

Airgain™



Coverage.
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**Profile Series
N60AGUA**

**Airgain
Embedded
Antenna
Engineering
Data Sheet**

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Revision History (Required)

Revision	Date	Note
2855C-02-00-001 Rev 1.0	March 18, 2020	Preliminary Datasheet 1.0
2855C-02-00-001 Rev 1.1	July 14, 2020	Updated peak gain and Radiation Patterns

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1. Airgain N60AGUA Embedded Antenna

The Model N60AGUA Embedded Antenna provides a high efficiency, high gain, embedded antenna solution for WiFi 6E band applications, such as WLAN products in Europe. As embedded antenna solutions become the focus of next generation wireless product design, the Model N60AGUA provides the flexibility of an embedded antenna with top performance. The Model N60AGUA Embedded Antenna was designed to accommodate most WLAN access point applications, such as routers and gateways. The product can be easily integrated onto a board or into an ID package design.

2. Features

The Model N60AGUA Embedded Antenna is defined by the following features:

- Case mount
- High efficiency

3. Specifications and Interface

Frequency range	WiFi 6E 2400-2485MHz,5125-7125MHz
Peak gain	1.9dBi @2.44GHz, 3.6dBi @5.85GHz, 3.4dBi @7.125GHz
VSWR	≤1.5
Feed impedance	50 ohms
Power handling	30 dBm
Interface	50 ohms, 1.37 mm diameter, micro coax cable (available with optional U.FL-compatible cable connector and/or cable-mounted EMI ferrites)
Antenna dimensions	48.5 x 15.6 x 0.8 (mm)
Weight	TBD g (TBD oz)
Temperature range	Operating: -40° C to +75° C (-40° F to +167° F) Storage: -40° C to +85° C (-40° F to +185° F)
Humidity range	0% to 95% non-condensing

