

## BTCA Series



Chilisin offer multilayer devices of Low-Temperature Cofired Ceramics for applications in wireless communication as WLAN, Bluetooth etc. Our commitment is to meet your goals through extensive technological innovation, excellent quality, short lead time and high volume production capability.

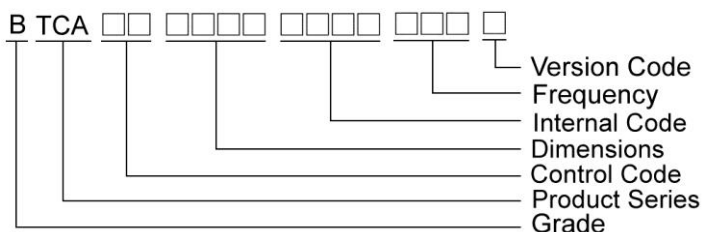
### Features

- Monolithic SMD with small
- Low-profile and light-weight type

### Applications

- Bluetooth
- 2.4GHz Wireless LAN
- Home RF
- Consumer electronic

### Product Identification



### Shape and Dimensions

FIG1

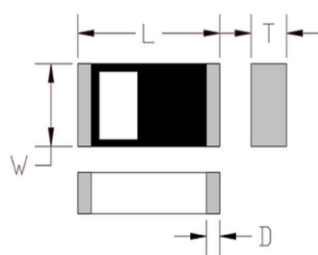


FIG2

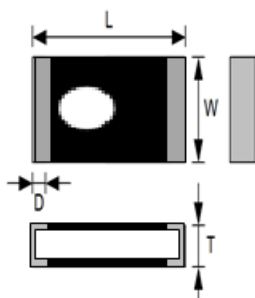


FIG3

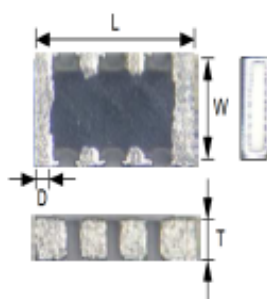
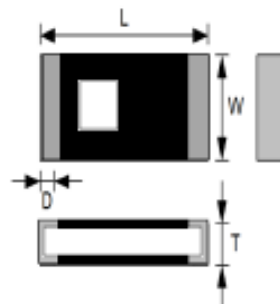


FIG4



Dimensions in mm

TYPE	FIG	L	W	D	T
BTCA00160800002G4C	1	1.6±0.1	0.8±0.1	0.35±0.15	0.45±0.1
BTCA00160800002G4T	2	1.6±0.1	0.8±0.1	0.4±0.1	0.4±0.1
BTCA00201000002G4D	3	2.0±0.2	1.0±0.2	0.5±0.2	0.5±0.2
BTCA00201206002G4C	4	2.0±0.2	1.2±0.2	0.5±0.2	0.6±0.2
BTCA00321608002G4C	4	3.2±0.2	1.6±0.2	0.5±0.2	0.5±0.2

## Shape and Dimensions

FIG5

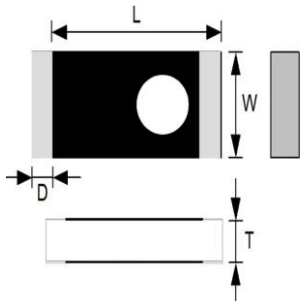


FIG6

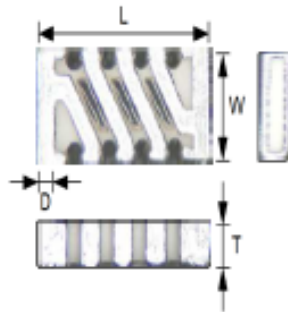


FIG7

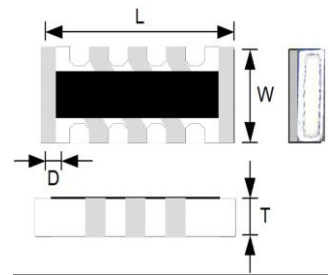


FIG8

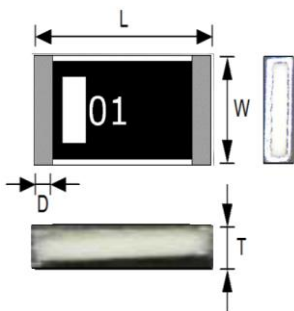


FIG9

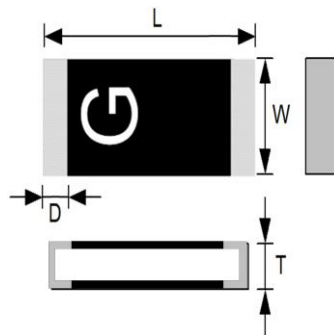


FIG10

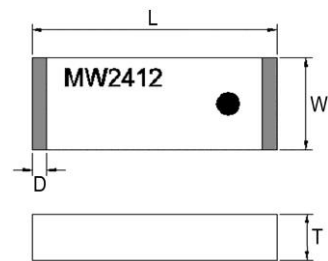
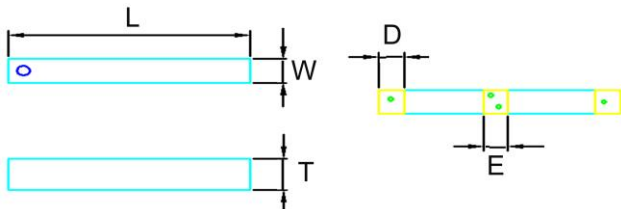


FIG11



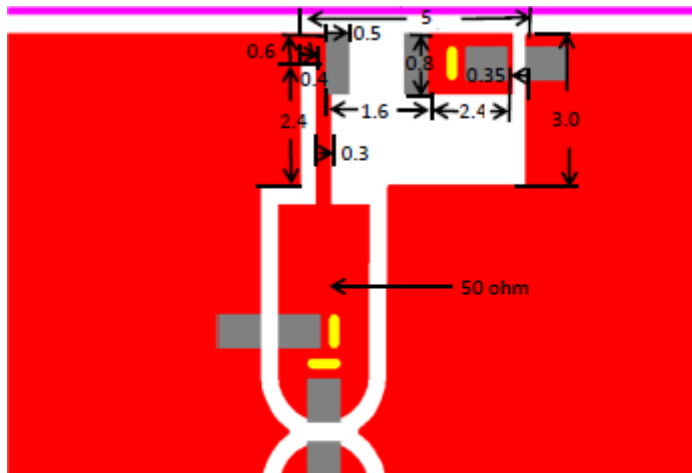
Dimensions in mm

TYPE	FIG	L	W	D	T	E
BTCA00321608002G4E	5	3.2±0.2	1.6±0.2	0.5±0.2	0.5±0.2	-
BTCA00321609002G4D	6	3.2±0.2	1.6±0.2	0.5±0.2	0.5±0.2	-
BTCA00321609002G4F	7	3.2±0.2	1.6±0.2	0.5±0.2	0.5±0.2	-
BTCA00321609002G4W	8	3.0±0.2	1.5±0.2	0.2±0.2	0.5±0.2	-
BTCA00321609005G0W	8	3.2±0.2	1.6±0.2	0.5±0.2	0.5±0.2	-
BTCA0032160000GPSC	9	3.2±0.2	1.6±0.2	0.5±0.2	0.5±0.2	-
BTCA003216080025GE	5	3.2±0.2	1.6±0.2	0.5±0.2	0.5±0.2	-
BTCA00502010002G4M	10	5.0±0.4	2.0±0.4	0.3±0.2	1.0±0.2	-
BTCA005020100025GM	10	5.0±0.4	2.0±0.4	0.3±0.2	1.0±0.2	-
BTCA00801001002G4A	11	8.0±0.3	1.0±0.3	0.85±0.2	1.2±0.3	0.75±0.2
BTCA0080100100GSA	11	8.0±0.3	1.0±0.3	0.85±0.2	1.2±0.3	0.75±0.2

