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Report No : NSPO-PM-1040317_01-E

Function Test Report

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Report Date : Apr. / 2 / 2020

National Space Organization Integration and Test Lab.

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

Model No: WLGO-5024-08-02

Serial No: N/A

Received Date: Apr./1/2020

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./1/2020

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:

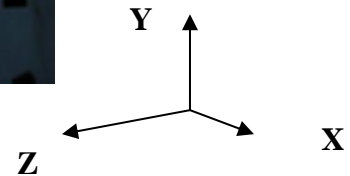
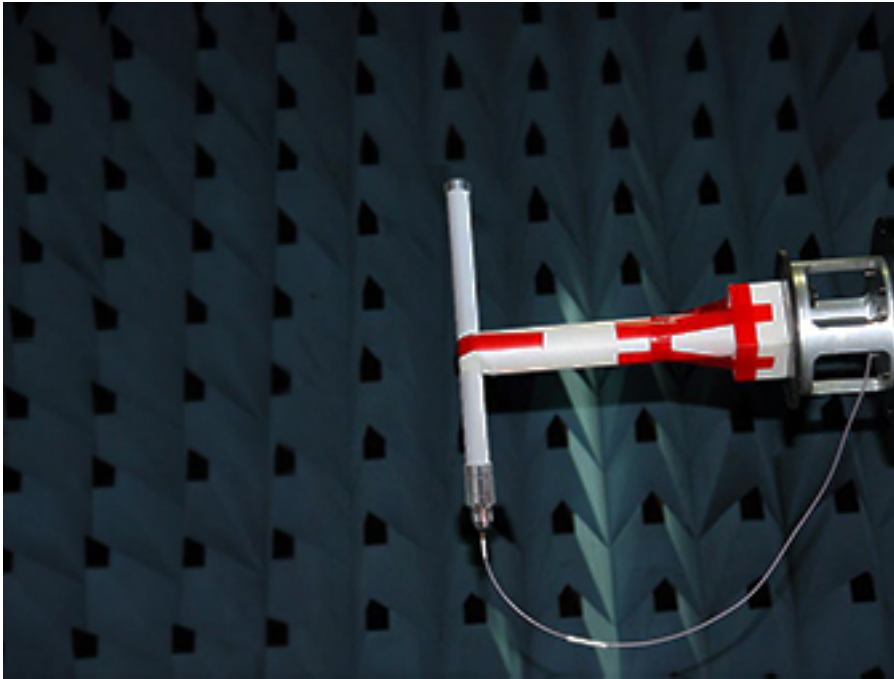
Item	S/N	Valid date	Trace no.	Calibration Co.
Network Analyzer Agilent E8364B	MY43040631	2015/8/31	1-6182827751 -1	Agilent Ltd.
Standard Horn Antenna	4101	2015/9/10	14-09-BCC-0 43-01	ETC

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 Polar Rectangular Linear
(II). Spherical E-th/E-phi Co-pol/X-pol
(III). Cylindrical Y/Phi Vertical X/Phi Horizontal
(IV). Direct Far Field E-th/E-phi 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

