

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.

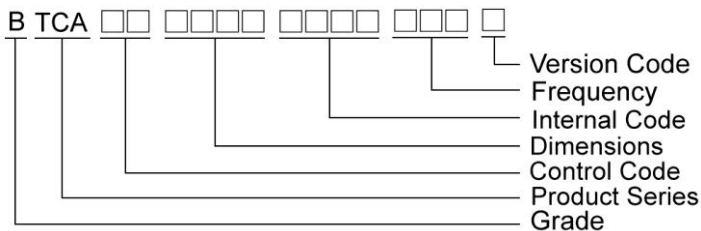
Features

- 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

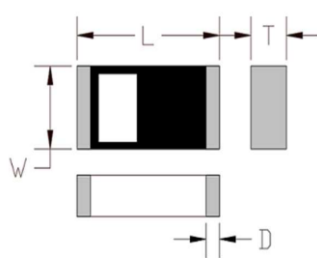


FIG2

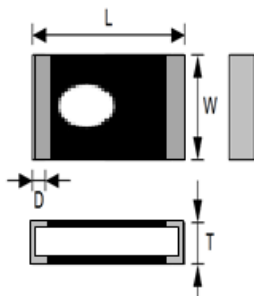


FIG3

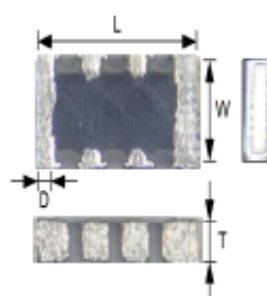
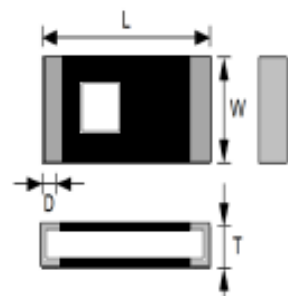


FIG4



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
BTCA00502506002G4C	4	5.0±0.2	2.5±0.2	0.6±0.2	0.6±0.1

Shape and Dimensions

FIG5

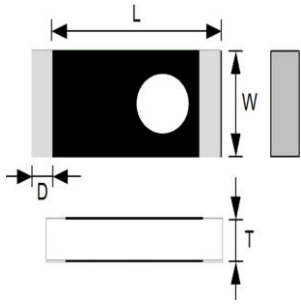


FIG6

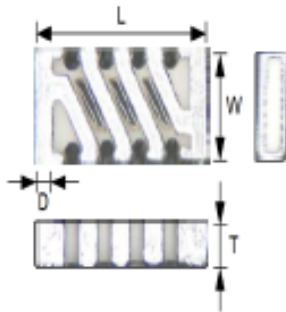


FIG7

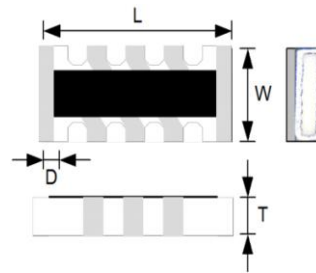


FIG8

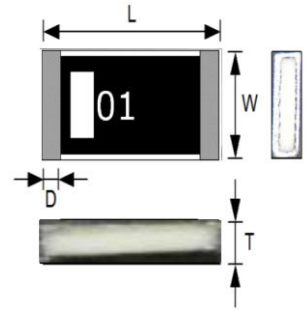


FIG9

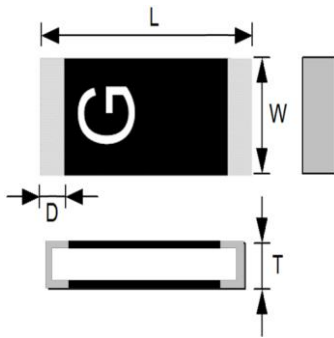


FIG10

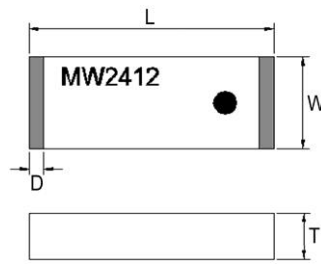


FIG11

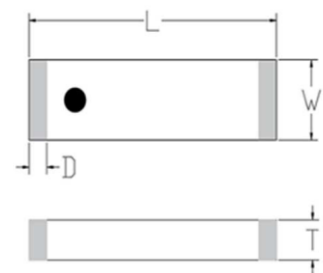
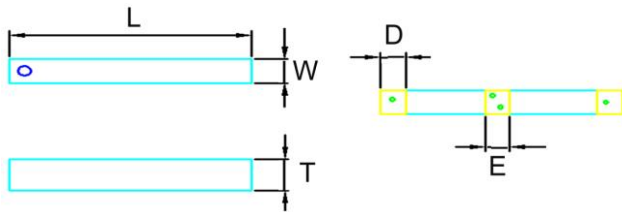


FIG12



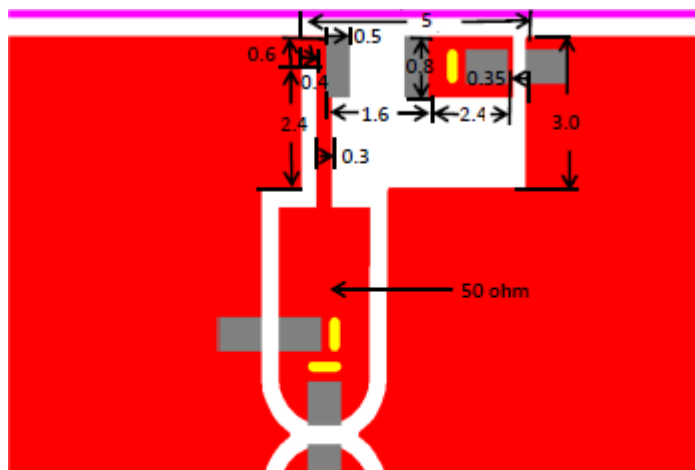
Dimensions in mm

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	-
BTCA00502010002G4M	10	5.0±0.4	2.0±0.4	0.3±0.2	1.0±0.2	-
BTCA007020x1000GxA	11	7.0±0.2	2.0±0.2	0.5±0.2	1.1±0.2	-
BTCA00801001002G4A	12	8.0±0.3	1.0±0.3	0.85±0.2	1.2±0.3	0.75±0.2

