

Siemens QMA340KT PCB Antenna Measurement

September 24th, 2025

Project Information

Customer: Siemens

Project Name: QMA340KT

Application: Temperature and humidity room unit

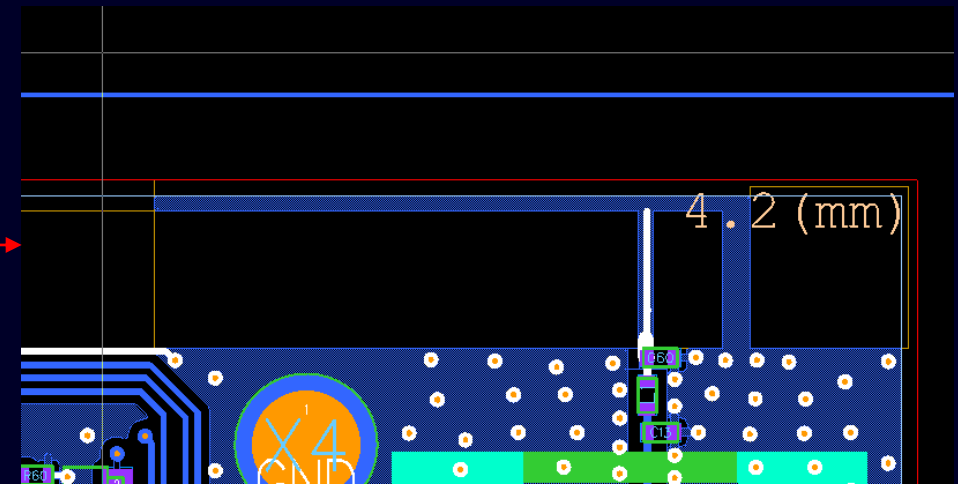
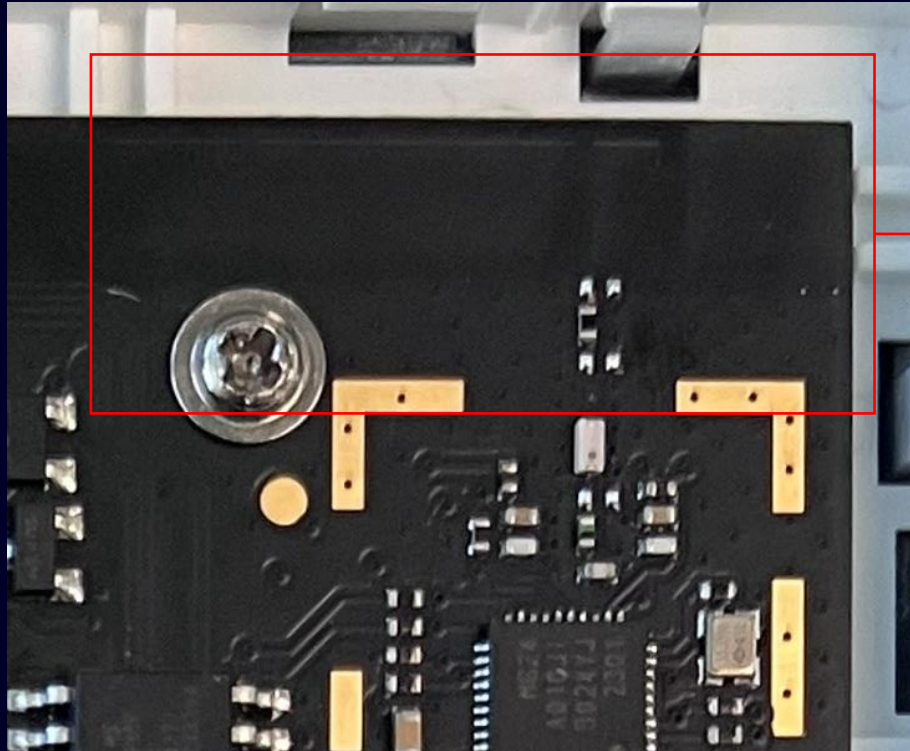
Antenna Size: 19.1*4.9(mm) 2.4GHz PCB antenna

PCB Size:76.6*109.4(mm)

