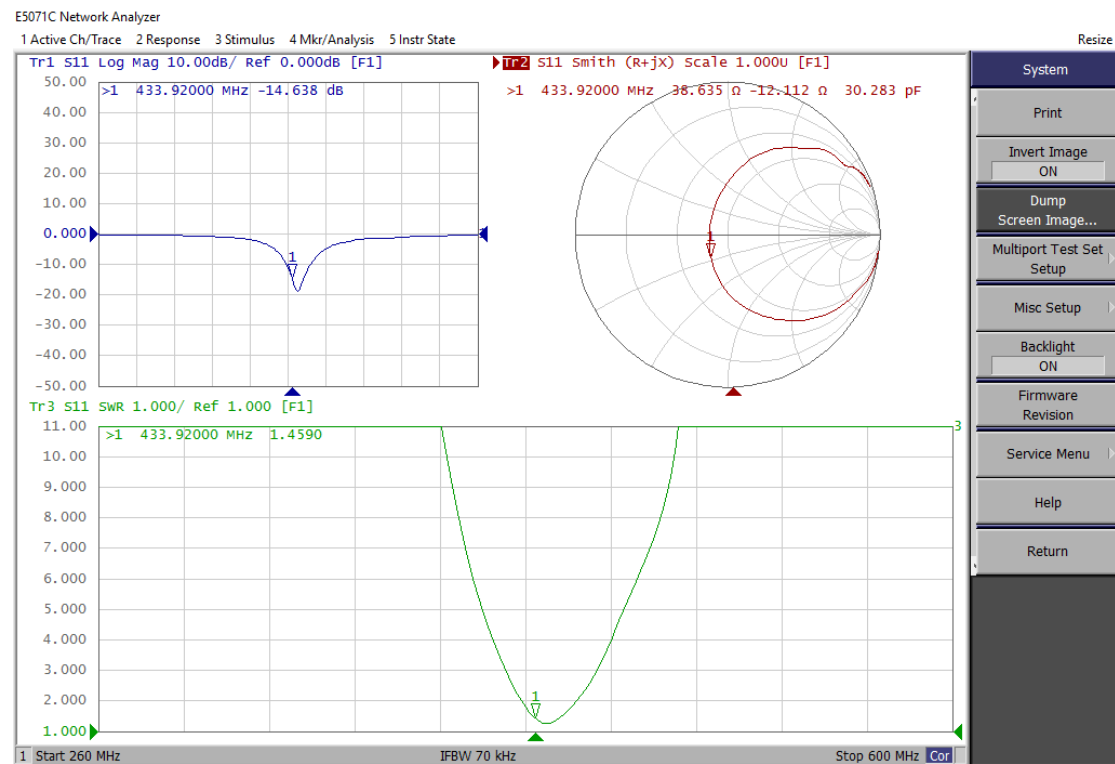
1. Reliability Testing

Test Item	Procedure	Requirement
1. Visual inspection and Dimension Check	Applicable methods using x5 magnification	follow specification
2. Rapid Changing of Temperature	-40°C (30minutes) to 80°C (30minutes); 24 cycles	After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < $\pm 5\%$
3. Damp Heat	24 hours at 60°C; 90 ~ 95% RH	After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < $\pm 5\%$
4. Endurance	24 hours at 80°C	After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < $\pm 5\%$
5. Connector Pull Strength Test	≥ 1.0 Kg	Hold 2~3S: 1. no visible damage 2. bandwidth tolerance < $\pm 5\%$

