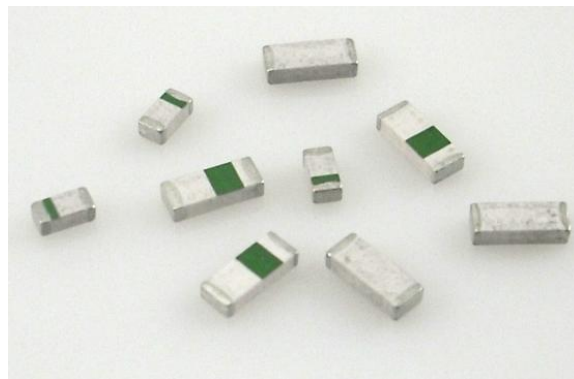


Multilayer Chip Antenna

FEATURES

- Low return loss and material loss.
- High radiation efficiency, high gain in radiation pattern.
- Multilayer monolithic structure yields high reliability.



APPLICATIONS

- Bluetooth; WLAN; 0.8 GHz~6 GHz GSM / DCS / PCS

Bluetooth module, WLAN module. 0.8GHz~6 GHz communication system including GSM / DCS / PCS cellphone etc.

Product Identification

MGMA 5220 H 2450 - A01
① ② ③ ④ ⑤

- ① Series name
- ② Dimension L×W: 【5220: 5.2mm×2.0mm; 3216: 3.2mm×1.6mm】
- ③ Structure series
- ④ center frequency: 2450MHz
- ⑤ Antenna type

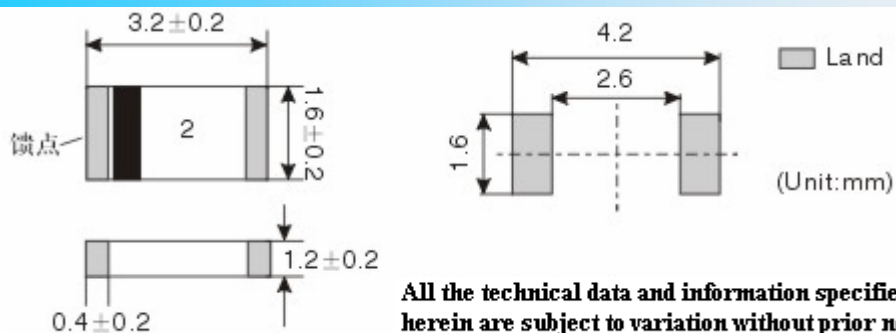
Product Specification Summary

Part No	Dimensions L×W(mm)	Center Frequency fo (MHz)	Bandwidth (MHz)	Gain
MGMA3216H2450-A02	3.2×1.6	2450 MHz	$f_0 \pm 50$	0~2 dBi
MGMA5220H2450-A01	5.2×2.0	2450 MHz	$f_0 \pm 50$	0~2 dBi
MGMA5220H2450-A04	5.2×2.0	2450 MHz	$f_0 \pm 50$	0~2 dBi
MGMA5840H1575-A05	5.8×4.0	1575 MHz	$f_0 \pm 50$	0~2 dBi
MGMA25050H100-A07	25×5.0	98 MHz	$f_0 \pm 10$	-20~-17 dBi
MGMA50040H650-A08	50×4.0	650 MHz	$f_0 \pm 200$	-2 dBi (at 710MHz)
				-6 dBi (at 470MHz)
MGMA4532H1575-A10	4.5×3.2	1575 MHz	$f_0 \pm 4$	0.5dBi typical