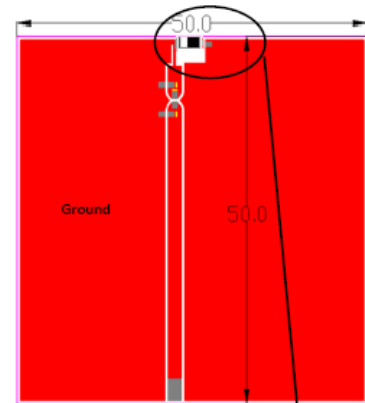
# SMD Chip Series Antenna – BTCA Series

## Recommended Pattern

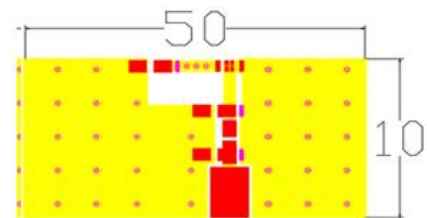
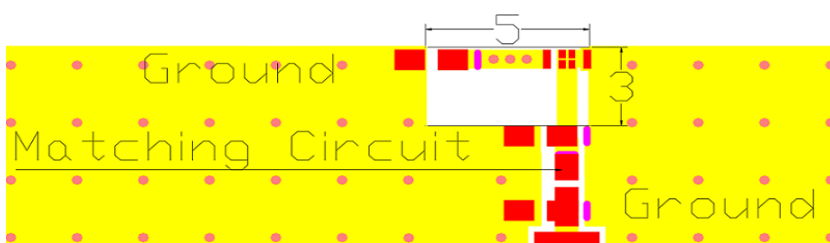
**BTCA00160800002G4C**



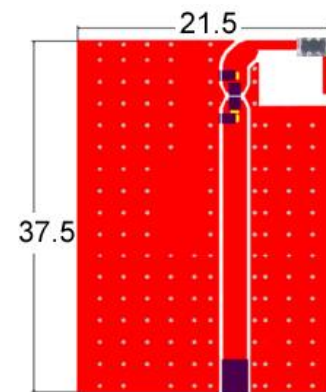
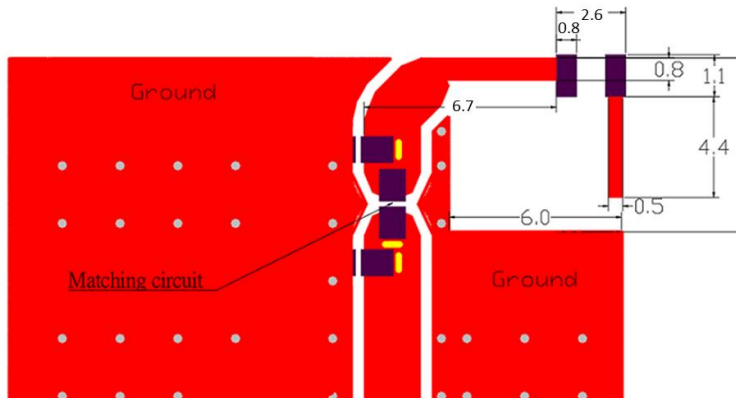
## PC Board Pattern



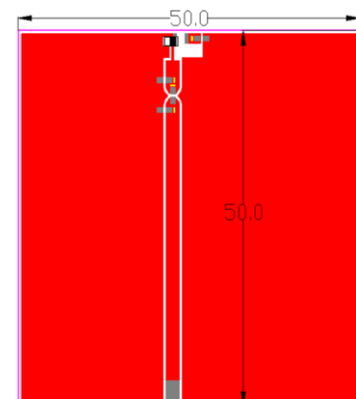
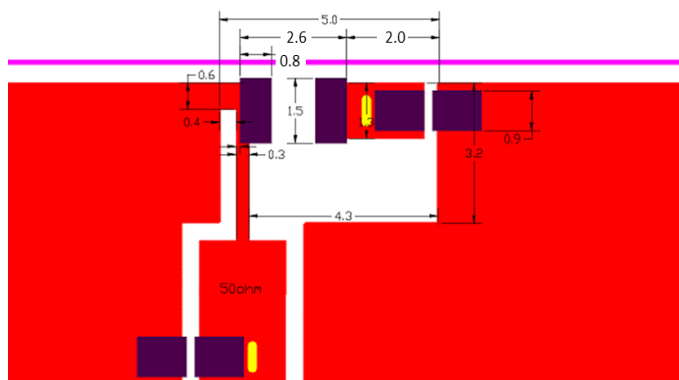
**BTCA00160800002G4T**



