



National Space Organization

Report No : NSPO-PM-1040317_01-E

Function Test Report

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Report Date : Apr. / 2 / 2015

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Test Unit: 8dBi 2.4GHz/5GHz Omni Antenna

Model No: WLGO-5024-08

Serial No: N/A

Received Date: Apr./1/2015

Total Page: 14

Items to be measured: Antenna Gain / Antenna Pattern

Applicant: WIFI-Link Technologies (Taiwan) Ltd.

Contact: James Wang

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※ The report only valid to the measured items. Do not copy without permission.



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I. Test Project

1. Test Date: Apr./1/2015
2. Test Method:
 - 2.1 The measurement only valid to the measured items. All of the measurement processes are certificated by ISO9001:2000 quality management.
 - 2.2 Test item, parameter setting and method are agreed by both sides. Test flow and test procedures are executed according to NSPO-PROC-0039.
 - 2.3 It is necessary to warm up the test facilities for at least one hour.

3. Test standard units:

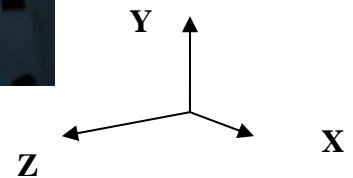
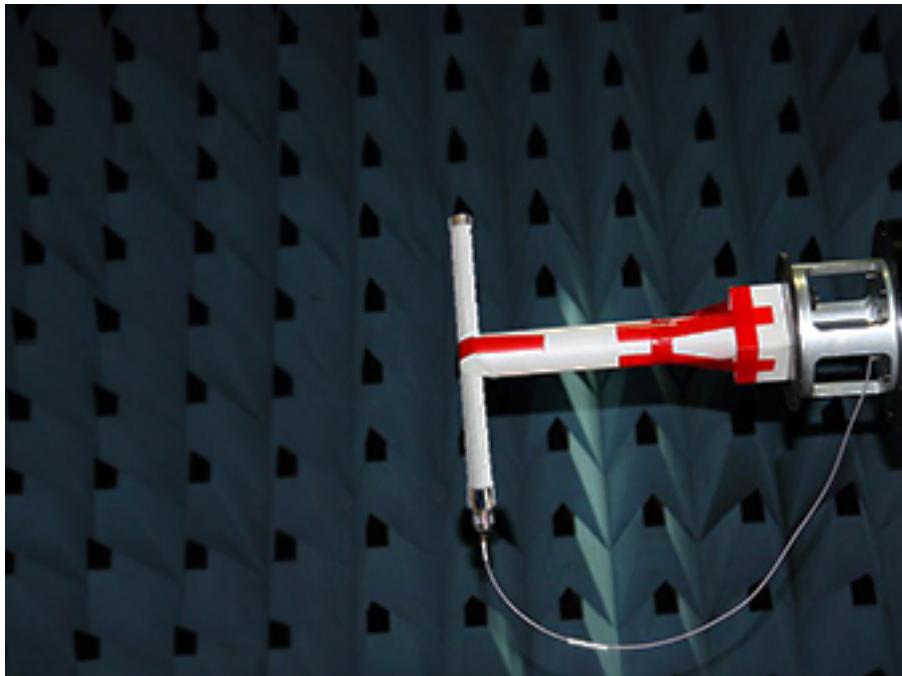
| Item | S/N | Valid date | Trace no. | Calibration Co. |
|------------------------------------|------------|------------|----------------------|-----------------|
| Network Analyzer Agilent E8364B | MY43040631 | 2015/8/31 | 1-6182827751 -1 | Agilent Ltd. |
| Standard Horn Antenna | 4101 | 2015/9/10 | 14-09-BCC-0 43-01 | ETC |

4. Test environment:

Temperature: 21.5~21.7 °C

Humidity: 54~56 %

5. Measured unit coordinate:



6. Reference Document:

Antenna measurement system operation procedure, NSPO-PROC-0039,
version: 0102, National Space Organization, 2012.