Multilayer Chip Antenna

Part No: MGMA3216H2450-A02

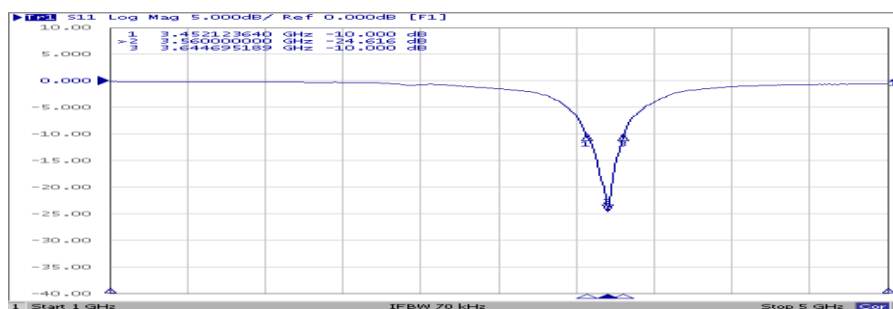
1. Dimensions (Unit: mm)



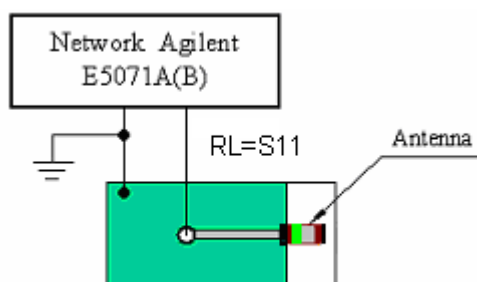
2. Electrical Characteristics

No.	Item	Specifications
1	Central Frequency (No matching)	2450 MHz
2	Band Width (No matching)	100 MHz (2400~2500MHz)
3	Gain	0~2 dBi
4	V.S.W.R (in BW)	≤2.0
5	Polarization	Linear
6	Azimuth Beam width	Omni-directional
7	Impedance	50 Ω