2. Specification

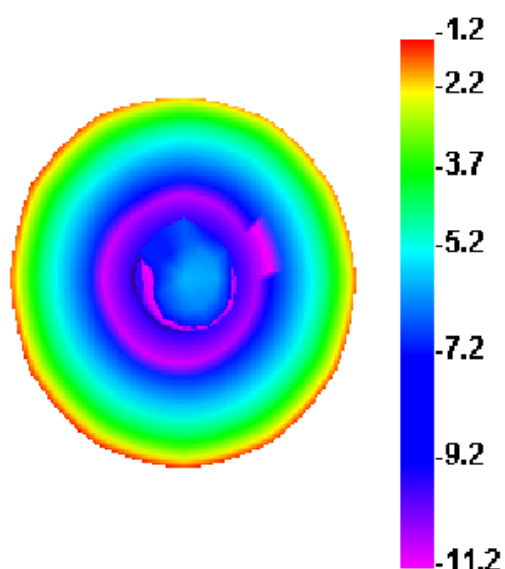
A. Electrical Characteristics	
S.W.R.(Tested in PC)	≤ 2.0 @ 433.92MHz
Typical Antenna Gain	1 @ 433.92 MHz
Impedance	50 Ohm
B. Material	
Material of Radiator	CU
Connector Type	N/A
C. Environmental	
Operation Temperature	- 30 °C ~ + 85 °C
Storage Temperature	- 30 °C ~ + 85 °C

