

## BTLL Series



Chilisin offer multilayer devices of Low-Temperature Cofired Ceramics (LTCC) 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.

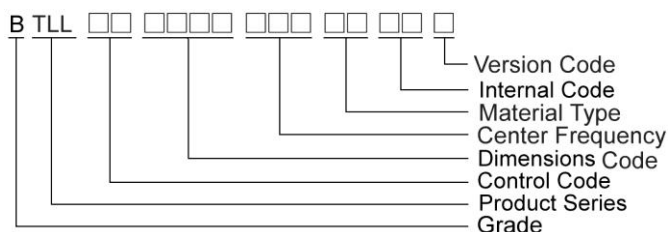
### Features

- RoHS, Halogen Free and REACH Compliance
- Miniaturized.
- Low insertion loss, high attenuation.
- Eliminate noise over a wide frequency range. Idea for high frequency and space limited designs.

### Applications

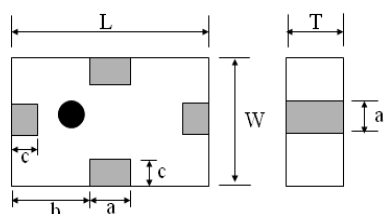
- WLAN ,Home RF, Bluetooth Module, WiMAX Modules, etc.

### Product Identification

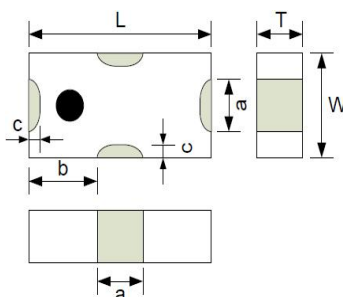


### Shapes and Dimensions

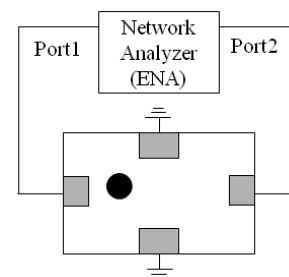
**BTLL0010052G4S1A30**



**BTLL0010052G4S1G20**

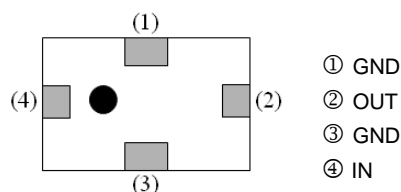


### Measuring Diagram

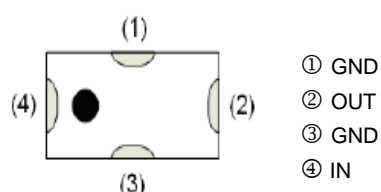


### Terminal Configuration

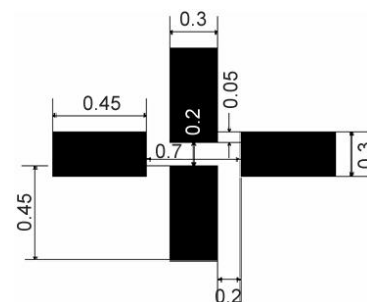
**BTLL0010052G4S1A30**



**BTLL0010052G4S1G20**



### Recommended Land Pattern

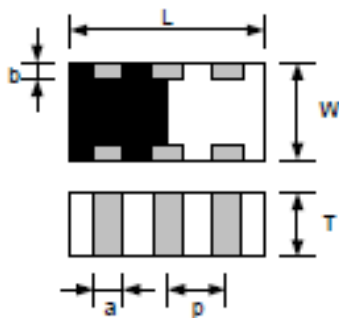


### Dimension in mm

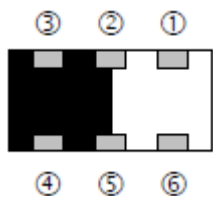
TYPE	L	W	T	a	b	c
BTLL0010052G4S1A30	1.0±0.05	0.5±0.05	0.4±0.05	0.3±0.1	0.35±0.1	0.15±0.05
BTLL0010052G4S1G20	1.0±0.05	0.5±0.05	0.4±0.05	0.3±0.1	0.35±0.1	0.15±0.05

## Shapes and Dimensions

**BTLL0016082G4S1A10**

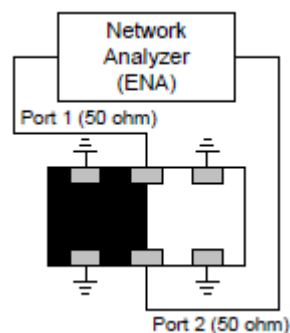


## Terminal Configuration

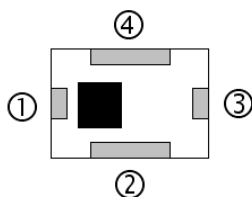
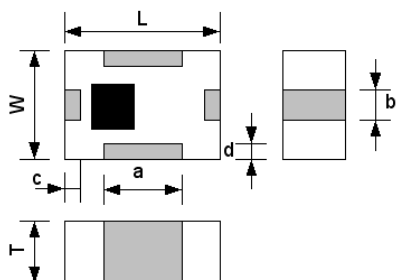


- ① ③ ④ ⑥ GND
- ② IN
- ⑤ OUT

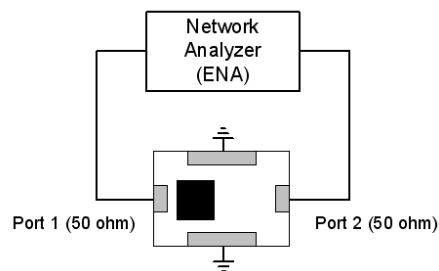
## Measuring Diagram



**BTLL0016082G4S1A30**

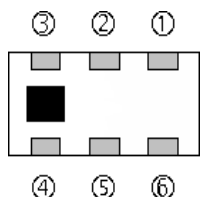
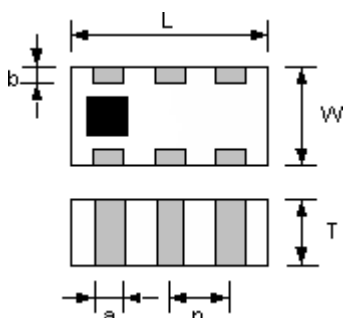


