

Pulse 3216 2.4 GHz Chip Antenna Proposal

For Gemtek WSMN-162 Project

2.4 GHz Application

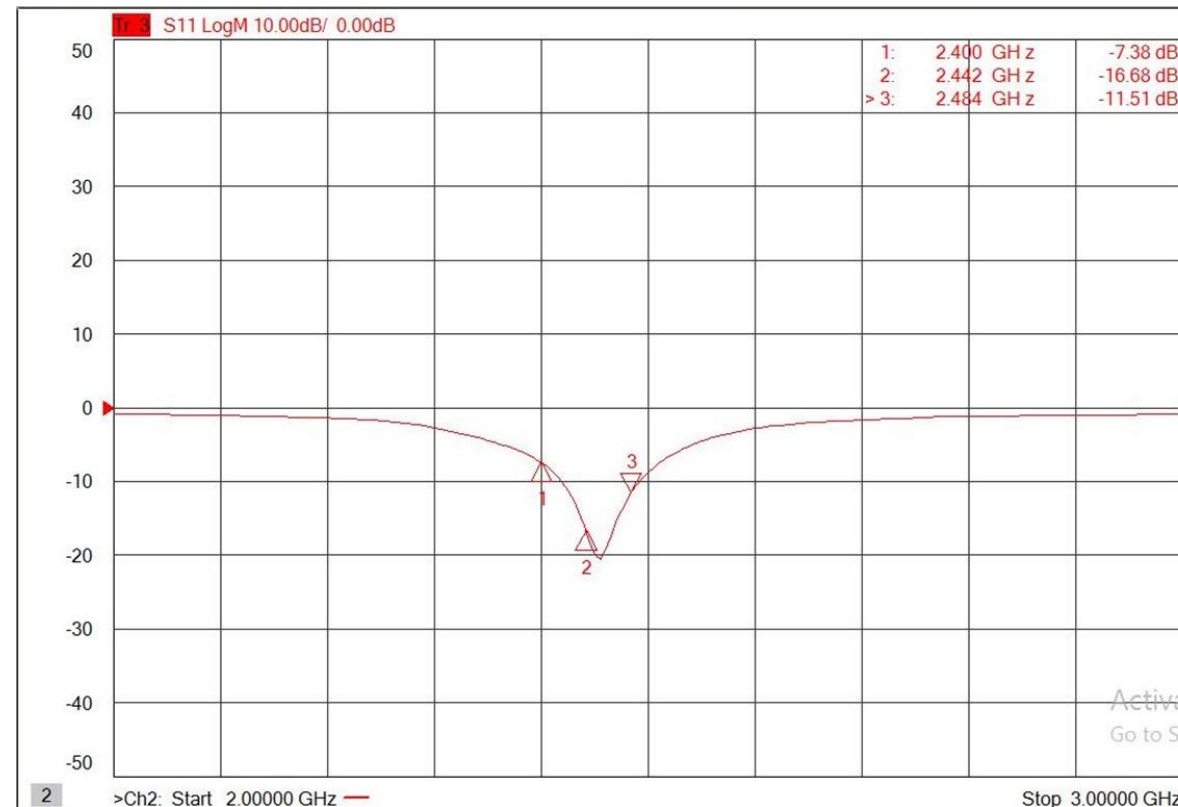
Wireless Components
LTCC R&D

September 26, 2022

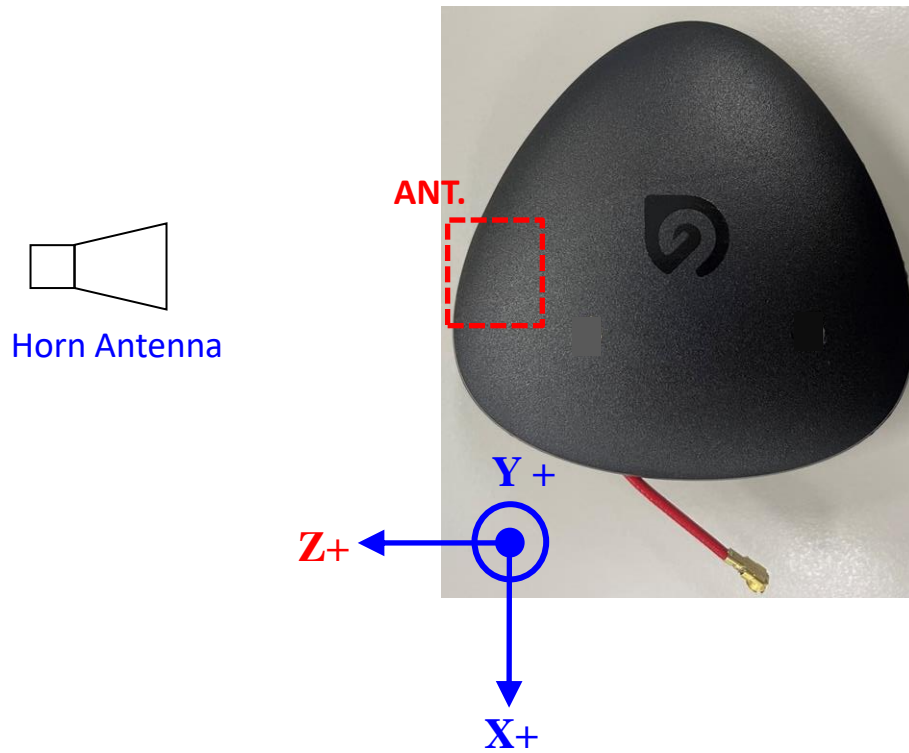


- **Customer : Gemtek**
- **Project Name : WSMN-162**
- **Application: IOT device**
- **Antenna size : 3216 2.4GHz chip antenna ([ANT3216LL11R2400A](#))**
- **PCB size : 47 * 45.5 mm**