3. S.W.R. Testing Result

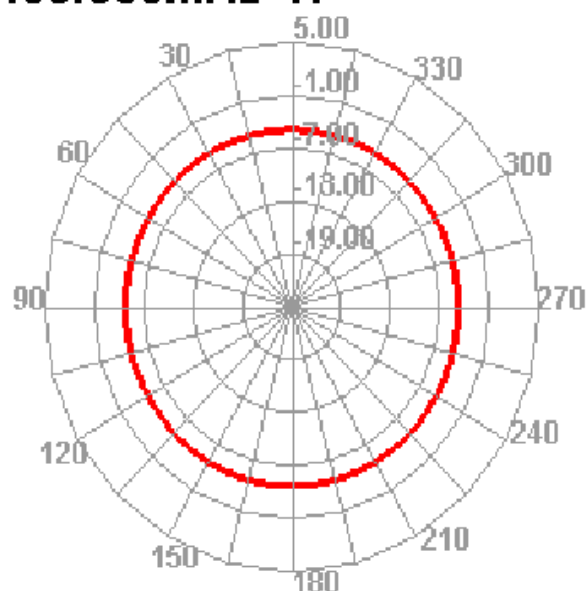


Passive Test For 433												
Freq	Effi	Effi	Gain	Gain	UHS	DHS	Max	Min	Directi	Beamwid	AttH	AttV
(MHz)	(%)	(dB)	(dBi)	(dBd)	(%)	(%)	(dB)	(dB)	vity	th	(dB)	(dB)
									(dBi)	(3dB)		
400	46.43	-3.33	-1.23	-3.38	17.558	28.87	-1.23	-5.53	2.1	75	36.42	36.02
401	47.89	-3.2	-1.02	-3.17	17.877	30.011	-1.02	-5.53	2.18	75	36.37	35.99
402	49.66	-3.04	-0.78	-2.93	18.141	31.522	-0.78	-5.48	2.26	75	36.32	35.96
403	51.04	-2.92	-0.61	-2.76	18.457	32.585	-0.61	-5.34	2.31	75	36.28	35.94
404	51.69	-2.87	-0.58	-2.73	18.89	32.799	-0.58	-5.15	2.28	75	36.23	35.91
405	52.03	-2.84	-0.57	-2.72	19.203	32.831	-0.57	-4.99	2.26	75	36.18	35.88
406	51.66	-2.87	-0.56	-2.71	18.937	32.718	-0.56	-5.04	2.3	150	36.05	35.8
407	51.16	-2.91	-0.53	-2.68	18.537	32.624	-0.53	-5.19	2.38	150	35.93	35.73
408	50.27	-2.99	-0.56	-2.71	18.198	32.069	-0.56	-5.37	2.43	150	35.8	35.65
409	49.04	-3.09	-0.65	-2.8	17.972	31.071	-0.65	-5.56	2.45	150	35.68	35.58
410	47.69	-3.22	-0.78	-2.93	17.785	29.901	-0.78	-5.73	2.44	150	35.55	35.5
411	47.19	-3.26	-0.84	-2.99	17.962	29.224	-0.84	-5.77	2.42	150	35.56	35.44
412	46.57	-3.32	-0.91	-3.06	18.057	28.512	-0.91	-5.88	2.41	150	35.58	35.38
413	45.71	-3.4	-0.99	-3.14	17.971	27.742	-0.99	-6.01	2.4	150	35.59	35.32
414	44.36	-3.53	-1.11	-3.26	17.471	26.892	-1.11	-6.2	2.42	150	35.61	35.26
415	42.38	-3.73	-1.22	-3.37	16.286	26.097	-1.22	-6.61	2.51	150	35.62	35.2
416	41.69	-3.8	-1.11	-3.26	15.017	26.675	-1.11	-6.92	2.69	150	35.91	35.18
417	41.58	-3.81	-0.95	-3.1	14.042	27.538	-0.95	-7.19	2.86	150	36.2	35.15
418	42.89	-3.68	-0.76	-2.91	14.45	28.435	-0.76	-6.99	2.91	150	36.48	35.13
419	45.75	-3.4	-0.53	-2.68	16.2	29.551	-0.53	-6.43	2.86	135	36.77	35.1
420	49.93	-3.02	-0.21	-2.36	18.685	31.241	-0.21	-5.83	2.81	120	37.06	35.08
421	50.72	-2.95	-0.1	-2.25	19.365	31.356	-0.1	-6.14	2.84	120	36.68	34.96
422	51.78	-2.86	0.06	-2.09	19.683	32.1	0.06	-6.33	2.92	120	36.3	34.84
