

3. Antenna Specifications

HY-MHR202 Antenna specification sheet

Project:	HY-MHR202			Category:	WIFI Antenna
No. :	426-001-OK-A			Version:	R:B
Item code:				Date:	2023-09-04

Blank

(1).Features

1. Compact size
2. Wide Bandwidth
3. Omni-directional in azimuth

(2).Applications

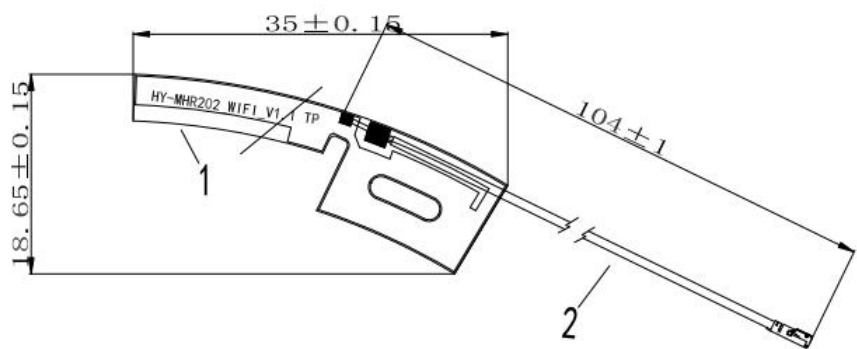
WiFi Equipments

(3).Specifications

Characteristics	Spec.
Centre Frequency	2.4 GHZ
Peak Gain	1.5dBi(Type)
VSWR	1.5 max
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Input Impedance	50Ω
Operating Temperature	-40℃~80℃
Storage Temperature	-40℃~80℃