- ① IN
- ② ④ GND
- ③ OUT
- ④ GND

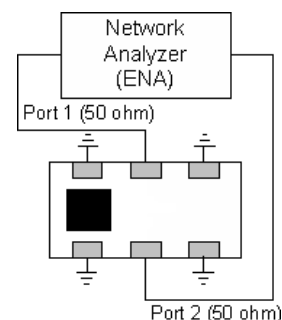


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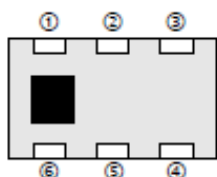
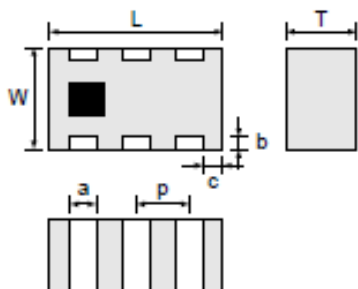
**BTLL0016082G5S1A20/3G6S1A10**



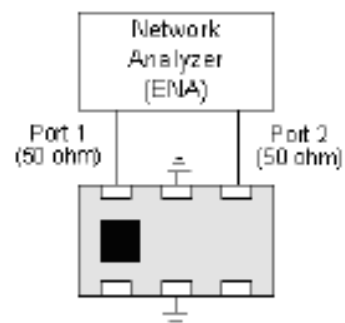
- ① ③ ④ ⑥ GND
- ② IN
- ⑤ OUT



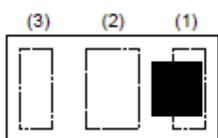
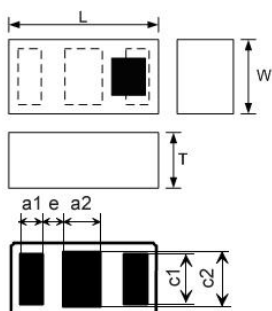
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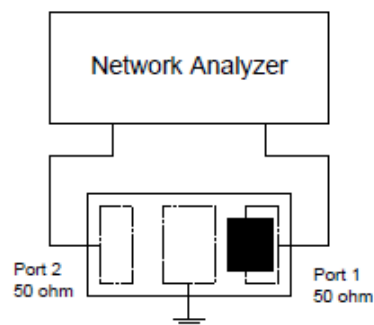
- ① IN
- ② ⑤ GND
- ③ OUT
- ④ ⑥ NC



**BTLL0016082G7S1B10**

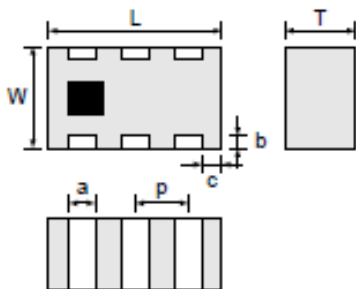


- ① IN
- ② GND
- ③ OUT

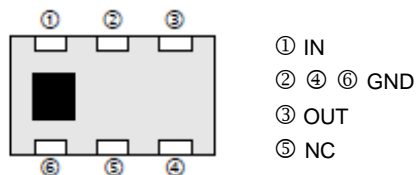


## Shapes and Dimensions

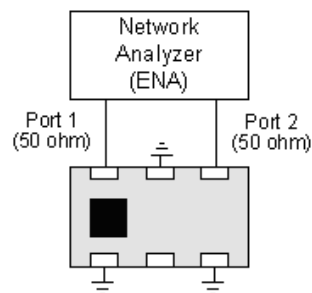
### BTLL0016083G5S1A20



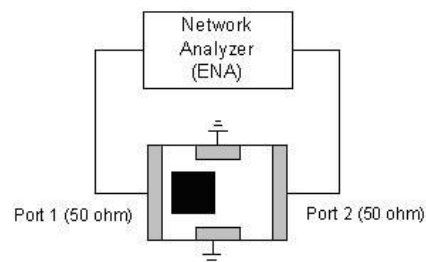
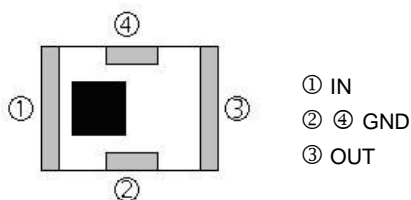
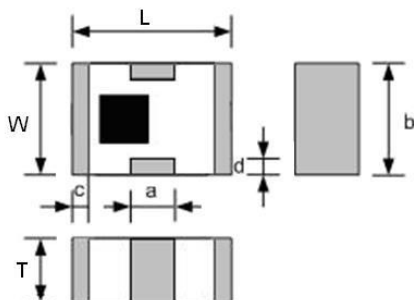
## Terminal Configuration



## Measuring Diagram

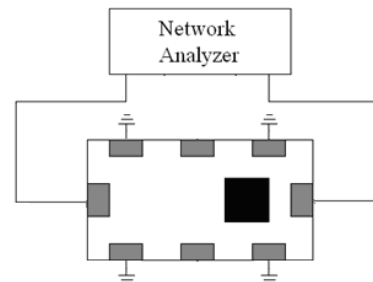
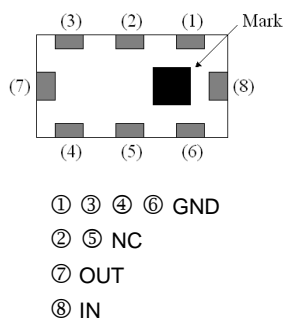
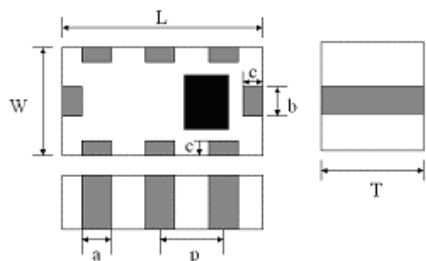