423	52.76	-2.78	0.24	-1.91	19.682	33.077	0.24	-6.44	3.02	120	35.92	34.73
424	52.92	-2.76	0.31	-1.84	19.475	33.441	0.31	-6.47	3.07	120	35.54	34.61
425	51.93	-2.85	0.2	-1.95	19.295	32.631	0.2	-6.53	3.04	120	35.16	34.49
426	52.23	-2.82	0.15	-2	19.94	32.29	0.15	-6.39	2.97	120	35.05	34.47
427	52.28	-2.82	0.09	-2.06	20.42	31.856	0.09	-6.23	2.9	120	34.94	34.45
428	52.48	-2.8	0.08	-2.07	20.612	31.873	0.08	-6.05	2.88	120	34.82	34.44
429	52.87	-2.77	0.15	-2	20.575	32.295	0.15	-5.94	2.92	120	34.71	34.42
430	53.29	-2.73	0.23	-1.92	20.531	32.756	0.23	-5.93	2.97	120	34.6	34.4
431	54.08	-2.67	0.34	-1.81	20.767	33.315	0.34	-5.94	3.01	120	34.55	34.4
432	54.78	-2.61	0.42	-1.73	21.065	33.716	0.42	-6.01	3.03	120	34.5	34.4
433	55.51	-2.56	0.49	-1.66	21.484	34.031	0.49	-6.08	3.05	120	34.45	34.4
434	56.29	-2.5	0.55	-1.6	21.975	34.32	0.55	-6.17	3.04	120	34.4	34.4
435	57.17	-2.43	0.61	-1.54	22.519	34.655	0.61	-6.28	3.04	120	34.35	34.4
436	58.13	-2.36	0.68	-1.47	23.121	35.012	0.68	-6.4	3.03	120	34.34	34.37
437	59.2	-2.28	0.75	-1.4	23.743	35.455	0.75	-6.5	3.03	120	34.32	34.34
438	60.27	-2.2	0.83	-1.32	24.295	35.971	0.83	-6.62	3.03	60	34.3	34.31
439	61.4	-2.12	0.92	-1.23	24.804	36.596	0.92	-6.69	3.04	60	34.28	34.28
440	62.59	-2.03	1.02	-1.13	25.237	37.357	1.02	-6.73	3.05	60	34.26	34.25
441	64.98	-1.87	1.2	-0.95	26.192	38.786	1.2	-6.6	3.07	30	34.35	34.27
442	67.29	-1.72	1.36	-0.79	27.166	40.122	1.36	-6.41	3.08	30	34.45	34.29
443	69.43	-1.58	1.47	-0.68	28.224	41.203	1.47	-6.12	3.06	30	34.54	34.31
444	71.28	-1.47	1.55	-0.6	29.385	41.898	1.55	-5.75	3.02	30	34.63	34.33
445	72.94	-1.37	1.58	-0.57	30.582	42.361	1.58	-5.35	2.95	30	34.72	34.35
446	72.86	-1.38	1.52	-0.63	31.054	41.802	1.52	-5.06	2.89	30	34.7	34.31
447	72.73	-1.38	1.45	-0.7	31.442	41.284	1.45	-4.82	2.83	30	34.68	34.26
448	72.57	-1.39	1.39	-0.76	31.771	40.796	1.39	-4.62	2.79	30	34.66	34.21
449	72.28	-1.41	1.34	-0.81	31.966	40.317	1.34	-4.54	2.75	30	34.64	34.16
450	71.78	-1.44	1.28	-0.87	31.998	39.783	1.28	-4.42	2.72	30	34.62	34.11

