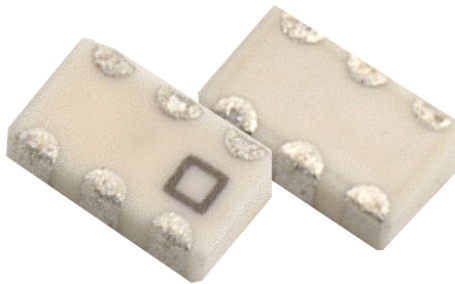


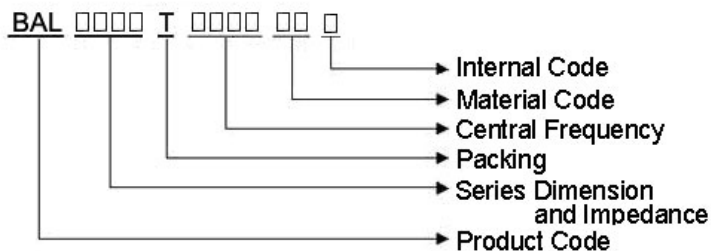
BALUN Series



Features

- RoHS Compliant
- Miniaturized
- Low insertion loss
- High rejection at lower stop band and 2nd harmonic band

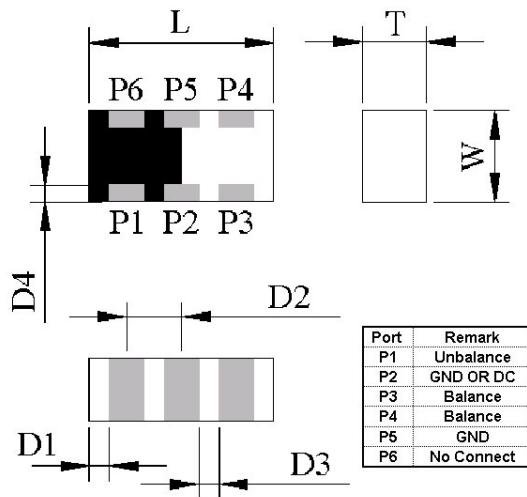
Product Identification



Applications

- 2.4GHz ISM band WLAN and Bluetooth

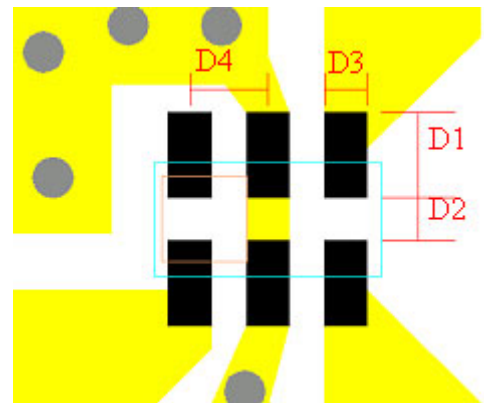
Shapes and Dimensions



Dimension in mm

TYPE	L	W	T	P1-P6	D1	D2	D3	D4
BAL1805T2450HA1	1.6±0.1	0.8±0.1	0.55±0.1	0.3±0.1	0.1±0.1	0.55±0.1	0.25±0.1	0.15±0.1
BAL1810T2450HA1	1.6±0.1	0.8±0.1	0.55±0.1	0.3±0.1	0.1±0.1	0.55±0.1	0.25±0.1	0.15±0.1
BAL1810T2450HA2	1.6±0.1	0.8±0.1	0.55±0.1	0.3±0.1	0.1±0.1	0.55±0.1	0.25±0.1	0.15±0.1

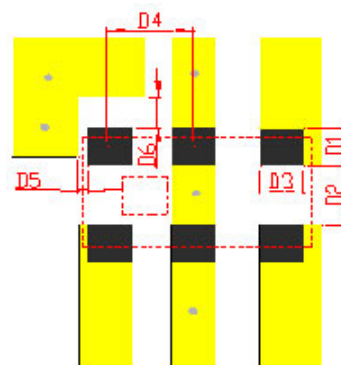
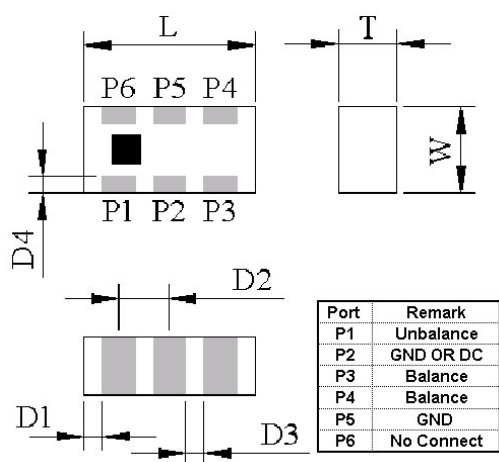
Recommended Pattern