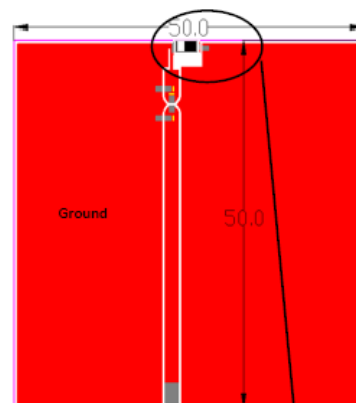
SMD Chip Series Antenna – BTCA Series

Recommended Pattern

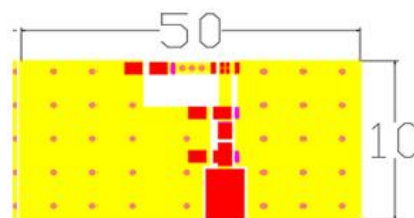
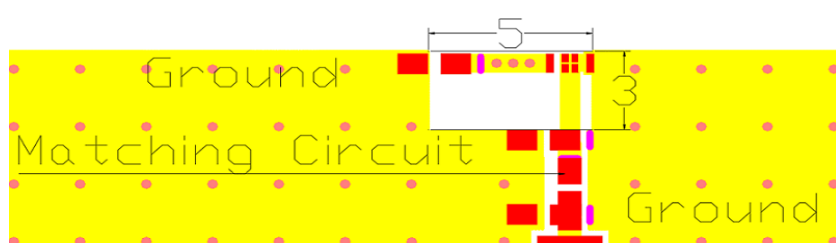
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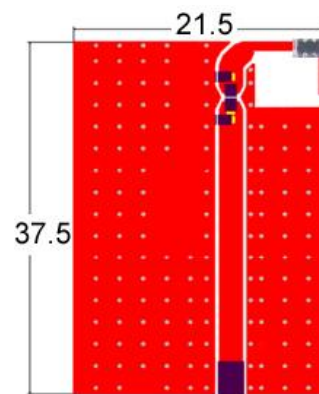
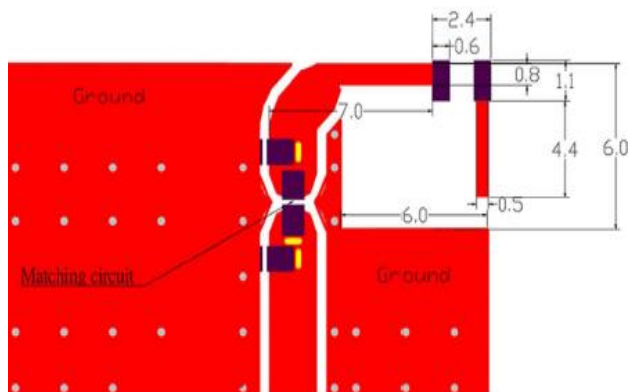
PC Board Pattern



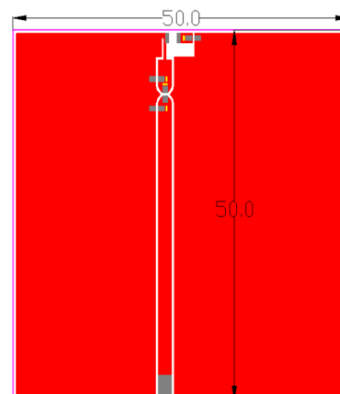
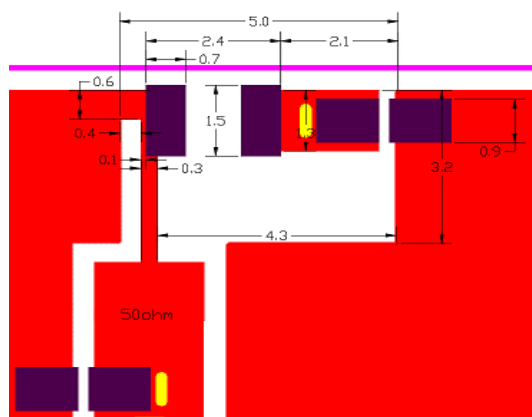
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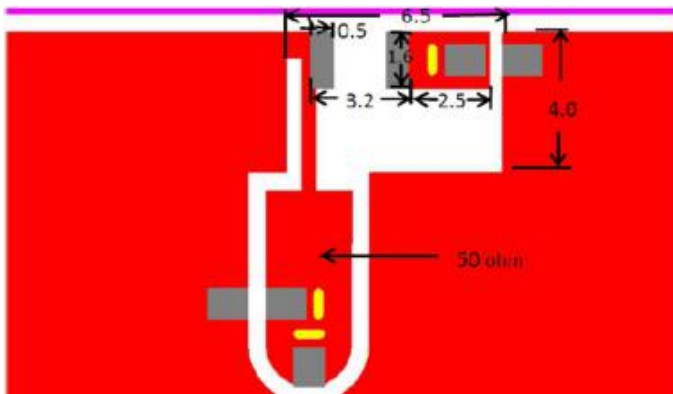
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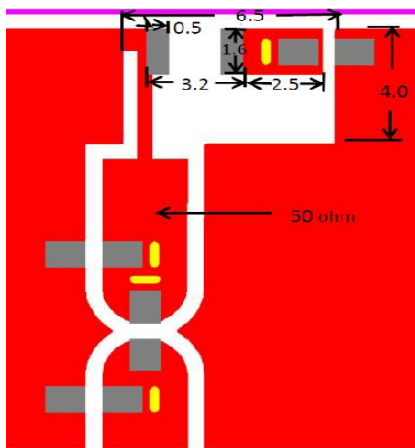
SMD Chip Series Antenna - BTCA Series

Recommended Pattern

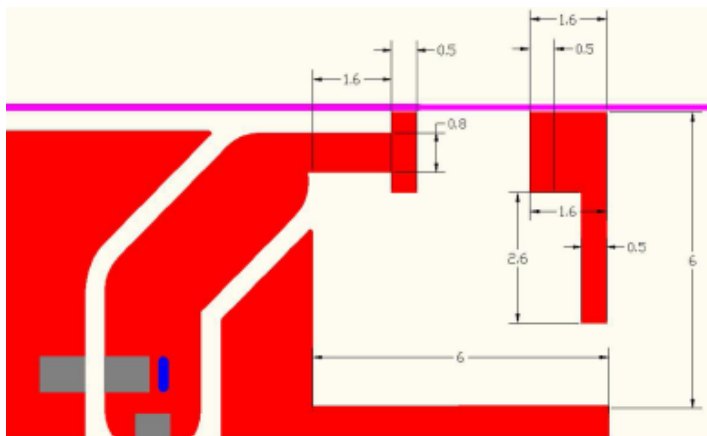
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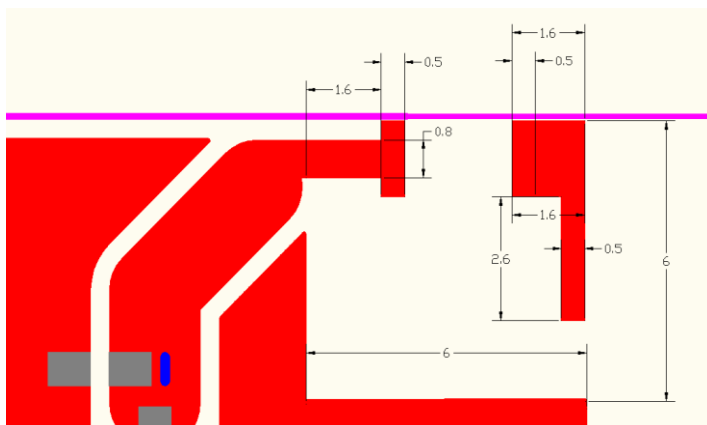
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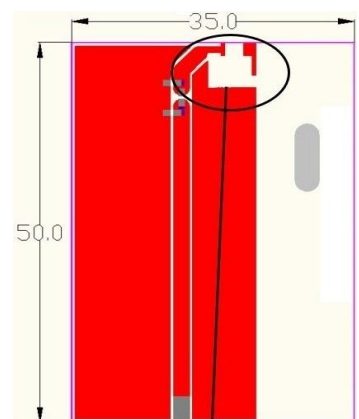
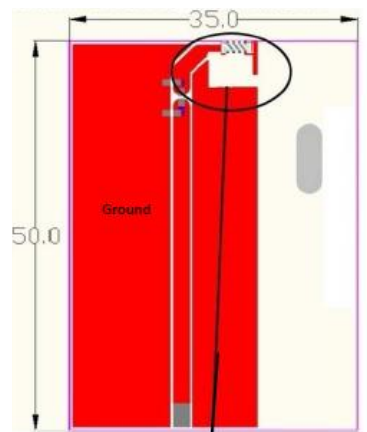
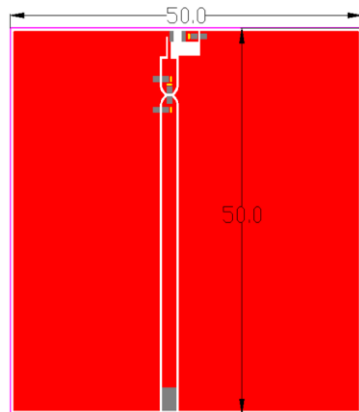
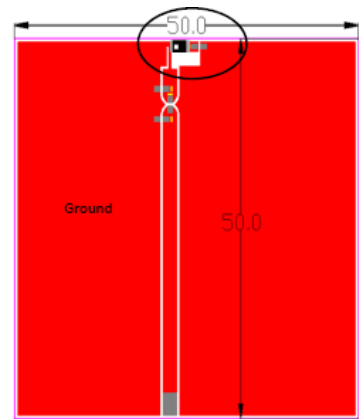
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BTCA00321609002G4F



