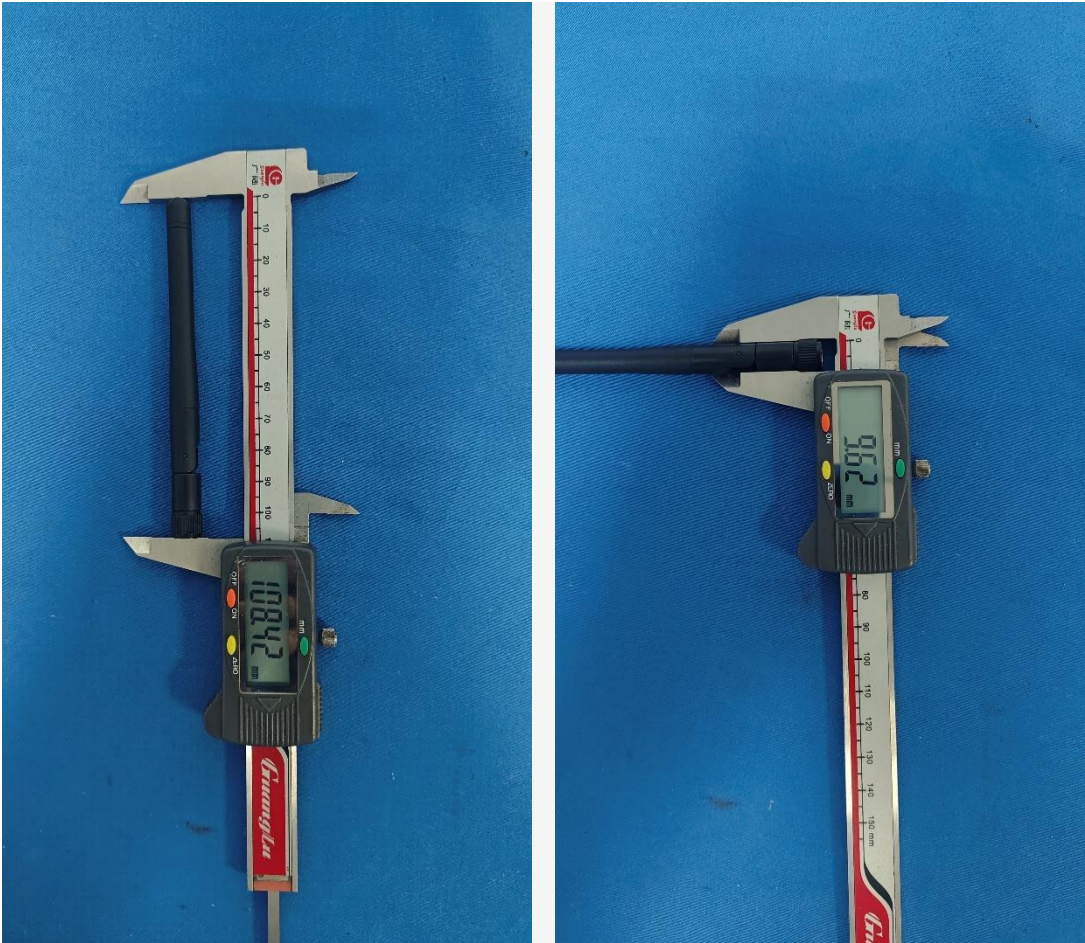


1. Antenna Description:

Antenna type	External antenna
Model	BD13
Frequency range	2400-2500MHz, 5180-5240MHz
Manufacturer	Newsday Technology Co.,limited
Address	402&405, Building B, Taiyufeng Industrial Park, Dalang, Longhua New District, shenzhen, China
ANT Peak Gain	1.39 dBi for 2400-2500MHz 1.64 dBi for 5180-5240MHz

2. Antenna Photo:



3. Test Equipment & Conditions

3.1 Test instrument

VSWR is tested using Agilent E5071B connected to a hand mechanism, and the status is free space.

3.2 Test environment and methods

Dark room specifications: ETS-743

TD-SCDMA test equipment: StarPoint SP6010/Agilent 8960

LTE-TDD/FDD-SCDMA test equipment: StarPoint SP8011/CMW500

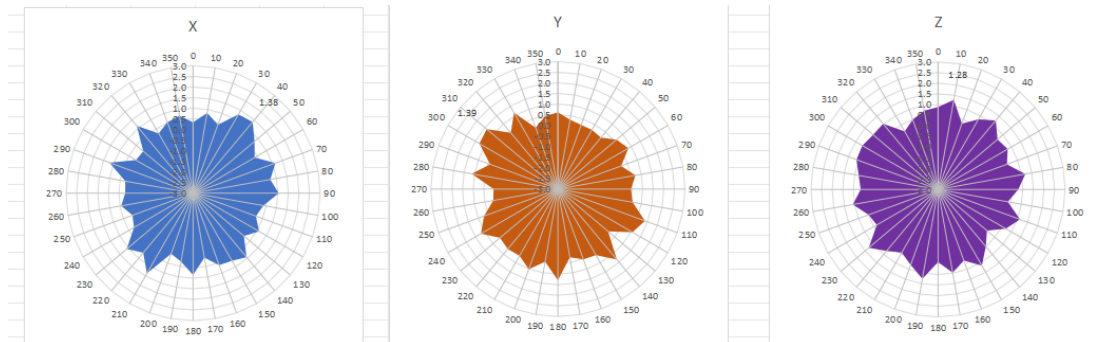
WCDMA/GSM/CDMA test equipment: Agilent 8960