Dimension in mm

TYPE	D1	D2	D3	D4
BAL1805T2450HA1	0.6±0.1	0.3±0.1	0.3±0.1	0.55±0.1
BAL1810T2450HA1	0.6±0.1	0.3±0.1	0.3±0.1	0.55±0.1
BAL1810T2450HA2	0.6±0.1	0.3±0.1	0.3±0.1	0.55±0.1

Low Temperature Cofired Ceramic LTCC Series

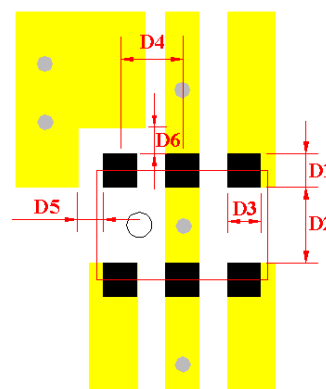
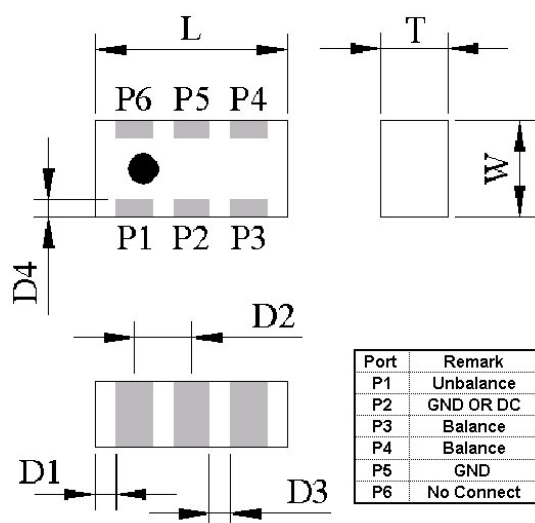


Dimension in mm

TYPE	L	W	T	P1-P6	D1	D2	D3	D4
BAL2005T2450HA1	2.0±0.15	1.25±0.15	0.65±0.15	0.3±0.15	0.2±0.15	0.65±0.15	0.35±0.15	0.3±0.15
BAL2007T5500HA1	2.0±0.15	1.25±0.15	0.60±0.15	0.3±0.15	0.2±0.15	0.65±0.15	0.35±0.15	0.3±0.15
BAL2020T2450HA1	2.0±0.15	1.25±0.15	0.65±0.15	0.3±0.15	0.2±0.15	0.65±0.15	0.35±0.15	0.3±0.15

Dimension in mm

TYPE	D1	D2	D3	D4	D5	D6
BAL2005T2450HA1	1.0±0.1	0.8±0.1	0.35±0.1	0.65±0.1	0.25±0.1	0.25±0.1
BAL2007T5500HA1	1.0±0.1	0.8±0.1	0.35±0.1	0.65±0.1	0.25±0.1	0.25±0.1
BAL2020T2450HA1	1.0±0.1	0.8±0.1	0.35±0.1	0.65±0.1	0.25±0.1	0.25±0.1



Dimension in mm

TYPE	L	W	T	P1-P6	D1	D2	D3	D4
BAL2010T2450HA1	2.0±0.15	1.25±0.15	0.65±0.15	0.3±0.15	0.2±0.15	0.65±0.15	0.35±0.15	0.3±0.15
BAL2010T5500HA1	2.0±0.15	1.25±0.15	0.60±0.15	0.3±0.15	0.2±0.15	0.65±0.15	0.35±0.15	0.3±0.15

Dimension in mm

TYPE	D1	D2	D3	D4	D5	D6
BAL2010T2450HA1	1.0±0.1	0.8±0.1	0.35±0.1	0.65±0.1	0.25±0.1	0.25±0.1
BAL2010T5500HA1	1.0±0.1	0.8±0.1	0.35±0.1	0.65±0.1	0.25±0.1	0.25±0.1

