# **BTBF Series**



#### 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.

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.

#### **Applications**

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

### **Product Identification**



Version Code Internal Code Material Type Center Frequency Dimensions Code Control Code Product Series Grade

#### **Shapes and Dimensions**

#### BTBF0016082G4S1A20

BTBF0020123G6H6A10



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# Terminal Configuration



① Unbalance Port	2 GND	③ Balance Port1
③ Balance Port1	⑤ GND	6 GND



1 NC	② DC or NC Port	③ Un-Balance Port	④ GND
⑤ Balance Port1	6 GND	⑦ Balance Port	⑧ GND

#### Dimension in mm

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ТҮРЕ	L	W	т	а	b	С	р
BTBF0016082G4S1A20	1.6±0.1	0.8±0.1	0.65Max	0.3±0.1	0.2±0.1	0.15±0.1	0.55±0.05
BTBF0020123G6H6A10	2.0±0.2	1.25±0.2	1.0±0.1	0.3 <sup>+0.1</sup> -0.15	0.3 <sup>+0.1</sup> -0.15	0.2±0.15	0.65±0.15



# **Low Temperature Cofired Ceramic - BTBF Series**

# **Electrical Characteristics**

	Deee Bend	Impodonoo	Insertion	Return	Balanc		e Port		
Part Number	(MHz)	impedance (Ω)	Loss (dP)Max	Loss	(dB)Max	Amplitude	Phase	Attenuation	Application
			(ub)wax	(ab)wiin			Difference		
								19dB Min.@	
BTBF0016082G4S1A20					1	2 dB Max	180±10°	4800~5000 MHz	WLAN/BT
	2400~2500	400~2500 50 1.7	1.75	10				19dB Min.@	
								7200~7500 MHz	

• Operating temperature range  $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$ 

# Test Instruments : Agilent E5071C Network Analyzer



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.



# **Electrical Characteristics**

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Max	Ripple (dB)Max	Balance Port Phase Amplitude Difference		Attenuation	Application
							30dB Min.@ 1710~1910 MHz	
BTBF0020123G6H6A10	3400~3800 3.2						30dB Min.@ 2200~2400 MHz	140
		7.36 1	1	2.5 dB Max	180±10°	20dB Min.@ 4400~4800 MHz	vvimax	
						15dB Min.@ 5500~10 MHz		

• Unbalance impedance : 50  $\Omega$ 

• Balance impedance : 100  $\Omega$ 

• Operating temperature range  $-40^{\circ}C \sim 85^{\circ}C$ 

## Test Instruments : Agilent E5071C Network Analyzer







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# **Packaging Specifications**

# **Tape Dimensions**



### **Reel Dimensions**



#### Dimensions in mm

TYPE	Tape Dir	nensions	Reel Dimensions						Quantity
TTPE	Р	P1	А	В	С	D	Е	F	PCS / REEL
BTBF001608	4	4	178	60	-	13	9	12	4000
BTBF002012	4	4	178	60	-	13	9	12	4000