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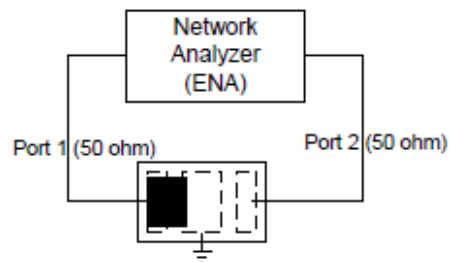
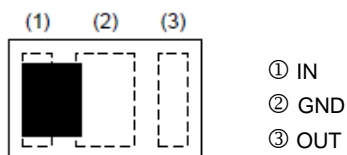
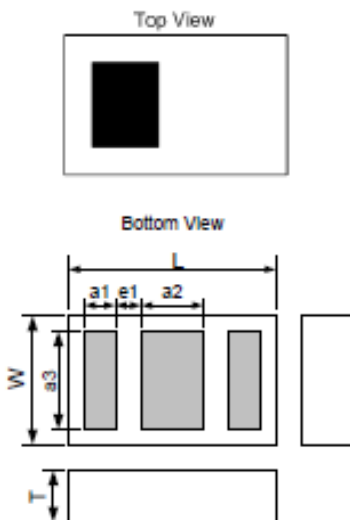


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### BTLL0020125G5S1A20



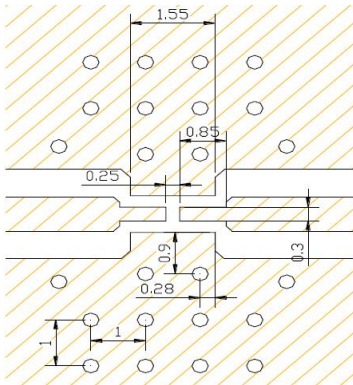
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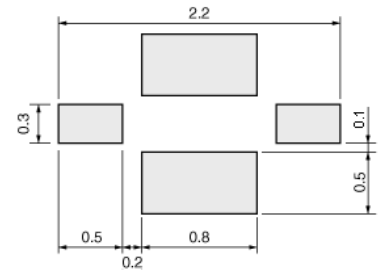
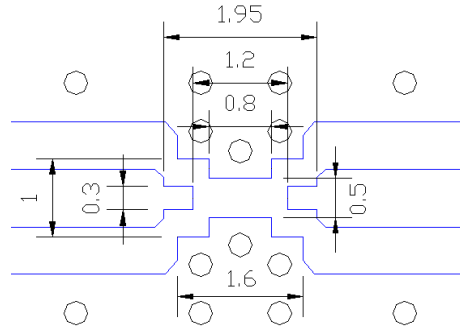
# Low Temperature Cofired Ceramic - BTLL Series

## Recommended Land Pattern

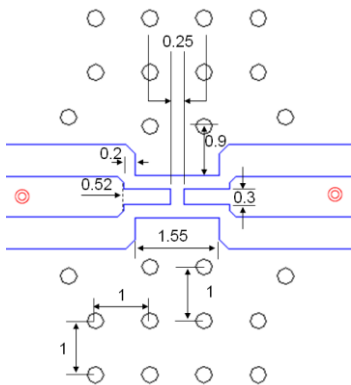
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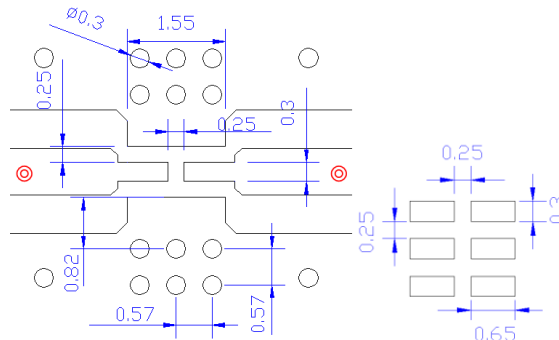
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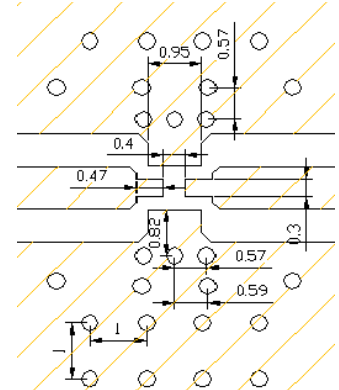
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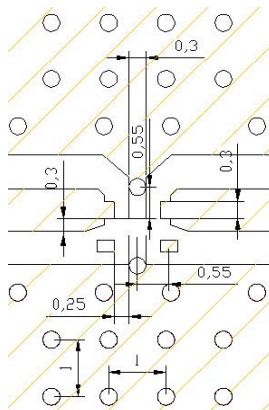
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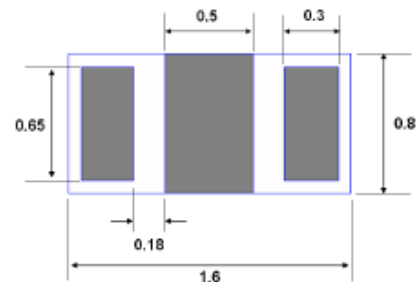
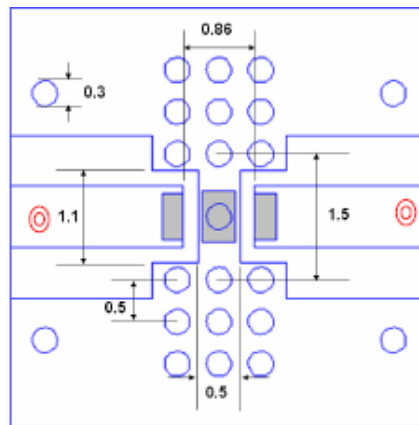
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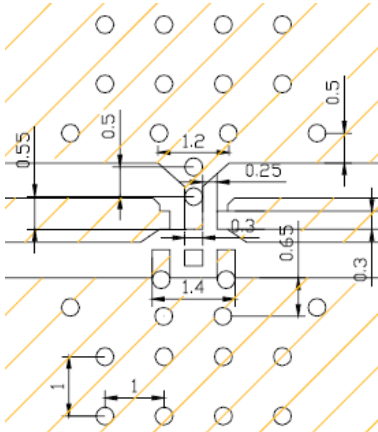
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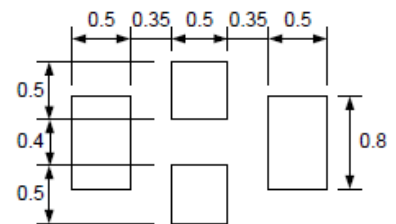
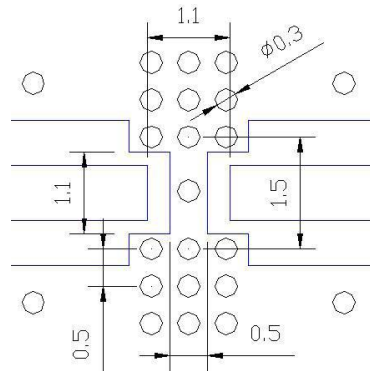
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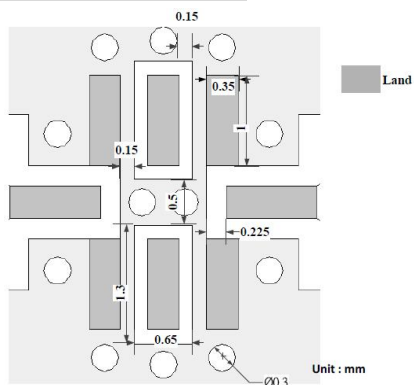


