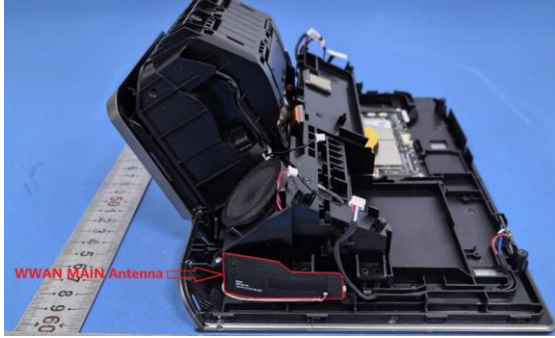
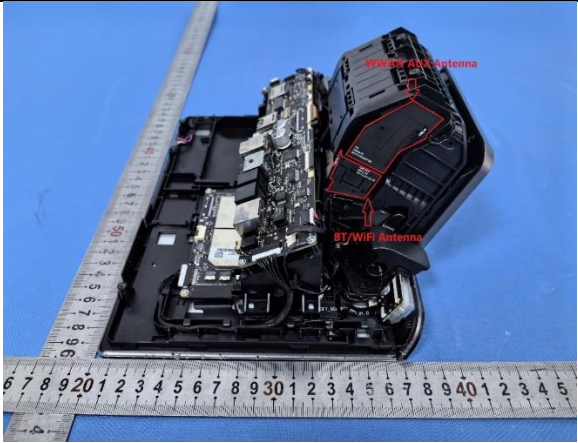

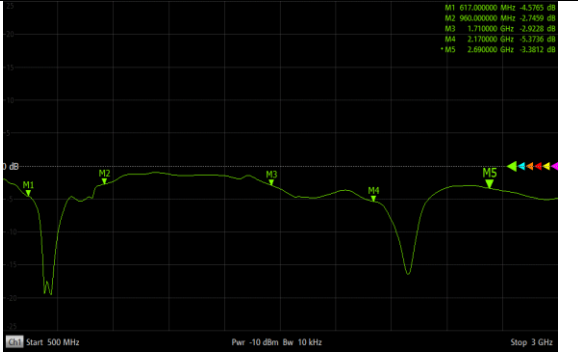
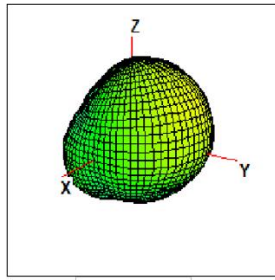


Antenna Specification

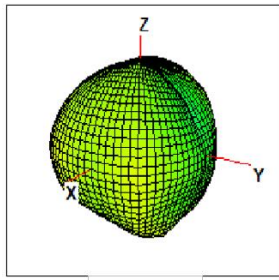
Manufacturer	Shanghai Sunmi Technology Co.,Ltd.	
Address	Room 505, No.388 Song Hu Road, Yang Pu District,Shanghai, China	
Model	WA-F-LTE12-03-009	WA-F-LTE12-03-010
Product Name	WWAN MAIN ANTENNA	WWAN AUX ANTENNA
Antenna Type	Internal Antenna	Internal Antenna
Antenna Photographs		
S Parameter (Return Loss, Smith)		