3. Characteristic curve



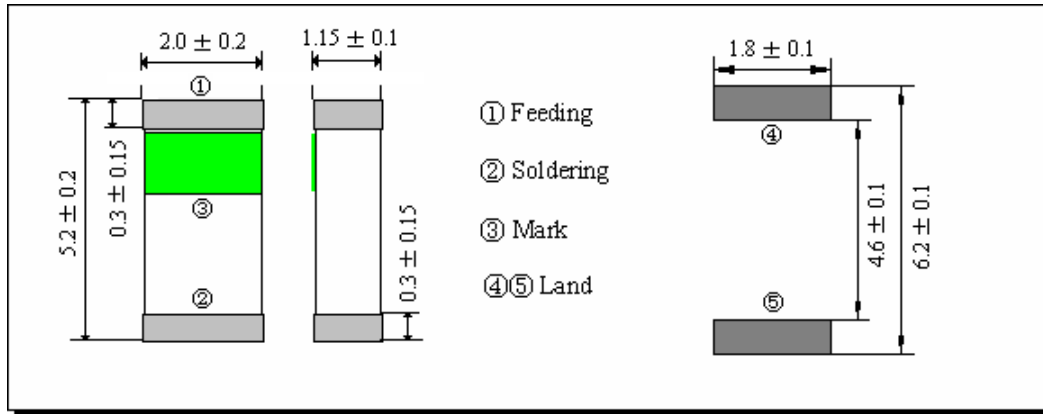
4. Test Circuit



Multilayer Chip Antenna

Part No: MGMA5220H2450-A01

1. Dimensions (Unit: mm)



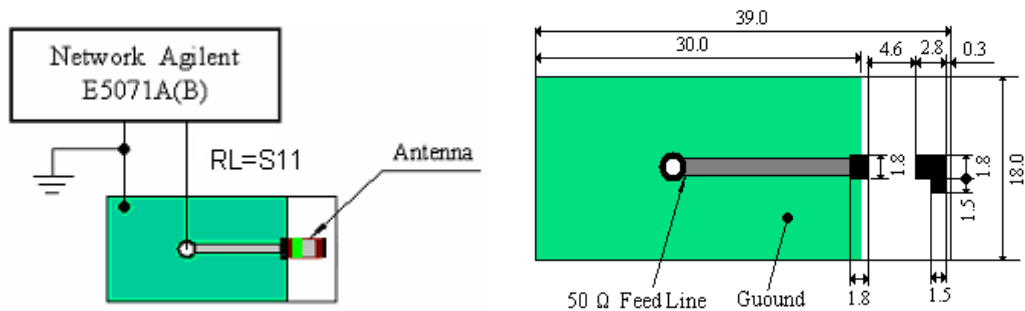
2. Electrical Characteristics

No.	Item	Specifications
1	Central Frequency (No matching)	2450 MHz
2	Band Width (No matching)	± 75 MHz (2375~2525MHz)
3	Gain	0~2 dBi
4	V.S.W.R (in BW)	≤ 2.0
5	Polarization	Linear
6	Azimuth Beam width	Omni-directional
7	Impedance	50 Ω

3. Characteristic curve



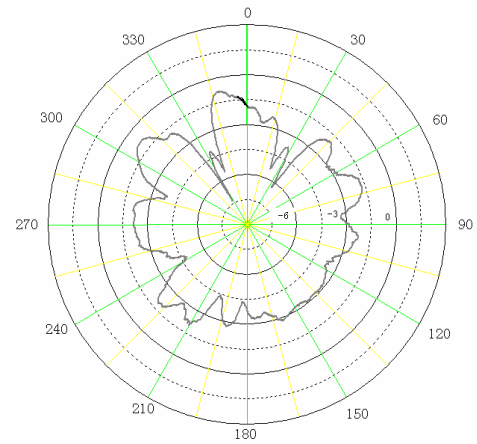
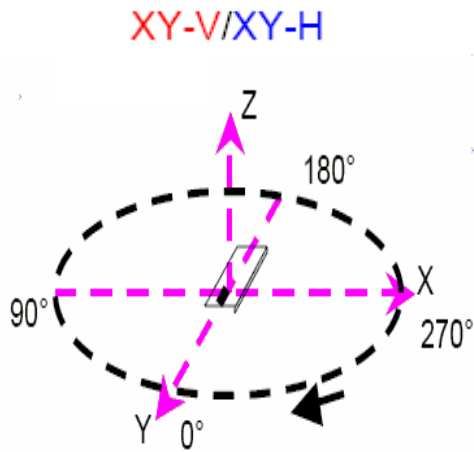
4. Test Circuit



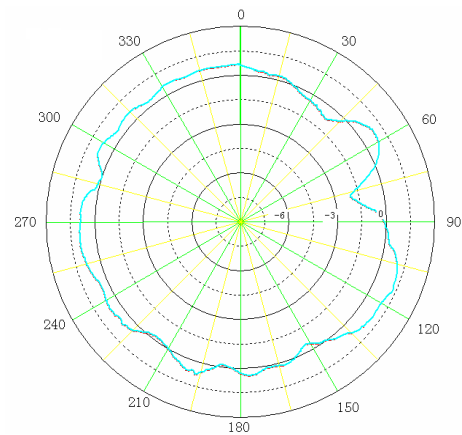
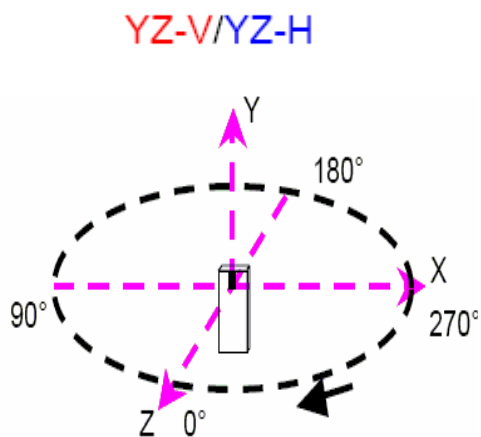
Multilayer Chip Antenna

