

1 Antenna Test Result

1.1 Test Information

| Brand Name | |
|-------------------|------------------|
| Model Name | |
| Test Standard | ANSI C63.5: 2006 |
| Applicant | |
| Applicant Address | |
| Sample Received | Apr. 18, 2013 |
| Test Date | Apr. 18, 2013 |
| Test Result No. | 340944-у |
| Remark | |

1.2 Testing Location

| | Testing Location | | | | | | | | | |
|-------------|------------------|-----|---|-------------------------------------|--|--|---|--|--|--|
| | HWA YA | ADD | : | No. 52, Hwa Ya 1st Rd., Kw | No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. | | | | | |
| | | TEL | : | 886-3-327-3456 FAX | 886-3-327-3456 FAX : 886-3-318-0055 | | | | | |
| \boxtimes | JHUBEI | ADD | : | No.8, Lane 724, Bo-ai St., C | No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C. | | | | | |
| | | TEL | : | 886-3-656-9065 FAX : 886-3-656-9085 | | | | | | |
| | Testing Site No. | | | | | | | | | |
| | 05CH01-CB | | | | | | - | | | |

1.3 Test Mode

The following tables are showing the test modes as the worst cases and recorded in this report.

| Antenna Test Suites | | | | | | |
|---------------------|--------------|----------|--------------|--|--|--|
| Description | Polarization | | | | | |
| Description | Horzontal | Vertical | Test Channel | | | |
| Antenna Gain | • | ~ | BMT | | | |

Note: Test Channel: B (Bottom channel), M (Middle channel), and T (Top channel).

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1.4 Test Frequency

| EUT Channel | EUT Channel B | | Т | |
|-------------|---------------|----------|---------|--|
| Frequency | 2.402GHz | 2.441GHz | 2.48GHz | |

Note: Test Channel: B (Bottom channel), M (Middle channel), and T (Top channel).

1.5 Test Result of Antenna Gain

| Polarization | Horizontal & Vertical | Temperature : | 24 °C |
|-----------------|-----------------------|---------------------|-------|
| Test Engineer : | kenneth | Relative Humidity : | 61 % |

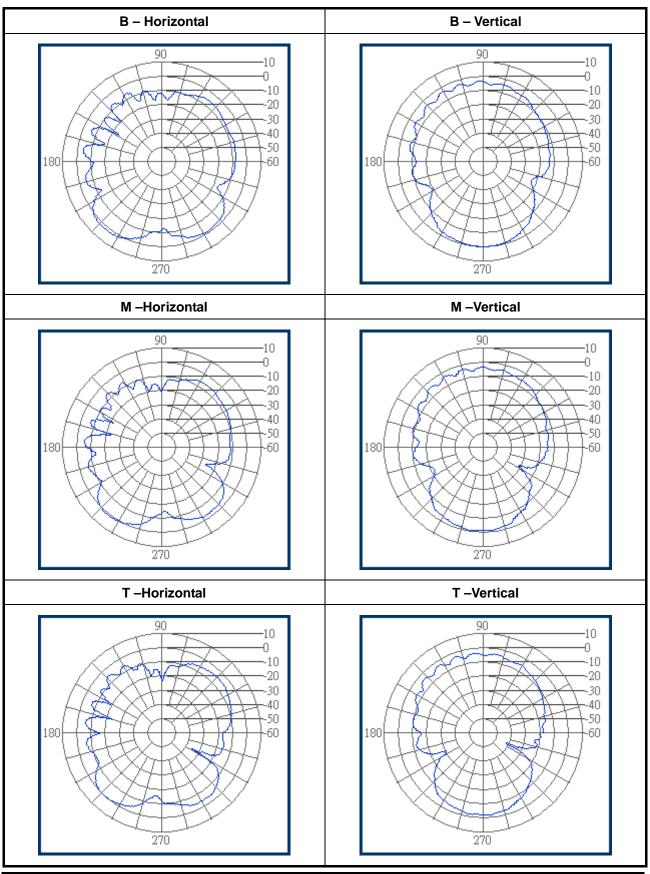
| Test Freq | Peak Gain (dBi) | Average Gain (dBi) | Beamwidth (°) | Plane |
|-----------|-----------------|--------------------|---------------|------------|
| 2.402GHz | PK 2.21 dBi | AV -5 dBi | Beam 30 ° | Horizontal |
| 2.441GHz | PK 1.22 dBi | AV -6.22 dBi | Beam 30 ° | Horizontal |
| 2.48GHz | PK 0.28 dBi | AV -6.72 dBi | Beam 26 ° | Horizontal |
| 2.402GHz | PK 0.44 dBi | AV -5.48 dBi | Beam 54 ° | Vertical |
| 2.441GHz | PK -0.74 dBi | AV -6.21 dBi | Beam 202 ° | Vertical |
| 2.48GHz | PK -1.7 dBi | AV -6.79 dBi | Beam 360 ° | Vertical |