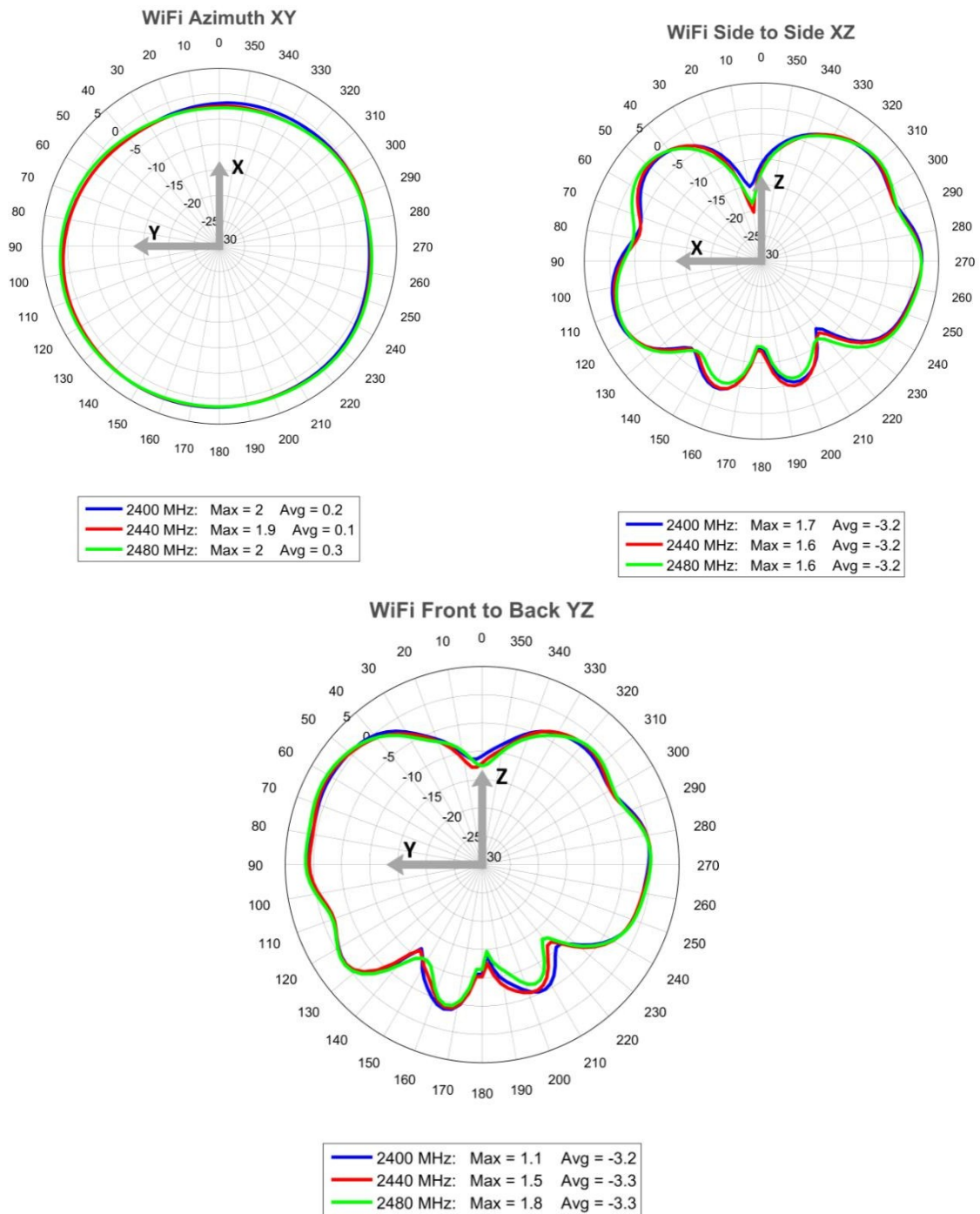


Figure 3: Model N60AGAUJ Measured Radiation Patterns at 2400MHz & 2440MHz & 2480MHz