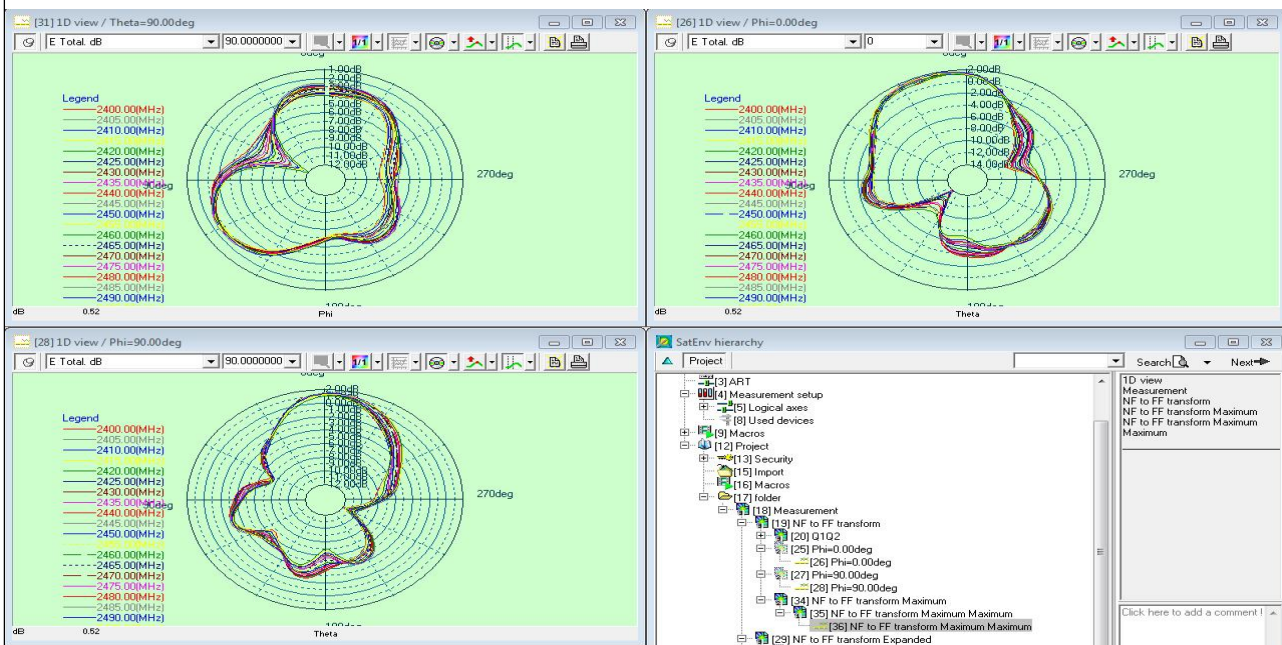
(4). Dimensions

Dimensions (mm)	
CABLE	104±1
L	35±0.15
W	18.65±0.15



(5).Typical Electrical Characteristics

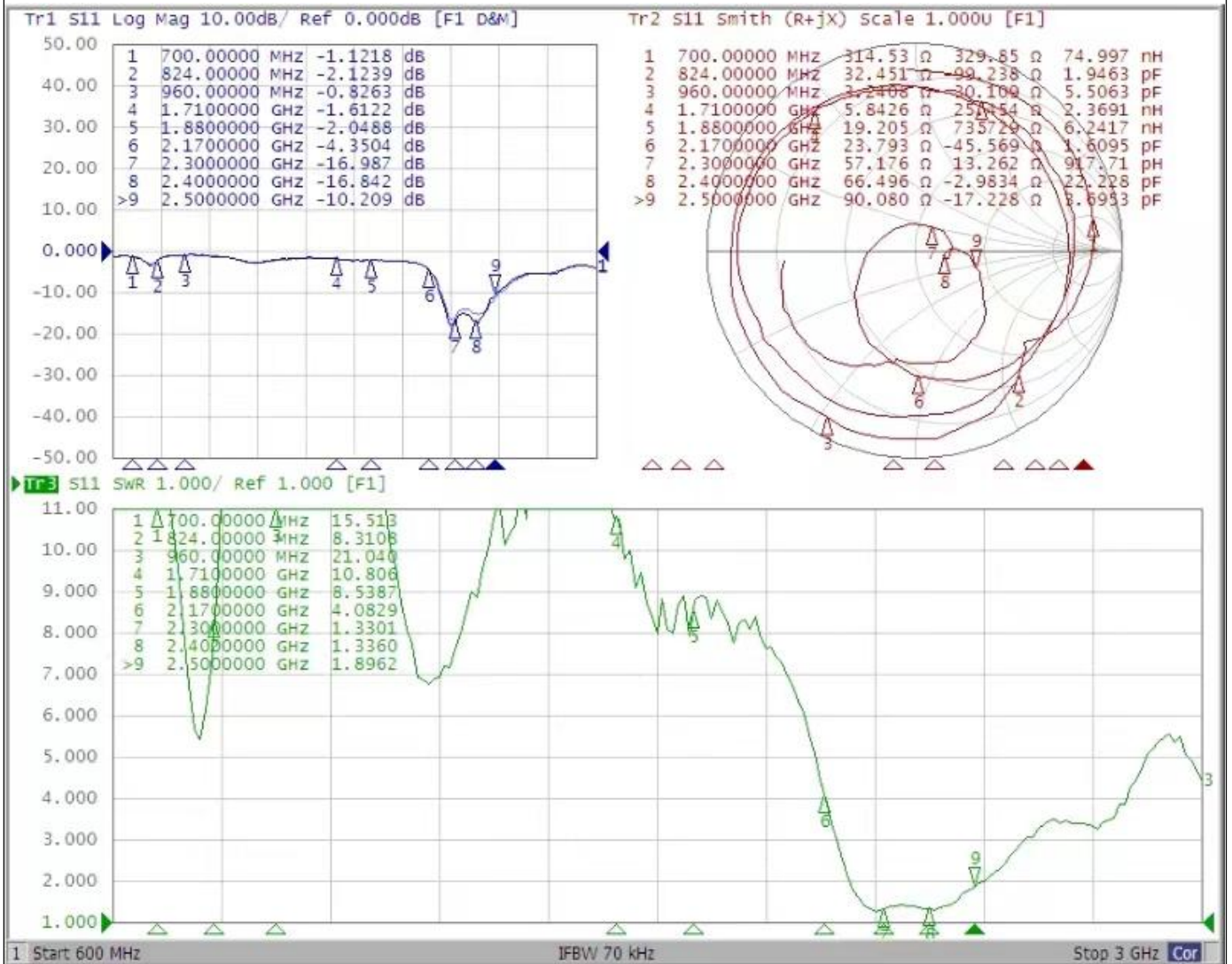
Directions



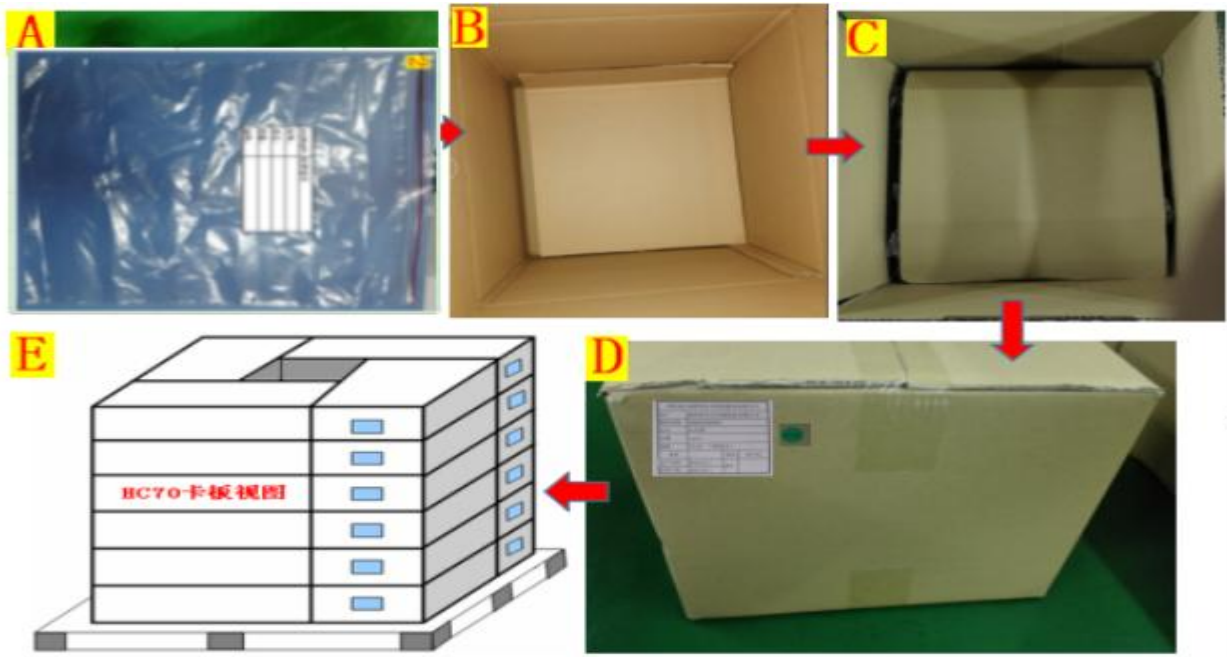
Active data

Frequency	Efficiency()	Frequency	Gain . dB()
2400MHz	35%	2400MHz	1. 25
2405MHz	35%	2405MHz	1. 23
2410MHz	35%	2410MHz	1. 23
2415MHz	35%	2415MHz	1. 20
2420MHz	36%	2420MHz	1. 25
2425MHz	37%	2425MHz	1. 38
2430MHz	38%	2430MHz	1. 44
2435MHz	37%	2435MHz	1. 37
2440MHz	37%	2440MHz	1. 38
2445MHz	37%	2445MHz	1. 34
2450MHz	38%	2450MHz	1. 42
2455MHz	39%	2455MHz	1. 56
2460MHz	40%	2460MHz	1. 58
2465MHz	40%	2465MHz	1. 54
2470MHz	40%	2470MHz	1. 54
2475MHz	41%	2475MHz	1. 56
2480MHz	41%	2480MHz	1. 66
2485MHz	43%	2485MHz	1. 70
2490MHz	42%	2490MHz	1. 64
2495MHz	41%	2495MHz	1. 54
2500MHz	41%	2500MHz	1. 32

Return Loss



(6). manner of packing



Storage environment

The following conditions shall be met when storage:

Temperature: $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$; Humidity: 30% to 70% relative humidity

Do not make contact with corrosive gases, such as sulfur. Chlorine gas or acid may cause product electrode oxidation resulting in poor soldability.

The product shall be placed in the toolbox and avoid moisture and dust.

Products shall be stored in the warehouse and avoid heat, vibration and direct sunlight.

Products shall be stored in closed conditions.

Package

5 Package

The BGT60TR13C chipset is housed in a laminate package with solder balls of 300 µm diameter and a standoff of 240 µm. According to IPC/JEDEC’s J-STD0, the moisture sensitivity level (MSL) is 3. Figure 31 shows the top view of BGT60TR13C package and its physical dimension. The bottom view is presented in Figure 32. The package size is 6.5 x 5 x 0.9 mm³ with ball pitch of 500 µm. Package outline is reported on Figure 33. Package name: PG-VF2BGA40-1.