**BTCA00201000002G4D**



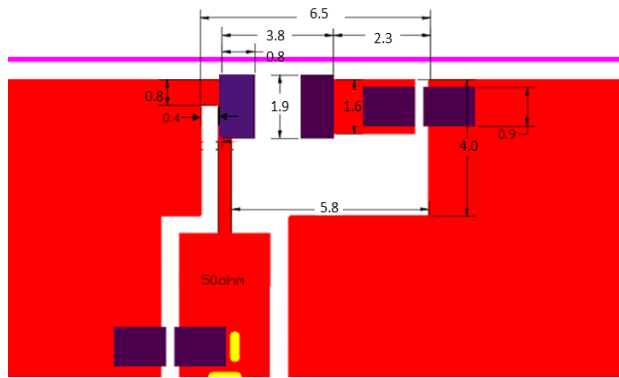
**BTCA00201206002G4C**



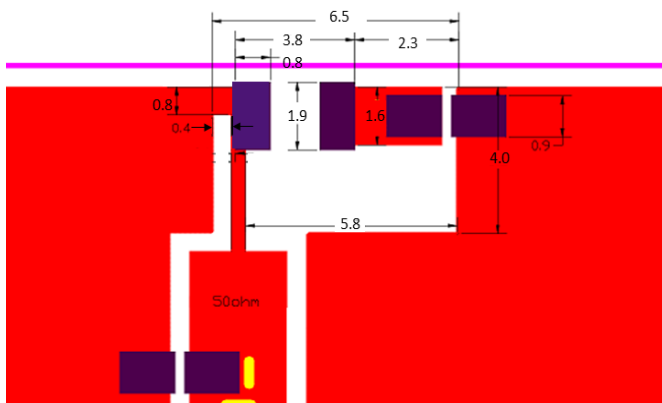
# SMD Chip Series Antenna – BTCA Series

## Recommended Pattern

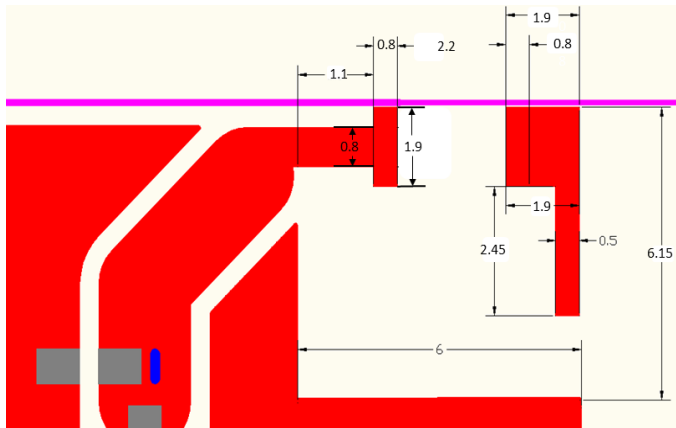
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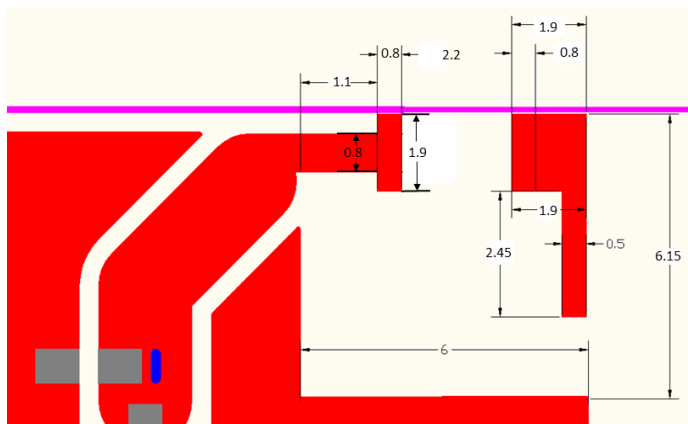
**BTCA00321608002G4E**



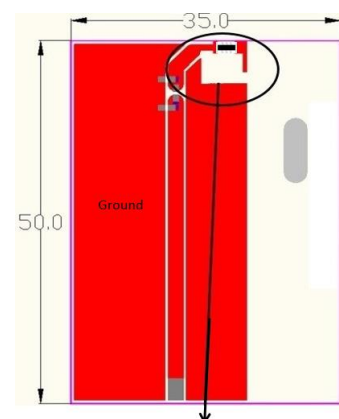
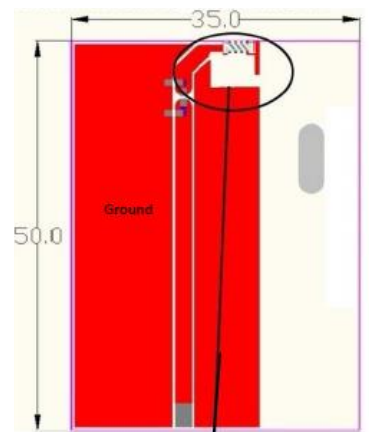
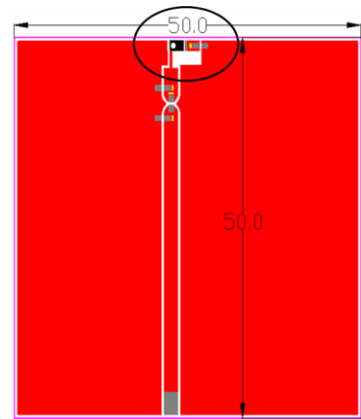
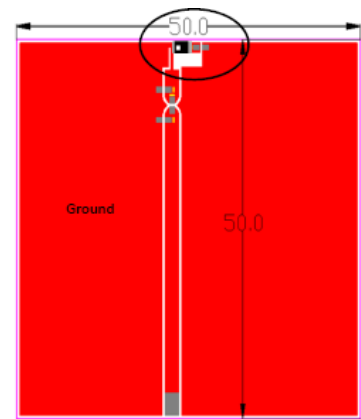
**BTCA00321609002G4D**