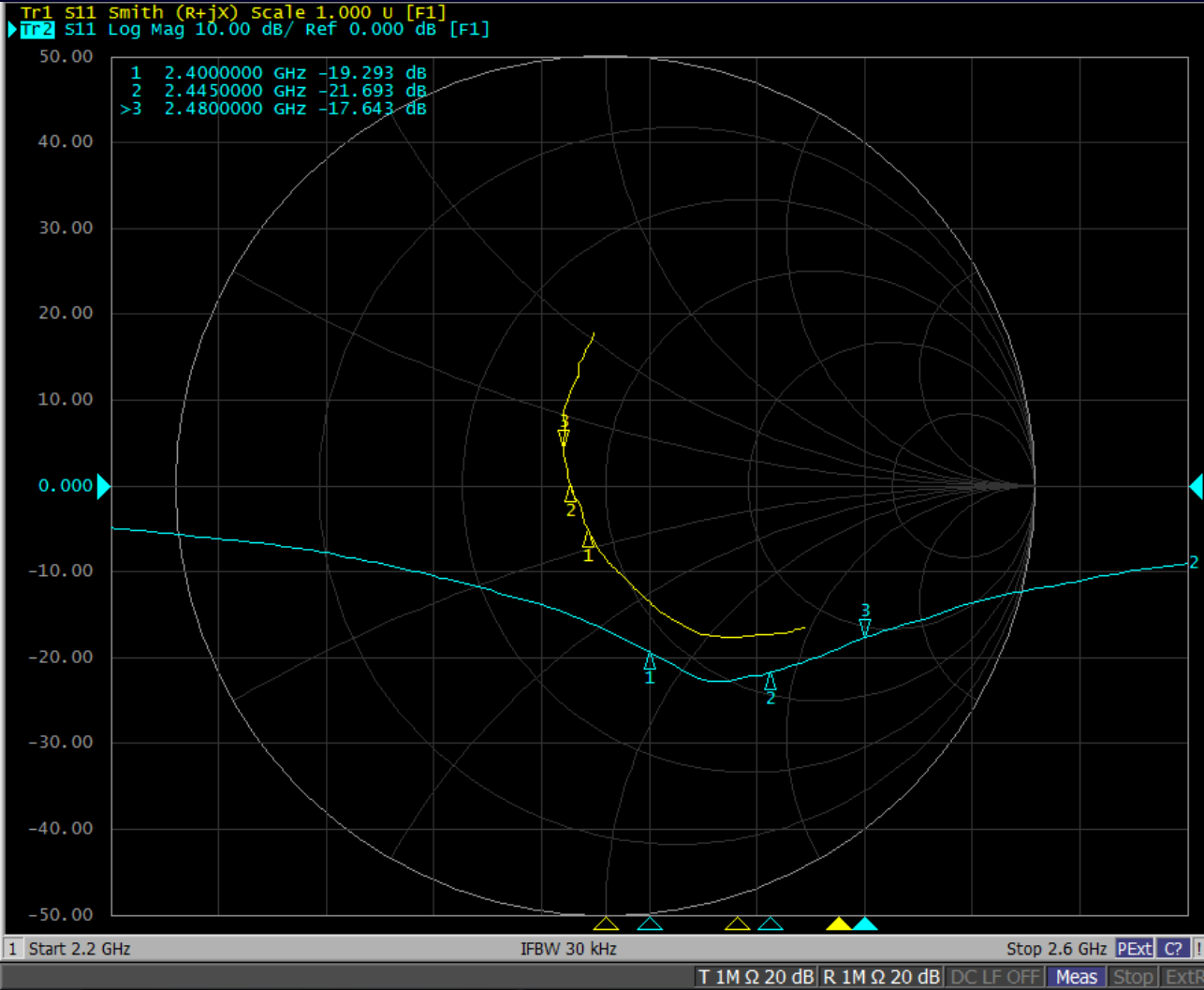
Report date: 2025/09/24

Version: 1

PCB



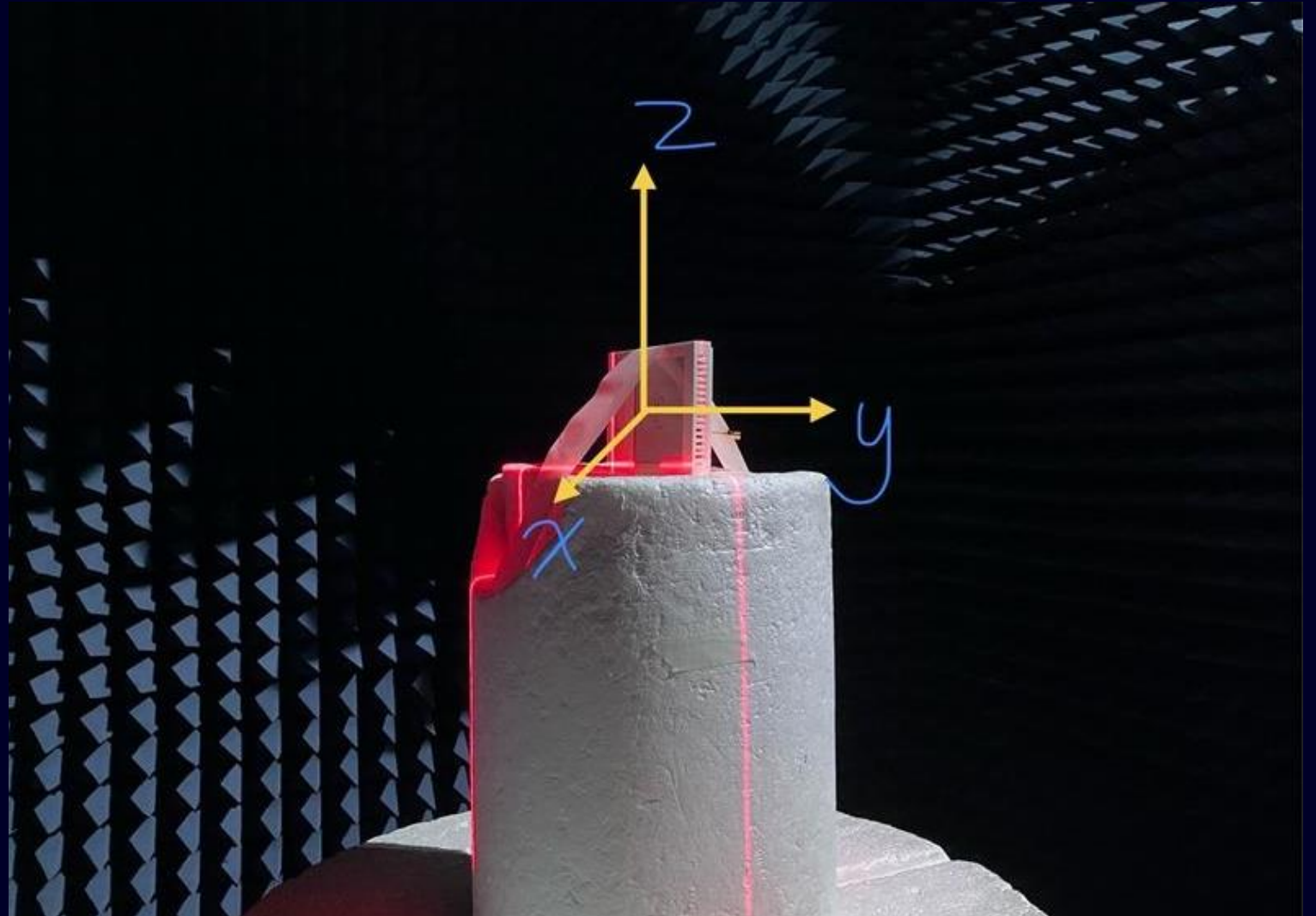
Measurement Data



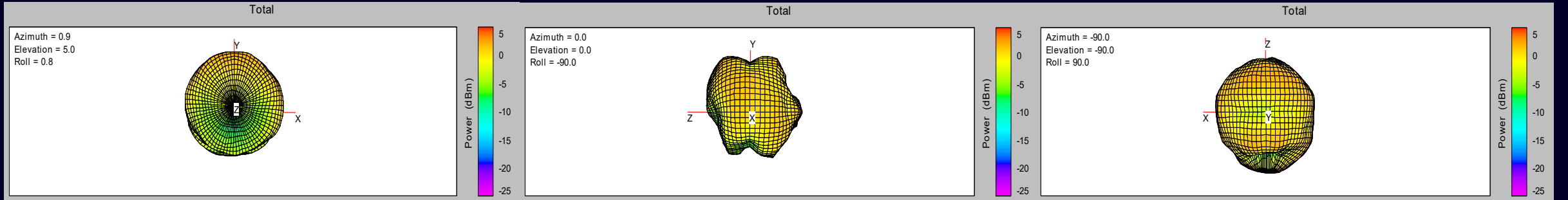
Sample measuring data

Antenna	QMA340KT PCB Antenna		
Frequency(MHz)	2400	2445	2480
R.L. (dB)	-19.293	-21.693	-17.643
Max. Gain (dBi)	2.5596	2.5916	2.2881
Efficiency	79.76%	76.79%	71.63%