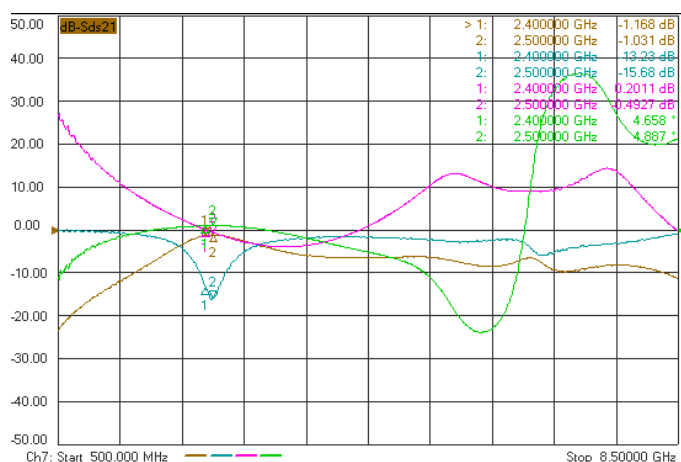
Low Temperature Cofired Ceramic LTCC Series

Electrical Characteristics

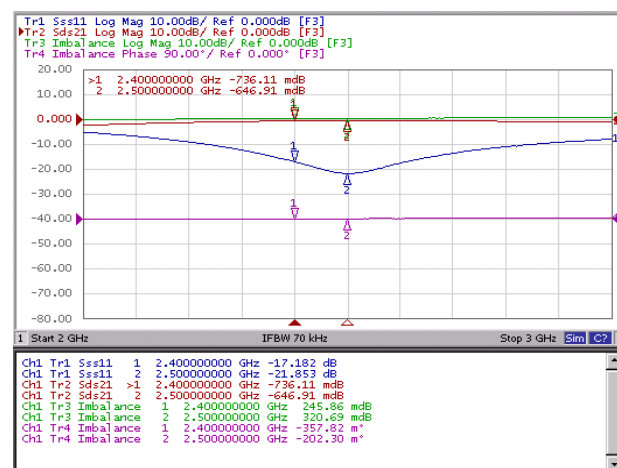
Part Number	Pass Band (GHz)	Impedance		VSWR	IL (dB)	Ripple (dB)	Difference	
		Unbalance (Ω)	Balance (Ω)				Amplitude (dB)	Phase (Degree)
BAL1805T2450HA1	2.4~2.5	50	50	2	1.2	0.6	2	180±10
BAL1810T2450HA1	2.4~2.5	50	100	2	1.2	0.6	2	180±10
BAL1810T2450HA2	2.4~2.5	50	100	2	1.2	0.6	2	180±10
BAL2005T2450HA1	2.4~2.5	50	50	2	1.0	0.6	2	180±10
BAL2007T2450HA1	2.4~2.5	50	50	2	1.0	0.6	2	180±10
BAL2010T2450HA1	2.4~2.5	50	100	2	1.0	0.6	2	180±10
BAL2010T5500HA1	4.9~5.9	50	100	2	1.1	0.6	2	180±10
BAL2020T2450HA1	2.4~2.5	50	200	2	1.0	0.6	2	180±10