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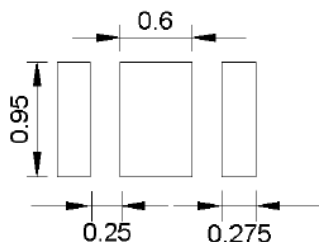


## Recommended Land Pattern

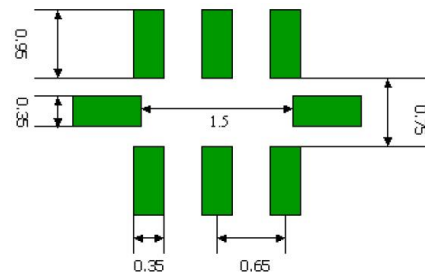
**BTLL0020120G9S1B20**



**BTLL0020122G0S1A20**



**BTLL0020122G0S1A20**



**Dimension in mm**

TYPE	L	W	T	a	b	p		
BTLL0016082G4S1A10	1.6±0.15	0.8±0.1	0.65±0.1	0.3±0.1	0.3 <sup>+0.1</sup> <sub>-0.2</sub>	0.55±0.1		
BTLL0016082G4S1A50	1.6±0.15	0.8±0.1	0.6±0.1	0.3±0.1	0.3 <sup>+0.1</sup> <sub>-0.2</sub>	0.55±0.1		
BTLL0016082G4S1C10	1.6±0.15	0.8±0.1	0.65±0.1	0.3±0.1	0.3 <sup>+0.1</sup> <sub>-0.2</sub>	0.55±0.1		
BTLL0016082G5S1A20	1.6±0.15	0.8±0.1	0.65±0.1	0.3±0.1	0.3 <sup>+0.1</sup> <sub>-0.2</sub>	0.55±0.1		
BTLL0016083G6S1A10	1.6±0.15	0.8±0.1	0.65±0.1	0.3±0.1	0.3 <sup>+0.1</sup> <sub>-0.2</sub>	0.55±0.1		
TYPE	L	W	T	a	b	c	d	
BTLL0016082G4S1A30	1.6±0.1	0.8±0.1	0.6±0.1	0.7±0.15	0.3 <sup>+0.1</sup> <sub>-0.15</sub>	0.15±0.1	0.15±0.1	
BTLL0016085G5S1A20	1.6±0.1	0.8±0.1	0.6±0.1	0.5±0.1	0.8±0.1	0.2±0.1	0.2±0.1	
TYPE	L	W	T	a	b	c	p	
BTLL0016082G4S1C20	1.6±0.1	0.8±0.1	0.6±0.1	0.2±0.1	0.2 <sup>+0.1</sup> <sub>-0.15</sub>	0.15±0.1	0.5±0.05	
BTLL0016083G5S1A20	1.6±0.1	0.8±0.1	0.6±0.1	0.3±0.1	0.3 <sup>+0.1</sup> <sub>-0.2</sub>	0.1±0.1	0.55±0.1	
BTLL0020120G9S1B20	2±0.1	1.25±0.1	0.85±0.1	0.3±0.1	0.3±0.1	0.3 <sup>+0.1</sup> <sub>-0.2</sub>	0.65±0.1	
BTLL0020125G5S1A20	2±0.2	1.25±0.2	0.9±0.1	0.3 <sup>+0.1</sup> <sub>-0.15</sub>	0.3 <sup>+0.1</sup> <sub>-0.15</sub>	0.2±0.15	0.65±0.15	
TYPE	L	W	T	a1	a2	c1	c2	p
BTLL0016082G7S1B10	1.6±0.1	0.8±0.1	0.65Max	0.25±0.1	0.4±0.1	0.55±0.1	0.6±0.1	0.23±0.05
TYPE	L	W	T	a1	a2	a3	e1	
BTLL0020122G0S1A20	1.6±0.1	0.8±0.1	0.65Max	0.25±0.1	0.4±0.1	0.55±0.1	0.6±0.1	

# Low Temperature Cofired Ceramic - BTLL Series

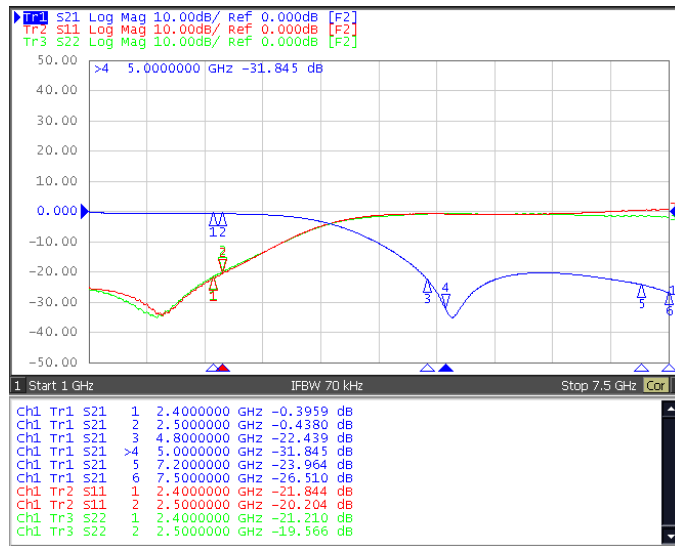
## Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	VSWR (Max)	Attenuation
BTLL0010052G4S1A30	2450	25°C 0.45	1.7	21dB Min. @ 4800~5000 MHz
		-40~85°C 0.55	-	21dB Min. @ 7200~7500 MHz
BTLL0010052G4S1G20	2450	25°C 0.75	1.6	30dB Min. @ 4800~5000 MHz
		-40~85°C 0.9	2	35dB Min. @ 7200~7500 MHz