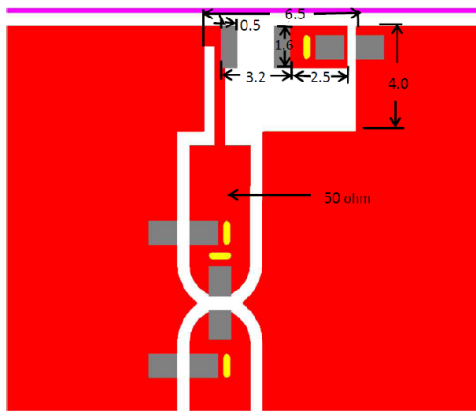
PC Board Pattern



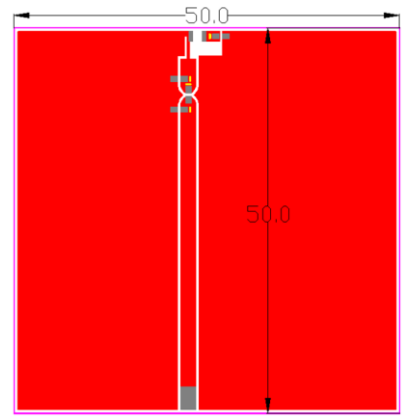
SMD Chip Series Antenna – BTCA Series

Recommended Pattern

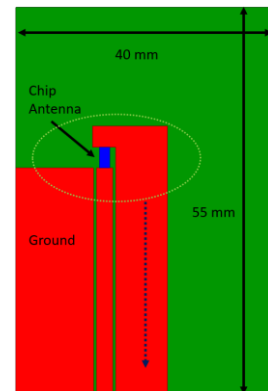
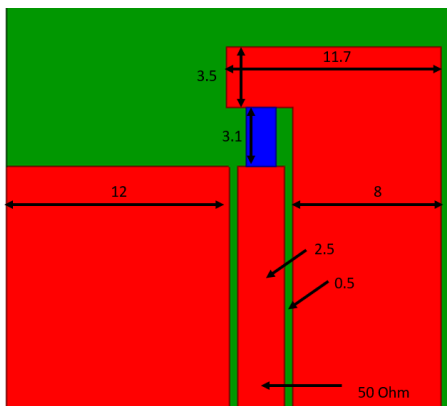
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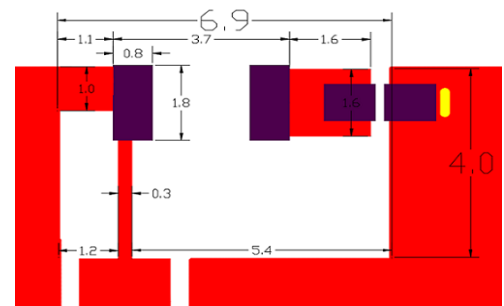
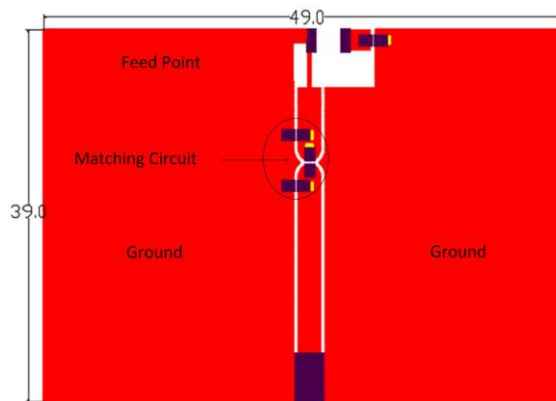
PC Board Pattern



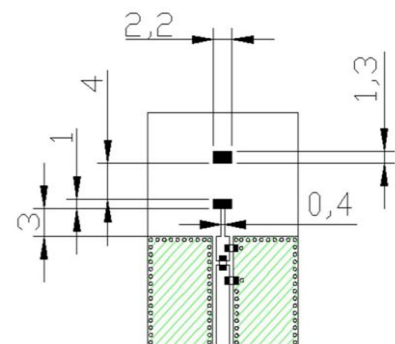
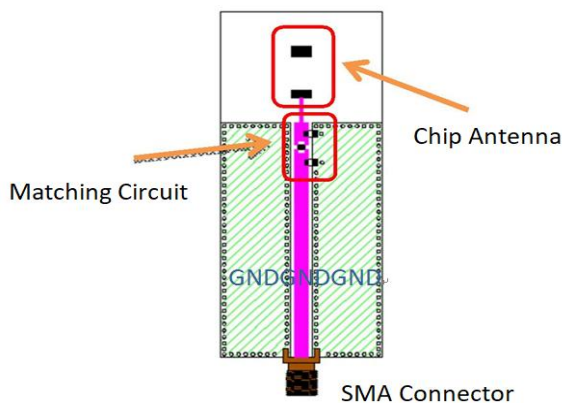
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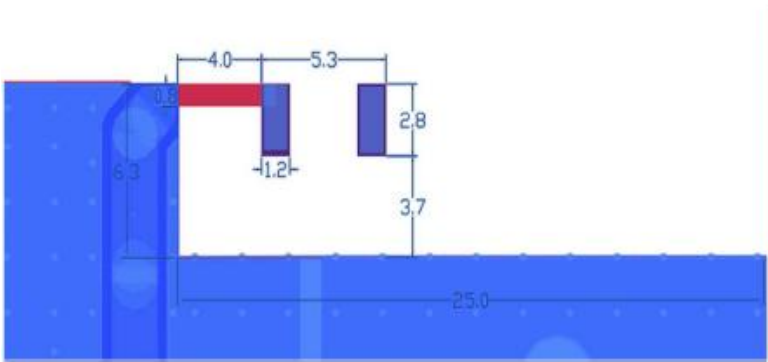