Antenna Gain&Efficiency	Frequency (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency (%)	Frequency (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency (%)
		617	-2.33	-6.13	24.4	617	-1.64	-5.09
	663	-2.11	-5.59	27.6	663	0.51	-5.43	28.67
	704	-1.11	-3.23	47.5	704	0.05	-4.99	31.69
	729	-0.22	-3.02	49.9	729	0.91	-4.20	38.05
	746	0.28	-3.58	43.9	746	1.09	-4.37	36.55
	751	0.50	-3.67	42.9	751	1.08	-4.27	37.45
	756	0.64	-3.81	41.5	756	0.98	-4.31	37.05
	777	0.33	-5.15	30.6	777	0.61	-4.50	35.45
	791	-0.84	-5.54	27.9	791	0.51	-4.43	36.08
	806	-1.88	-5.74	26.7	806	1.08	-4.72	33.76
	815	-2.13	-5.02	31.4	815	1.26	-4.84	32.79
	821	-1.30	-4.64	34.4	821	1.05	-5.10	30.91
	824	-1.23	-4.27	37.4	824	1.04	-5.09	30.98
	832	-0.57	-3.83	41.4	832	0.95	-5.53	27.96
	836	-0.36	-3.87	41.0	836	0.47	-6.56	22.06
	847	-0.86	-3.85	41.2	847	0.23	-6.66	21.57
	849	-0.77	-3.93	40.4	849	0.27	-5.16	30.47
	862	-0.60	-3.82	41.5	862	-0.09	-5.67	27.09
	869	-0.20	-3.77	41.9	869	-0.24	-5.53	27.98
	880	0.12	-3.97	40.1	880	-0.65	-6.02	24.98
	881	0.36	-4.01	39.7	881	-0.82	-6.00	25.13
	894	0.39	-4.51	35.4	894	-1.43	-6.17	24.13
	897	-0.02	-4.46	35.8	897	-1.26	-6.37	23.06
	915	0.14	-5.27	29.7	915	-2.02	-6.65	21.64
	925	-0.35	-5.67	27.1	925	-2.64	-6.57	22.01
	942	-0.99	-6.06	24.8	942	-4.03	-7.47	17.89
	960	-2.31	-6.25	23.7	960	-4.30	-8.01	15.81
	1710	2.53	-3.90	40.7	1805	1.59	-6.62	21.78
	1805	3.09	-2.67	54.0	1880	-3.25	-5.77	26.47
	1880	3.50	-2.29	59.1	1920	-2.38	-6.03	24.96
	1920	3.62	-2.94	50.8	1980	0.53	-5.33	29.31
	1980	2.67	-3.13	48.7	2155	0.44	-4.32	37.00
	2155	1.97	-3.77	42.0	2170	0.70	-4.20	37.99
	2170	2.31	-3.92	40.6	2200	1.53	-4.42	36.17
	2200	2.20	-3.82	41.5	2300	1.20	-4.93	32.13
	2300	3.16	-2.32	58.6	2350	1.41	-3.69	42.71
	2350	3.47	-2.67	54.1	2400	-1.10	-3.56	44.05
	2400	3.19	-2.80	52.5	2500	-1.13	-6.61	21.84
	2500	3.07	-3.45	45.2	2535	-2.31	-6.73	21.21
	2535	3.56	-3.31	46.7	2570	-2.85	-7.60	17.37
	2570	3.24	-3.74	42.3	2593	-3.43	-7.25	18.83
	2593	3.19	-2.89	51.4	2595	-3.52	-8.32	14.72
	2595	3.23	-2.86	51.7	2620	-3.74	-8.38	14.51
	2620	4.38	-2.97	50.5	2655	-4.45	-7.28	18.73
	2655	4.10	-3.07	49.3	2690	-4.62	-7.91	16.17
	2690	3.72	-2.72	53.4				

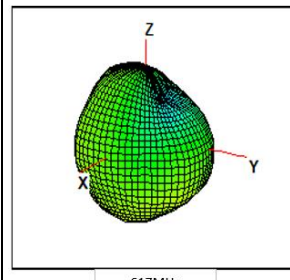
3D Radiation Pattern:



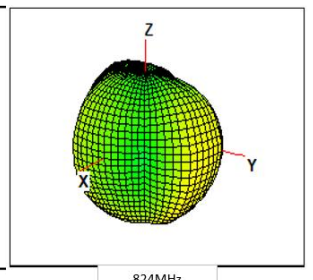
617MHz



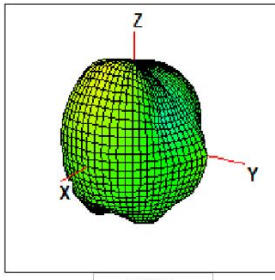
824MHz



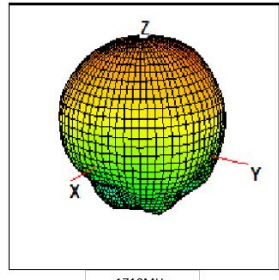
617MHz



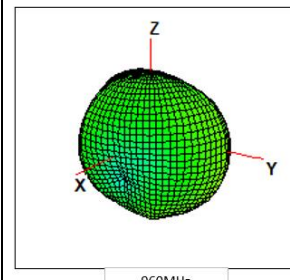
824MHz



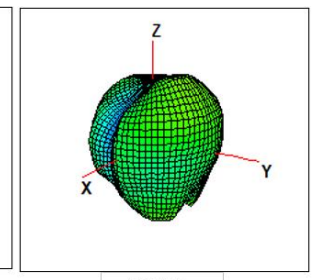
960MHz



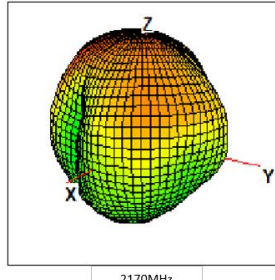
1710MHz



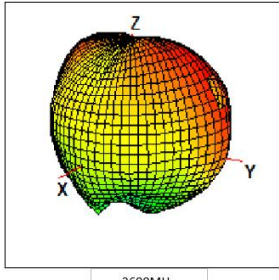
960MHz



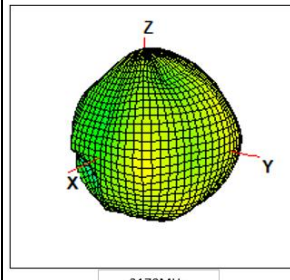
1710MHz



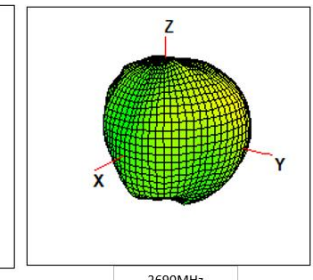
2170MHz



2690MHz



2170MHz



2690MHz