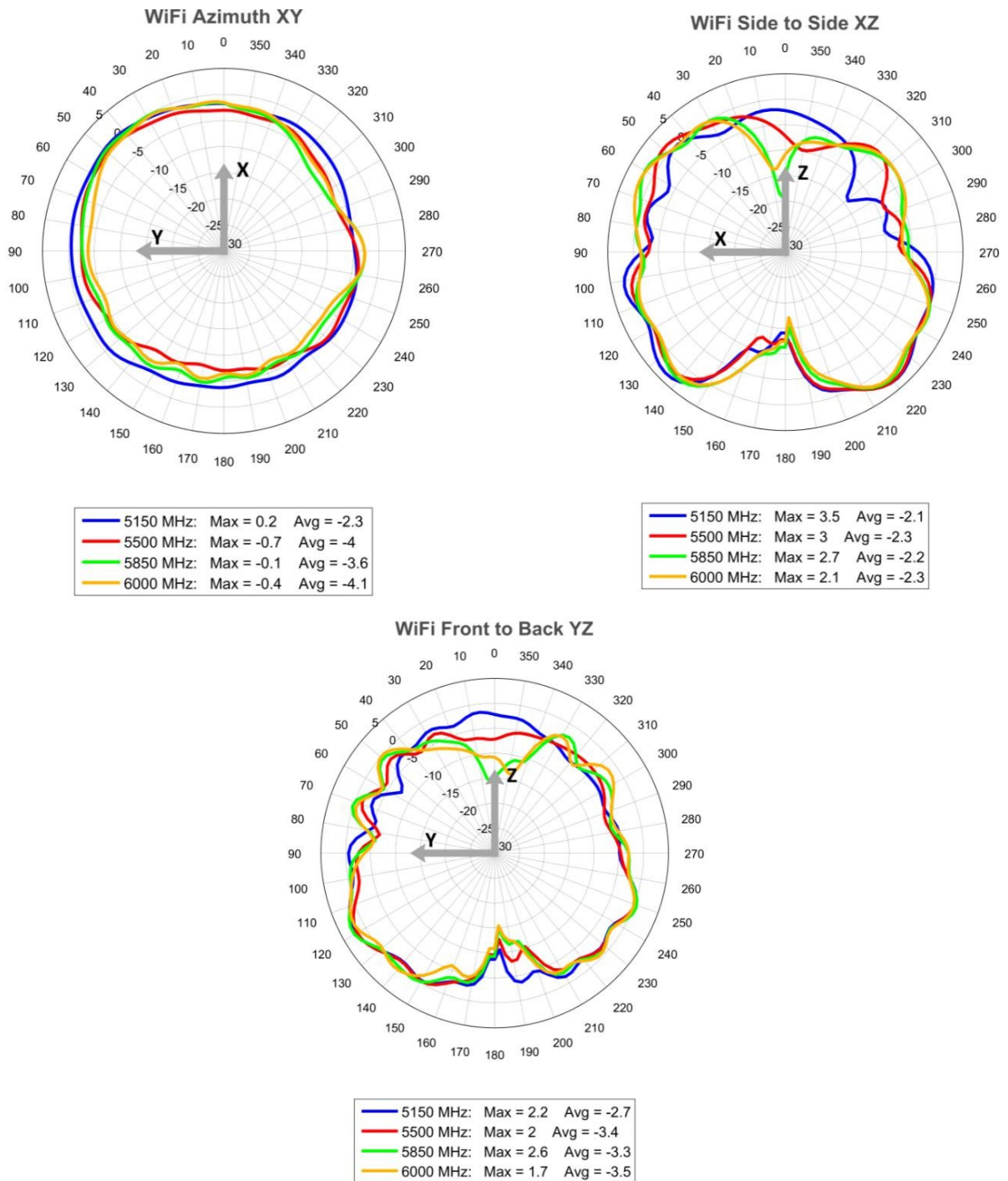


Figure 4: Model N60AGAU Measured Radiation Patterns at 5150MHz & 5500MHz & 5850MHz & 6000MHz