※ Test Board size is 40*20mm / Ground plane size is 30*20mm

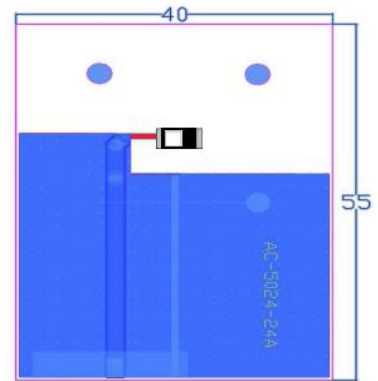
SMD Chip Series Antenna – BTCA Series

Recommended Pattern

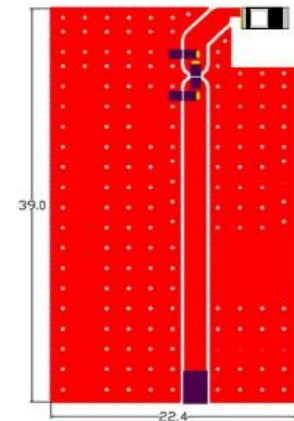
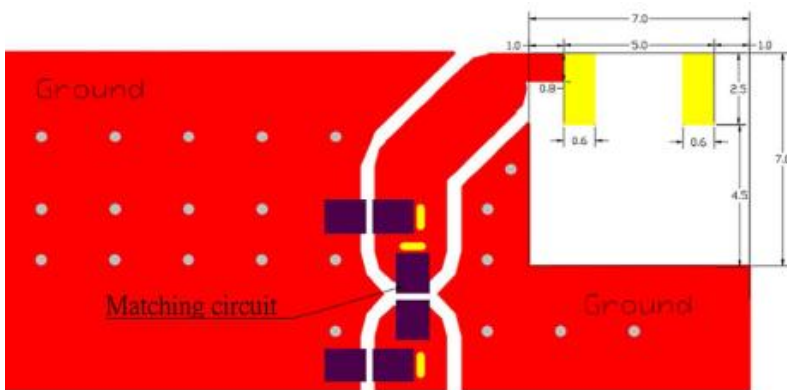
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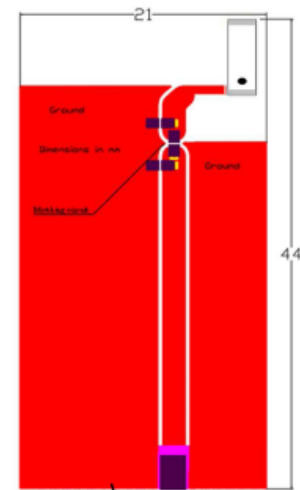
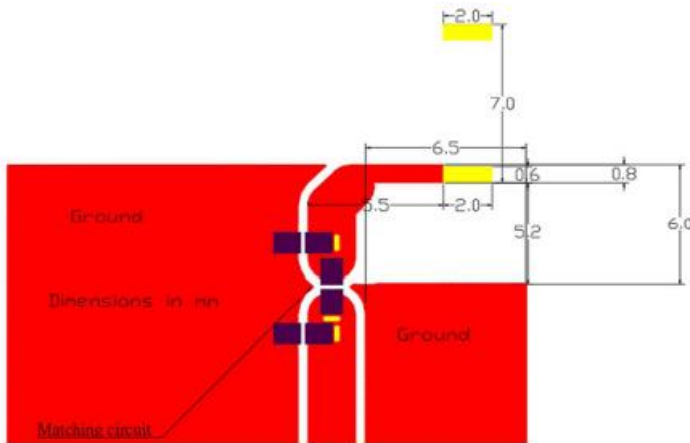
PC Board Pattern



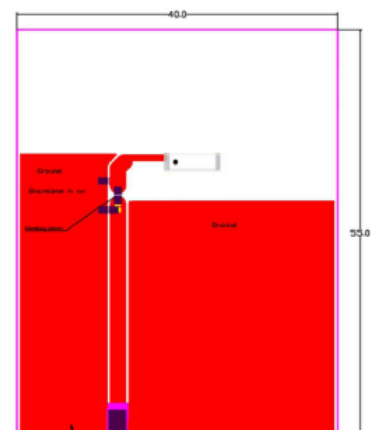
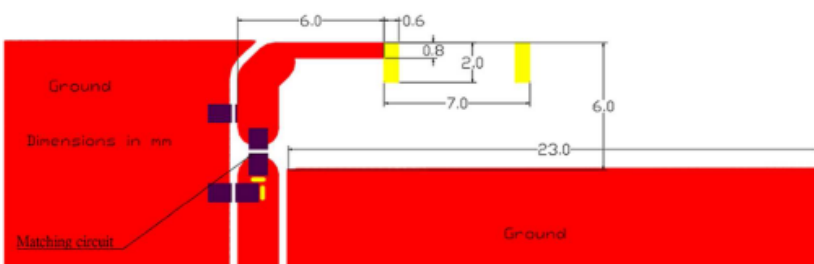
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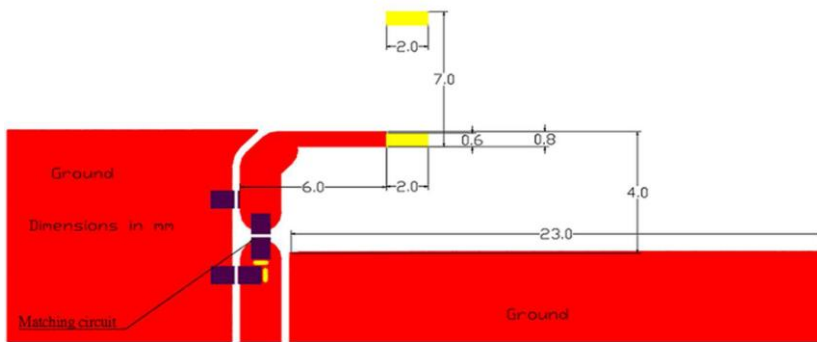
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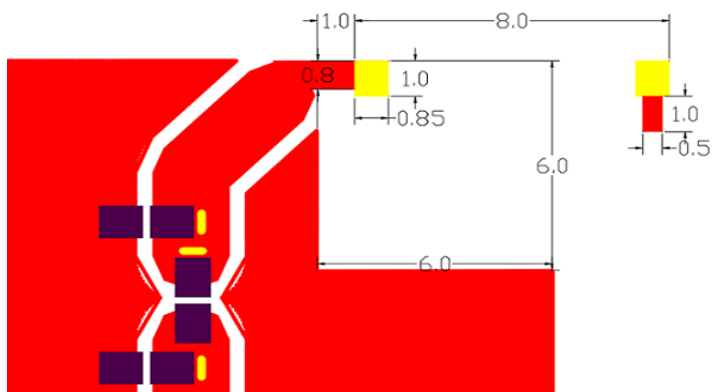
SMD Chip Series Antenna – BTCA Series

Recommended Pattern

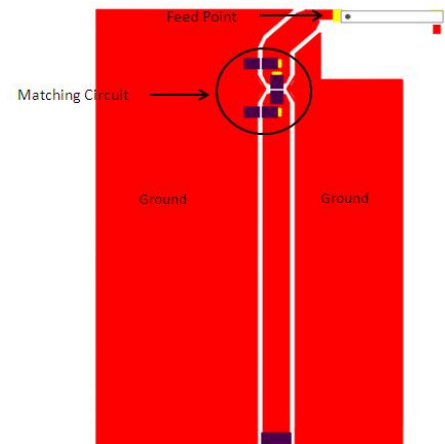
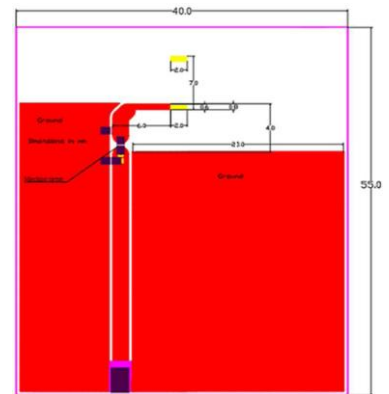
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PC Board Pattern



SMD Chip Series Antenna – BTCA Series

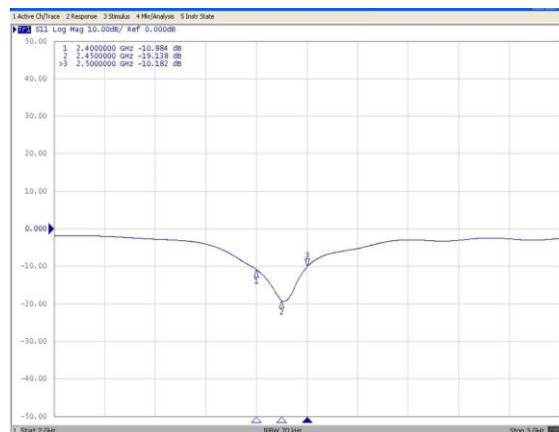
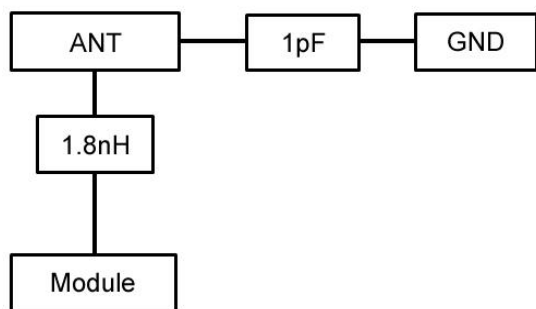
Electrical Characteristics

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
BTCA00502010002G4M	50	2.4	100	3.2	2	Linear
BTCA00502506002G4C	50	2.4	100	2~3	2	Linear
BTCA00502506005G0C	50	5~6	700	1~3	2	Linear
BTCA00702001000G4A	50	0.47	20	-16.75	2	Linear
BTCA00702011000G4A	50	0.433	10	-20.9	2	Linear
BTCA00702011000G8A	50	0.866	20	-9.17	2	Linear
BTCA00702011000G9A	50	0.915	20	-9.75	2	Linear
BTCA00801001002G4A	50	2.4	100	2~3	2	Linear