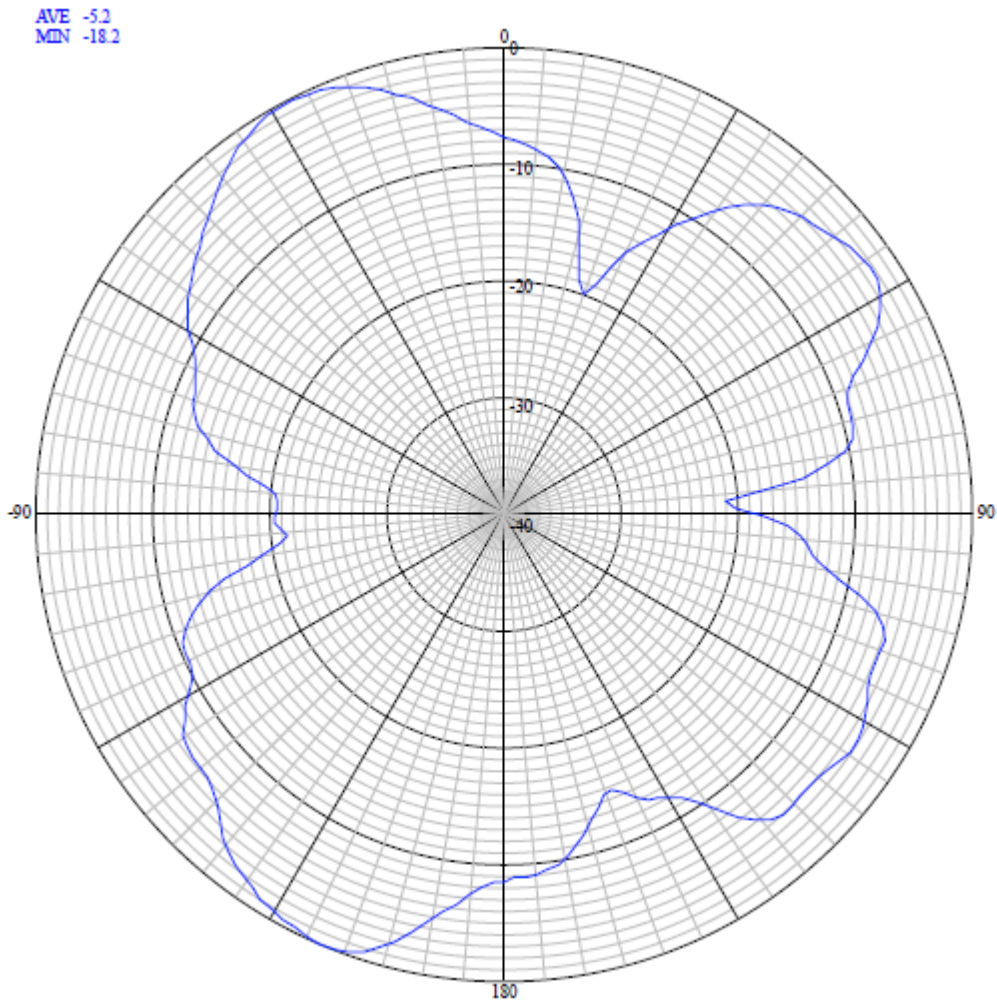


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2. Antenna Pattern

2.45 GHz / Vertical



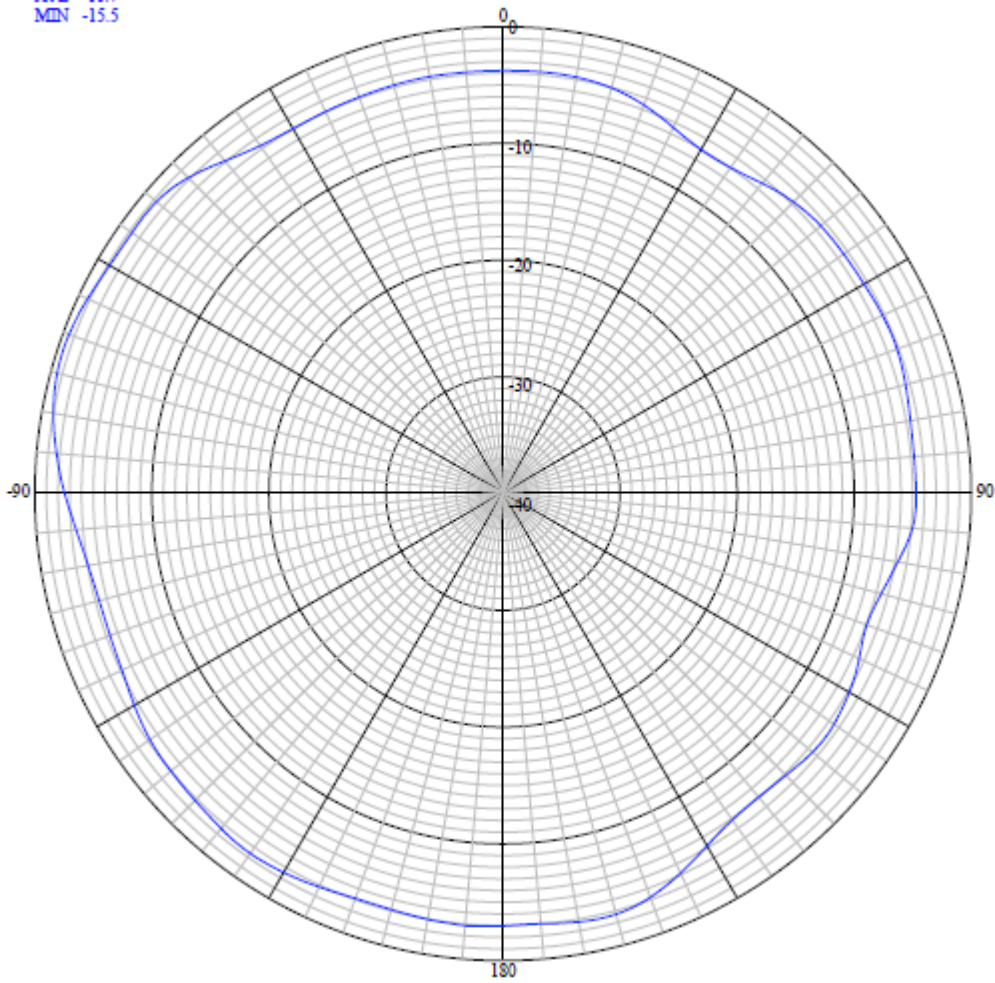


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2.45 