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II. System parameter setup

A. Measure Surface

- | | | | |
|------------------------|--|---|---------------------------------|
| (I). Planer | <input type="checkbox"/> Polar | <input type="checkbox"/> Rectangular | <input type="checkbox"/> Linear |
| (II). Spherical | <input type="checkbox"/> E-th/E-phi | <input type="checkbox"/> Co-pol/X-pol | |
| (III). Cylindrical | <input type="checkbox"/> Y/Phi Vertical | <input type="checkbox"/> X/Phi Horizontal | |
| (IV). Direct Far Field | <input checked="" type="checkbox"/> E-th/E-phi | <input type="checkbox"/> Co-pol/X-pol | |

B. Probe type

Type: WG: _____ Horn: X: 6.9 in Y: 6.1 in

C. AUT setup

- (I). Orientation: Y
(II). Polarization: Linear
(III). AUT Probe Distance: 145.7 in

D. Frequency

Start: 2.40 GHz Stop: 2.50 GHz Step: 0.05 GHz
Start: 5.10 GHz Stop: 5.90 GHz Step: 0.05 GHz
Start: 5.625 GHz Stop: 5.825 GHz Step: 0.1 GHz

E. Sampling

- I. Scan Priority No of Theta (N): 201
 No of Phi Angles (M): 2
II. Travel Range Theta (2-way) (deg): 360
 Phi-Cut (1/2 way)(deg): 180



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III. Test Result

1. Antenna Gain / HPBW

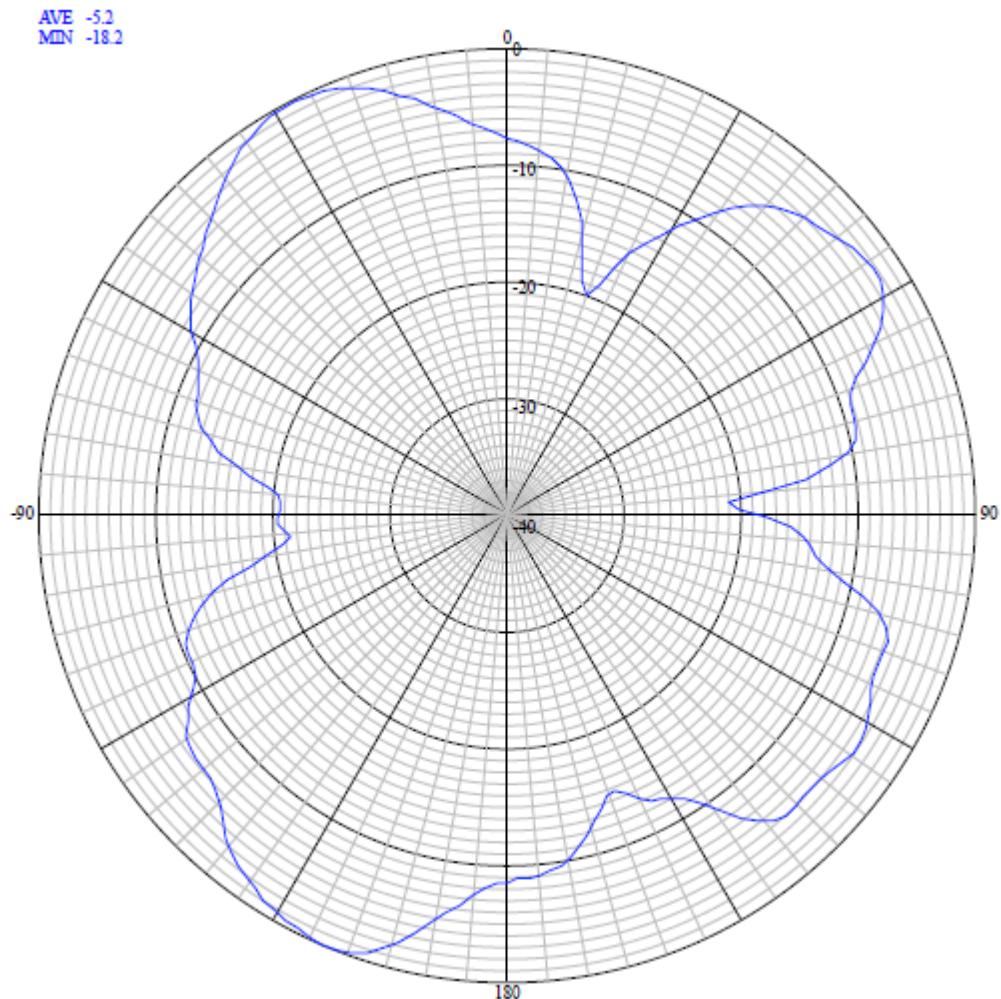
| | Gain | HPBW |
|-----------|----------|---------|
| 2.45 GHz | 8.9 dBi | 360 deg |
| 5.15 GHz | 11.4 dBi | 360 deg |
| 5.5 GHz | 8.1 dBi | 260 deg |
| 5.825 GHz | 11.0 dBi | 360 deg |



