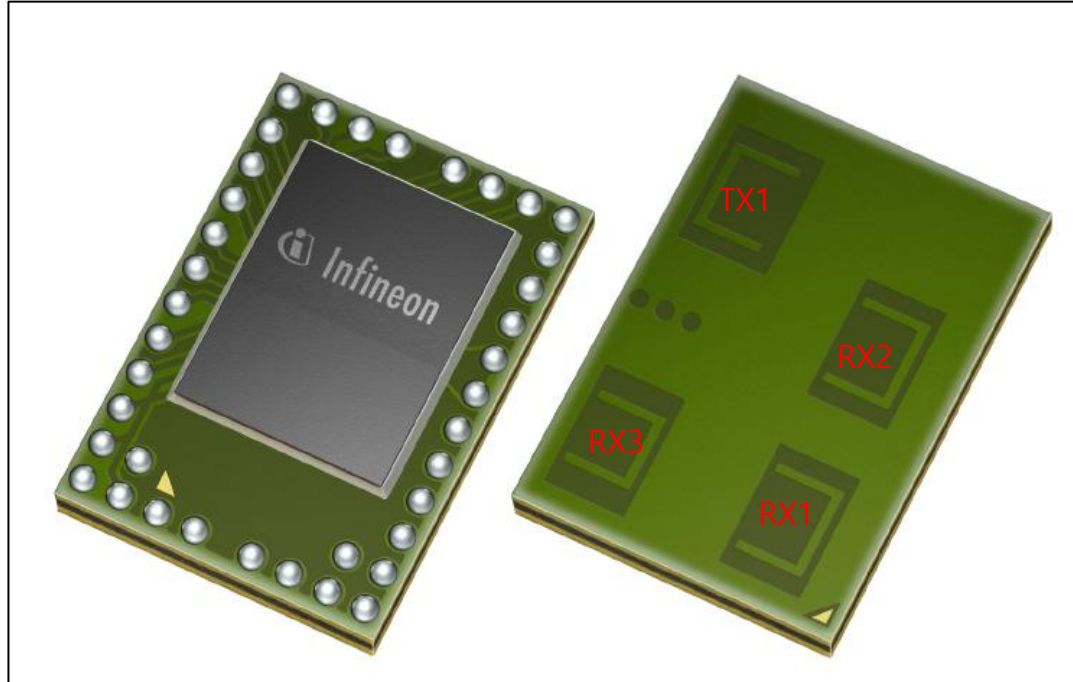


RADAR Antenna Specification

Model	Thermostat
Application	Radar

2026-08-03

1. Mechanical specification



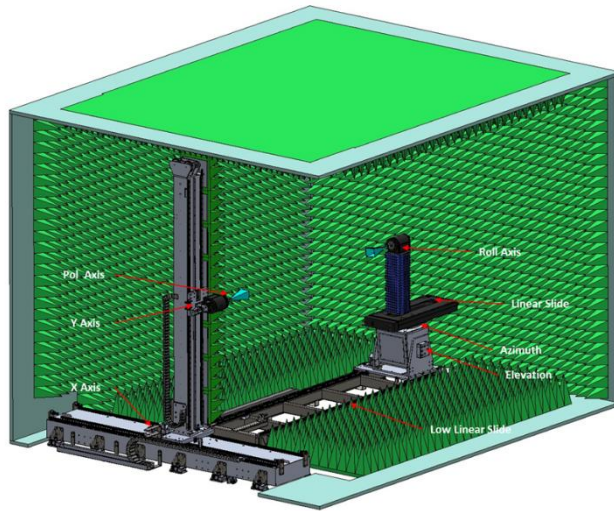
No	Item	Specification
1	Antenna Type	Antenna In Package (AiP)
2	configuration	1TX / 3RX
3	Operating Frequency	57 ~ 64 GHz
4	Backside Temperature	-20 – 85°C
5	Dimensions (L * W)	TX: 1.85 * 1.36mm RX1: 1.65 * 0.9mm RX2: 1.6 * 1.17mm RX3: 1.65 * 1.05mm