GHz / Horizontal

AVE -11.7
MIN -15.5



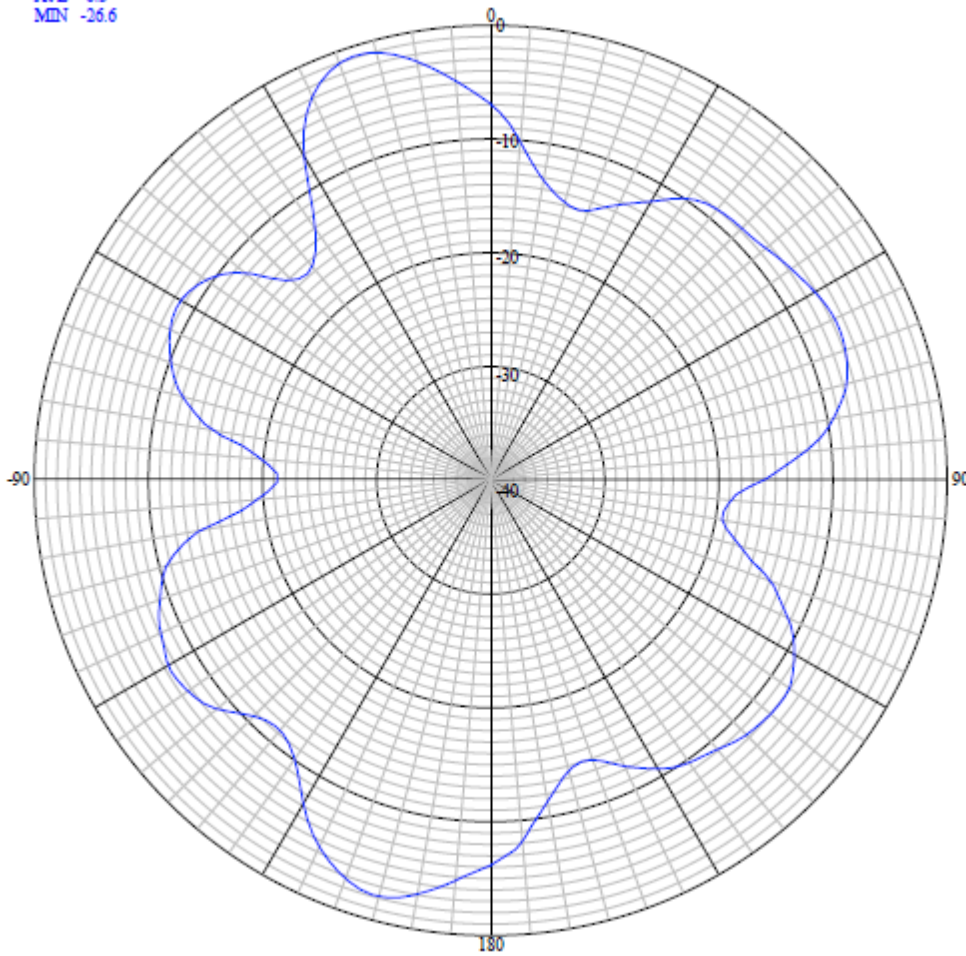


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5.15 GHz / Vertical

AVE -6.3
MIN -26.6