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2. Antenna Pattern

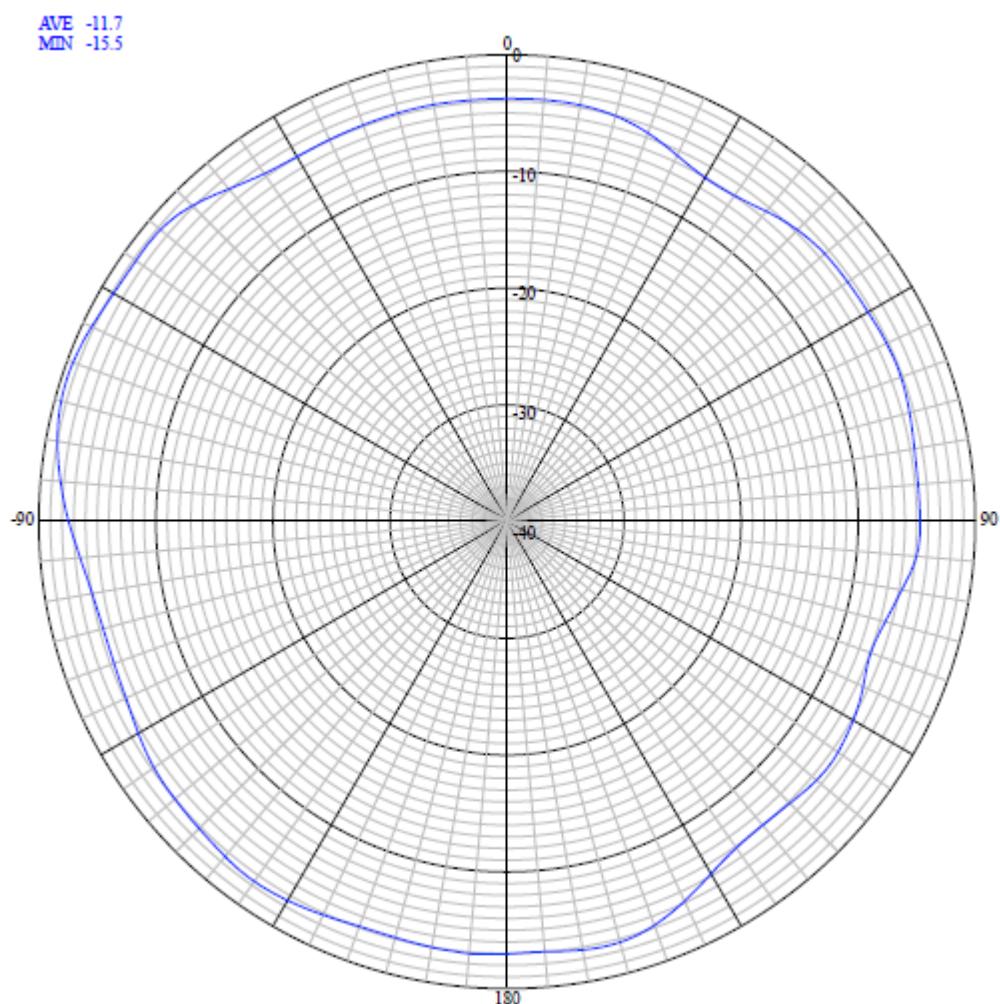
2.45 GHz / Vertical