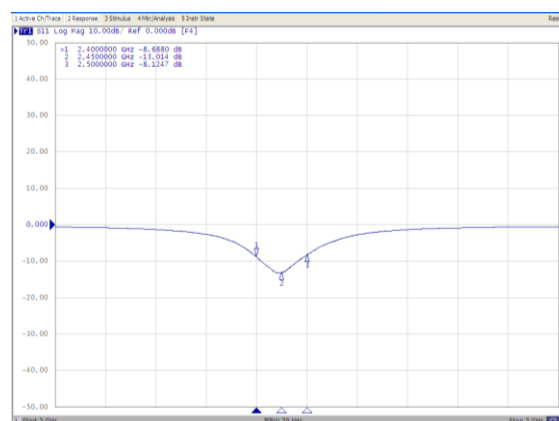
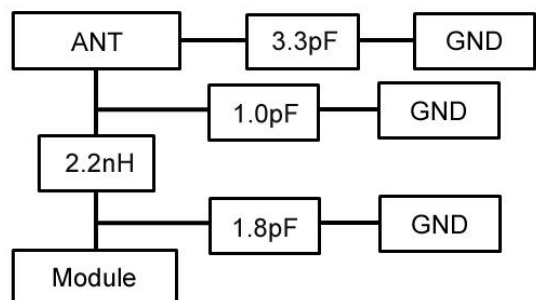
Note: *Depend on PCB layout.

Test Instruments : Agilent E4991A Material/Impedance Analyzer

BTCA00160800002G4C



BTCA00160800002G4T

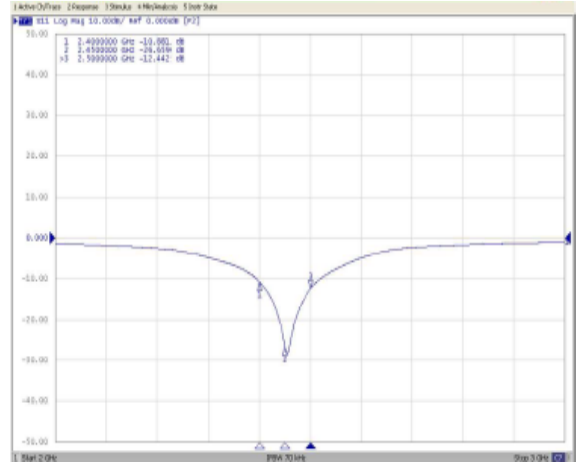
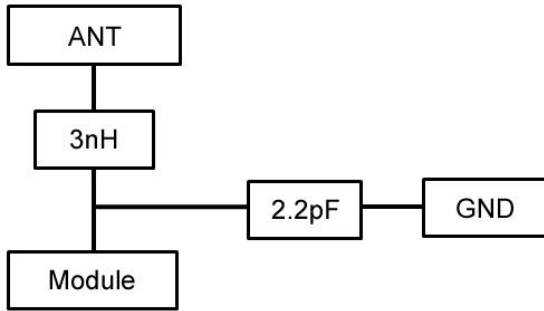


Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin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

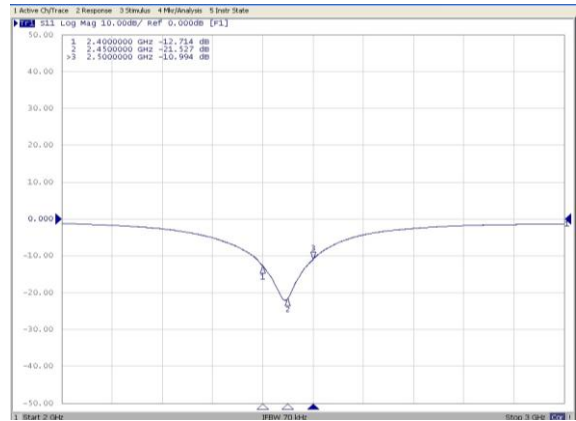
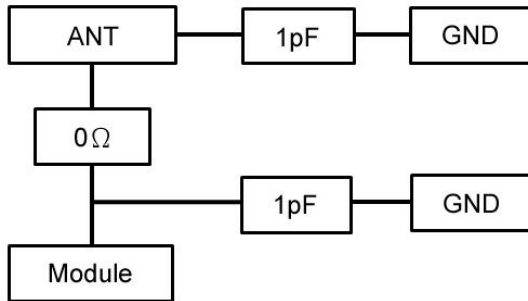
SMD Chip Series Antenna – BTCA Series

Test Instruments : Agilent E4991A Material/Impedance Analyzer

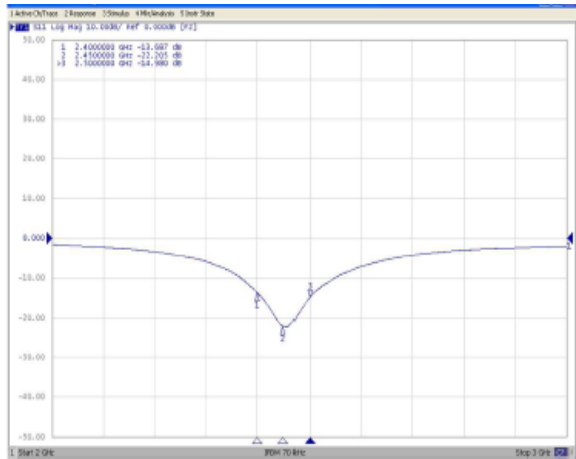
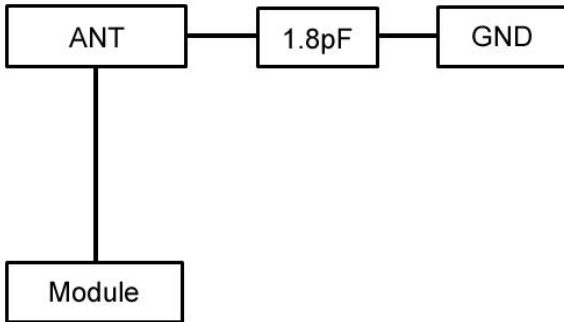
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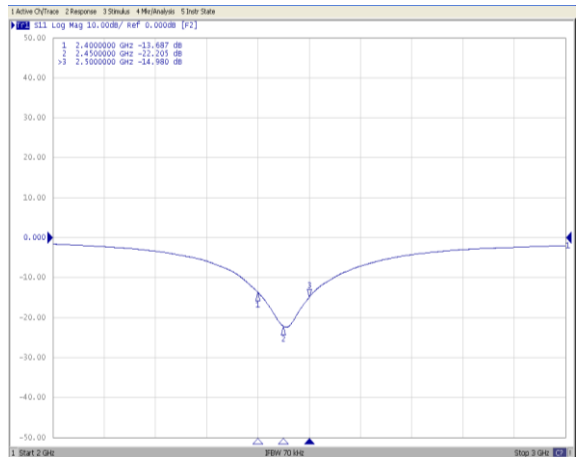
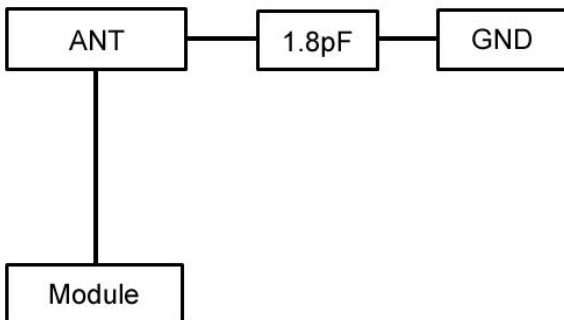
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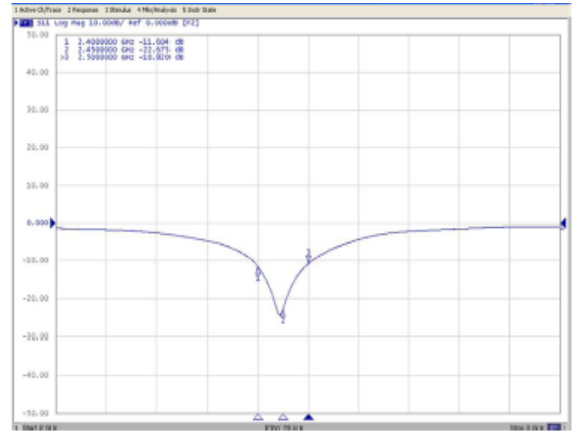
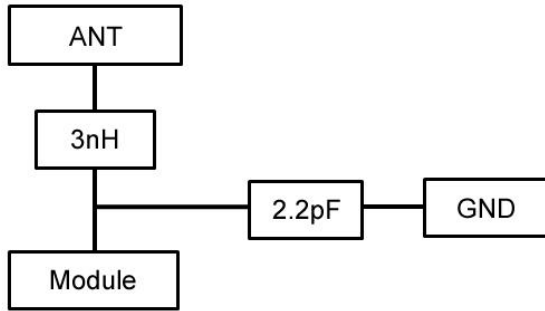