5. Radlation Tattern

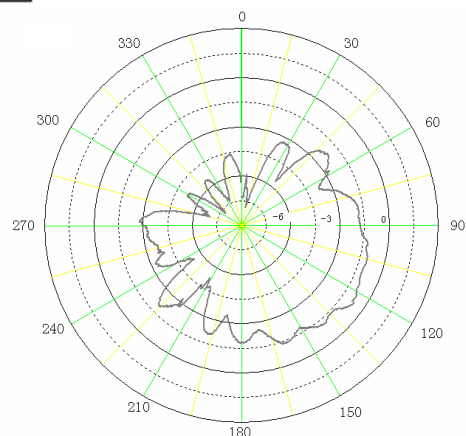
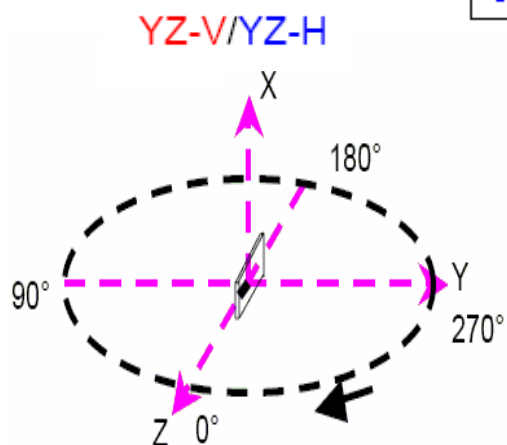
XY cut @2.45GHz
— Vertical
- - - Horizontal



XZ cut @2.45GHz
— Vertical
- - - Horizontal



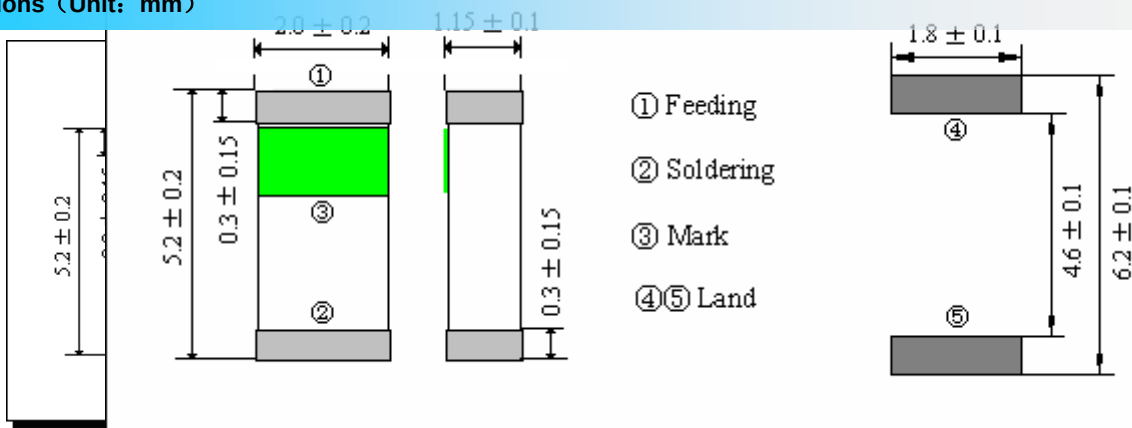
XZ cut @2.45GHz
— Vertical
- - - Horizontal



Multilayer Chip Antenna

Part No: MGMA5220H2450-A04

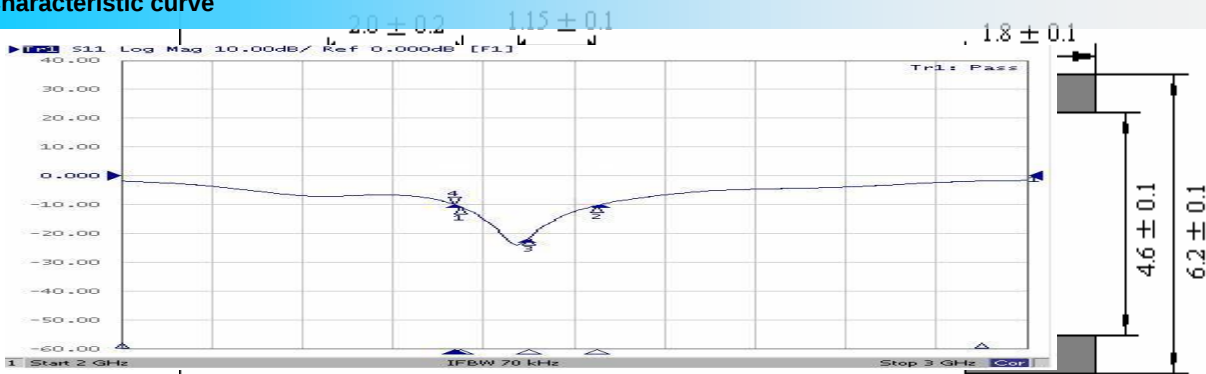
1. Dimensions (Unit: mm)