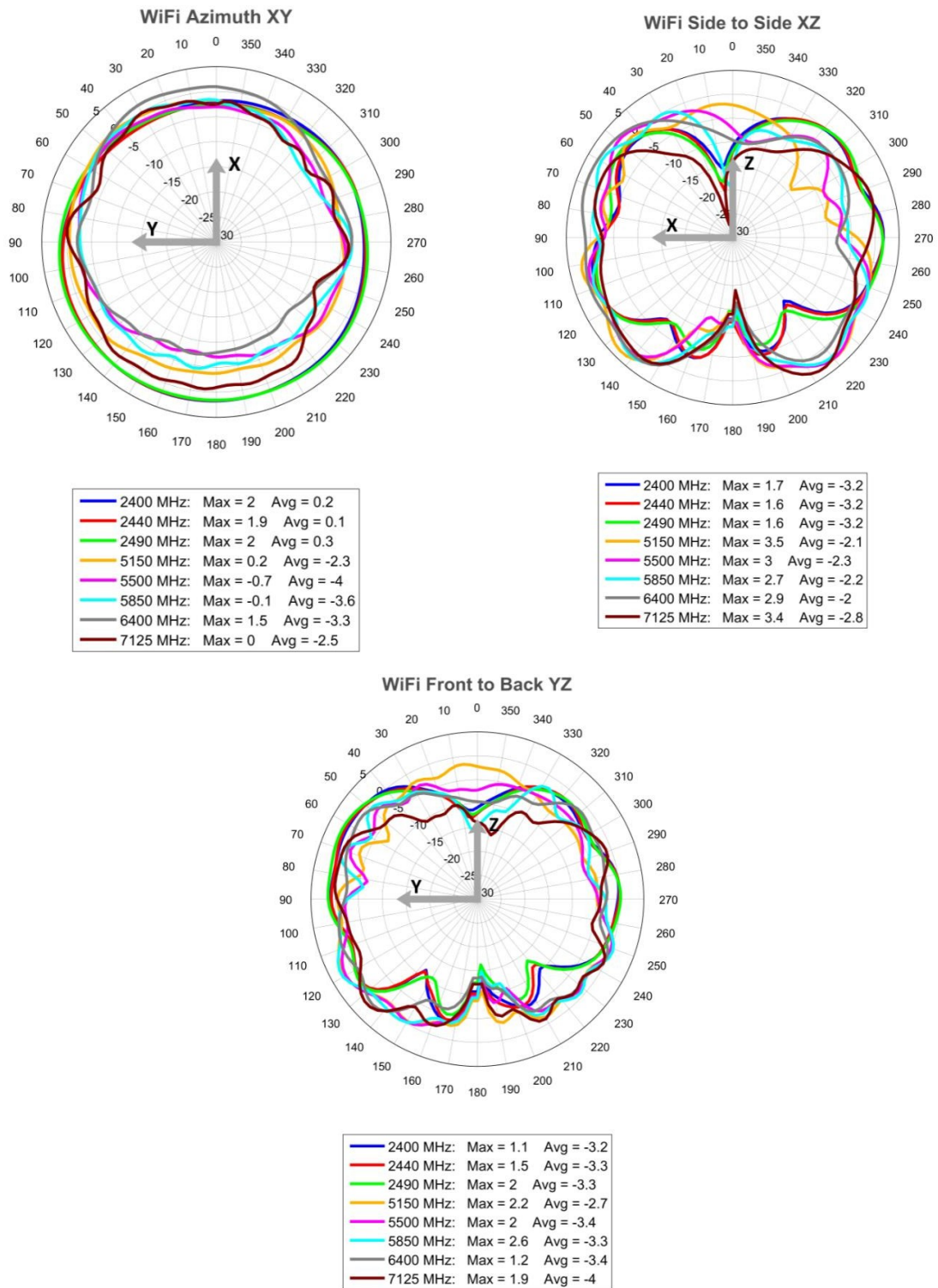


Figure 5: Model N60AGAUJ Measured Radiation Patterns at 2400MHz to 7125MHz

Figure 6: Model N60AGUA Dimensions

4. ROHS

Airgain N60AGUA embedded antennas are RoHS compliant.

5. Feature and Options Information

Airgain N60AGUA antennas are equipped with an RF cable I/O interface. Optional cable termination such as U.FL-compatible micro coax connectors and cable mounted EMI ferrite cores are available.

7.1 Part Number Conventions

Airgain uses a six-staged standard number system for our part numbers, which serially define the antenna type, tape type, cable type/length, and connector type/interface, as described below:

Antenna #	Tape type -XX (if required)	Special type - xx	Cable type -X	Cable length - XXX	Connector type -XX (if required)
N60AGAU	Blank = No Tape T = Tape on bottom element	Blank= No holder PH = Plastic holder insert	G = Grey (Standard) B = Black (Non Standard) W = White (Non Standard) A = Blue(Non Standard) B1X= 1.37 mm OD, Tinned Black RF Cable	Cable length in millimeters (mm) Sample Lengths*: 65, 100, 130, 150, 190, 230, 250, 300,400	Blank = Stripped Cable U = U.FL connector C = U.FL connector plus Ferrite Core, core size: 3.5mm * 9.0mm * 1.5mm CS = stripped cable plus Ferrite Core, core size: 3.5mm * 9.0mm * 1.5mm BU = U.FL compatible connector for 1.37OD cable UR3 = U.FL compatible connector, rotated 270°

* Standard cable lengths listed in RF Cable Datasheet

6. Cable Data Sheet

Item	Specification	
Cable type	OD1.37	
Impedance	50 ± 2 ohms	
Inner conductor	Material	Tinned copper wire
	Conductor numbers	7
	Conductor size	0.102 mm
	Outer diameter	0.306 ± 0.02 mm
Insulation	Material	FEP
	Color	Clarity
	NOM.O.D	0.9 ± 0.03 mm
Outer conductor	Material	Tinned copper wire
	Makeup: total / O.D. of every wire(mm)	5/0.05 mm
	NOM.O.D	1.13± 0.05mm
	Coverage ratio	90%± 5%
Jacket	Material	FEP
	Color	Black/Gray
	NOM.O.D	1.37 ± 0.05 mm
VSWR testing	< 1.3@0~6GHz	
Attenuation (dB/1meter)	1GHz	≤1.82
	2GHz	≤2.67
	3GHz	≤3.21
	4GHz	≤3.74
	5GHz	≤4.27
	6GHz	≤4.8
Operating temperature	-55°C~+150°C	