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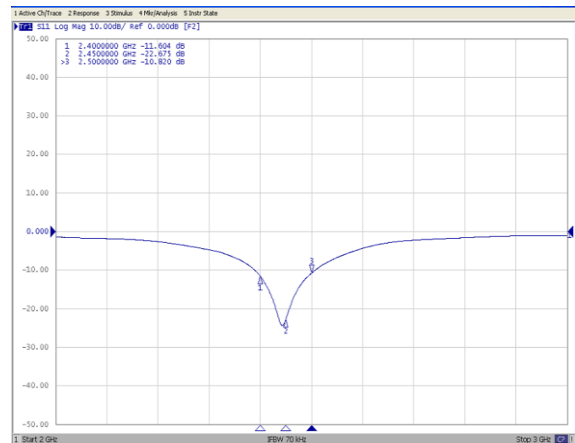
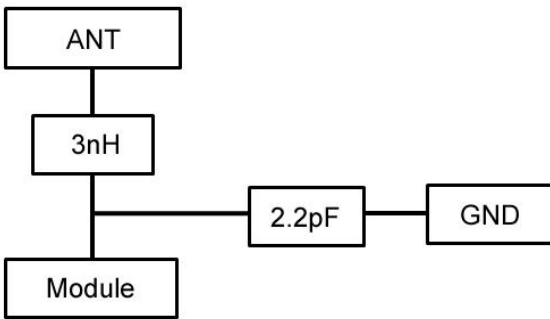
SMD Chip Series Antenna – BTCA Series

Test Instruments : Agilent E4991A Material/Impedance Analyzer

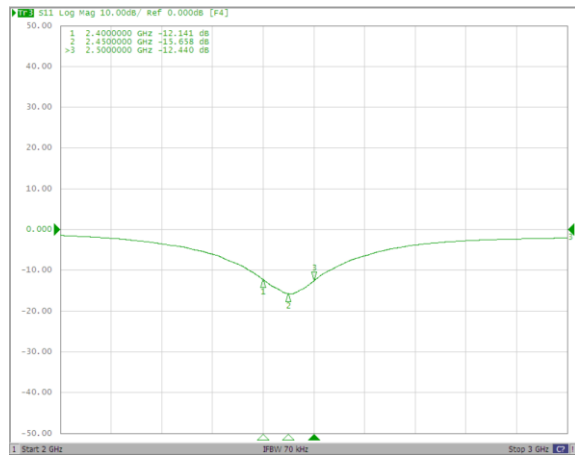
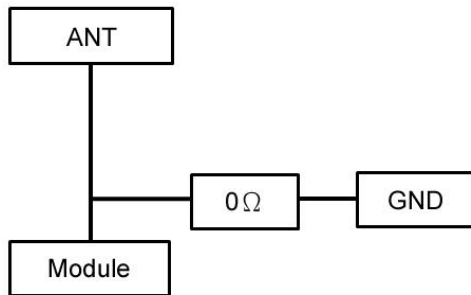
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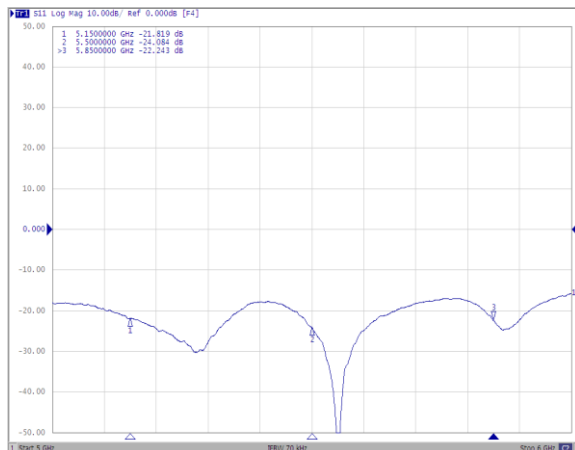
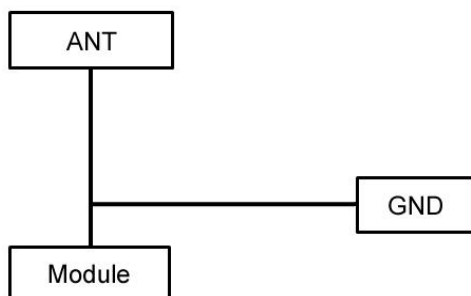
BTCA00321609002G4F



BTCA00321609002G4W



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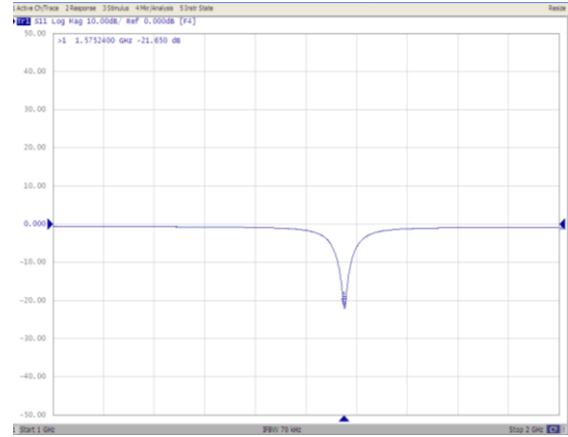
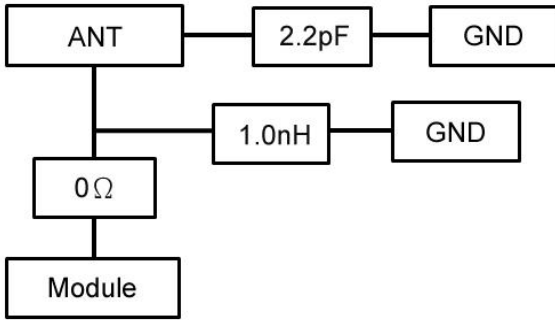


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SMD Chip Series Antenna – BTCA Series

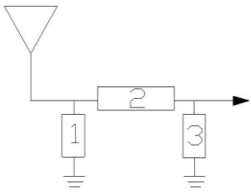
Test Instruments : Agilent E4991A Material/Impedance Analyzer

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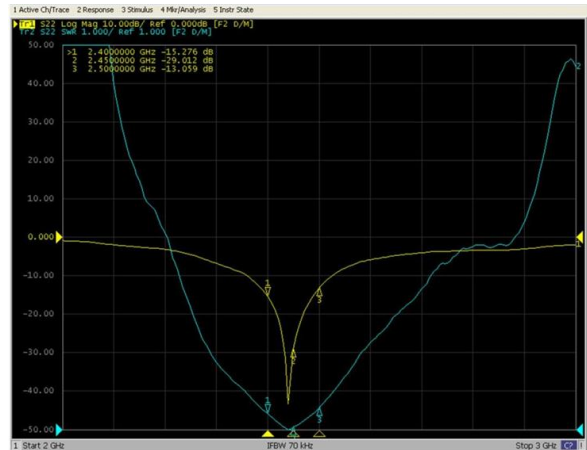