Passive efficiency testing equipment: Agilent Technologies E5071B

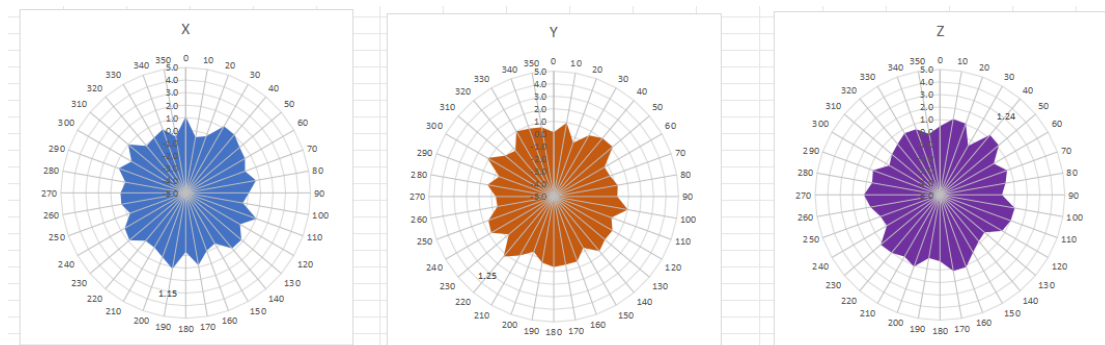


4 . Antenna Radiation Pattern

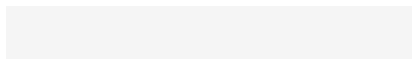
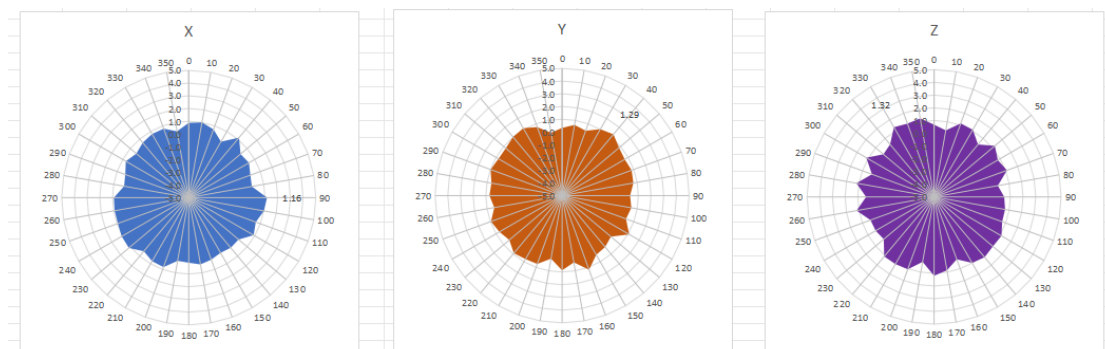
2400MHz



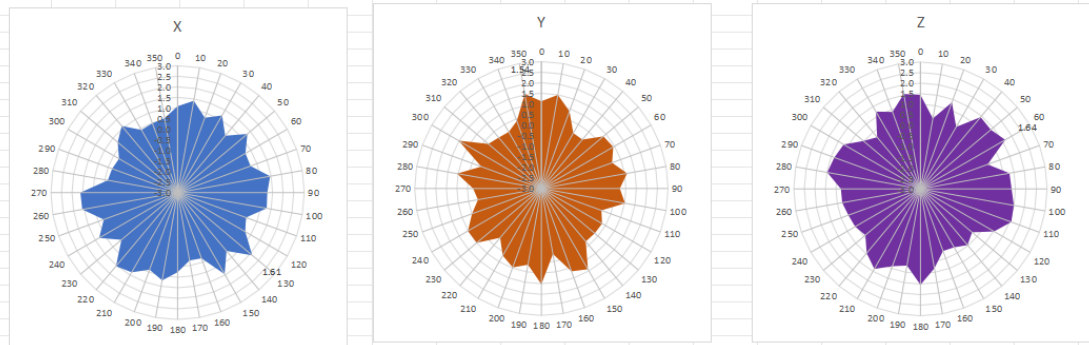
2450MHz



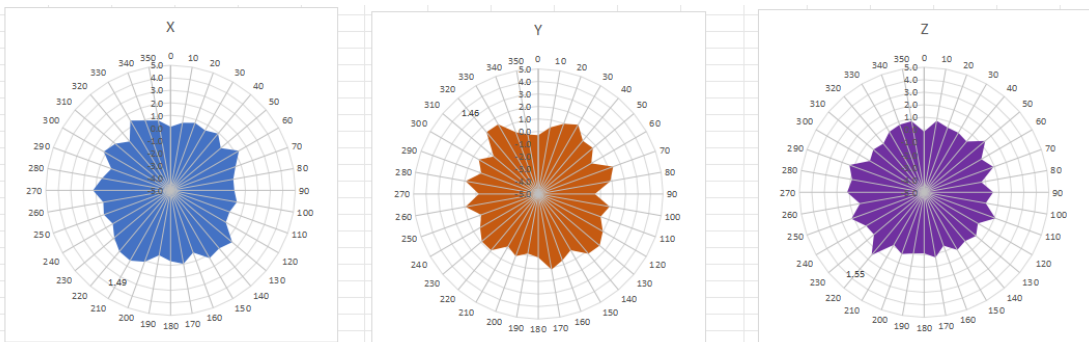
2500MHz



5180MHz



5220MHz



5240MHz