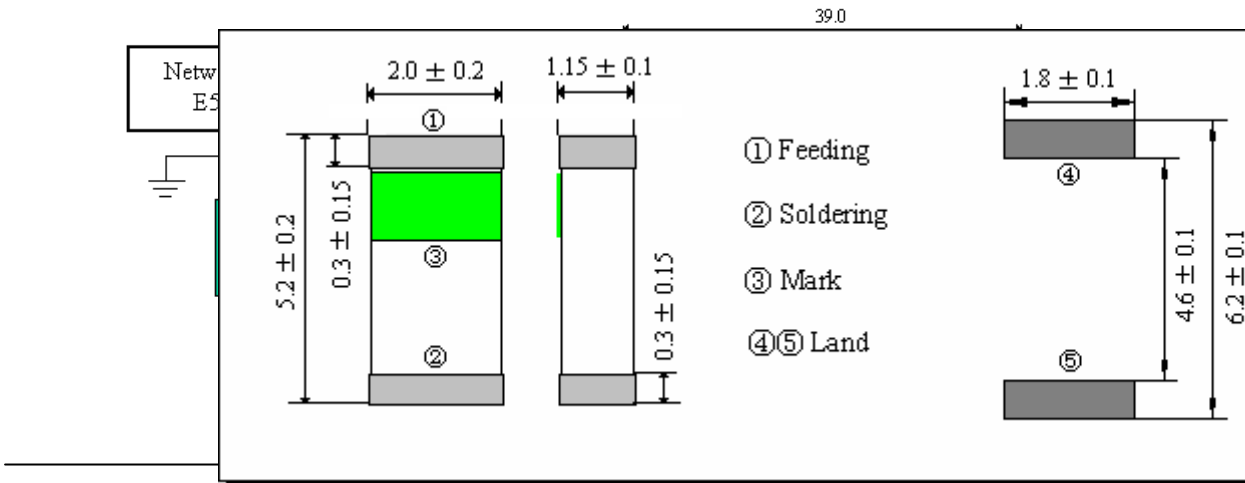
2. Electrical Characteristics

No.	Item	Specifications
1	Central Frequency (No matching)	① Feeding 2450 MHz ④
2	Band Width (No matching)	② Soldering 175 MHz (2375~2525MHz)
3	Gain	③ Mark 0~2 dBi
4	V.S.W.R (in BW)	④⑤ Land ≤ 2.0
5	Polarization	Linear ⑤
6	Azimuth Beam width	Omni-directional
7	Impedance	50 Ω