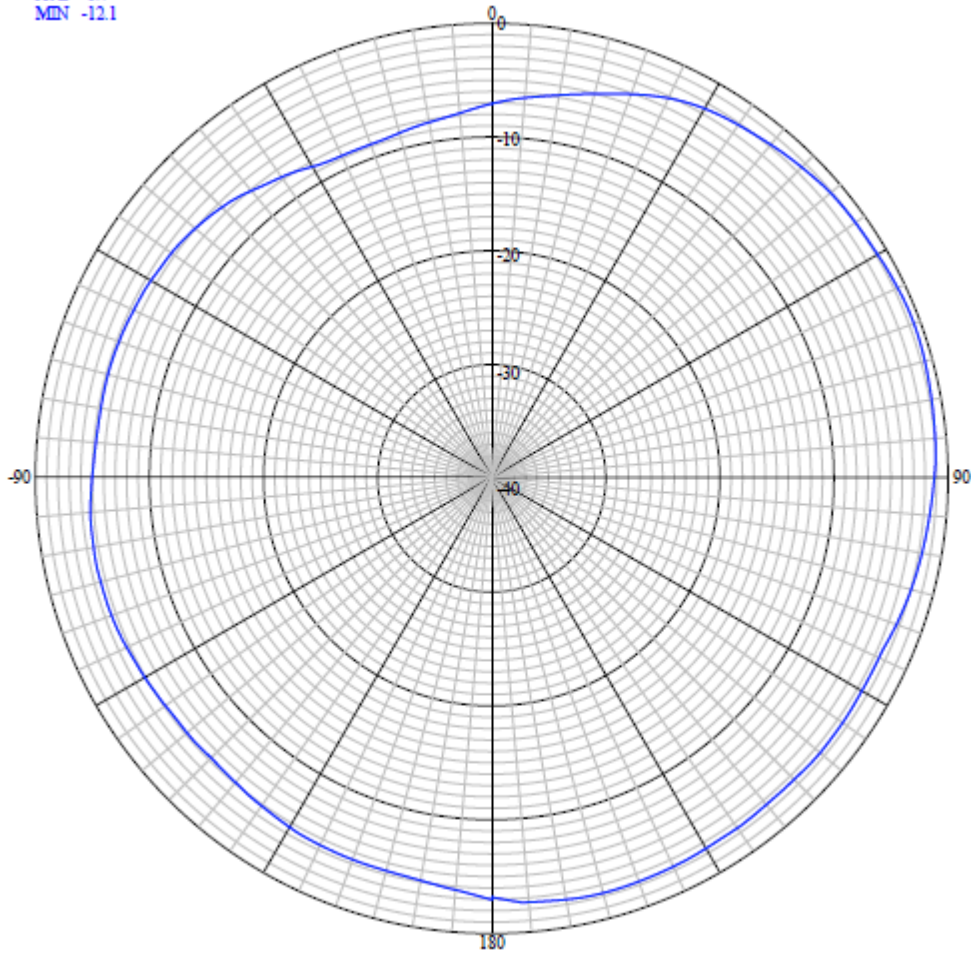


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5.15 GHz / Horizontal

AVE -6.7
MIN -12.1



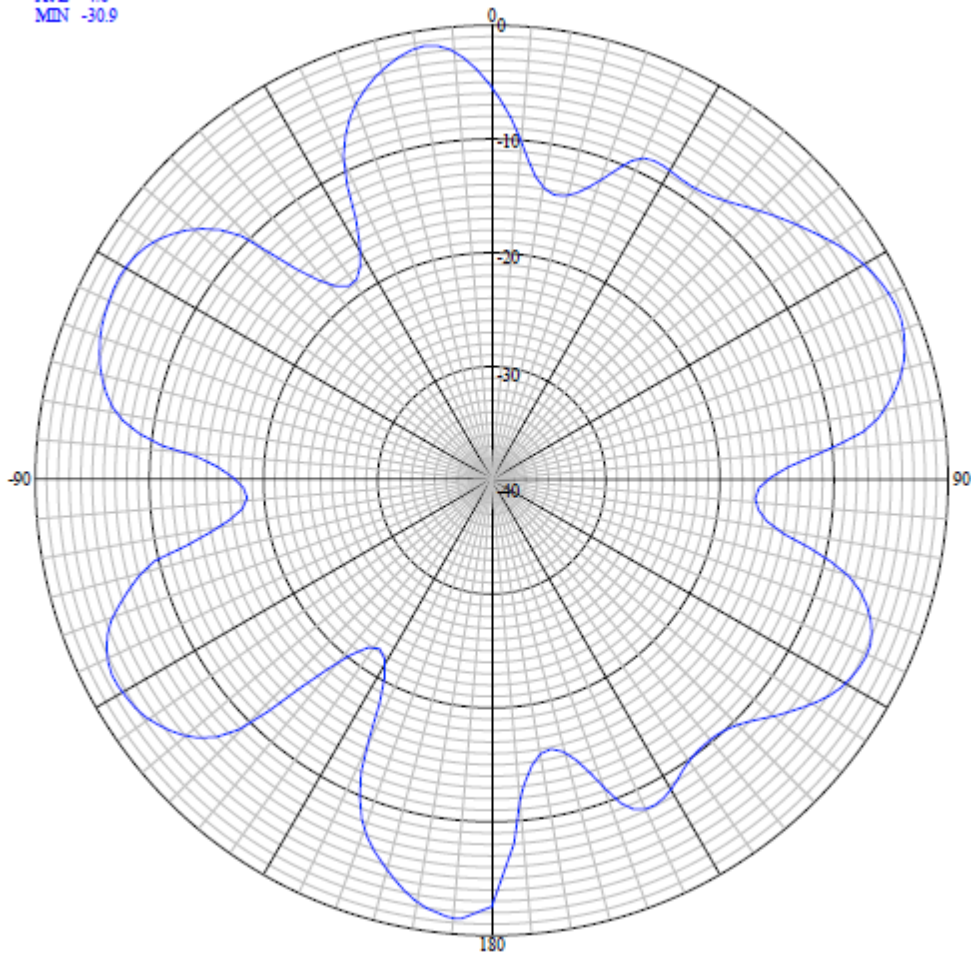


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5.5 GHz / Vertical

