



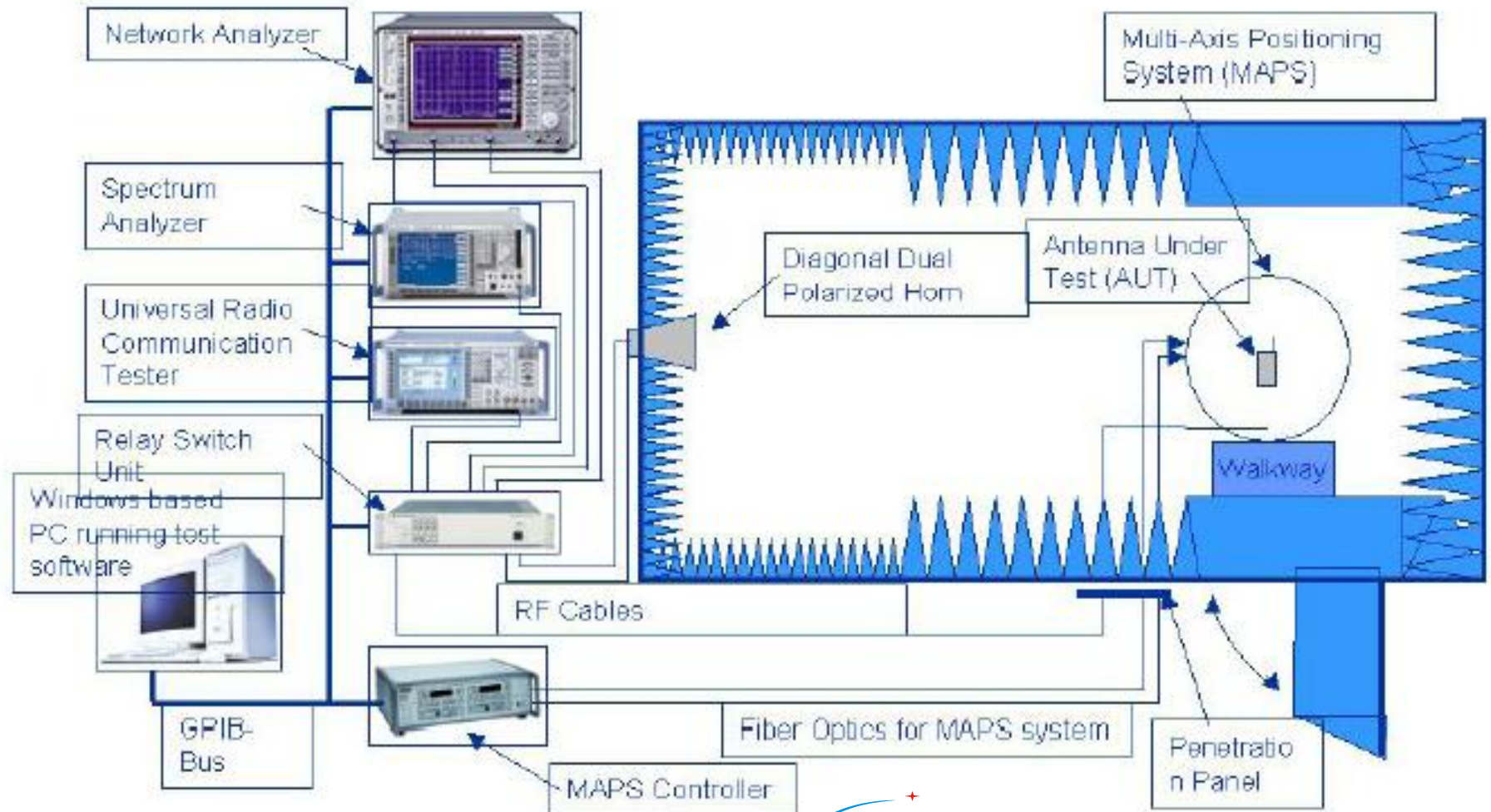
Ant Communication Technology Co., Ltd

## Antenna Design & Test Report

|                |                                        |
|----------------|----------------------------------------|
| Customer Name  | Shenzhen Xinkeying Technology Co., Ltd |
| Project Name   | DT3 MATE                               |
| Material Code  |                                        |
| R & D Engineer | Huangbo                                |
| Debugging Date | 2022-08-11                             |

# Passive Test :

Testing environment : 7\*4\*3 darkroom ,  
CMW500 Model comprehensive tester ◦



|                               |                    |
|-------------------------------|--------------------|
| Working Frequency Range       | 2400 ~2500 MHz     |
| Bandwidth                     | 120 MHz (Min.)     |
| Peak Gain                     | 2.74 dBi (Typ.)    |
| Impedance                     | 50 Ohm             |
| Return loss                   | 10 dB ( Min)       |
| Polarization                  | Linear             |
| Azimuth Beamwidth             | Omni-directional   |
| Operation Temperature(°C)     | -40 ~85°C          |
| Resistance to Soldering Heats | 10sec. ( @ 280°C)  |
| Termination                   | Ni / Au (Leadless) |

# Test equipment

|                  |                                         |
|------------------|-----------------------------------------|
| Test Equipment   | 8820C<br>Agilent 8960<br>5071C<br>8753E |
| Darkroom         | ETS-743                                 |
| Test Temperature | 23°C                                    |
| Ambient Humidity | 58%                                     |
| Test Engineer    | <b>Huangbo</b>                          |



# Efficiency+Gain

| Passive Test For 2.4G |             |              |               |               |            |            |
|-----------------------|-------------|--------------|---------------|---------------|------------|------------|
| Freq<br>(MHz)         | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) | Gain<br>(dBd) | UHS<br>(%) | DHS<br>(%) |
| 2400                  | 35.79       | -3.16        | 2.11          | -0.04         | 21.678     | 26.58      |
| 2410                  | 31.03       | -3.26        | 2.13          | -0.02         | 20.954     | 26.241     |
| 2420                  | 29.14       | -3.38        | 2.16          | 0.01          | 20.491     | 25.404     |
| 2430                  | 23.44       | -3.53        | 1.94          | -0.21         | 19.729     | 24.646     |
| 2440                  | 25.99       | -3.45        | 2.23          | 0.08          | 19.931     | 25.22      |
| 2450                  | 26.05       | -3.15        | 2.74          | 0.59          | 21.336     | 27.067     |
| 2460                  | 24.47       | -3.32        | 2.72          | 0.57          | 20.351     | 26.158     |
| 2470                  | 26.15       | -3.49        | 2.52          | 0.37          | 19.679     | 25.041     |
| 2480                  | 24.93       | -3.78        | 2.07          | -0.08         | 18.289     | 23.634     |
| 2490                  | 26.23       | -3.2         | 2.63          | 0.48          | 21.147     | 26.761     |
| 2500                  | 26.56       | -3.35        | 2.63          | 0.48          | 20.42      | 25.865     |

# Efficiency+Gain

**2400.000MHz E2**