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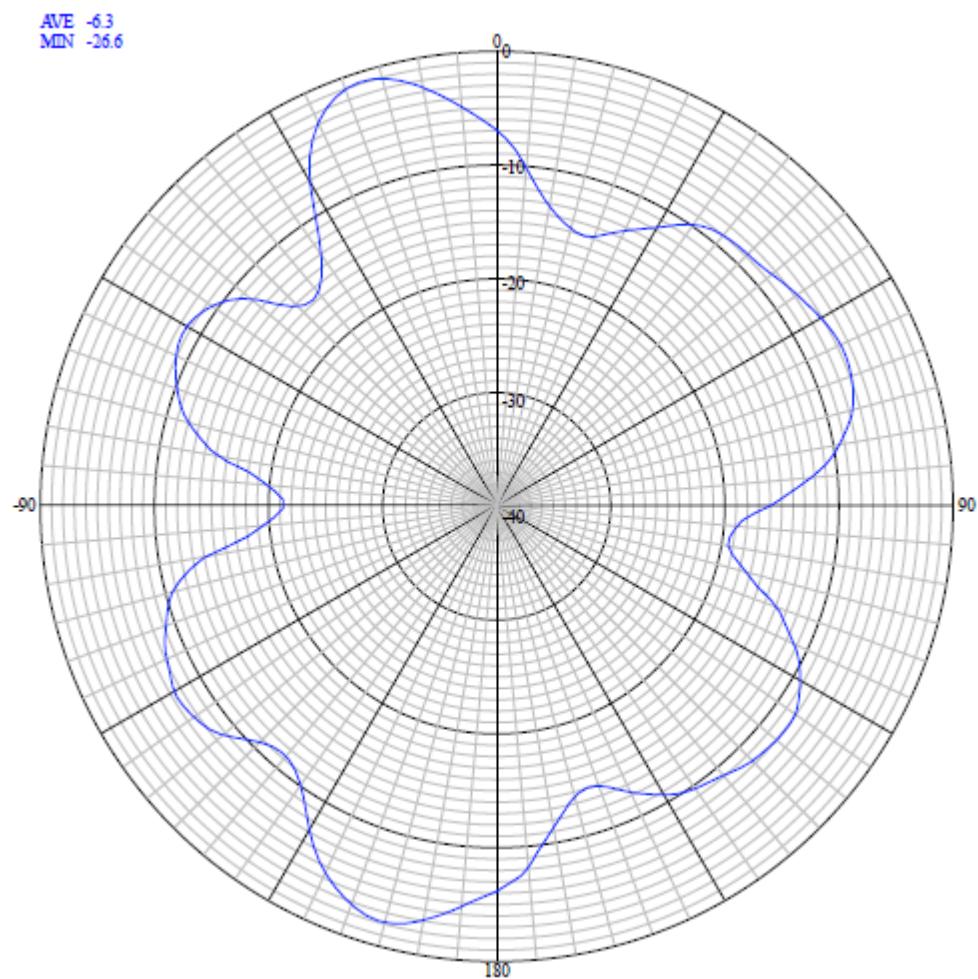
2.45 GHz / Horizontal