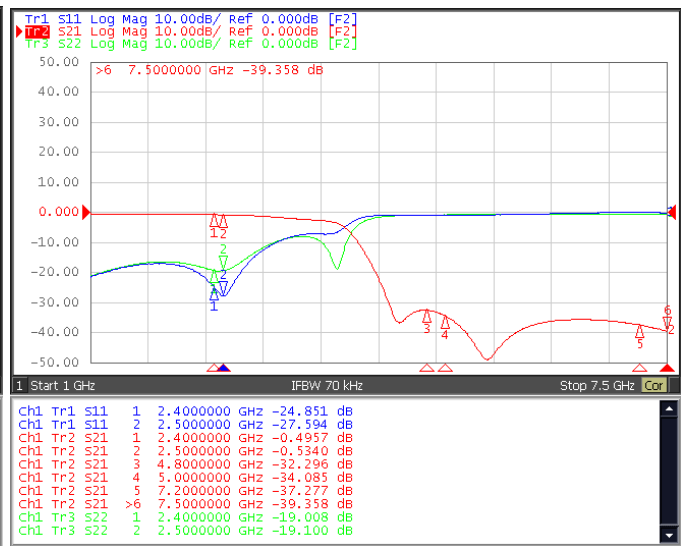
- Operating temperature range -40°C ~85°C

## Test Instruments : Agilent E5071C Network Analyzer

**BTLL0010052G4S1A30**



**BTLL0010052G4S1G20**



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.

# Low Temperature Cofired Ceramic - BTLL Series

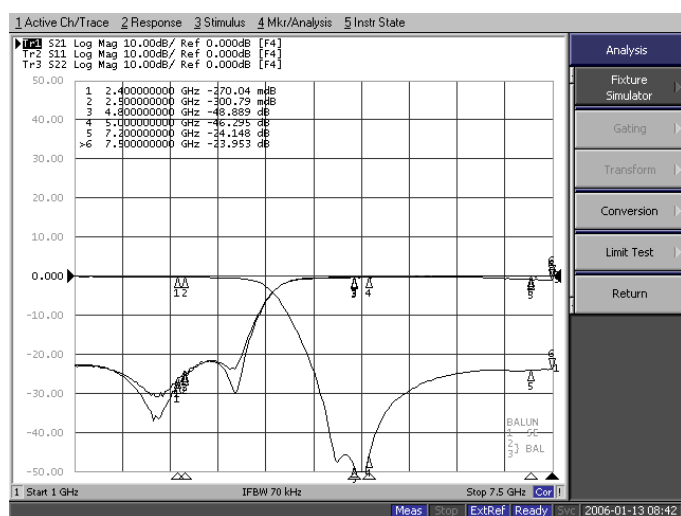
## Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	VSWR (Max)	Return Loss (dB)Min	Attenuation
BTLL0016082G4S1A10	2450	0.55	2	-	25dB Min.@ 4800~5000 MHz 20dB Min.@ 7200~7500 MHz
BTLL0016082G4S1A30	2300~2690	0.8	-	10	25dB Min.@ 4600~5400 MHz 25dB Min.@ 6900~8070 MHz 15dB Min.@ 3200 MHz 20dB Min.@ 3600 MHz
BTLL0016082G4S1A50	2400~2500	1	-	10	25dB Min.@ 4800~5000 MHz 20dB Min.@ 7200~7500 MHz
BTLL0016082G4S1C10	2400~2500	0.48	-	14	35dB Min.@ 4800~5000 MHz 27dB Min.@ 7200~7500 MHz
BTLL0016082G4S1C20	2400~2500	0.5	-	10	27dB Min.@ 4800~5000 MHz 30dB Min.@ 7200~7500 MHz
BTLL0016082G5S1A20	2400~2700	0.45	2	-	30dB Min.@ 4800~5400 MHz 23dB Min.@ 7200~8100 MHz 35dB Min.@ 4950~6000 MHz
BTLL0016082G7S1B10	673~2690	25°C 0.5 -40~85°C 0.7	-	10	37dB Min.@ 6000~7500 MHz 23dB Min.@ 7500~8100 MHz 20dB Min.@ 8100~12500 MHz 17dB Min.@ 6600~7600 MHz
BTLL0016083G5S1A20	3300~3800	0.5	-	10	20dB Min.@ 9900~11400 MHz
BTLL0016083G6S1A10	3300~3800	0.55	2	-	35dB Min.@ 6600~7600 MHz 25dB Min.@ 9900~11400 MHz
BTLL0016085G5S1A20	4900~5950	0.7	-	10	20dB Min.@ 9800 MHz 30dB Min.@ 11900 MHz

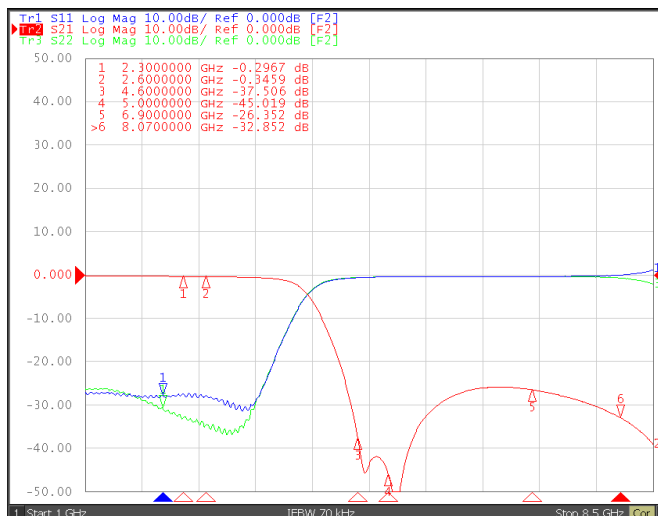
- Operating temperature range -40°C ~ 85°C