- **Report date : 2022/09/26**
- **Version : 1**

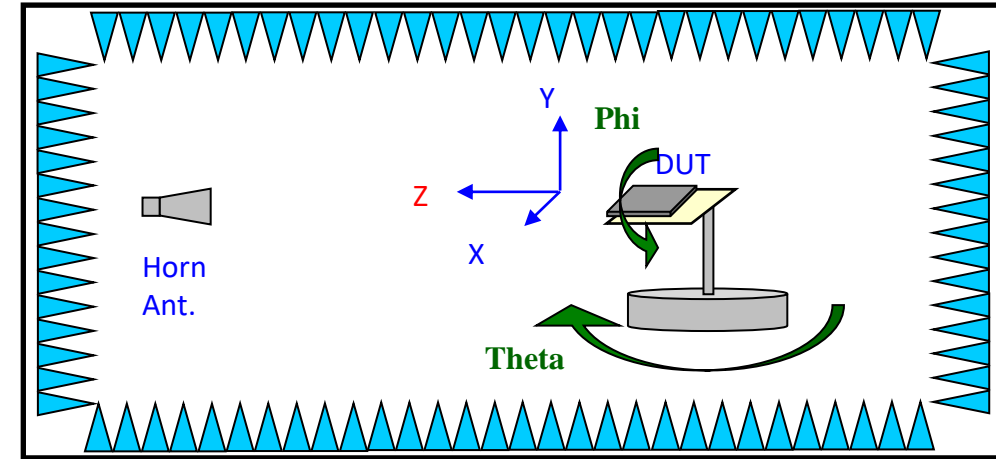
| Antenna | PULSE 3216 2.4GHz Chip antenna (ANT3216LL11R2400A) | | |
|-----------------|--|-------|-------|
| Frequency (MHz) | 2400 | 2442 | 2484 |
| R.L. (dB) | -7.3 | -16.6 | -11.5 |
| Max. Gain (dBi) | 0.44 | 1.16 | 1.37 |
| Avg. Gain (dB) | -3.34 | -2.30 | -2.32 |
| Efficiency (%) | 46.31 | 58.78 | 58.57 |