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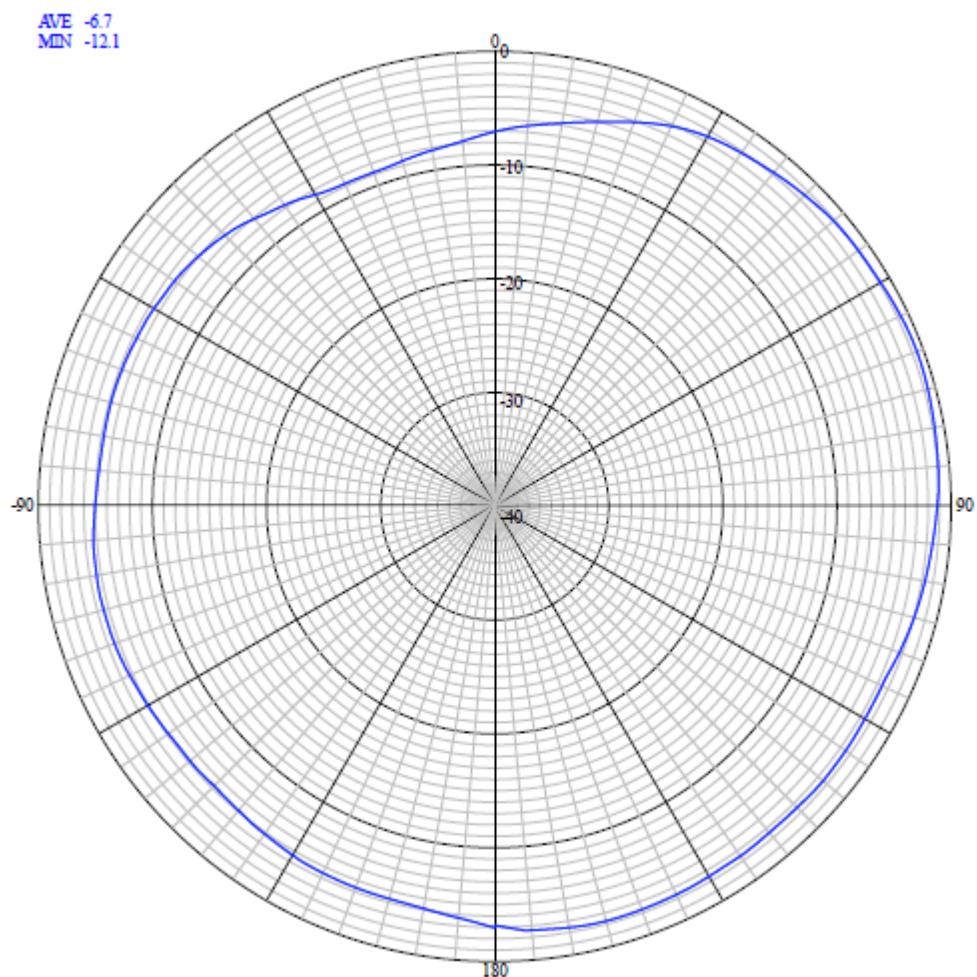
5.15 GHz / Vertical