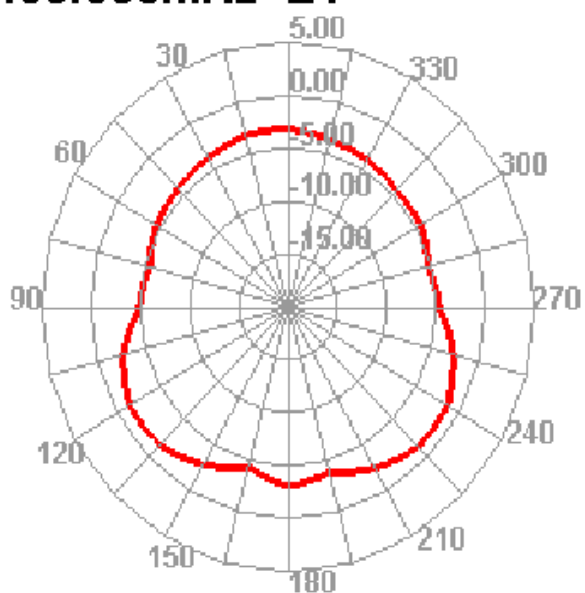
400.000MHz



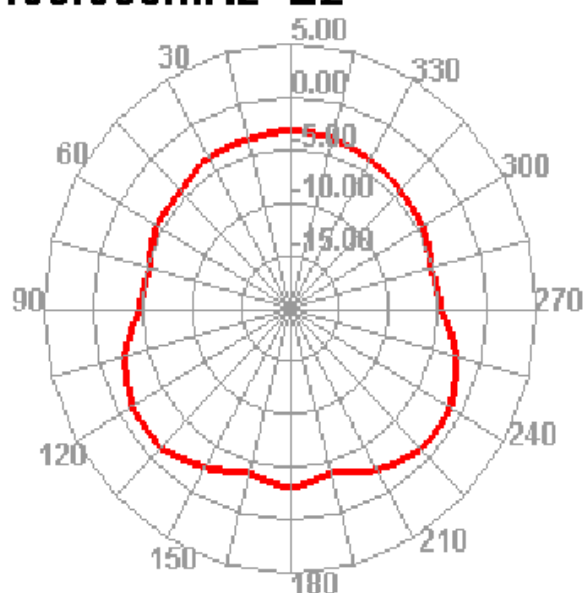
400.000MHz H



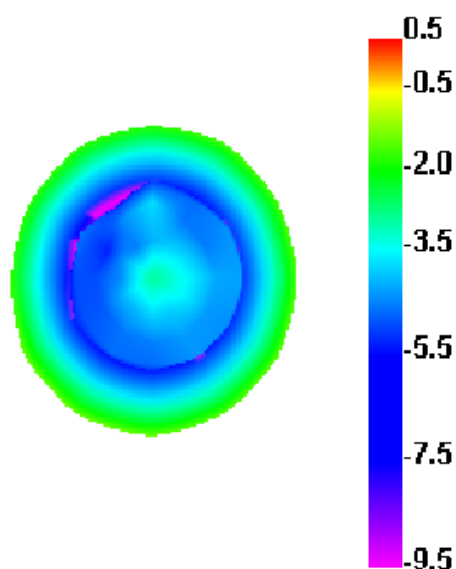
400.000MHz E1



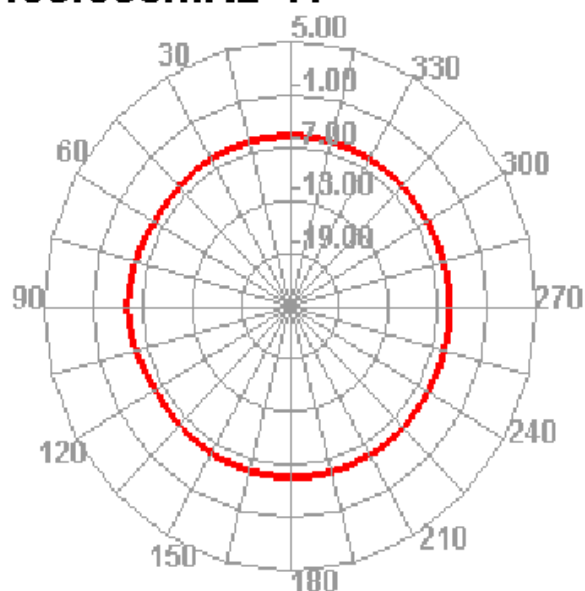
400.000MHz E2



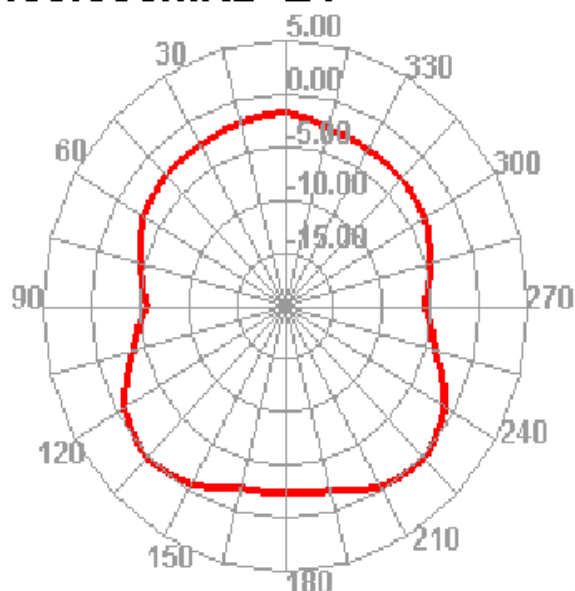
433.000MHz E2



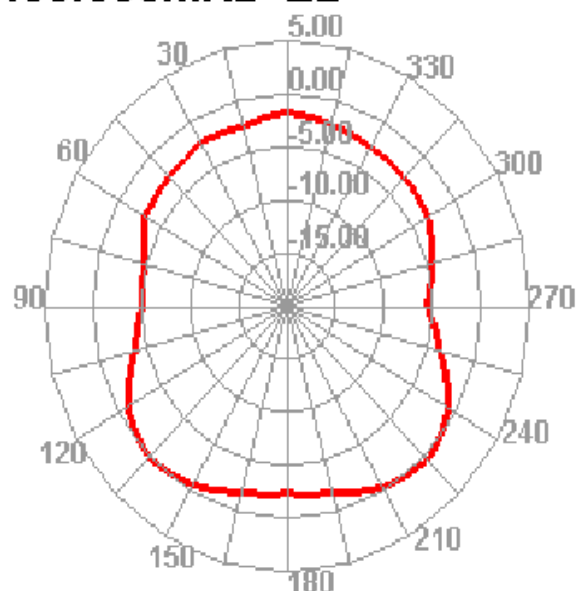
433.000MHz H



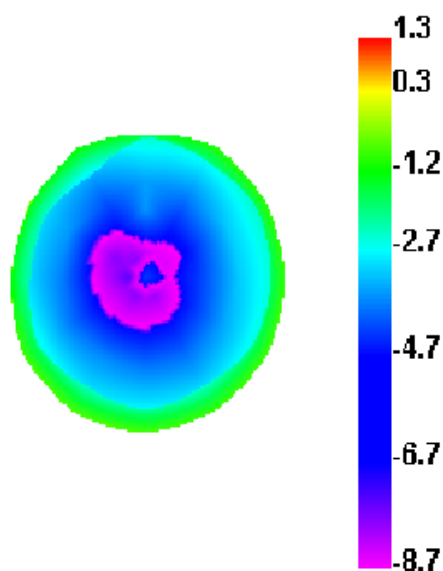
433.000MHz E1



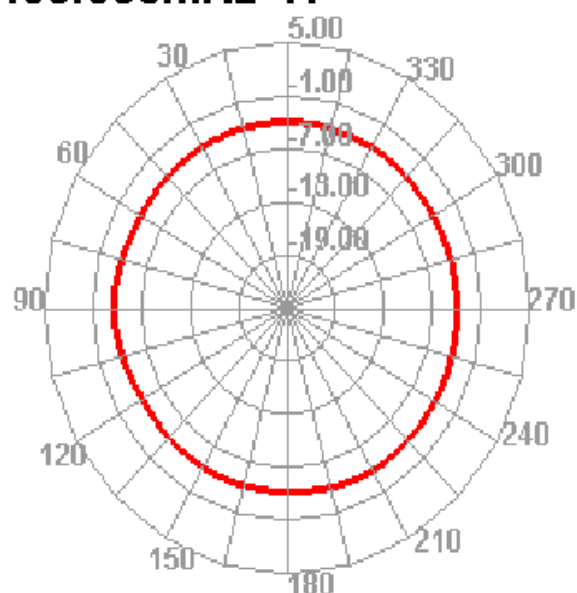