3. Characteristic curve



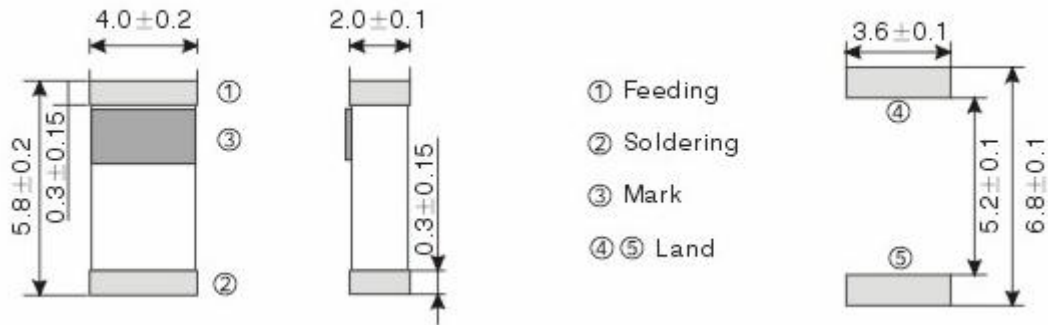
4. Test Circuit



Multilayer Chip Antenna

Part No.: MGMA5840H1575-A05

1. Dimensions (Unit: mm)



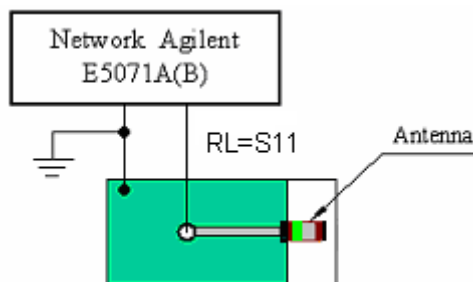
2. Electrical Characteristics

No.	Item	Specifications
1	Central Frequency (No matching)	1575 MHz
2	Band Width (No matching)	±20 MHz (1555~1595MHz)
3	Gain	0~2 dBi
4	V.S.W.R (in BW)	≤2.0
5	Polarization	Linear
6	Azimuth Beam width	Omni-directional
7	Impedance	50 Ω

3. Characteristic curve



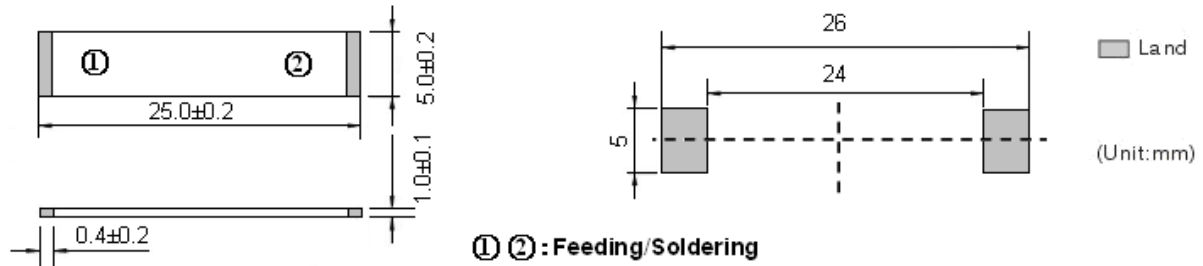
4. Test Circuit



Multilayer Chip Antenna

Part No: MGMA25050H100-A07

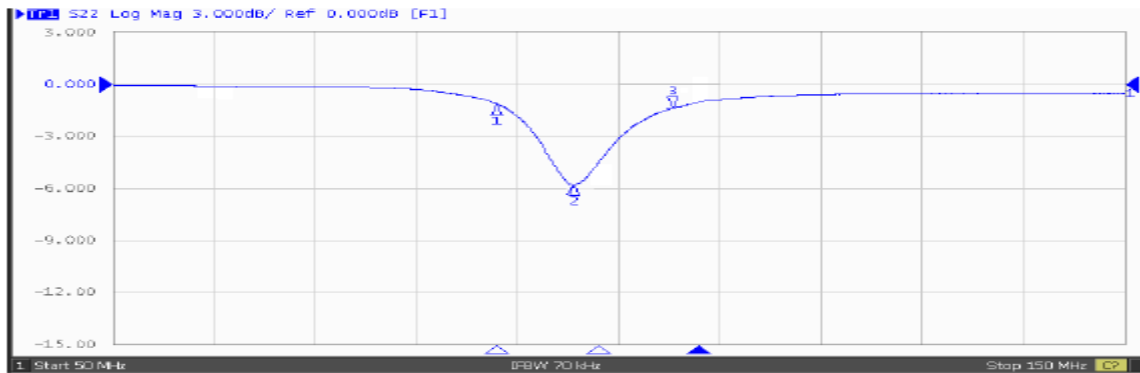
1. Dimension (Unit: mm)