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1.6 Test Result of Antenna Gain Pattern



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2 List of Measuring Equipments

| Instrument | Manufacturer | Model No. | Serial No. | Spec. | Calibration Date | Calibration Until | Remark |
|-------------------------------|---------------------------|----------------------|-------------|-------------------|---------------------|----------------------|-----------|
| Spectrum Analyzer | R&S | FSU | 100015 | 9kHz ~ 26.5GHz | 08-Dec-11 | 08-Dec-13 | 05CH01-CB |
| Spectrum Analyzer | R&S | FSP | 100023 | 9kHz ~ 30GHz | 08-Dec-11 | 08-Dec-13 | 05CH01-CB |
| Power Meter | R&S | NRVD | 100764 | - | 08-Dec-11 | 08-Dec-13 | 05CH01-CB |
| Power Sensor | R&S | NRV-Z51 | 100458 | DC ~ 18GHz | 08-Dec-11 | 08-Dec-13 | 05CH01-CB |
| AC Power Source | HPC | HPA-500W | HPA-9100024 | AC 0 ~ 300V | 08-Dec-11 | 08-Dec-13 | 05CH01-CB |
| DC Power Source | G.W. | GPC-6030D | C671845 | DC 1V ~ 60V | 08-Dec-11 | 08-Dec-13 | 05CH01-CB |
| Temp. and Humidity | Giant Force | GTH-225-20-S | MAB0103-001 | N/A | 08-Dec-11 | 08-Dec-13 | 05CH01-CB |
| RF Cable-01 | Huber&Suhner | SUCOFLEX 103 | N/A | 0.5m | 08-Dec-11 | 08-Dec-13 | 05CH01-CB |
| RF Cable-02 | Huber&Suhner | SUCOFLEX 103 | N/A | 0.5m | 08-Dec-11 | 08-Dec-13 | 05CH01-CB |
| RF Cable-03 | Huber&Suhner | SUCOFLEX 103 | N/A | 0.5m | 08-Dec-11 | 08-Dec-13 | 05CH01-CB |
| RF Cable-04 | Huber&Suhner | SUCOFLEX 103 | N/A | 0.5m | 08-Dec-11 | 08-Dec-13 | 05CH01-CB |
| RF Cable-05 | Huber&Suhner | SUCOFLEX 103 | N/A | 0.5m | 08-Dec-11 | 08-Dec-13 | 05CH01-CB |
| Vector Signal Generator, # | R&S | SMU200A | 102098 | 100kHz ~ 6GHz | 08-Dec-11 | 08-Dec-13 | 05CH01-CB |
| Signal Generator | R&S | SMR40 | 100116 | 10MHz ~ 40GHz | 08-Dec-11 | 08-Dec-13 | 05CH01-CB |
| WiMAX BSE, # | Agilent | E6651 | MY47310158 | N/A | 08-Dec-11 | 08-Dec-13 | 05CH01-CB |
| Band Reject Filter | Wainwright Instruments | WRJC 2500/2690 | N/A | N/A | N/A | N/A | 05CH01-CB |
| Low Pass Filter | Wainwright Instruments | WLKS1000C9/4 0SS | N/A | N/A | N/A | N/A | 05CH01-CB |
| High Pass Filter | Wainwright Instruments | WHK 3.2/18G-10SS | N/A | N/A | N/A | N/A | 05CH01-CB |
| High Pass Filter | Wainwright Instruments | WHKX 4.5/18G-10SS | N/A | N/A | N/A | N/A | 05CH01-CB |
| RF Power Splitter | MCLI | PS2-17 | N/A | 2 Way | N/A | N/A | 05CH01-CB |
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Antenna Test Result

| Instrument | Manufacturer | Model No. | Serial No. | Spec. | Calibration Date | Calibration Until | Remark |
|------------|--------------|-----------|------------|-------|---------------------|----------------------|--------|
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