## Test Instruments : Agilent E5071A Network Analyzer

BTLL0016082G4S1A10



BTLL0016082G4S1A30

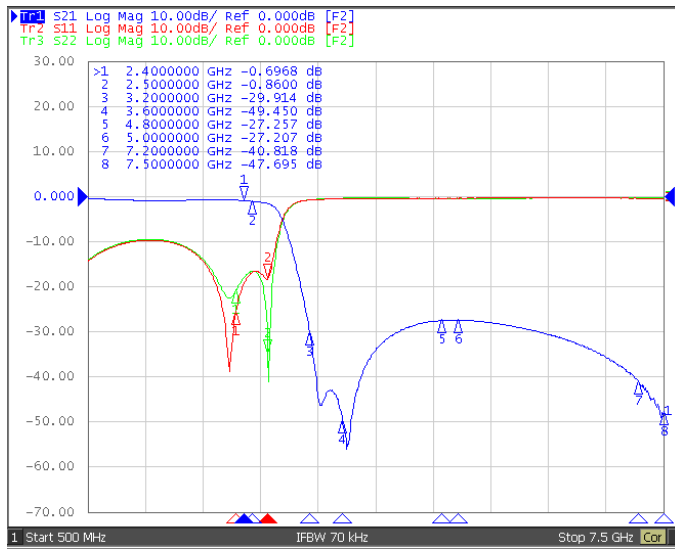


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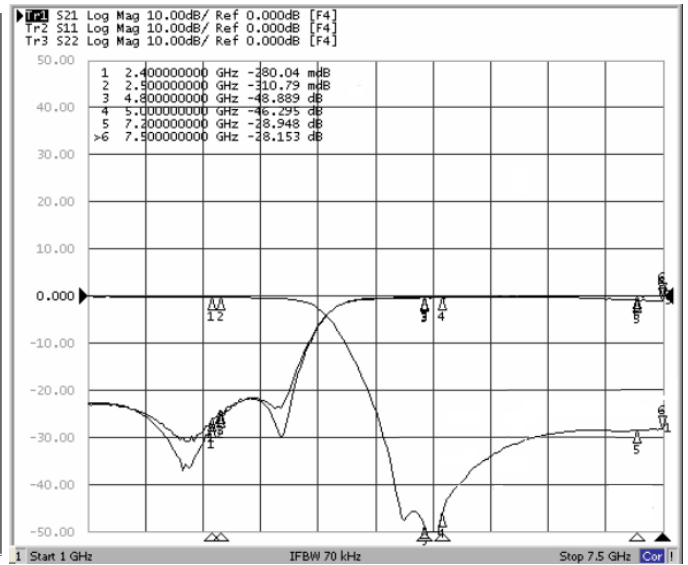
# Low Temperature Cofired Ceramic - BTLL Series

Test Instruments : Agilent E5071A Network Analyzer

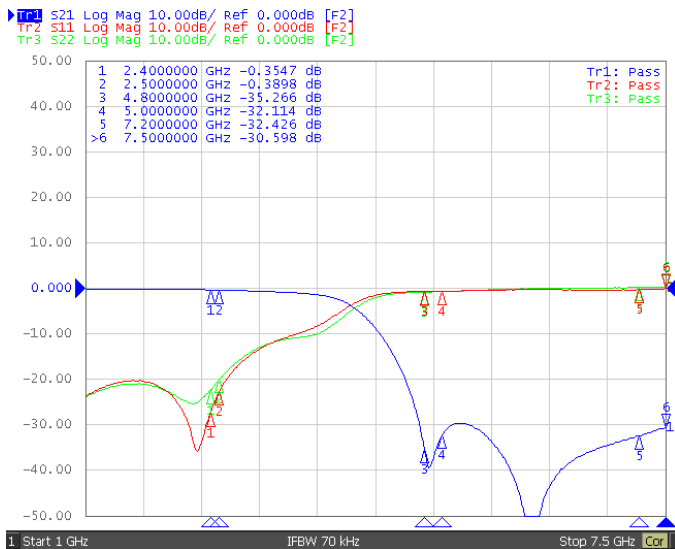
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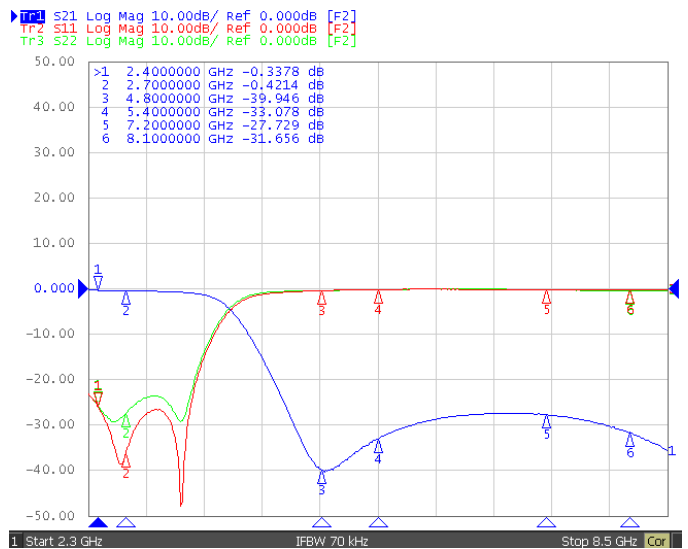
**BTLL0016082G4S1C10**