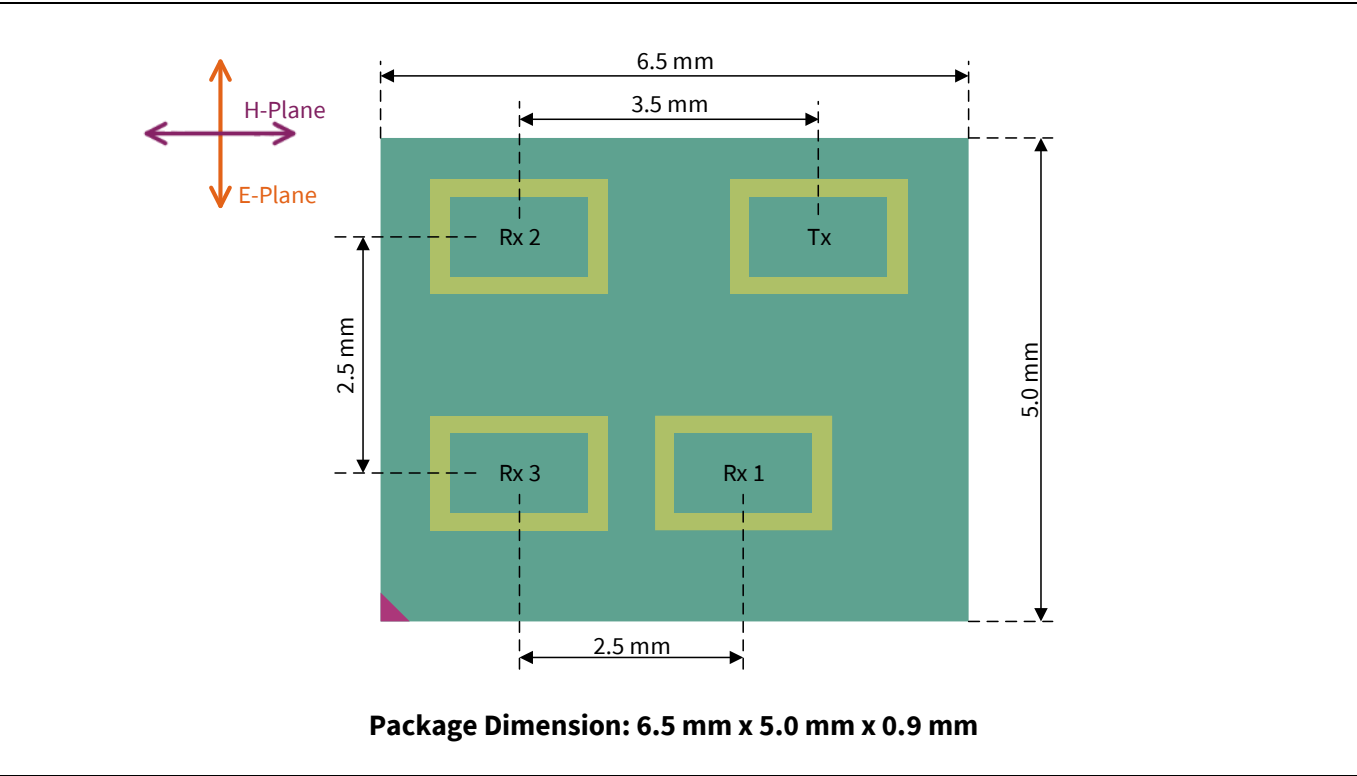


Figure 31 Top view of BGT60TR13C

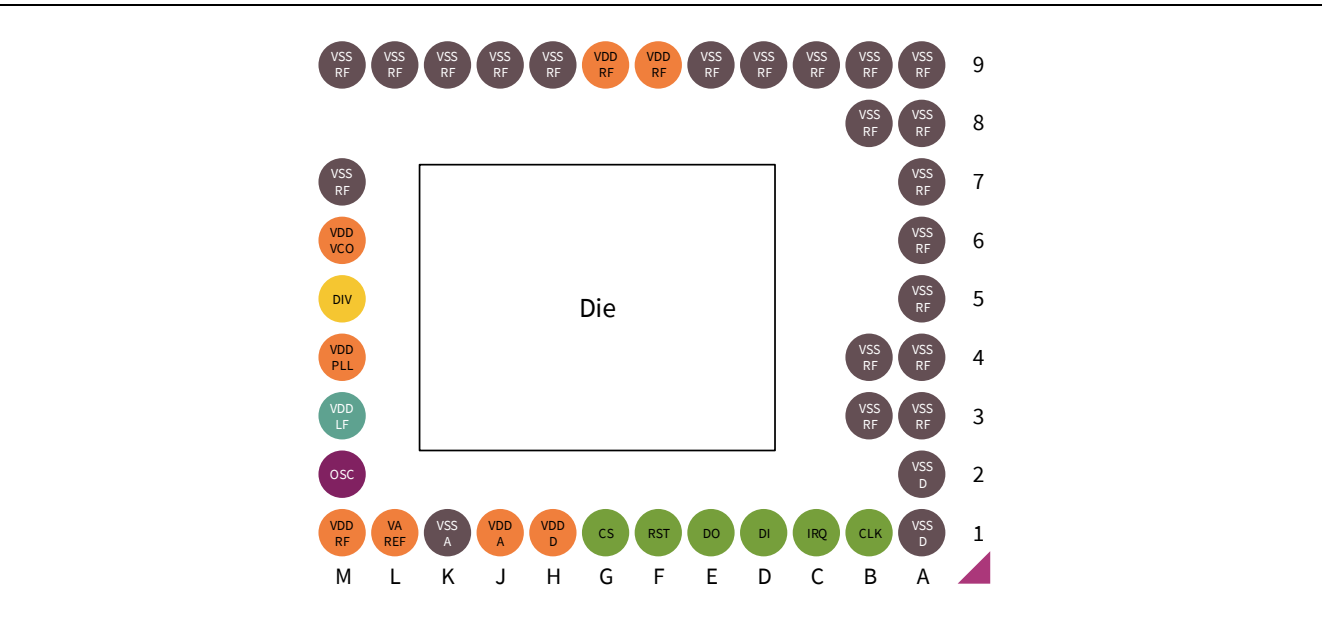


Figure 32 Bottom view of BGT60TR13C

Package

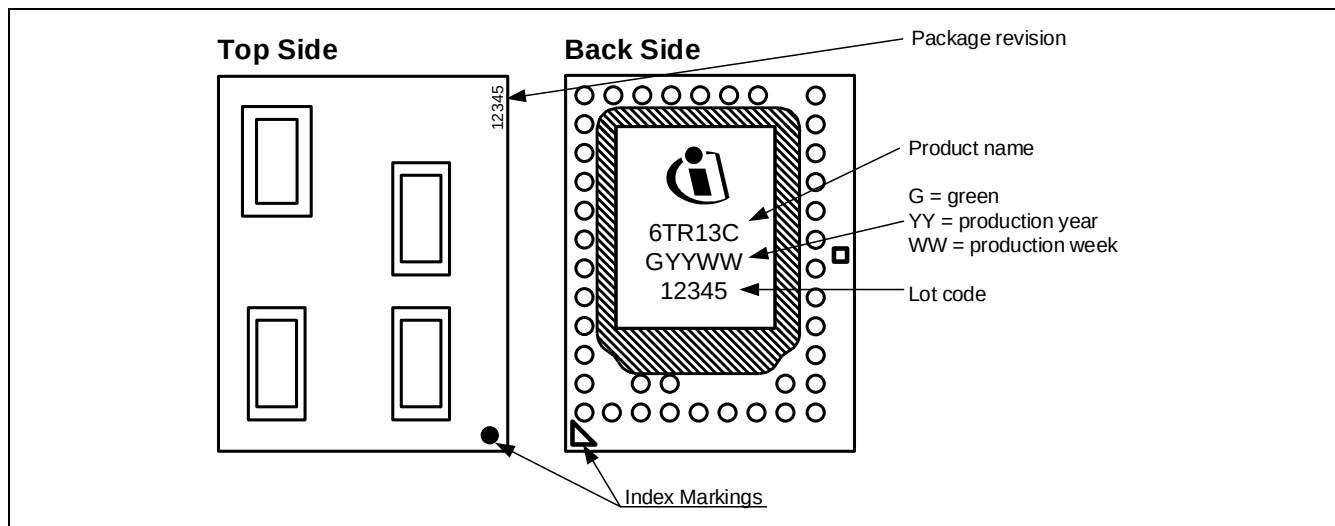


Figure 35 Marking layout of PG-VF2BGA-40-1 (example)

5.1 Built-in Antenna Specifications

Antenna performance reported in Table 30 are guaranteed by design. Typical antenna behavior is measured on Infineon reference board. Typical antenna beam plots are available in a specific application note and upon specific request.

Table 30 Antennas In Package Specifications

Spec	Unit	Value			Condition
		Min	Typ	Max	
Parameter					
RX_BW, TX_BW	GHz	58.0		63.5	Antenna bandwidth
GTX	dBi	2.0	3.5	5.0	Antenna gain of a single TX antenna
GRX	dBi	2.0	3.5	5.0	Antenna gain of a single RX antenna
HPBW_RX_E	Deg	50	65	80	Half-power beam width of a single RX antenna in the E-plane direction
HPBW_RX_H	Deg	20	35	50	Half-power beam width of a single RX antenna in the H-plane direction.
HPBW_TX_E	Deg	50	65	80	Half-power beam width of a single TX antenna in the E-plane direction
HPBW_TX_H	Deg	25	40	55	Half-power beam width of a single TX antenna in the H-plane direction
D_RX_RX	mm		2.5		Center-to-center distance between RX antennas in X and Y direction