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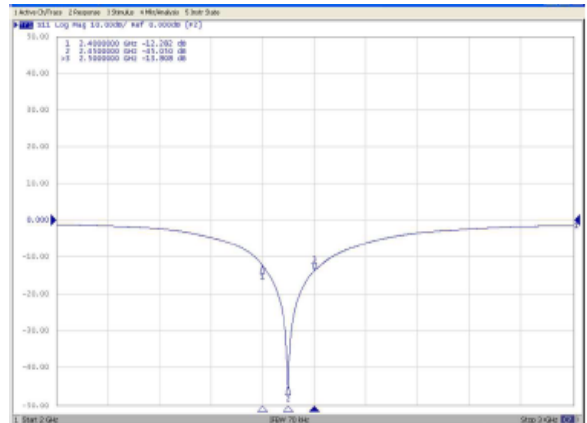
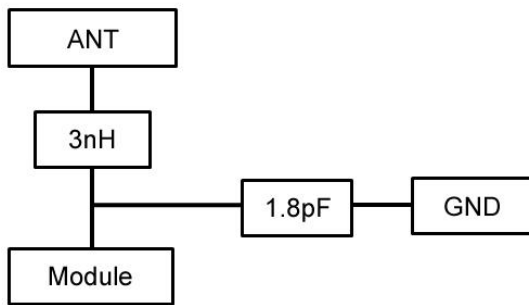
Antenna



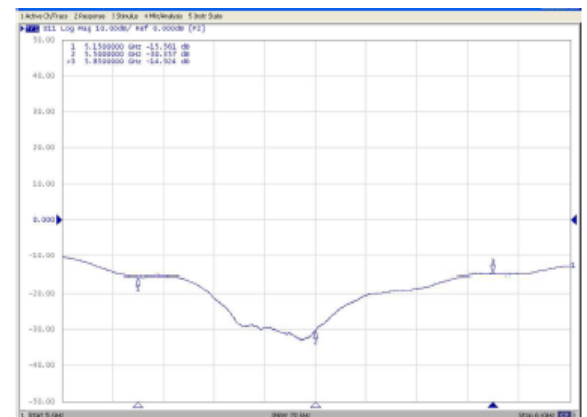
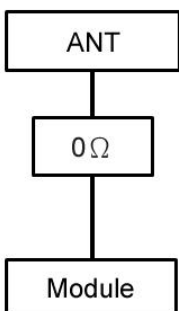
System Matching Circuit Component		
Location	Description	Vendor
Antenna	502010	MW
1	NC	
2	2.7nH	0402 TDK
3	1.2pf	0402TDK



BTCA00502506002G4C



BTCA00502506005G0C

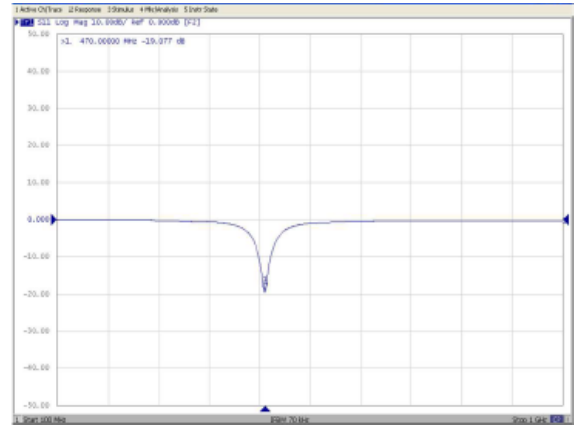
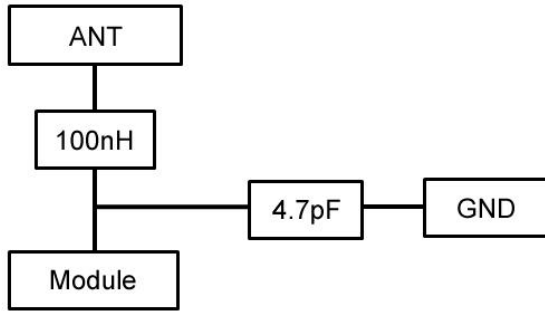


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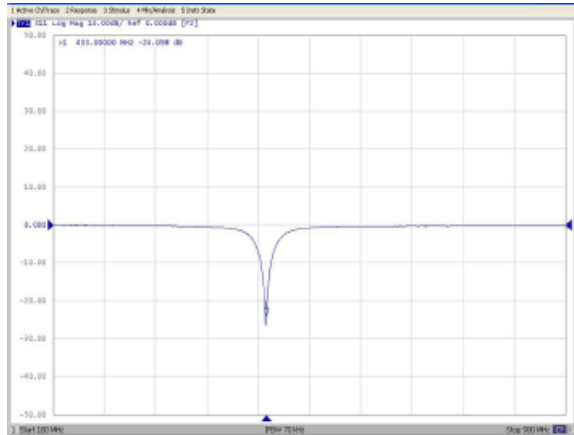
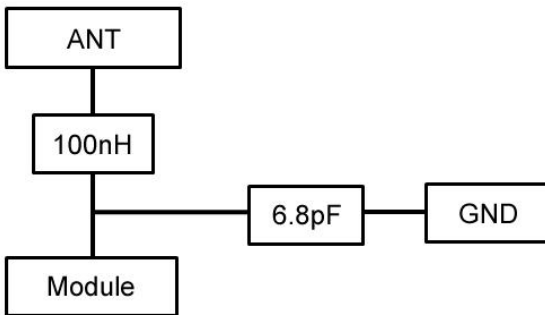
SMD Chip Series Antenna – BTCA Series

