



深圳市博格斯通信技术有限公司

shenzhen bogesi communication technology co.,ltd

LTE OTA performance for C4MAX-4MEUAA_V8 M10

Device information:

product name:	C4V8 CATM US Max External antenna SIM Dspic M10
model name:	C4MAX-4MEUAA_V8
ASB tested samples	ASB02124AA

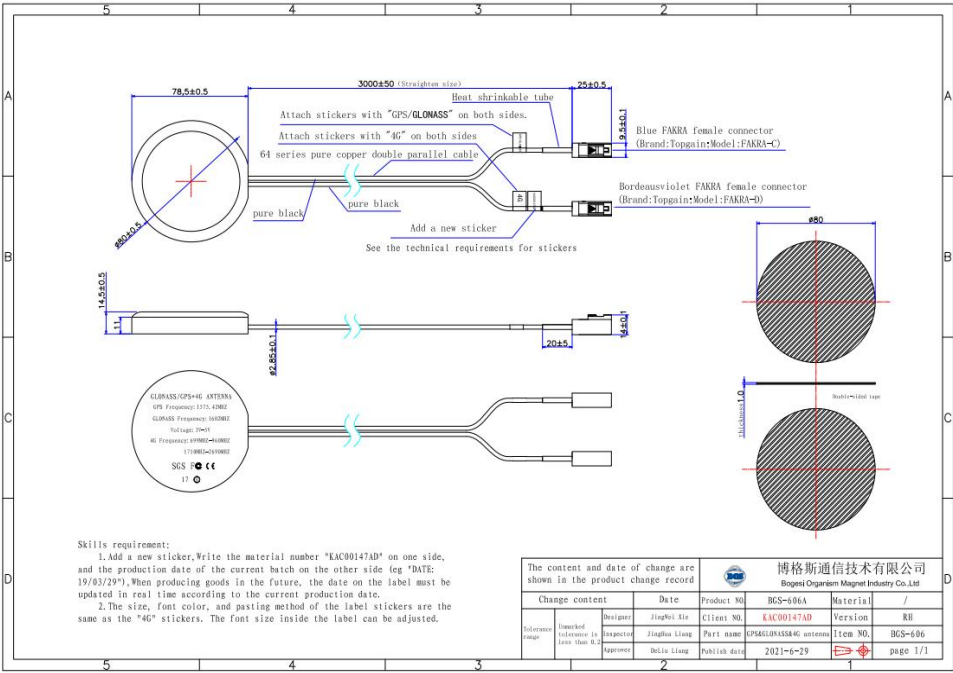
Electrical Specifications:

Frequency Band	4G	The Antenna Material	combination of materials
Nominal Impedance	50 Ω	Antenna Connection Mode	FAKRA
VSWR	≤ 5.0	Working Temperature	-40°C ~ +85°C
Peak Gain	700-960MHz: -0.42dBi	Keep The Temperature	+19°C ~ +23°C
	1700-2700MHz: -2.94dBi	Polarization	Linear Polarization

Test Conditions And Methods:

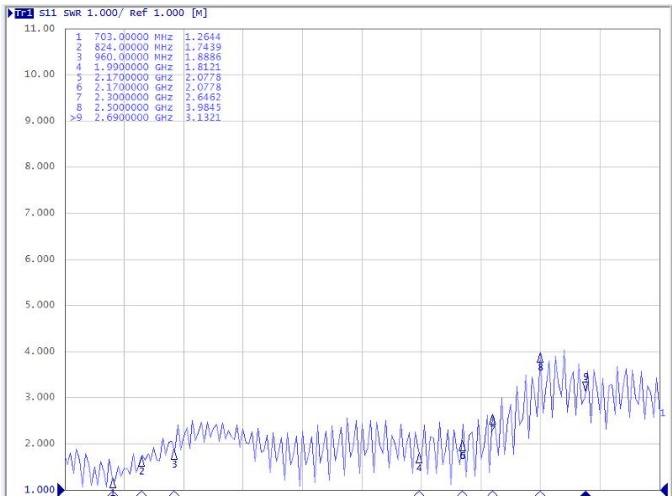
Test Instruments	Test Method	Test Result	Test Date
48 probe test system MT8862 comprehensive tester	1. Assemble the antenna to be tested on the prototype. 2. Put the prototype on the test fixture in a dark room, and conduct comprehensive test with it. Instrument/ analyzer connection is established. 3. Test antenna passive data with test software.	Refer to the Test Report	October 28(th), 2022