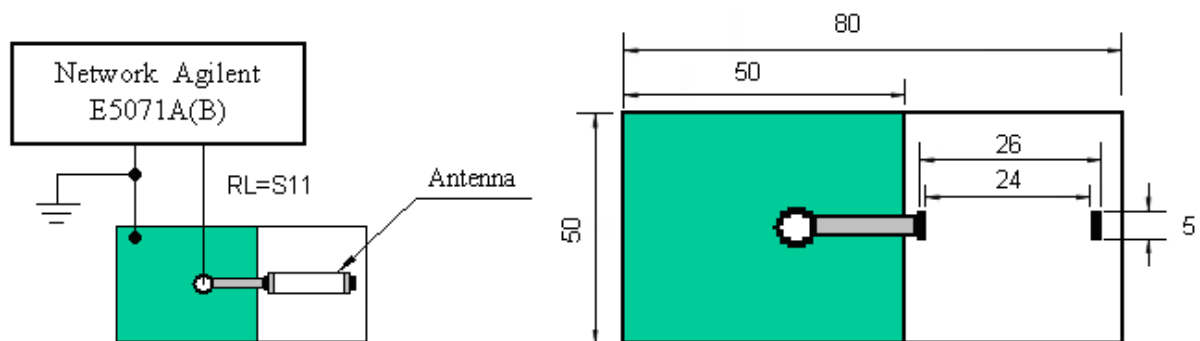
2. Electrical Characteristics

No.	Item	Specifications
1	Central Frequency (No matching)	98 MHz
2	Band Width (No matching)	±10 MHz (88~108MHz)
3	Gain	-20~-17 dBi
4	V.S.W.R (in BW)	≤6.0
5	Polarization	Linear
6	Azimuth Beam width	Omni-directional
7	Impedance	50 Ω