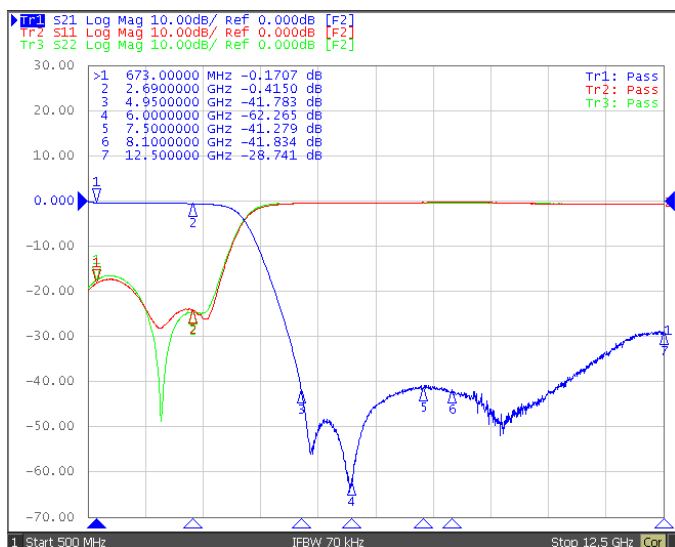
**BTLL0016082G4S1C20**



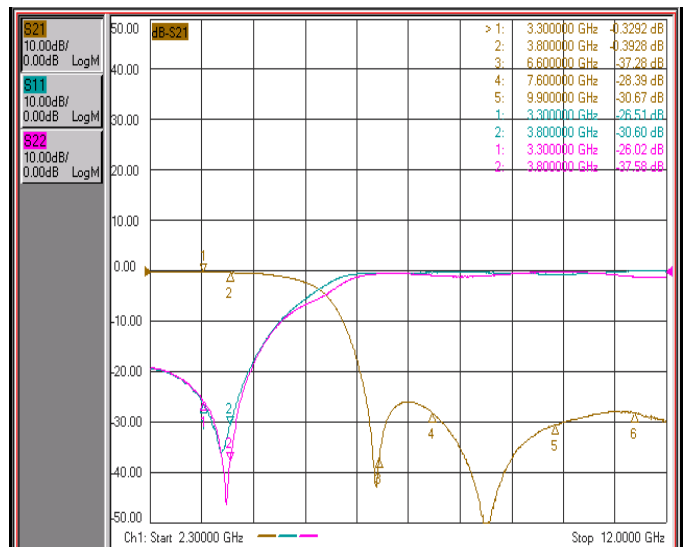
**BTLL0016082G5S1A20**



**BTLL0016082G7S1B10**



**BTLL0016083G5S1A20**



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 Chilsin approval. Please contact our sales department before ordering.

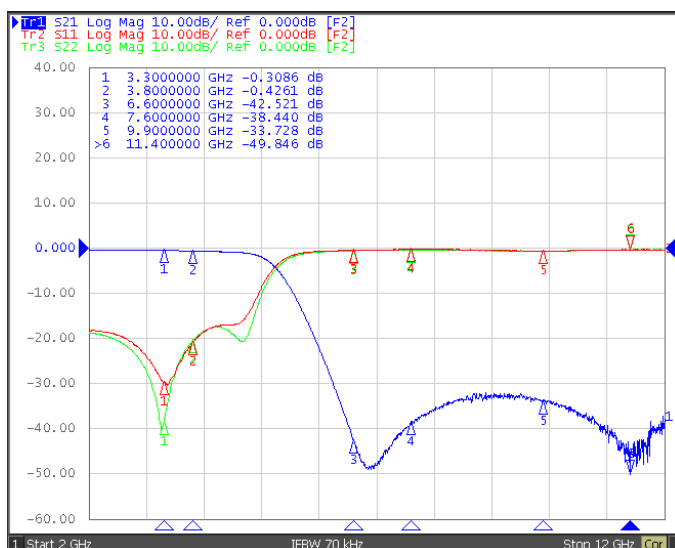




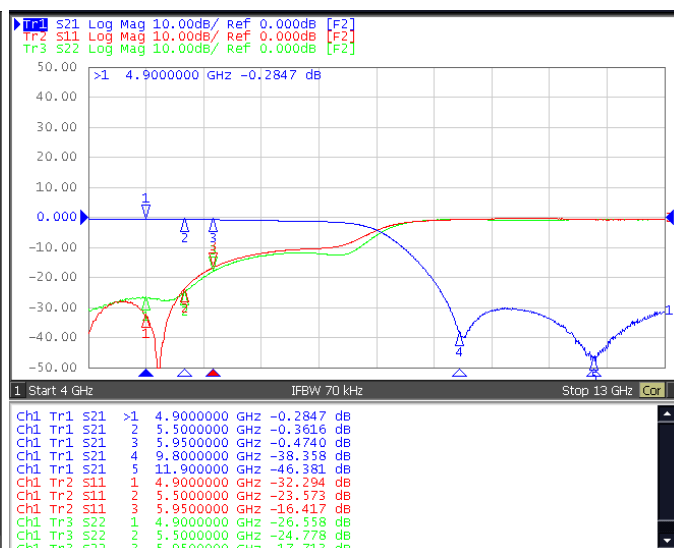
# Low Temperature Cofired Ceramic - BTLL Series

Test Instruments : Agilent E5071A Network Analyzer

**BTLL0016083G6S1A10**



**BTLL0016085G5S1A20**



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# Low Temperature Cofired Ceramic - BTLL Series

## Electrical Characteristics

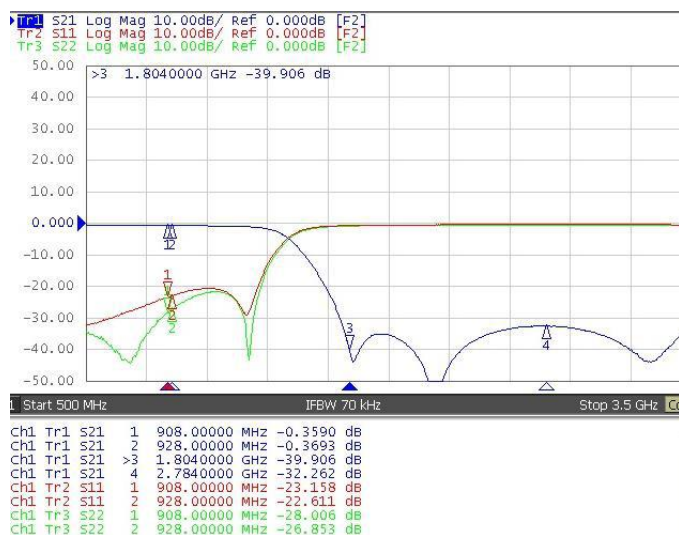
Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	VSWR (Max)	Attenuation
BTLL0020120G9S1B20	902~928	0.65	2	25dB Min. @ 2 x f0
				25dB Min. @ 3 x f0
BTLL0020122G0S1A20	1880~2025	1.4	2	30dB Min. @ 2400~2500 MHz
				25dB Min. @ 4020~4045 MHz
				30dB Min. @ 6030~6075 MHz