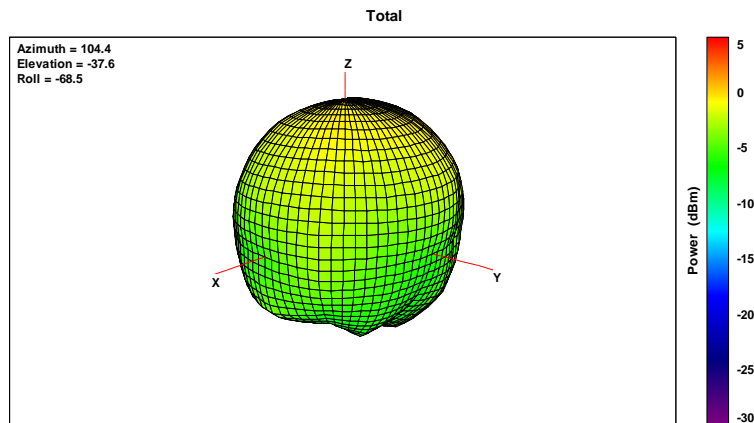
[Direction Definition]



[Anechoic Chamber]

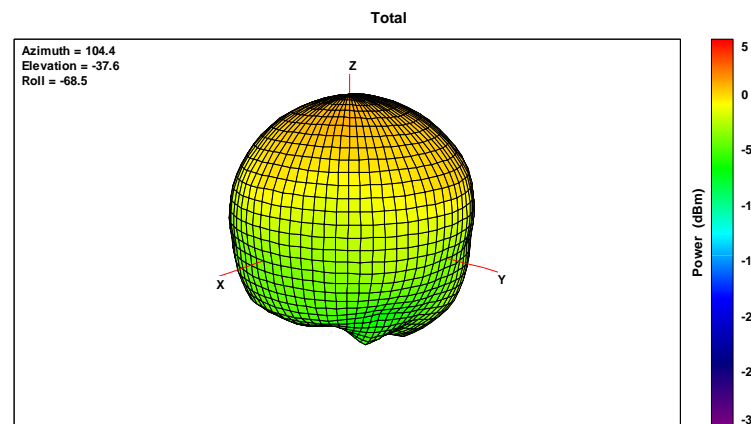


2.400 GHz



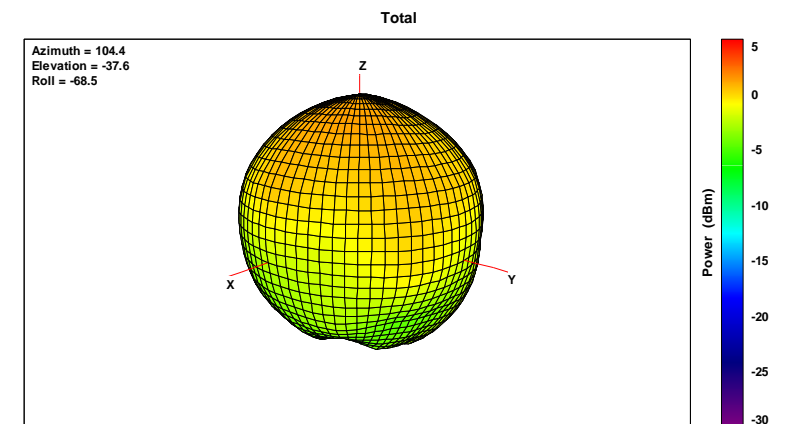
Max gain : 0.44 dBi
Avg. Gain : -3.34 dB
Directivity : 3.78 dB
Efficiency : 46.31 %

2.442 GHz



Max gain : 1.16 dBi
Avg. Gain : -2.30 dB
Directivity : 3.47 dB
Efficiency : 58.78 %

2.484 GHz



Max gain : 1.37 dBi
Avg. Gain : -2.32 dB
Directivity : 3.70 dB
Efficiency : 58.57 %

Thank You