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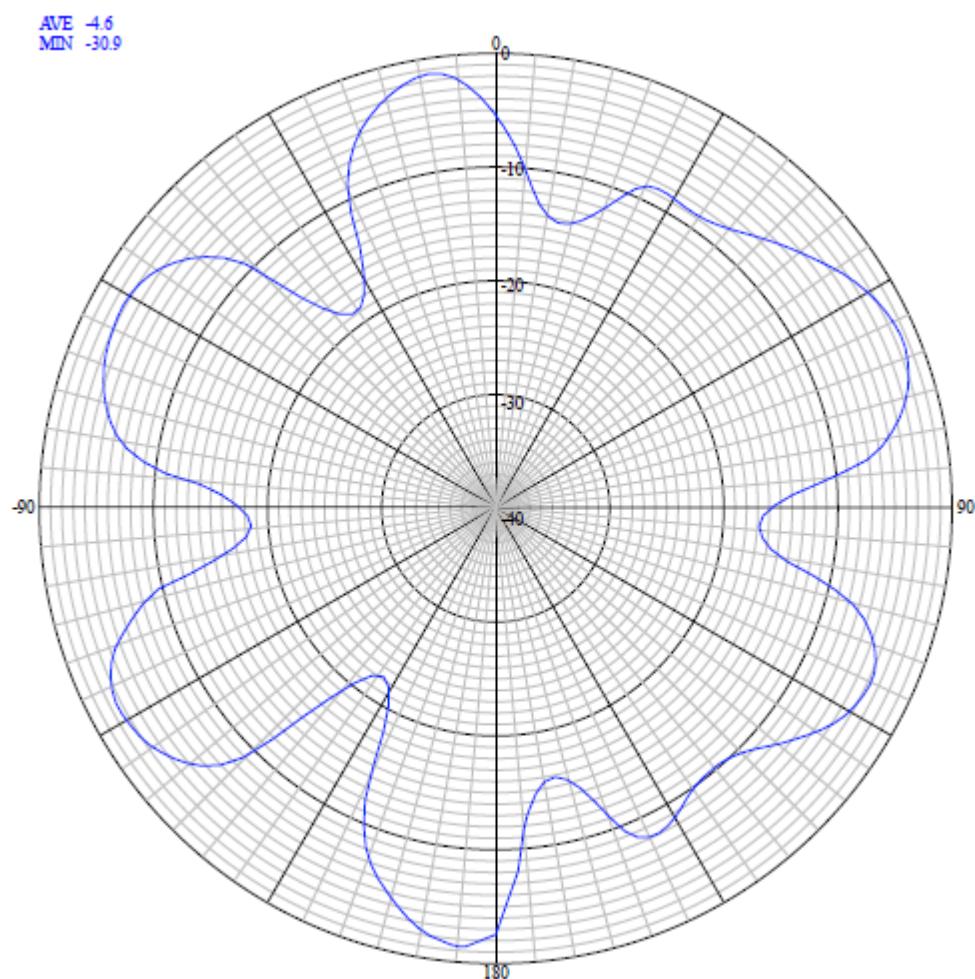
5.15 GHz / Horizontal





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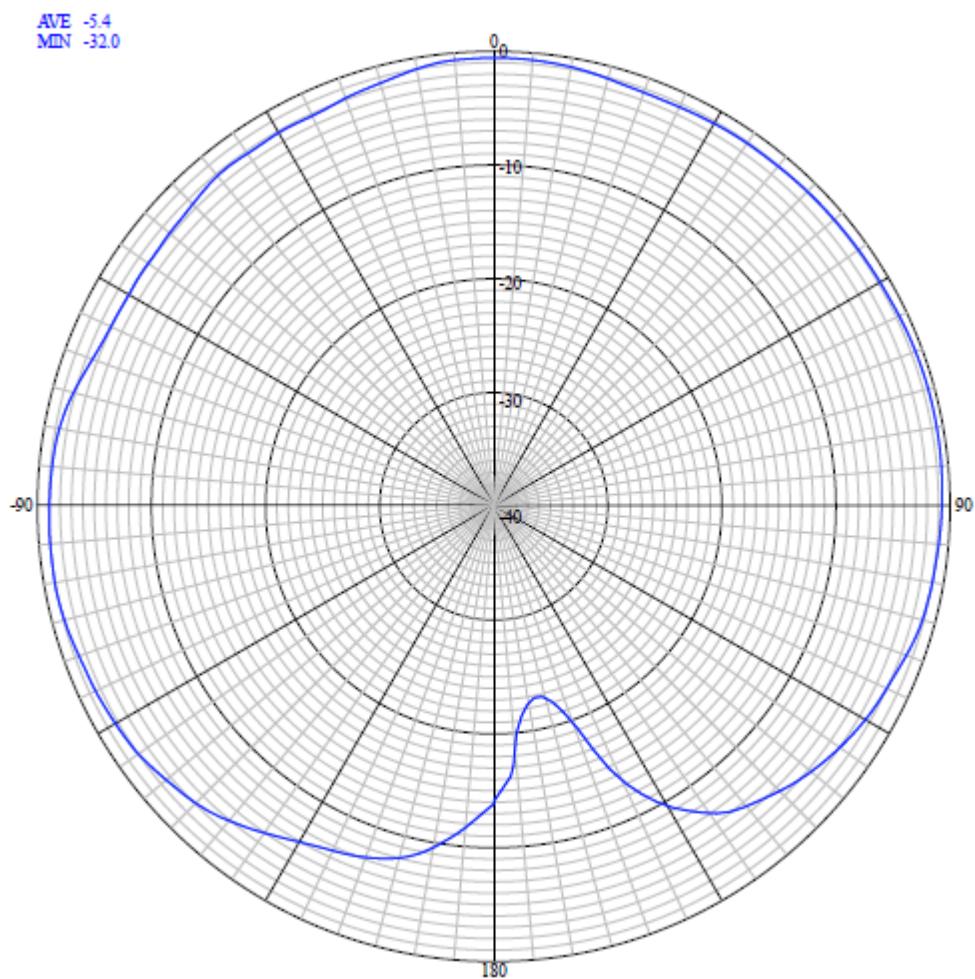
5.5 GHz / Vertical