AVE -4.6
MIN -30.9



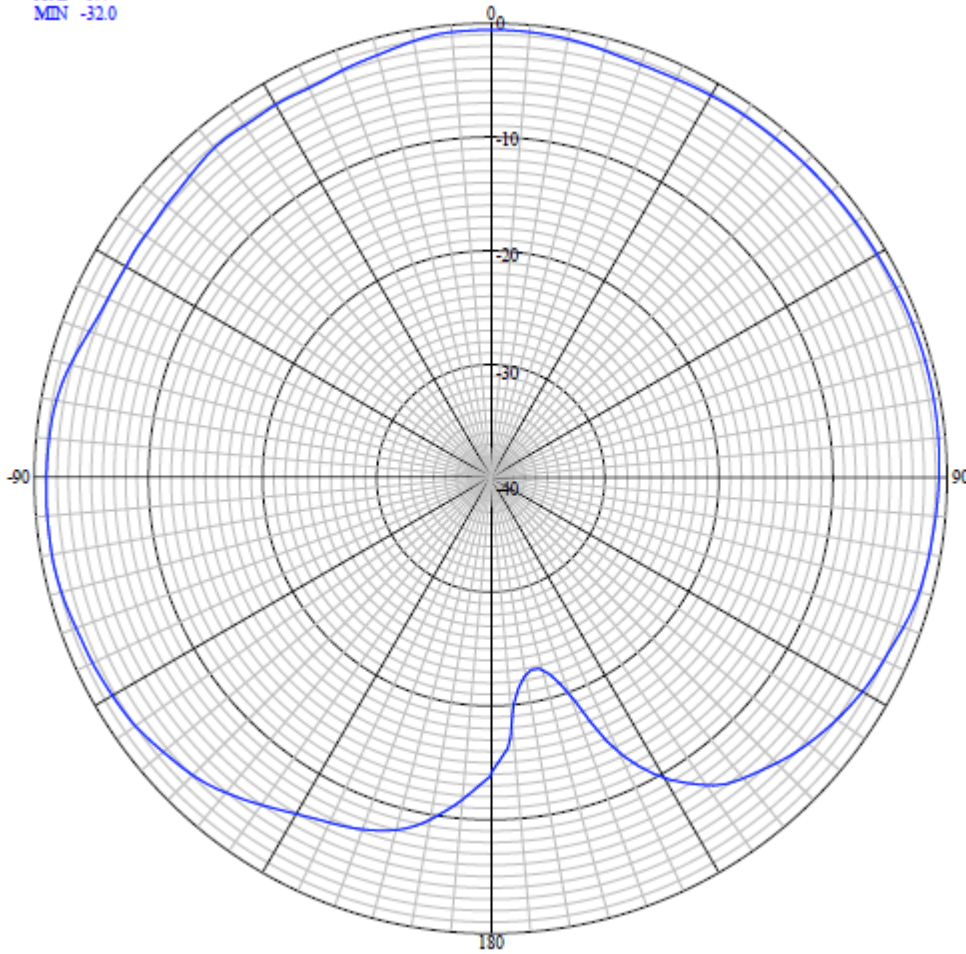


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5.5 GHz / Horizontal

AVE -5.4
MIN -32.0



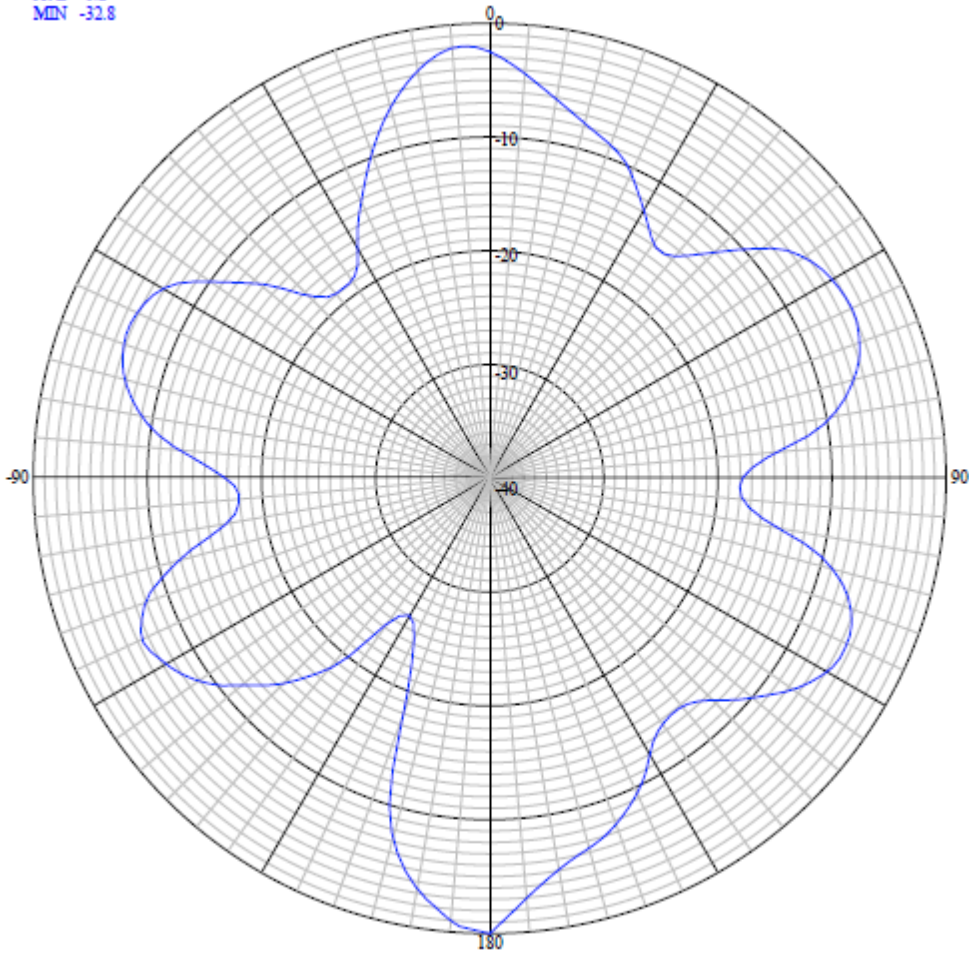


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5.825 GHz / Vertical

AVE -6.2
MIN -32.8





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5.825 GHz / Horizontal

AVE 0.2
MIN -3.5

