

■ SM-X710

■ Antenna Manufacturer

- Main Ant : SAMSUNG

BT/WIFI 1 Antenna

- Stamped metal PIFA

- Manufacturer : SAMSUNG

BT/WIFI 2 Antenna

- Stamped metal PIFA

- Manufacturer : SAMSUNG

Ant	Freq.	AVG	Peak
	(MHz)		
BT/WIFI 1	2400	-3.65	-0.15
	2451	-3.07	0.43
	2473	-3.25	0.25
	2480	-3.18	0.32
	5150	-3.86	0.14
	5350	-3.77	0.23
	5500	-3.92	0.08
	5700	-4.35	-0.35
	5795	-4.59	-0.59
	5815	-4.87	-0.87
	5825	-4.87	-0.87
	5925	-4.97	-0.97
	6025	-4.36	-0.36
	6125	-4.76	-0.76
	6225	-4.68	-0.68
	6325	-5.4	-1.4
	6425	-7.37	-3.37
	6525	-8.63	-4.63
6925	-6.05	-2.05	
7025	-6.01	-2.01	
7125	-6.45	-2.45	

Ant	Freq.	AVG	Peak
	(MHz)		
BT/WIFI 2	2400	-3.3	0.2
	2451	-2.86	0.64
	2473	-3.08	0.42
	2480	-3.35	0.15
	5150	-7.38	-3.38
	5350	-7.01	-3.01
	5500	-6.82	-2.82
	5700	-7.54	-3.54
	5795	-7.85	-3.85
	5815	-7.69	-3.69
	5825	-7.58	-3.58
	5925	-7.13	-3.13
	6025	-5.65	-1.65
	6125	-5.64	-1.64
	6225	-5.45	-1.45
	6325	-5.45	-1.45
	6425	-5.14	-1.14
	6525	-5.8	-1.8
6925	-7.98	-3.98	
7025	-7.02	-3.02	
7125	-6.58	-2.58	

## ■ Antenna Measurement information

- Measurement information

Gain value is measured by Samsung Electronics.

Gain Value is measured in active call & Antenna selection.

Antenna gain is measured in RTS60 Chamber.

\*Test Equipment list

Description	Manufacturer	Model	S/N	Cal Due
Network Analyzer	R&S	ZNB 8	101771	2023.07.23.

- **Return Loss & VSWR Test**

The VSWR measurement of antennas assembled into a fully operating SM-X710 tablet is measured on the Network Analyzer. The handset is set up with a 50 Ohm coaxial cable connected to the 50 Ohm point. Calibration is done at the end of the 50 Ohm coaxial cable connection. The other end of the 50 Ohm coaxial cable is connected to a network analyzer. The handset is positioned on a non-conductive table for free space measurements.



- **Return Loss & VSWR Test**

Samsung has a system that can measure VSWR using RTS60 chamber and ZNB 8 network analyzer for passive measurement. In order to measure the VSWR of each antenna, the lab connects the coaxial cable to the point in contact with the antenna on the main board. The VSWR is measured through the coaxial cable connected in the set. At this time, SM-X710 is assembled in the same state as the user environment

- **Radiation Pattern Test**

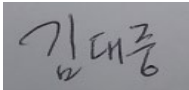
The AC chamber has an axis because the cradle moves left and right up and down, and the RC chamber (RTS60) we use does not have an axis because the cradle does not move.

- **Test Method (Manufacturing)**

All measurements are done with SM-X710 fully assembled. Measure in consideration of the Customer's usage environment. Use a fully shielded chamber environment to prevent any noise-induced errors. Typically. The electrical properties of antenna are measured using a jig that can hold the set.

- **Radiation Pattern**

There is no Radiation Pattern due to passive measurement with RC chamber.

Signature : 

Name : KIM DAEJUNG

Title : +82 10 8108 0310

Team : Tablet H/W R&D Group.