2. Ant measurement

2-1. Test site

**RAPA IoT Technical Support Center
(22013) 82, Venture-ro, Yeonsu-gu, Incheon**

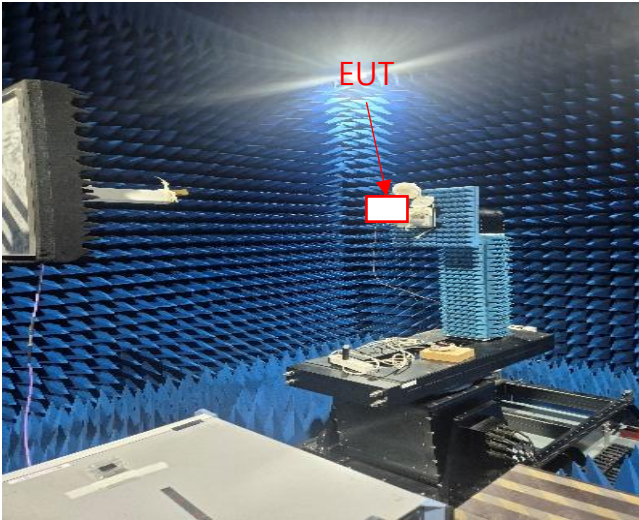
2-2. Test equipment



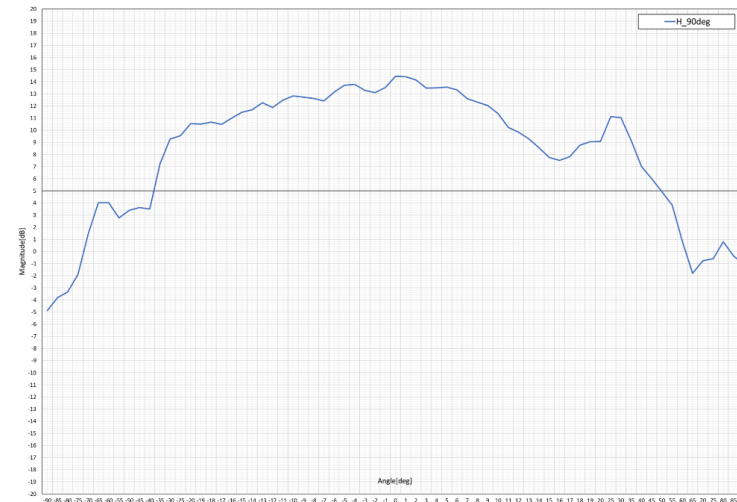
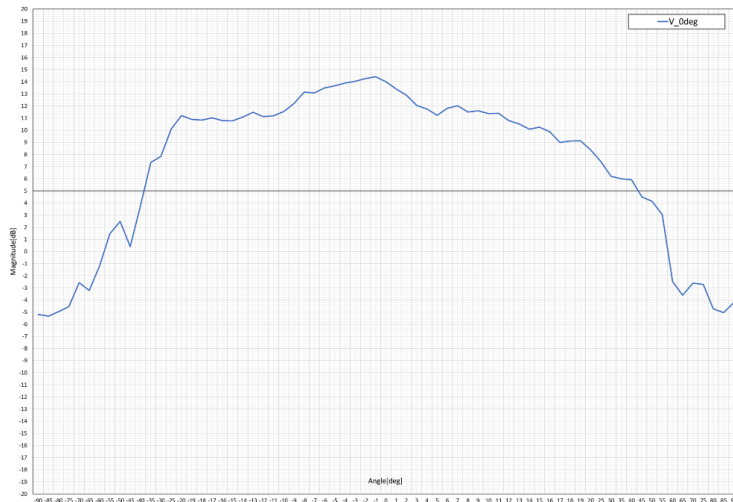
No	Equipment	Maker	Calibration status
1	WR15 Standard Gain Horn, SAZ-2410-15-S1	ERAVANT	-
2	FSW Signal & Spectrum Analyzer	ROHDE & SCHWARZ	2026.05.15