Part Number	Center Frequency (MHz)	Pass Band (MHz)	Insertion Loss (dB)Max	VSWR (Max)	Attenuation
BTLL0020125G5S1A20	5512	f0±363	0.7	1.9	30dB Min. @ 2 x (f0±363)MHz 20dB Min. @ 3 x (f0±363)MHz

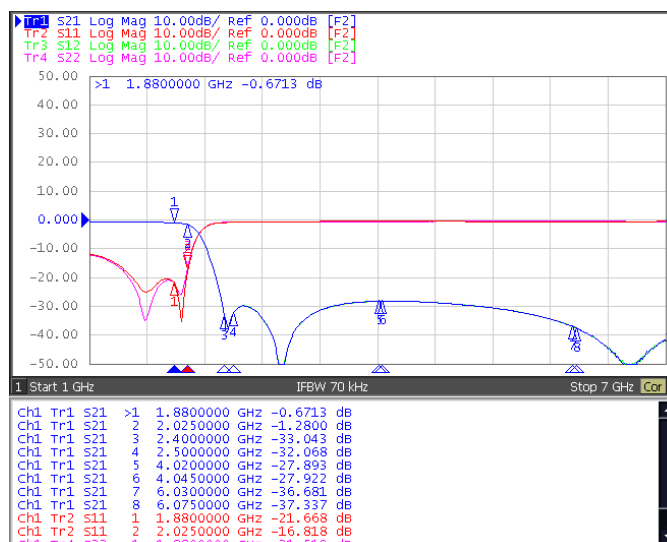
- Operating temperature range -40°C ~85°C

### Test Instruments : Agilent E5071A Network Analyzer

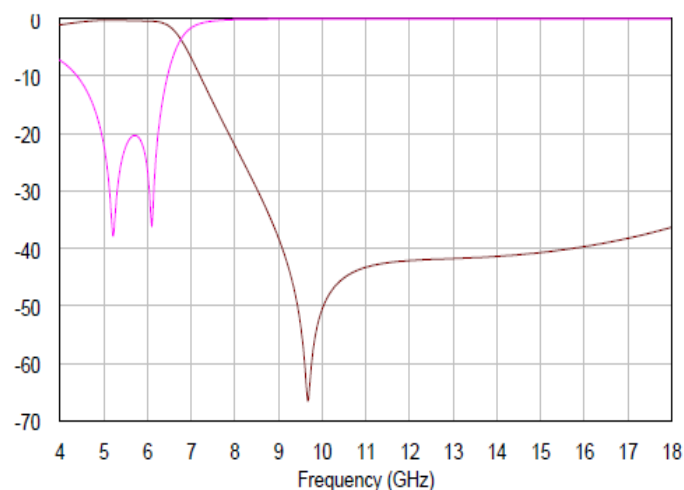
**BTLL0020120G9S1B20**



**BTLL0020122G0S1A20**



**BTLL0020125G5S1A20**

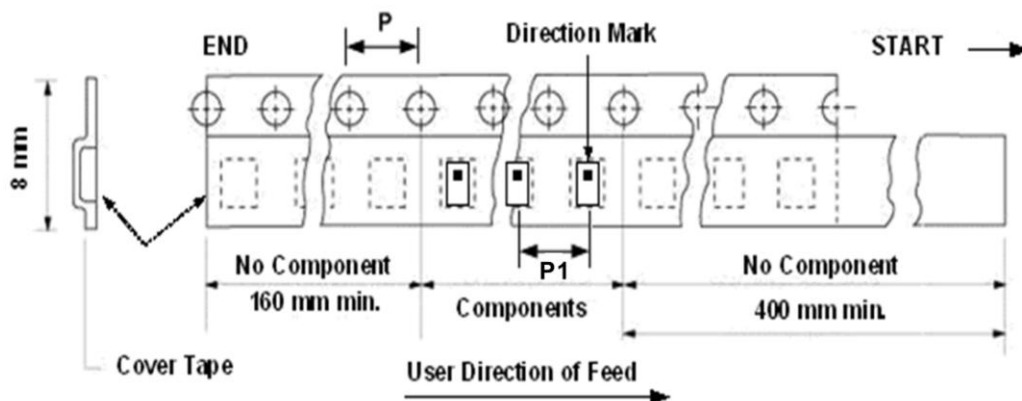


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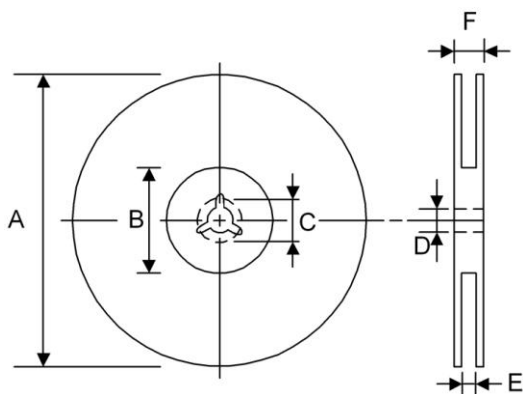
# Low Temperature Cofired Ceramic - BTLL Series

## Packaging Specifications

### Tape Dimensions



### Reel Dimensions



### Dimensions in mm

TYPE	Tape Dimensions		Reel Dimensions						Quantity PCS / REEL
	P	P1	A	B	C	D	E	F	
BTLL001005	4	2	178	60	-	13	9	12	10000
BTLL001608	4	4	178	60	-	13	9	12	4000
BTLL002012	4	4	178	60	-	13	9	12	4000

单击下面可查看定价，库存，交付和生命周期等信息

[>>CHILISIN\(奇力新\)](#)