3. Characteristic curve



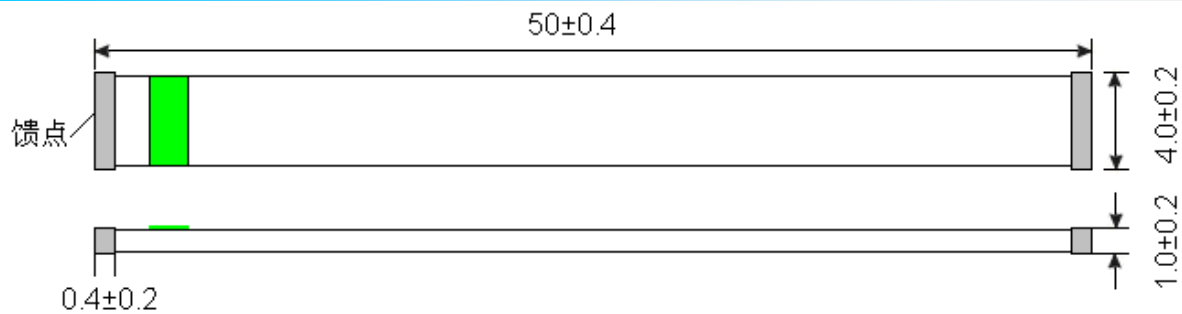
4. Test Circuit



Multilayer Chip Antenna

Part No: MGMA50040H650-A08

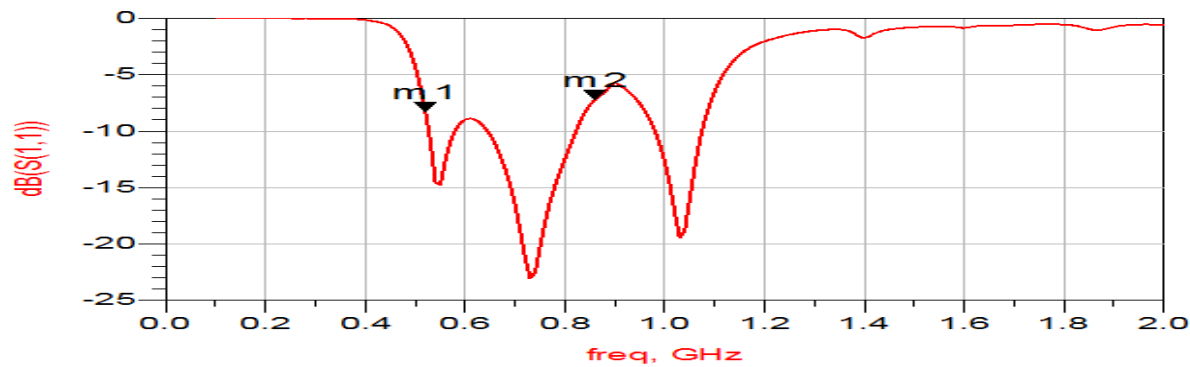
1. Dimensions (Unit: mm)



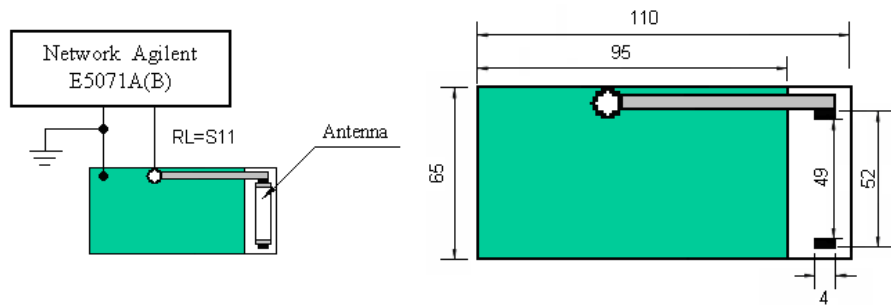
2. Electrical Characteristics

No.	Item	Specifications
1	Central Frequency (No matching)	650 MHz
2	Band Width (No matching)	470~860MHz
3	Gain	-2 dBi (at 710MHz) -6 dBi (at 470MHz)
4	V.S.W.R (in BW)	≤ 3.5
5	Polarization	Linear
6	Azimuth Beam width	Omni-directional
7	Impedance	50 Ω

3. Characteristic curve



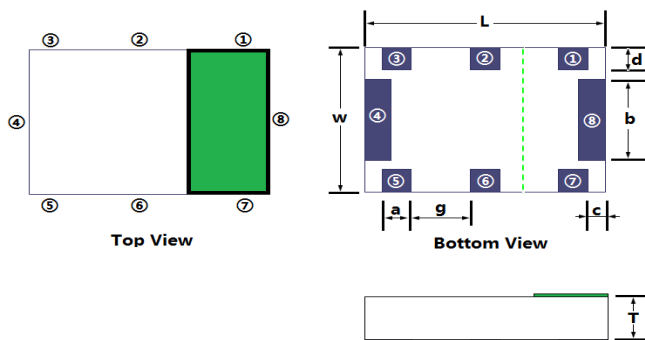
4. Test Circuit



Multilayer Chip Antenna

Part No: MGMA8020H915-A10

1. Dimensions (Unit: mm)



Termination			
①	GND	⑤	NC
②	NC	⑥	NC
③	NC	⑦	Feed
④	NC	⑧	GND

2. Electrical Characteristics

No.	Item	Specifications
6.1	Range of Receiving Frequency (MHz)	1575 ± 4
6.2	Center Frequency (MHz)	1575
6.3	Band With (MHz) (Return loss ≤ -10dB)	≥ 10
6.4	V.S.W.R(in Center Frequency)	≤ 1.5
6.5	Gain(Zenith) (dBi typ)	0.5dBi typical
6.6	Polarization	linear
6.7	Impedance (Ω)	50

3. Characteristic curve and Test circuit