2. Ant measurement

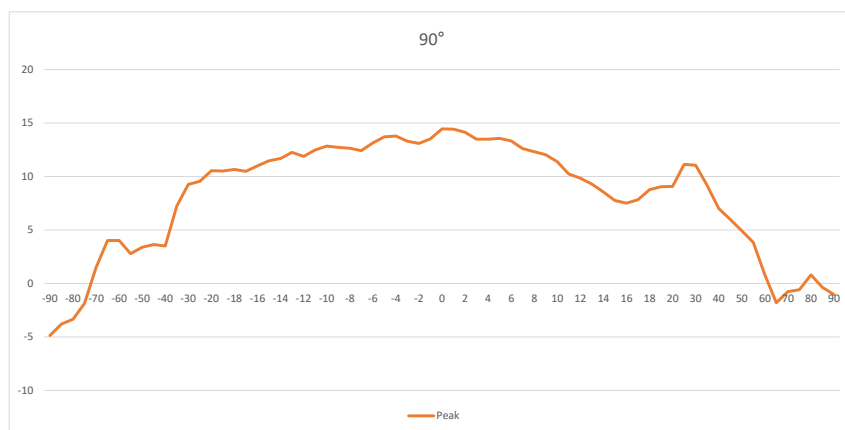
2-3. Test Setup



2-4. Test Setup



	Peak	Measurement
-90	-4.865	-63.43
-85	-3.795	-62.36
-80	-3.335	-61.9
-75	-1.875	-60.44
-70	1.495	-57.07
-65	4.025	-54.54
-60	4.025	-54.54
-55	2.785	-55.78
-50	3.395	-55.17
-45	3.635	-54.93
-40	3.505	-55.06
-35	7.235	-51.33
-30	9.275	-49.29
-25	9.545	-49.02
-20	10.545	-48.02
-19	10.515	-48.05
-18	10.665	-47.9
-17	10.485	-48.08
-16	11.005	-47.56
-15	11.475	-47.09
-14	11.695	-46.87
-13	12.265	-46.3
-12	11.885	-46.68
-11	12.475	-46.09
-10	12.845	-45.72
-9	12.735	-45.83
-8	12.635	-45.93
-7	12.415	-46.15
-6	13.145	-45.42
-5	13.715	-44.85
-4	13.785	-44.78
-3	13.295	-45.27
-2	13.095	-45.47
-1	13.525	-45.04
0	14.455	-44.11
1	14.425	-44.14
2	14.135	-44.43
3	13.485	-45.08
4	13.495	-45.07
5	13.565	-45
6	13.325	-45.24
7	12.615	-45.95
8	12.325	-46.24
9	12.035	-46.53
10	11.375	-47.19
11	10.235	-48.33
12	9.835	-48.73
13	9.305	-49.26
14	8.545	-50.02
15	7.765	-50.8
16	7.515	-51.05
17	7.825	-50.74
18	8.775	-49.79
19	9.055	-49.51
20	9.075	-49.49
25	11.135	-47.43
30	11.055	-47.51
35	9.165	-49.4
40	7.015	-51.55
45	6.005	-52.56
50	4.935	-53.63
55	3.845	-54.72
60	0.805	-57.76
65	-1.805	-60.37
70	-0.755	-59.32
75	-0.585	-59.15
80	0.805	-57.76
85	-0.365	-58.93
90	-1.045	-59.61



	Peak	Measurement
-90	-5.195	-63.76
-85	-5.335	-63.9
-80	-4.965	-63.53
-75	-4.535	-63.1
-70	-2.565	-61.13
-65	-3.215	-61.78
-60	-1.205	-59.77
-55	1.475	-57.09
-50	2.485	-56.08
-45	0.405	-58.16
-40	3.795	-54.77
-35	7.345	-51.22
-30	7.845	-50.72
-25	10.085	-48.48
-20	11.215	-47.35
-19	10.895	-47.67
-18	10.835	-47.73
-17	11.035	-47.53
-16	10.805	-47.76
-15	10.775	-47.79
-14	11.085	-47.48
-13	11.485	-47.08
-12	11.135	-47.43
-11	11.195	-47.37
-10	11.545	-47.02
-9	12.215	-46.35
-8	13.145	-45.42
-7	13.075	-45.49
-6	13.505	-45.06
-5	13.665	-44.9
-4	13.885	-44.68
-3	14.045	-44.52
-2	14.265	-44.3
-1	14.405	-44.16
0	14.005	-44.56
1	13.405	-45.16
2	12.895	-45.67
3	12.055	-46.51
4	11.755	-46.81
5	11.235	-47.33
6	11.825	-46.74
7	12.015	-46.55
8	11.515	-47.05
9	11.615	-46.95
10	11.375	-47.19
11	11.405	-47.16
12	10.795	-47.77
13	10.535	-48.03
14	10.095	-48.47
15	10.255	-48.31
16	9.875	-48.69
17	8.985	-49.58
18	9.105	-49.46
19	9.145	-49.42
20	8.395	-50.17
25	7.405	-51.16
30	6.205	-52.36
35	5.995	-52.57
40	5.915	-52.65
45	4.495	-54.07
50	4.145	-54.42
55	3.055	-55.51
60	-2.475	-61.04
65	-3.605	-62.17
70	-2.605	-61.17
75	-2.705	-61.27
80	-4.725	-63.29
85	-5.035	-63.6
90	-4.205	-62.77