**BTCA00321609002G4F**



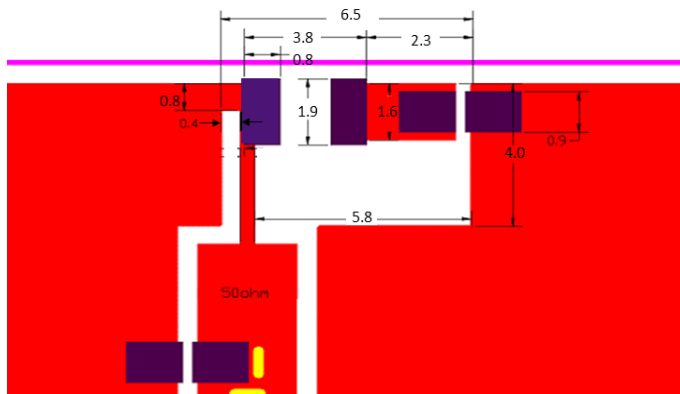
## PC Board Pattern



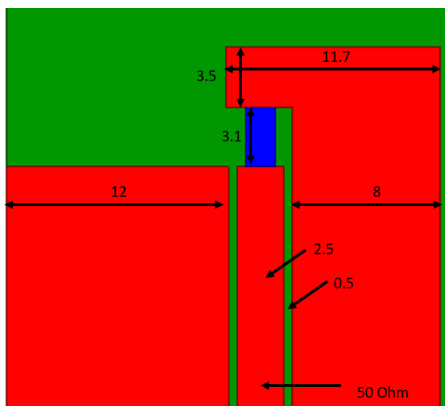
# SMD Chip Series Antenna – BTCA Series

## Recommended Pattern

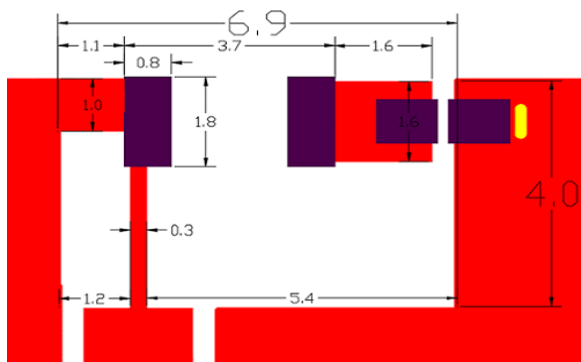
**BTCA00321609002G4W**



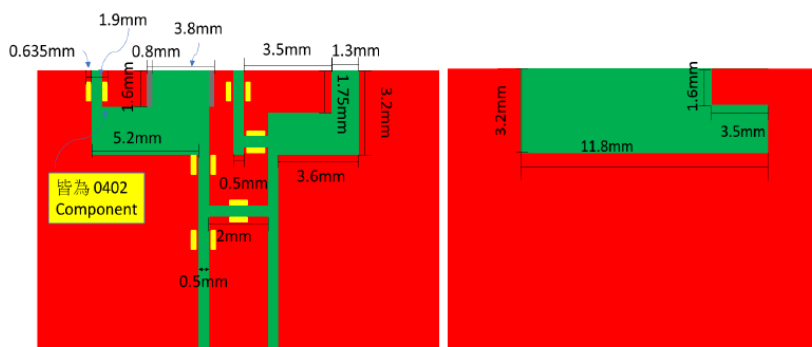
**BTCA00321609005G0W**



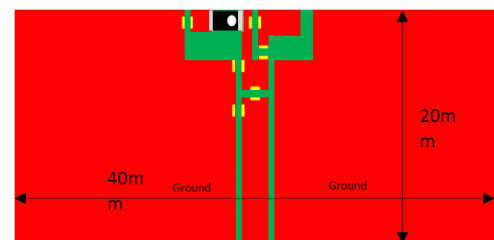
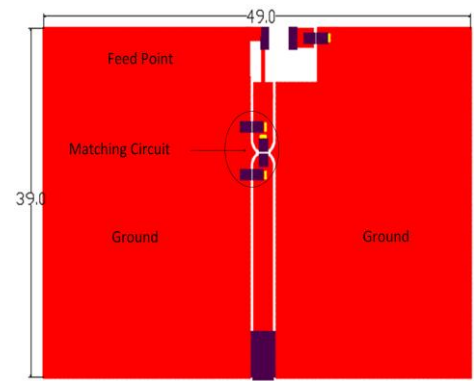
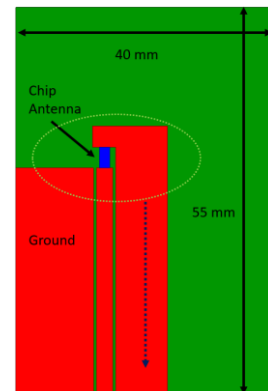
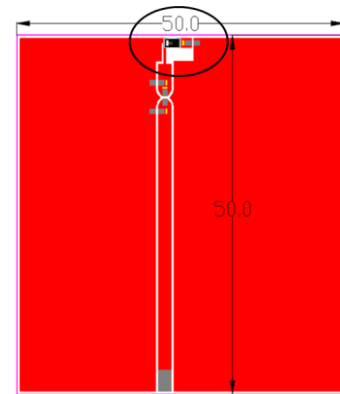
**BTCA0032160000GPSC**



**BTCA003216080025GE**



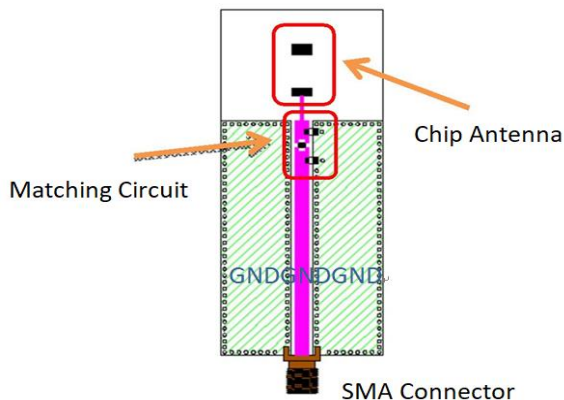
## PC Board Pattern



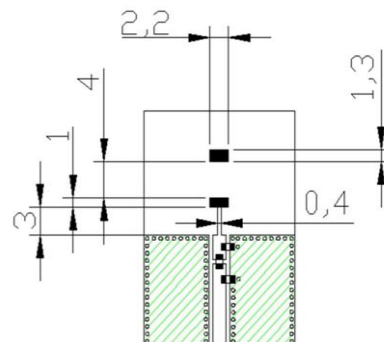
# SMD Chip Series Antenna – BTCA Series

## Recommended Pattern

**BTCA00502010002G4M**

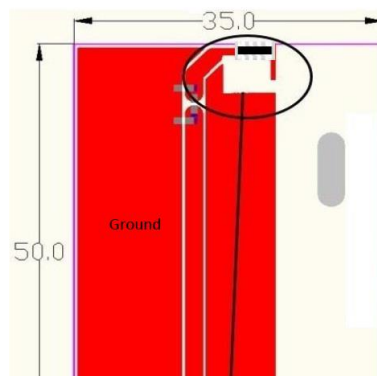
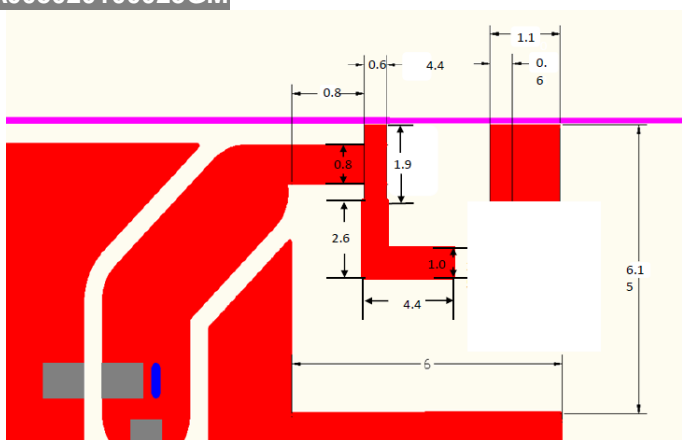


## PC Board Pattern

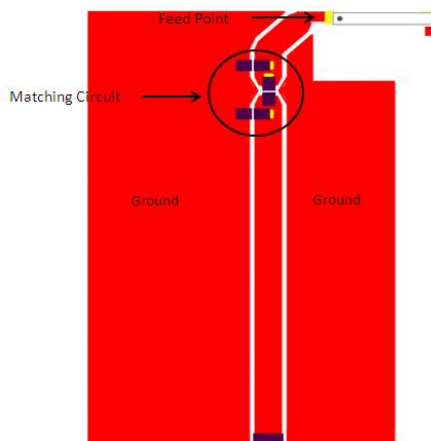
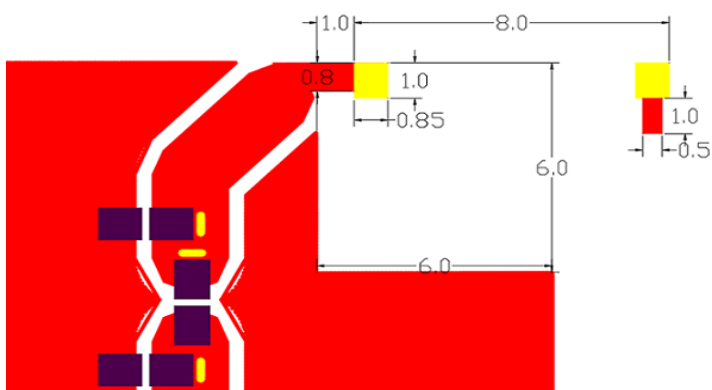


※ Test Board size is 40\*20mm / Ground plane size is 30\*20mm

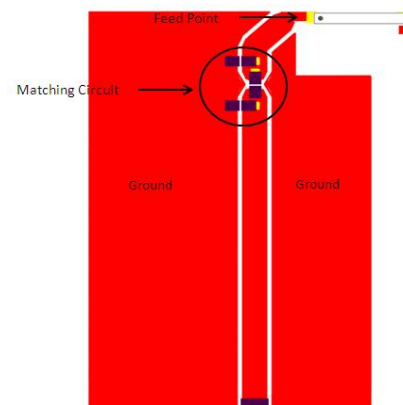
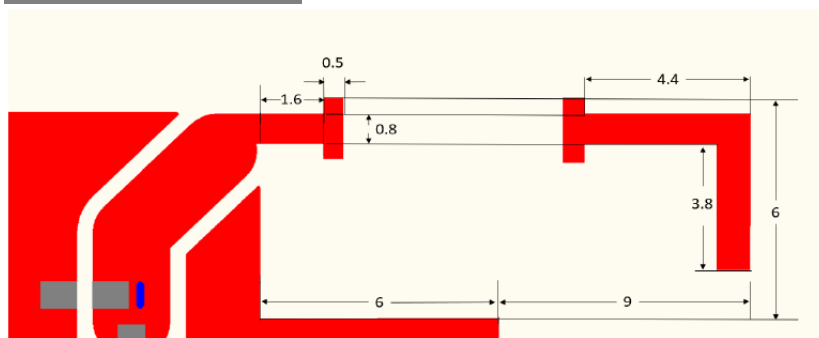
**BTCA005020100025GM**