Measurement Configuration



Radiation Pattern



2400-2500MHz																																																						
Frequency (MHz)	2400	2401	2402	2403	2404	2405	2406	2408	2410	2412	2414	2416	2418	2420	2422	2424	2426	2428	2430	2432	2434	2436	2438	2440	2442	2444	2446	2448	2450	2452	2454	2456	2458	2460	2462	2464	2466	2468	2470	2472	2474	2476	2478	2480	2482	2484	2486	2488	2490	2492	2494	2496	2498	2500
Ant. Port Input Pwr. (dBm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Tot. Rad. Pwr. (dBm)	0.98233	0.97682	0.98107	0.97934	0.96197	0.94593	0.93624	0.92989	0.97078	-0.9819	1.03683	0.97452	1.08009	1.12967	1.06626	1.15301	1.19781	1.18865	1.23145	-1.3161	1.29418	1.28097	1.17958	1.25675	1.27959	1.14677	1.15123	1.10899	1.12197	1.11129	1.15303	1.13404	1.10933	1.09331	1.18876	1.30462	-1.2243	1.25656	1.28005	1.36099	1.44167	1.45016	1.44523	1.44904	-1.4655	1.52547	1.53912	1.42877	1.42028	-1.4041	1.43541	1.45366	1.40316	1.36523
Peak EIRP (dBm)	2.55962	2.58255	2.5974	2.57599	2.53797	2.52729	2.51505	2.50414	2.45204	2.48689	2.51213	2.47632	2.35958	2.33449	2.46356	2.42394	2.33906	2.34368	2.35311	2.32148	2.4401	2.49762	2.43836	2.43104	2.48818	2.59163	2.57206	2.5184	2.57161	2.59897	2.58206	2.59368	2.5944	2.54431	2.51497	2.4853	2.51447	2.4484	2.37183	2.35171	2.35452	2.34061	2.31913	2.28805	2.26537	2.24777	2.26523	2.30351	2.28516	2.28786	2.30539	2.36652	2.39967	2.41088
Directivity (dBi)	3.54194	3.55937	3.57847	3.55533	3.49994	3.47323	3.45128	3.43403	3.42281	3.46878	3.54895	3.45084	3.44767	3.46416	3.52983	3.57696	3.53687	3.53233	3.58456	3.63757	3.73428	3.77858	3.61794	3.68779	3.76776	3.73841	3.72329	3.62739	3.69358	3.71025	3.73509	3.72772	3.70373	3.63762	3.70374	3.78992	3.73877	3.70497	3.65188	3.7127	3.79619	3.79077	3.76436	3.73709	3.73087	3.77323	3.80436	3.73228	3.70544	3.69195	3.7408	3.82018	3.80283	3.77611
Efficiency (dB)	0.98233	0.97682	0.98107	0.97934	0.96197	0.94593	0.93624	0.92989	0.97078	-0.9819	1.03683	0.97452	1.08009	1.12967	1.06626	1.15301	1.19781	1.18865	1.23145	-1.3161	1.29418	1.28097	1.17958	1.25675	1.27959	1.14677	1.15123	1.10899	1.12197	1.11129	1.15303	1.13404	1.10933	1.09331	1.18876	1.30462	-1.2243	1.25656	1.28005	1.36099	1.44167	1.45016	1.44523	1.44904	-1.4655	1.52547	1.53912	1.42877	1.42028	-1.4041	1.43541	1.45366	1.40316	1.36523
Efficiency (%)	79.7567	79.858	79.7798	79.8117	80.1314	80.4279	80.6076	80.7255	79.9691	79.7646	78.7621	79.9003	77.8379	77.0963	78.23	76.6829	75.896	76.0562	75.3104	73.8568	74.2304	74.4566	76.2153	74.8729	74.4803	76.7932	76.7145	77.4642	77.2329	77.4232	76.6826	77.0187	77.4581	77.7444	76.0543	74.0522	75.4346	74.8762	74.4724	73.0972	71.7518	71.6117	71.693	71.6302	71.3593	70.3807	70.1597	71.9652	72.1061	72.3753	71.8554	71.5541	72.3909	73.0259
Gain (dBi)	2.55962	2.58255	2.5974	2.57599	2.53797	2.52729	2.51505	2.50414	2.45204	2.48689	2.51213	2.47632	2.35958	2.33449	2.46356	2.42394	2.33906	2.34368	2.35311	2.32148	2.4401	2.49762	2.43836	2.43104	2.48818	2.59163	2.57206	2.5184	2.57161	2.59897	2.58206	2.59368	2.5944	2.54431	2.51497	2.4853	2.51447	2.4484	2.37183	2.35171	2.35452	2.34061	2.31913	2.28805	2.26537	2.24777	2.26523	2.30351	2.28516	2.28786	2.30539	2.36652	2.39967	2.41088

Max Gain: 2.59897dBi @ 2452MHz