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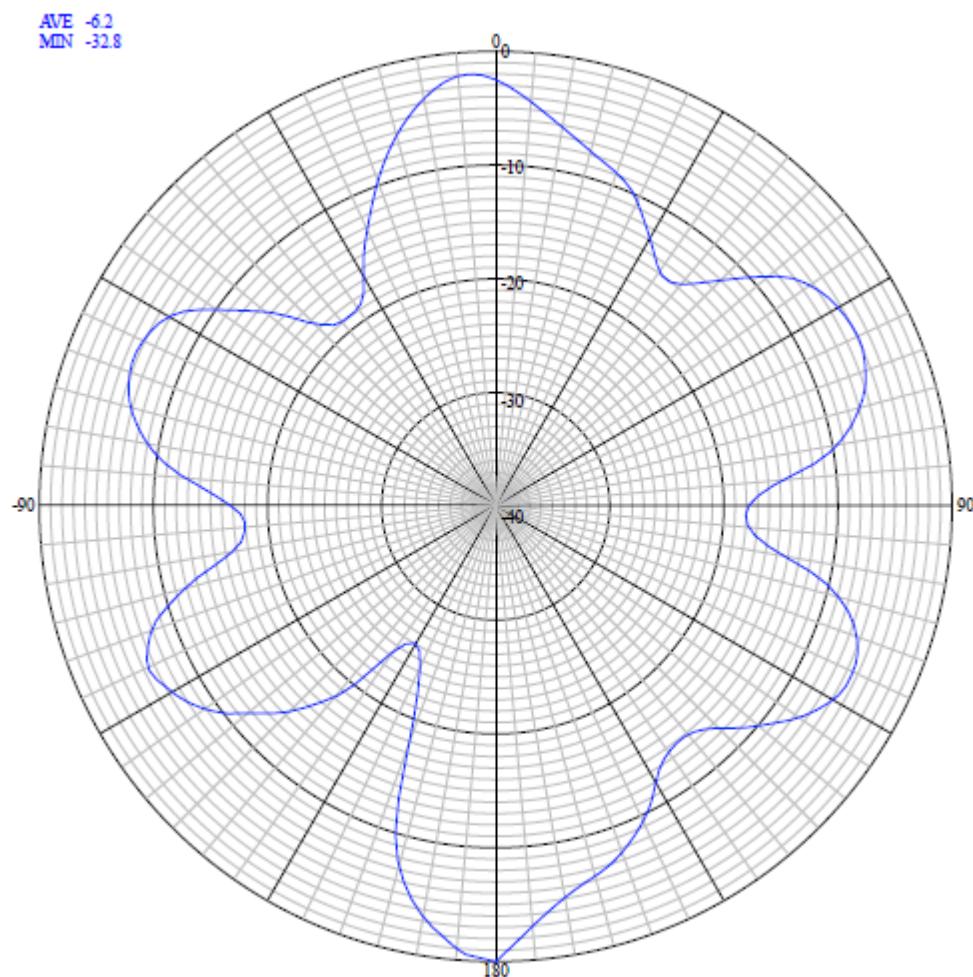
5.5 GHz / Horizontal





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5.825 GHz / Vertical





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5.825 GHz / Horizontal