**BTCA00801001002G4A**



**BTCA00801001000GPSA**



# SMD Chip Series Antenna – BTCA Series

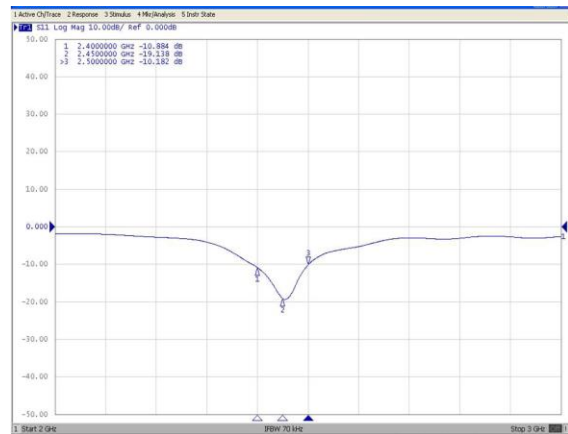
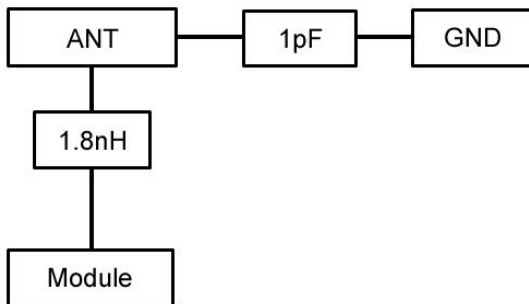
## Electrical Characteristics

Part Number	Impedance (Ω)	Test Frequency (GHz)	Bandwidth* (MHz)	Peak Gain* (dBi)	VSWR (Max)	Polarization
BTCA00160800002G4C	50	2.4	90	1~3	2	Linear
BTCA00160800002G4T	50	2.4	80	1~2	2	Linear
BTCA00201000002G4D	50	2.4	100	0~-3	2	Linear
BTCA00201206002G4C	50	2.4	100	2~3	2	Linear
BTCA00321608002G4C	50	2.4	100	2~3	2	Linear
BTCA00321608002G4E	50	2.4	100	1~2	2	Linear
BTCA00321609002G4D	50	2.4	100	2~3	2	Linear
BTCA00321609002G4F	50	2.4	100	1~2	2	Linear
BTCA00321609002G4W	50	2.4	100	0~1	2	Linear
BTCA00321609005G0W	50	5	100	-0.3~1.3	2	Linear
BTCA0032160000GPSC	50	1.57542	20	0~1	2	Linear
BTCA003216080025GE	50	2.4 5	100	1~2	2	Linear
BTCA00502010002G4M	50	2.4	100	3.2	2	Linear
BTCA005020100025GM	50	2.4 5	100	3.2	2	Linear
BTCA00801001002G4A	50	2.4	100	2~3	2	Linear
BTCA0080100100GPSA	50	1.57542	100	2~3	2	Linear

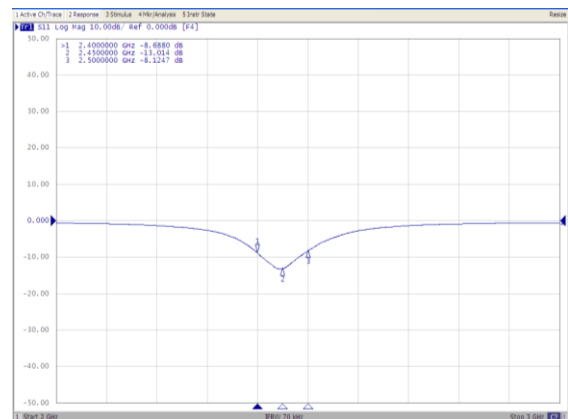
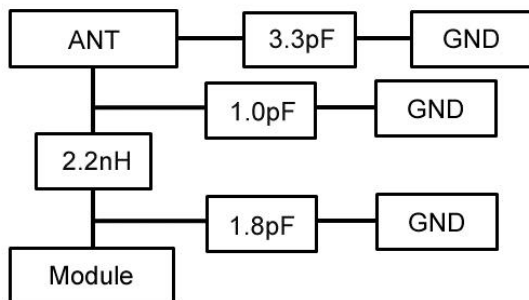
Note: \*Depend on PCB layout.

## Test Instruments : Agilent E4991A Material/Impedance Analyzer

### BTCA00160800002G4C



### BTCA00160800002G4T

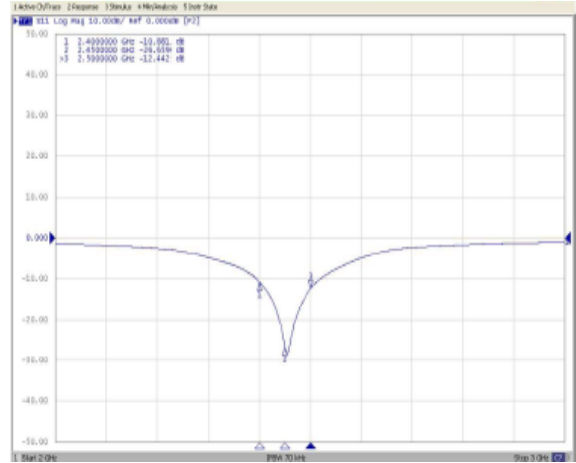
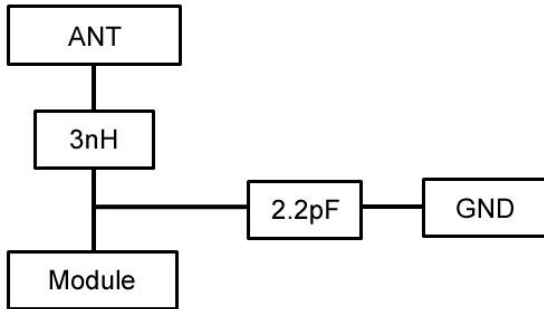


Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

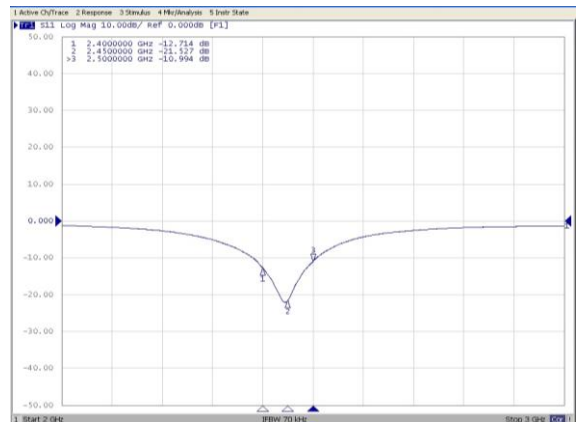
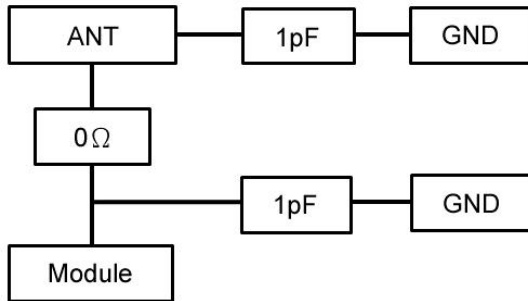
# SMD Chip Series Antenna – BTCA Series