433.000MHz E2



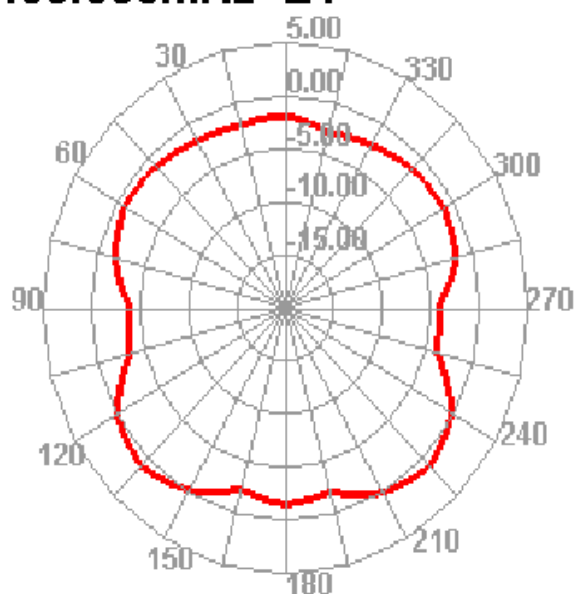
450.000MHz



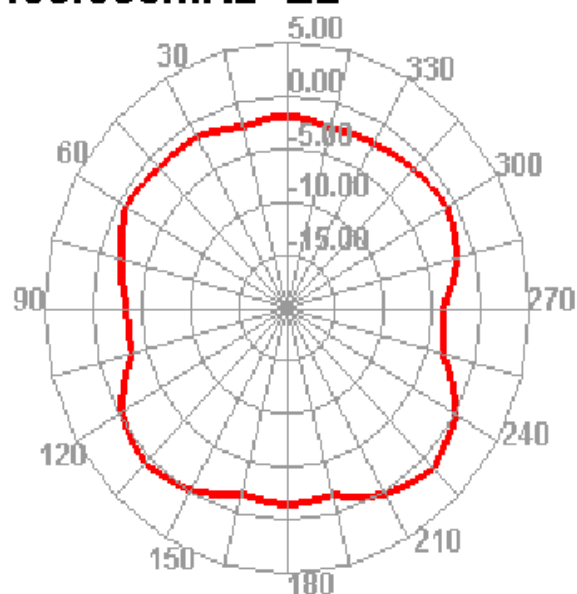
450.000MHz H



450.000MHz E1



450.000MHz E2



4. Antenna Radiation Pattern

Testing Equipment Specification:

Antenna Anechoic Chamber Dimension: 8 x 4 x 4 m

Quiet Zone: 600mm @1 GHz

Isolation: >100dB @ 1 MHz ~ 10 GHz

Testing Equipment: Agilent 5071B

Received Antenna: 0.7 ~ 6.0 GHz for Gain Calibration

Double Ridged Horn Antenna