Test Instruments : Agilent E4991A Material/Impedance Analyzer

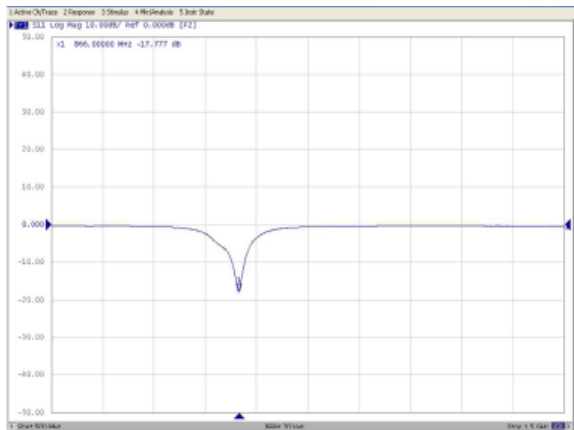
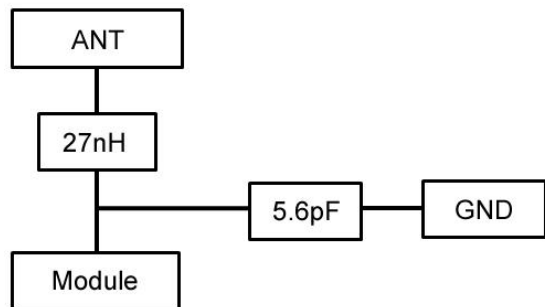
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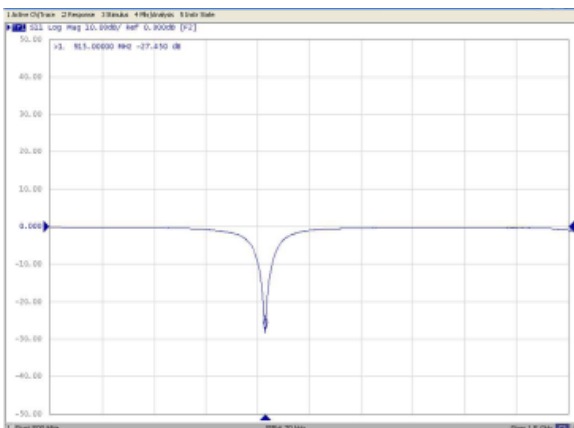
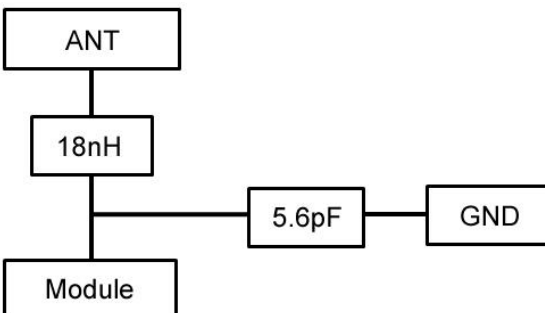
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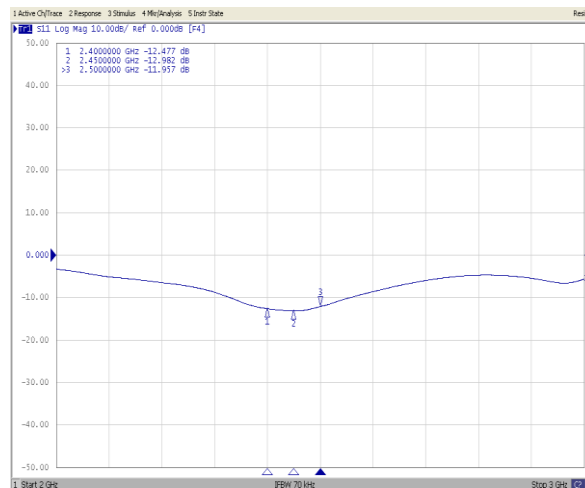
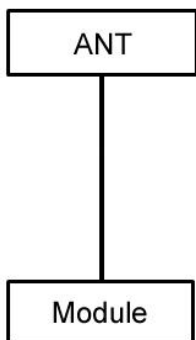


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SMD Chip Series Antenna – BTCA Series

Test Instruments : Agilent E4991A Material/Impedance Analyzer

BTCA00801001002G4A



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SMD Chip Series Antenna – BTCA Series

Packaging Specifications

Tape Dimensions

Reel Dimensions

FIG 1

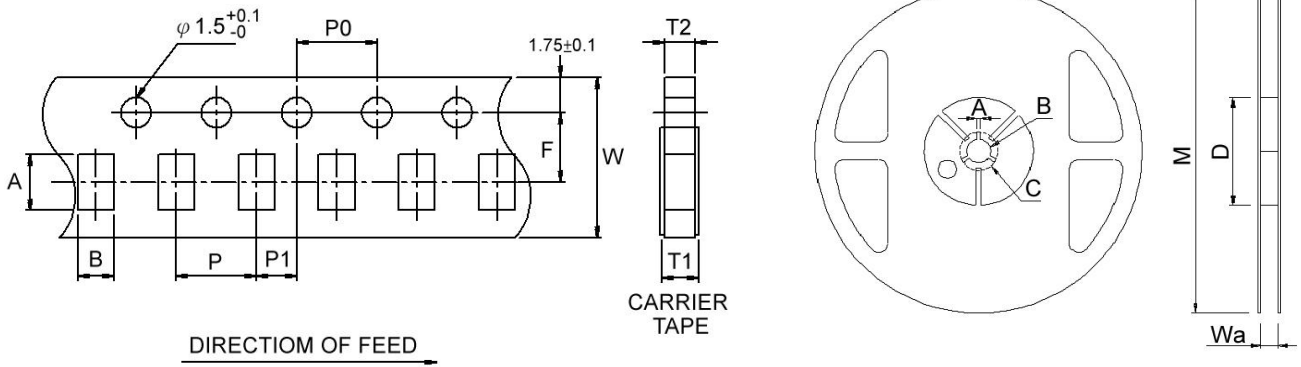


FIG 2

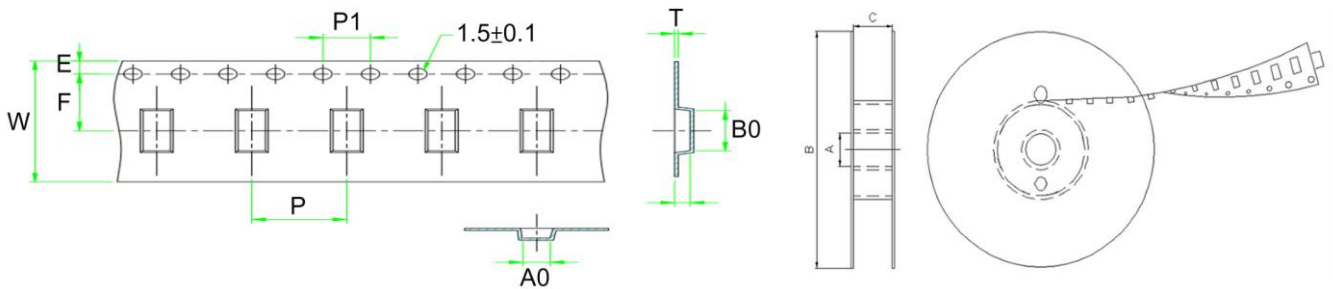
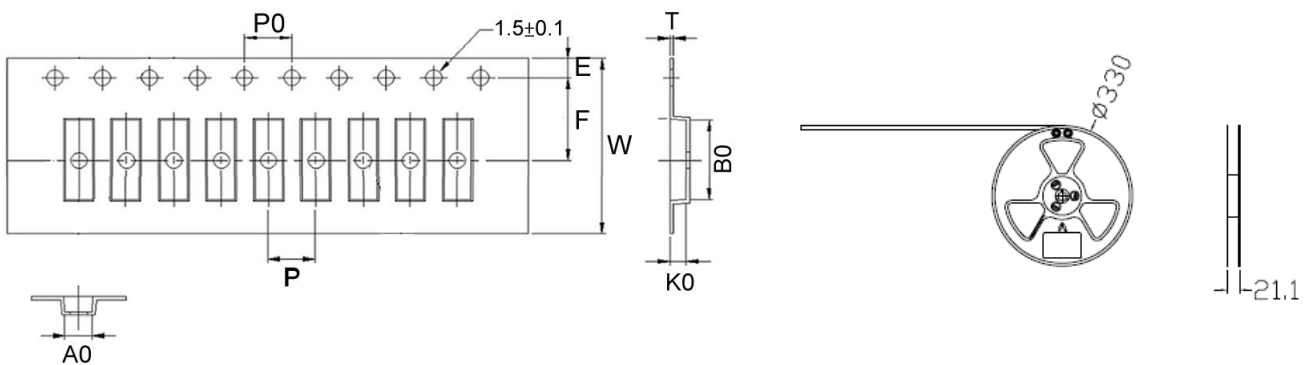


FIG 3



TYPE	FIG	Tape Dimensions										Reel Dimensions						Quantity PCS / REEL
		A	B	T1	W	P	P0	P1	F	T2	Wa	M	A	B	C	D		
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		
BTCA00502505	1	0.68	0.38	0.38	12	2	4	2	3.5	0.3	13.8	178	2	13.5	21	80	4000	
TYPE	FIG	Tape Dimensions										Reel Dimensions				Quantity PCS / REEL		
		A0	B0	T	E	W	P	P0	F	K0	A	B	C	D				
BTCA005020	2	2.3	5.3	0.3	1.75	16	8	4	7.5	1.3	100	330	12	-	5000			
BTCA007020	2	2.3	7.3	0.3	1.75	16	4	4	7.5	1.4	77	560	96	-	390			
BTCA008010	3	1.2	8.2	0.3	1.75	16	4	4	7.5	1.45	-	-	-	-	10000			