Product drawings



Passive performance test parameters

Frequency(GHz)	0.7	0.96	1.99	2.69
VSWR	1.26	1.88	1.81	3.1

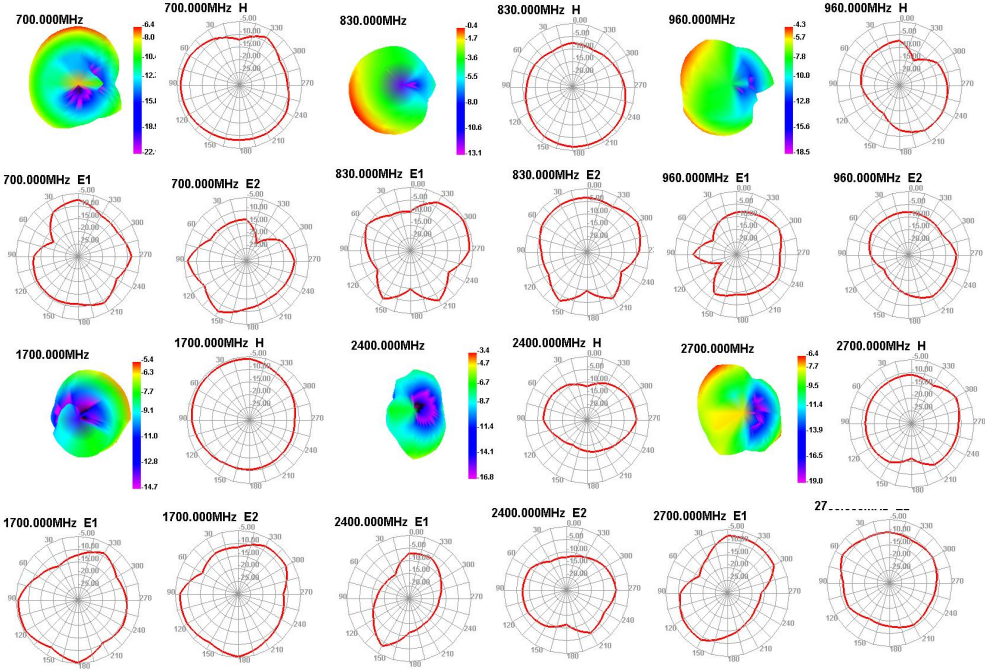


antenna passive data:

Freq (MHz)	Effi (%)	Gain (dBi)
700	8.38	-6.45
710	14.94	-3.73
720	16.4	-3.04
730	15.06	-4.82
740	13.15	-6.92
750	22.17	-3.63
760	23.46	-2.34
770	19.79	-2.43
780	16.11	-4.48
790	23.85	-2.3
800	31.37	-1.52
810	30.98	-1.18
820	31.39	-0.72
830	32.58	-0.42
840	31.58	-1.56
850	19.09	-2.86
860	22.08	-0.7
870	20.82	-1.01
880	16.88	-1.18
890	16.06	-1.94
900	15.33	-2.66
910	14.56	-4.24
920	15.49	-3.6
930	12.57	-4.05
940	12.9	-4.42
950	13.99	-4.1
960	15.05	-4.29

Freq (MHz)	Effi (%)	Gain (dBi)
1700	12.96	-5.38
1720	13.26	-4.39
1740	15.84	-4.04
1760	14.37	-4.3
1780	16.56	-3.52
1800	14.31	-5.45
1820	14.13	-5.92
1840	17.45	-4.7
1860	17.35	-4.64
1880	16.79	-4.38
1900	19.82	-4.18
1920	19.43	-3.79
1940	19.52	-4.12
1960	21.37	-3.8
1980	21.21	-3.24
2000	22.54	-3.58
2020	20.89	-4.21
2040	17.91	-3.1
2060	19.03	-3.29
2080	16.42	-4.65
2100	18.02	-3.28
2120	17.71	-3.46
2140	15.91	-4.69
2160	16.92	-4.03
2180	15.01	-4.63
2200	14.83	-4.59
2220	13.21	-4.34
2240	12.56	-4.48
2260	12	-4.9
2280	9.22	-5.52
2300	10.73	-5.03
2320	13.12	-4.97
2340	10.34	-4.7
2360	14.19	-2.94
2380	14.44	-4.47
2400	13.42	-3.35
2420	14.39	-2.95
2440	11.6	-4.91
2460	10.51	-4.64
2480	8.55	-5.29
2500	7.01	-7.24
2520	7.41	-6.43
2540	4.92	-7.8
2560	6.5	-7.84
2580	7.31	-5.72
2600	6.22	-6.38
2620	8.92	-5.69
2640	7.85	-6.53
2660	9.08	-5.85
2680	11.44	-4.56
2700	8.27	-6.41

Directional diagram



Testing environment antenna picture:



OTA test data

KAC00147AD External antenna		ASB02096 IMEI:863593051728285		ASB02124 IMEI:86360906995515		
Band	Channel	TRP	TIS	TRP	TIS	peak gain
LTE B2 (10M)	Low	14.18	-92.17	14.8	-92.17	-3.24
	Mid	13.03	-92.88	13.69	-92.56	
	High	13.17	-93.24	13.84	-93.06	
LTE B4 (10M)	Low	13.79	-91.67	13.5	-92.92	-3.1
	Mid	15.61	-91.36	14.38	-92.34	
	High	13.81	-91.37	13.57	-92.36	
LTE B12 (5M)	Low	14.11	-95.26	15.1	-88.19	-3.04
	Mid	13.24	-96	14.7	-88.77	
	High	13.12	-95.12	14.97	-87.28	
LTE B13 (10M)	Low	13.17	-90.63	13.58	-86.3	-2.3
	Mid					
	High					
GPRS 850	Low	21.79	-104.4	22.3	-106.42	-0.7
	Mid	23.22	-103.38	24.15	-107.22	
	High	22.72	-102.58	22.08	-104.5	
GPRS 1900	Low	24.29	-106.88	23.8	-106.57	-3.79
	Mid	23.72	-107.29	23.45	-106.94	
	High	23.29	-108.03	22.93	-105.36	
						