Test Instruments : Agilent E4991A Material/Impedance Analyzer

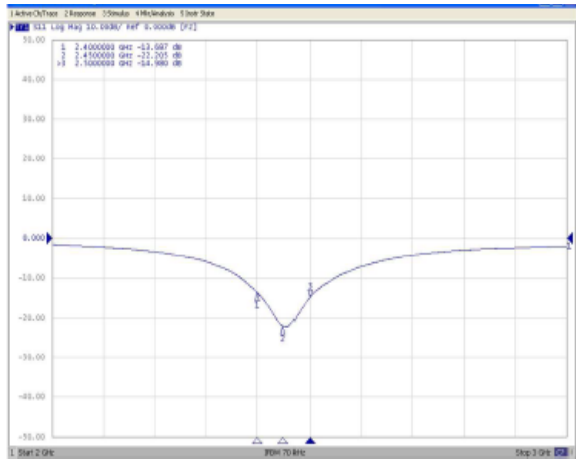
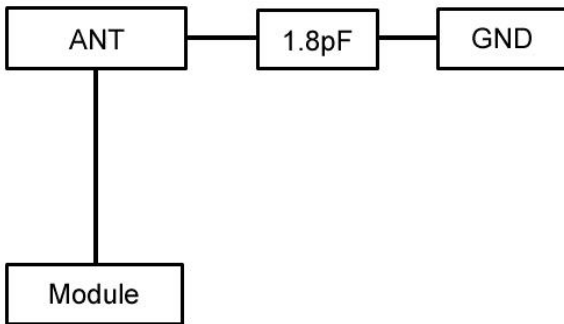
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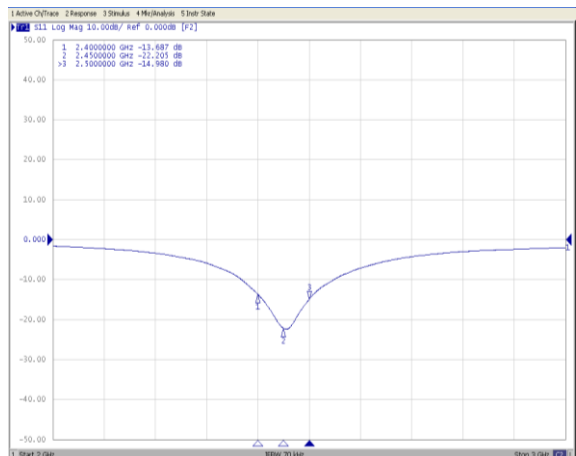
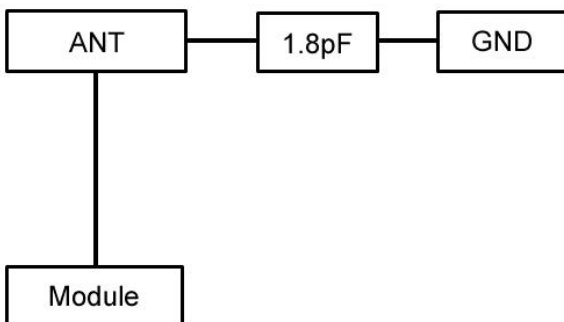
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BTCA00321608002G4C



BTCA00321608002G4E

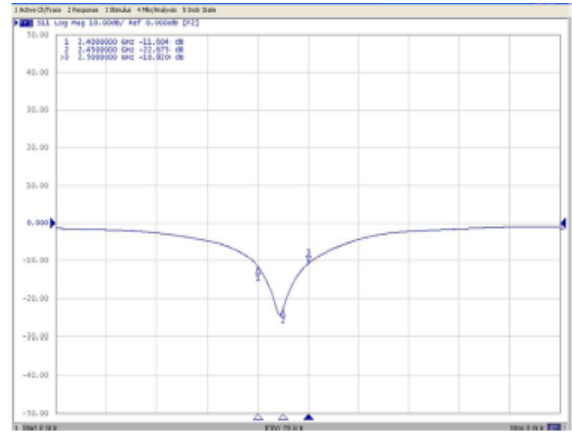
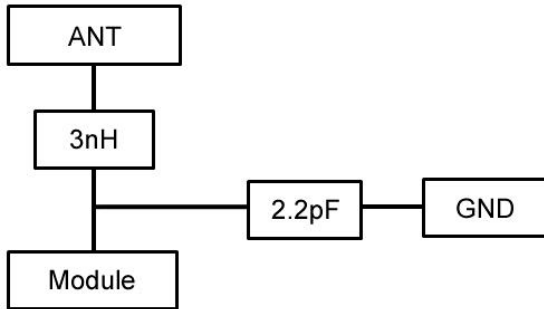


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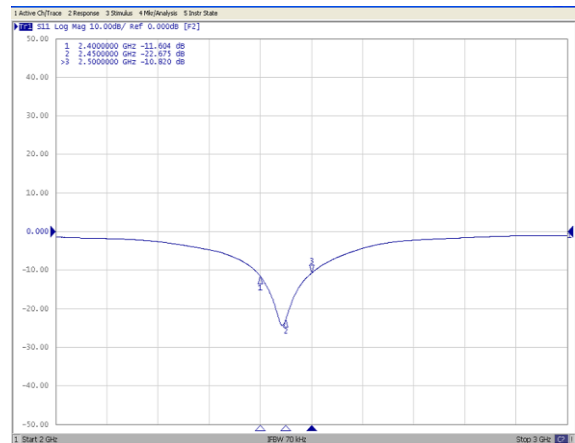
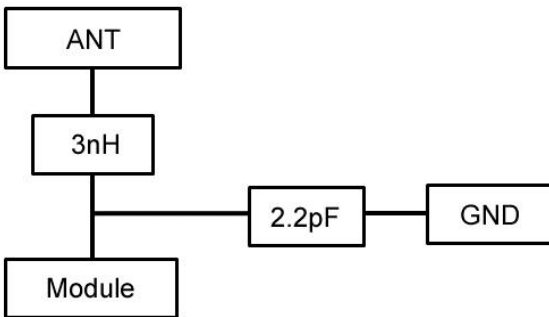
# SMD Chip Series Antenna – BTCA Series

Test Instruments : Agilent E4991A Material/Impedance Analyzer

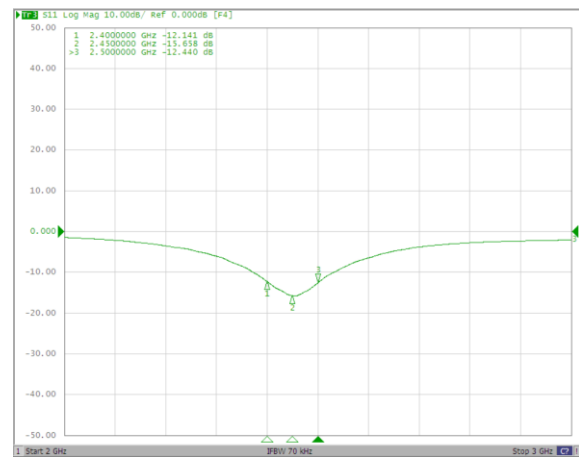
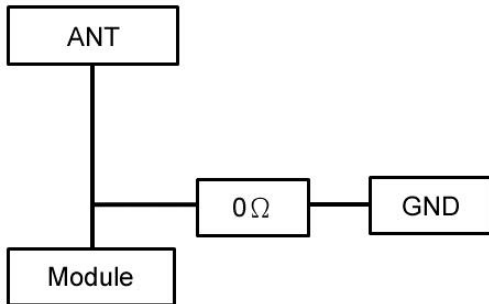
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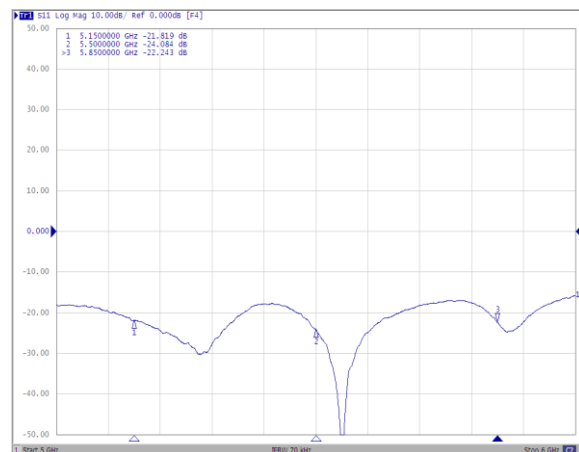
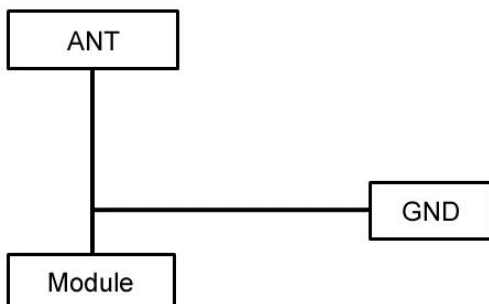
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BTCA00321609002G4W



