

BT/WIFI Antenna Module Datasheet

Model Name: BT/WIFI Antenna module (Prototype phase)

Part Number: 5A826B4

Scope

The BT/WIFI Antenna module is used for the following applications:

- WLAN (WIFI)
- Bluetooth
- MIMO WIFI

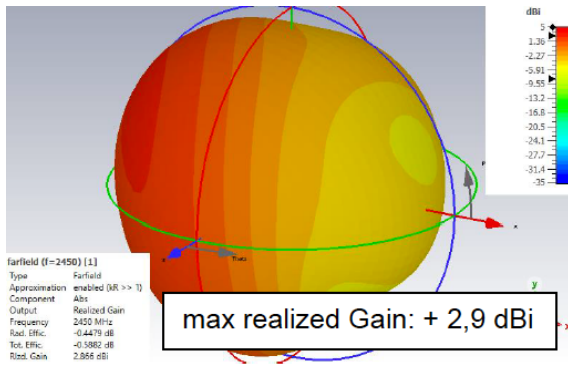
Product Information

Specifications	
Frequency Range (MHz)	2400–2495; 4900–5875; 5900–7125
Antenna Type	Dual Planar Inverted-F Antenna (Both antennas are identical)
Peak Gain 2.4GHz Band	3 dBi
Peak Gain 5GHz Band	5 dBi
Peak Gain 6GHz Band	5 dBi
VSWR	< 2.0:1 (all frequencies of interest)
Polarization	Linear
Power Handling	2 Watt CW
Size	L: 80.0 mm; D: 10mm; W:36.5mm
Weight	25 gr
Mounting	Plastic housing
Cable / Connector	Double mini-FAKRA

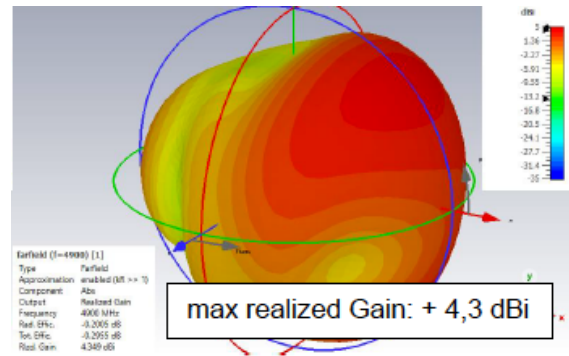
- The dual-antenna module it's a passive device that supports triple-band WiFi and BT.
- The dual-antenna module consists of 2 symmetrical PIFA antennas soldered in PCB covered by a plastic housing in a rectangular shape.
- The design ensures high isolation in-between the two antenna elements of the module.
- Very low Envelope Correlation Coefficient ($ECC < 0.1$) delivers pretty good WiFi MIMO capability.
- High efficiency ($> 60\%$) is achieved in all frequencies of interest.
- Part of the antenna module is the connector, which is a double mini-FAKRA connector.
- A 10 kOhm resistor exists on each antenna feeding transmission line and is measured with a voltage divider for diagnostic purposes.

Radiation Pattern (Free space)

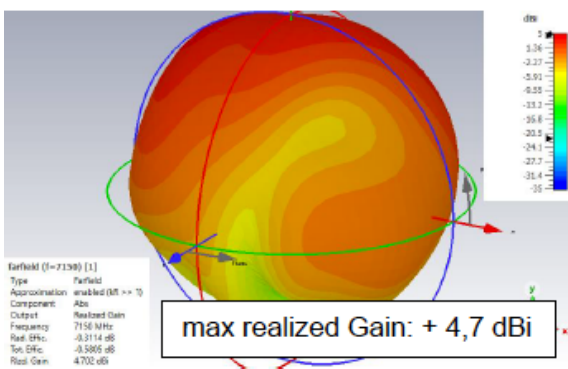
2450 MHz



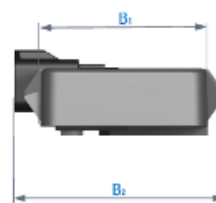
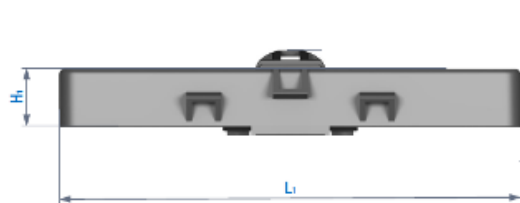
4900 MHz



7150 MHz

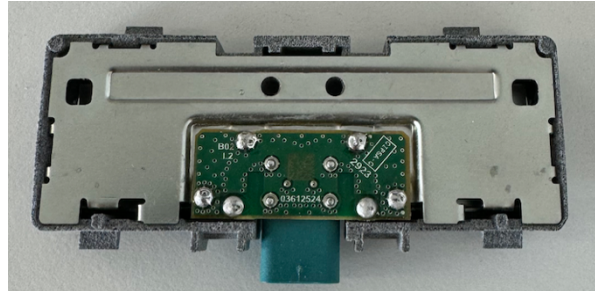
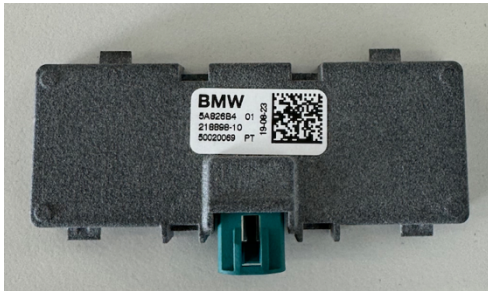


Dimensions



H_1	=	10 mm
L_1	=	80 mm
B_1	=	29 mm
B_2	=	36,5 mm

Picture



Versions

<u>Document</u>	<u>Version</u>	<u>Date</u>	<u>Editors</u>
Antenna Datasheet	0.0	28.11.2023	Athanasios Kavatzikidis (DE-410)
Antenna Datasheet	0.1	18.12.2023	Athanasios Kavatzikidis (DE-410)