BTCA00321609005G0W

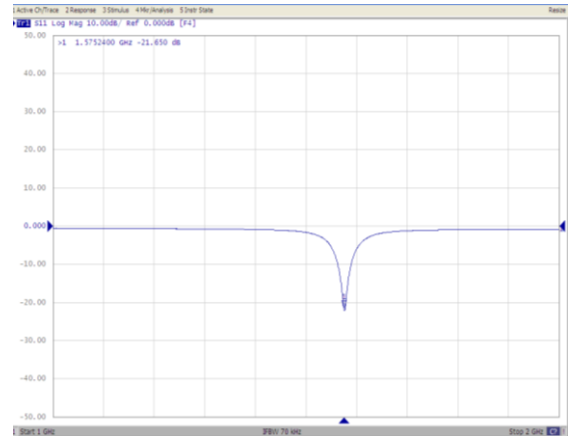
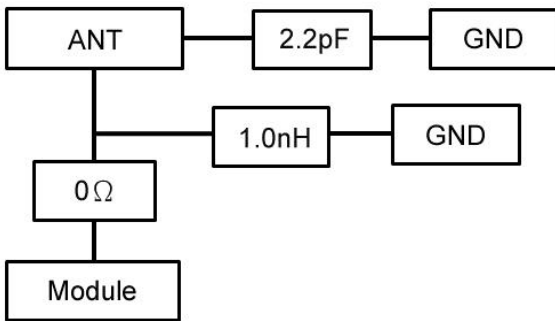


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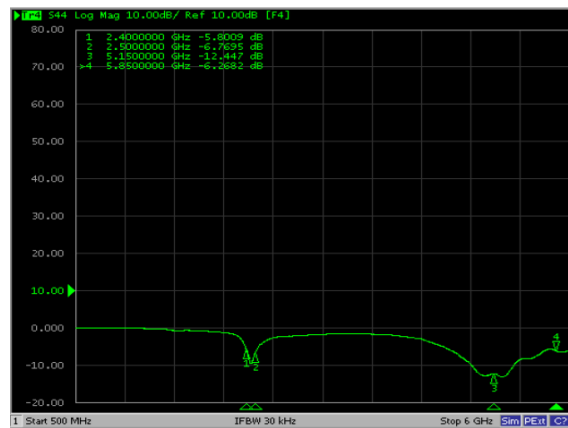
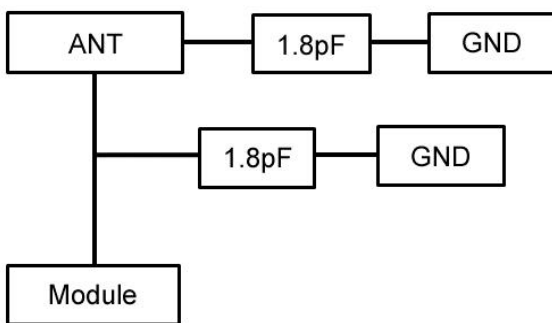
# SMD Chip Series Antenna – BTCA Series

Test Instruments : Agilent E4991A Material/Impedance Analyzer

## BTCA0032160000GPSC

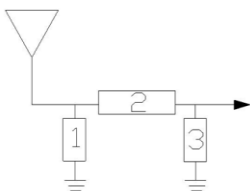


## BTCA003216080025GE

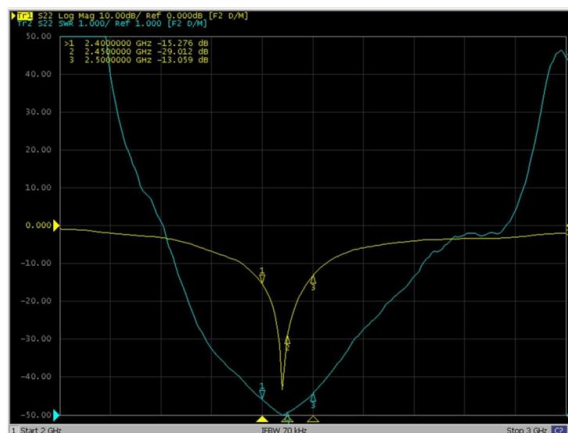


## BTCA00502010002G4M

Antenna

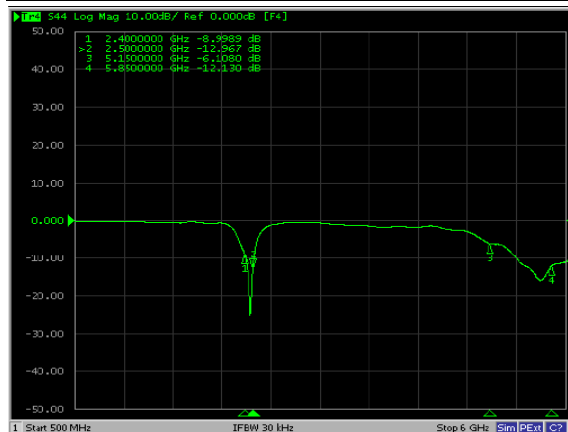
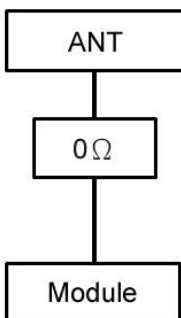


System Matching Circuit Component		
Location	Description	Vendor
Antenna	502010	MW
1	NC	
2	2.7nH	0402 TDK
3	1.2pf	0402TDK



	2.4GHz	2.45GHz	2.5GHz
S11(dB)	-16	-29	-14
VSWR	1.4	1.1	1.5

## BTCA005020100025GM

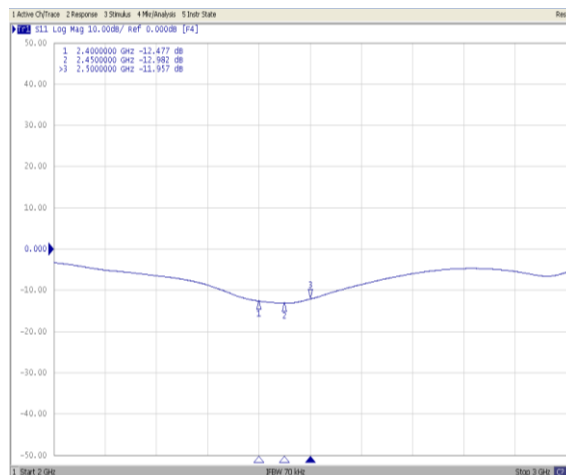
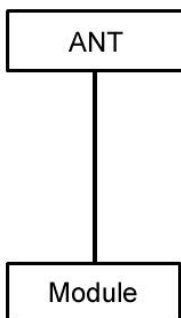


Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

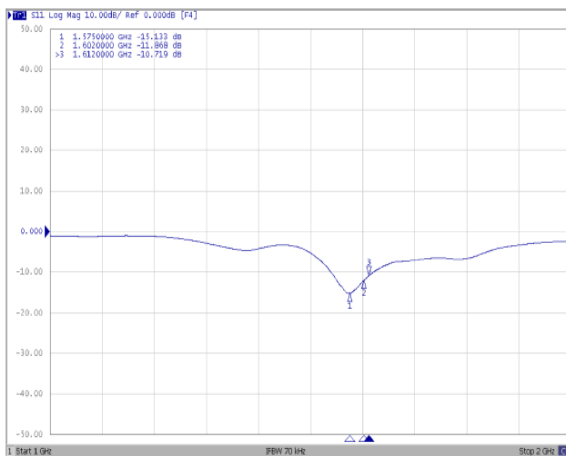
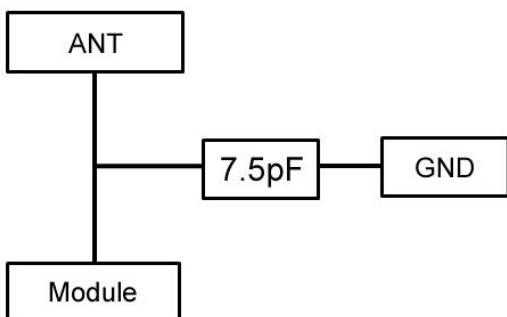
# SMD Chip Series Antenna – BTCA Series

Test Instruments : Agilent E4991A Material/Impedance Analyzer

BTCA00801001002G4A



BTCA0080100100GPSA



Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

# SMD Chip Series Antenna – BTCA Series

## Packaging Specifications

Tape Dimensions

Reel Dimensions

FIG 1

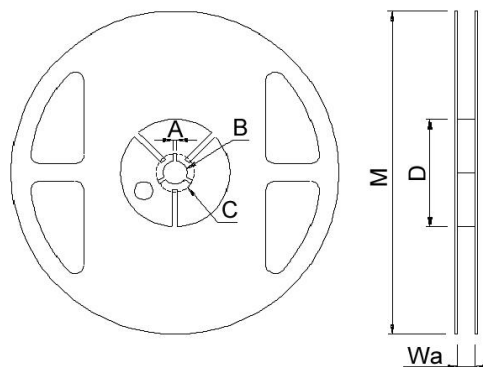
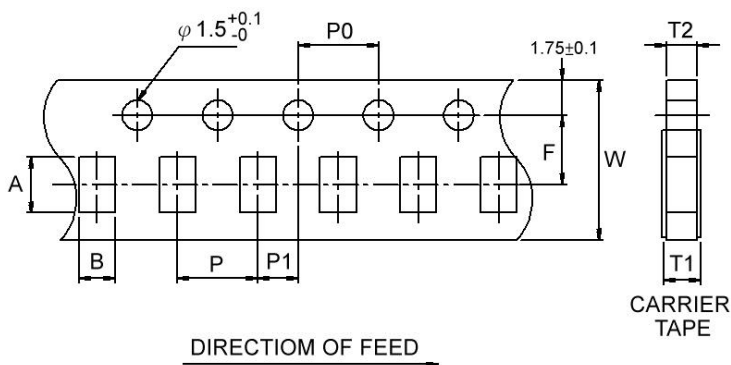


FIG 2

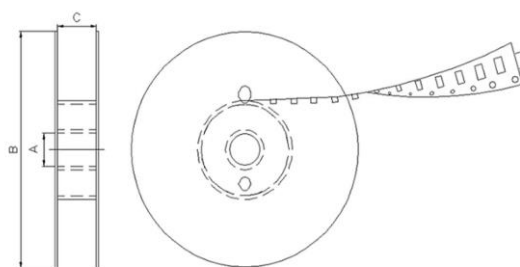
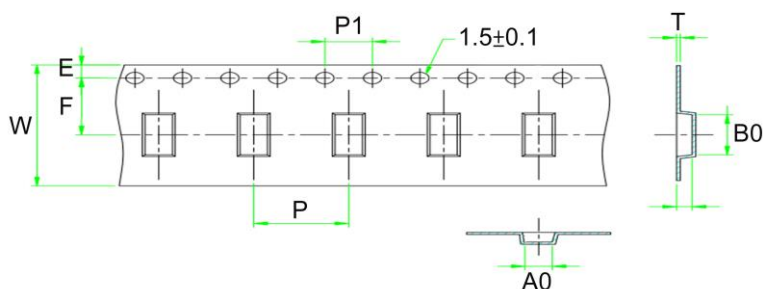
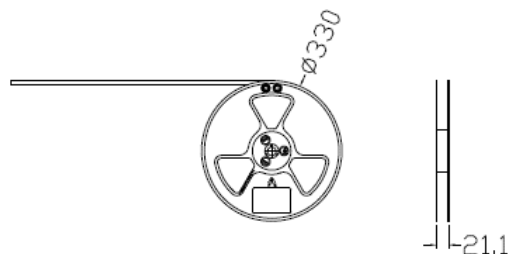
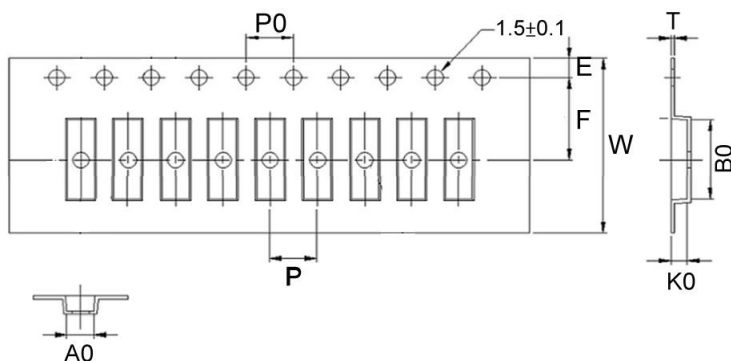


FIG 3



TYPE	FIG	Tape Dimensions										Reel Dimensions						Quantity
		A	B	T1	W	P	P0	P1	F	T2	Wa	M	A	B	C	D	PCS / REEL	
BTCA00160800	1	1.8	1.0	0.6	8	4	4	2	3.5	0.6	9	178	2	13.5	21	60	5000	
BTCA00201005	1	2.2	1.2	0.6	8	2	4	2	3.5	0.6	9	178	2	13.5	21	60	10000	
BTCA00201206	1	2.3	1.55	0.75	8	2	4	2	3.5	0.75	9	178	2	13.5	21	60	5000	
BTCA00321605	1	3.5	1.9	0.75	8	4	4	2	3.5	0.75	9	178	2	13.5	21	60	5000	
											12	178	2	13.2	17.7	60		
TYPE	FIG	Tape Dimensions										Reel Dimensions				Quantity		
		A0	B0	T	E	W	P	P0	F	K0	A	B	C	D	PCS / REEL			
BTCA005020	2	2.3	5.3	0.3	1.75	16	8	4	7.5	1.3	100	330	12	-	5000			
BTCA008010	3	1.2	8.2	0.3	1.75	16	4	4	7.5	1.45	-	-	-	-	10000			