Test Instruments : Agilent E5071B/N5230A Vector Network Analyzer

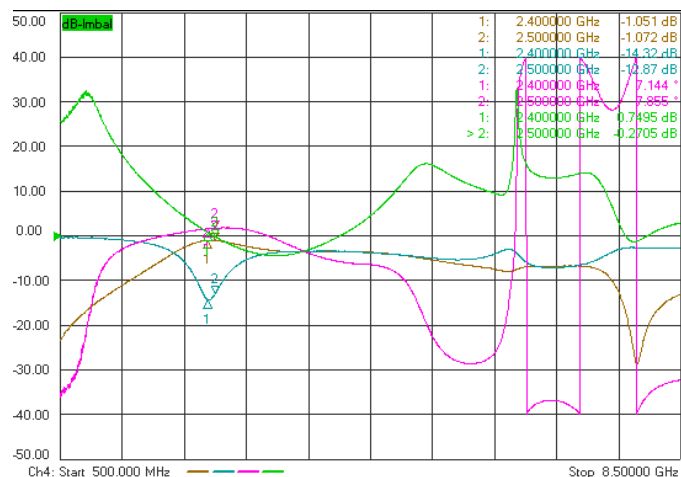
BAL1805T2450HA1



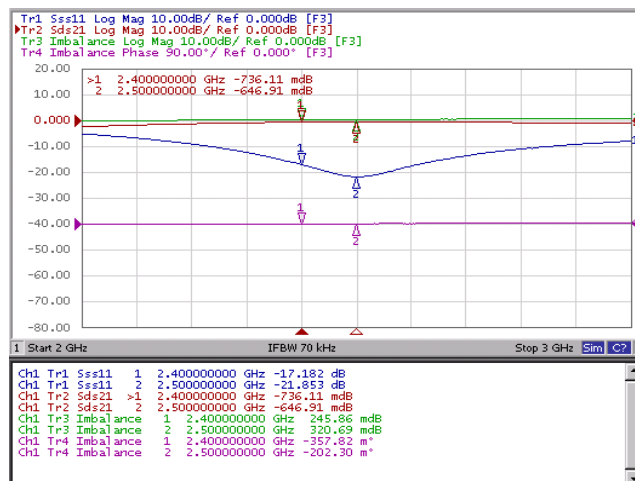
BAL1810T2450HA1



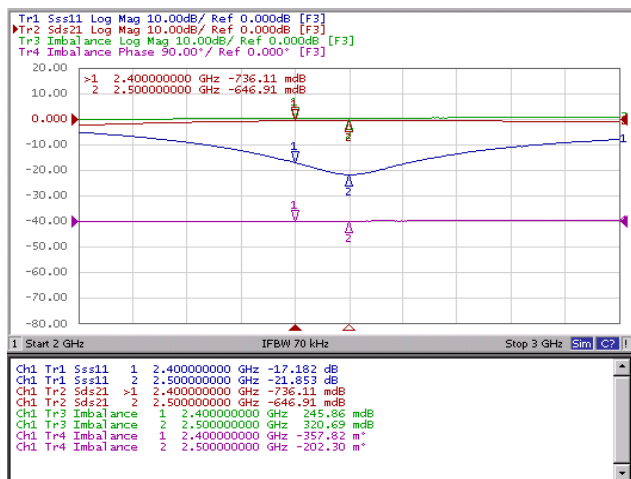
BAL1810T2450HA2



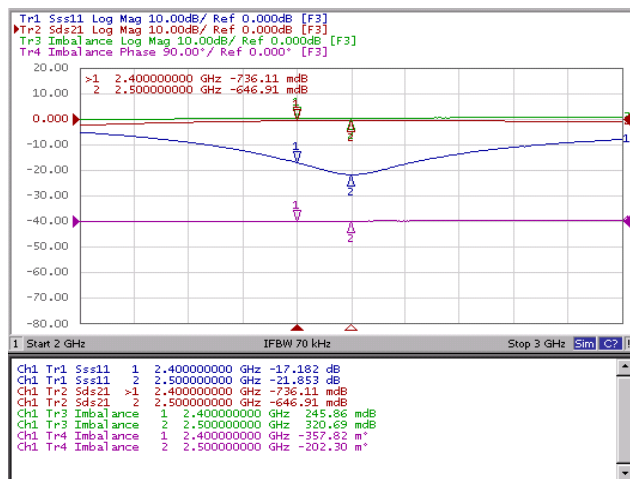
BAL2005T2450HA1



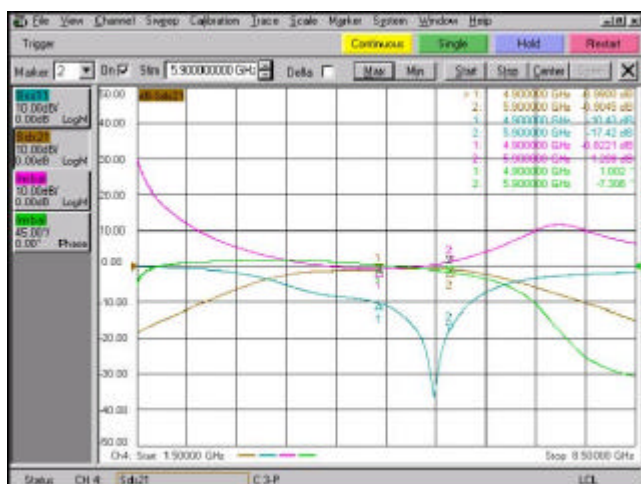
BAL2007T2450HA1



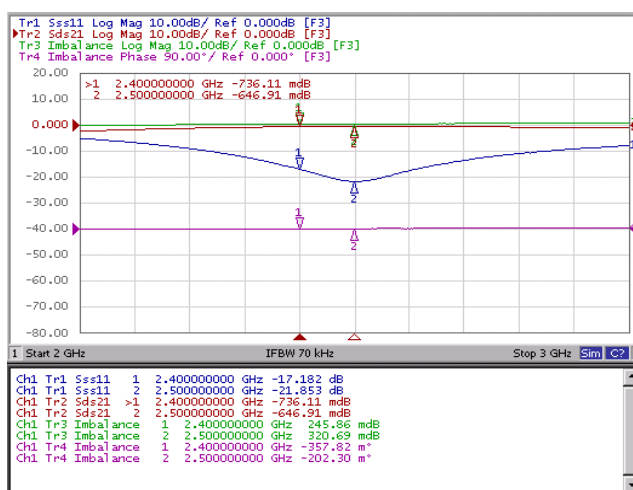
BAL2010T2450HA1



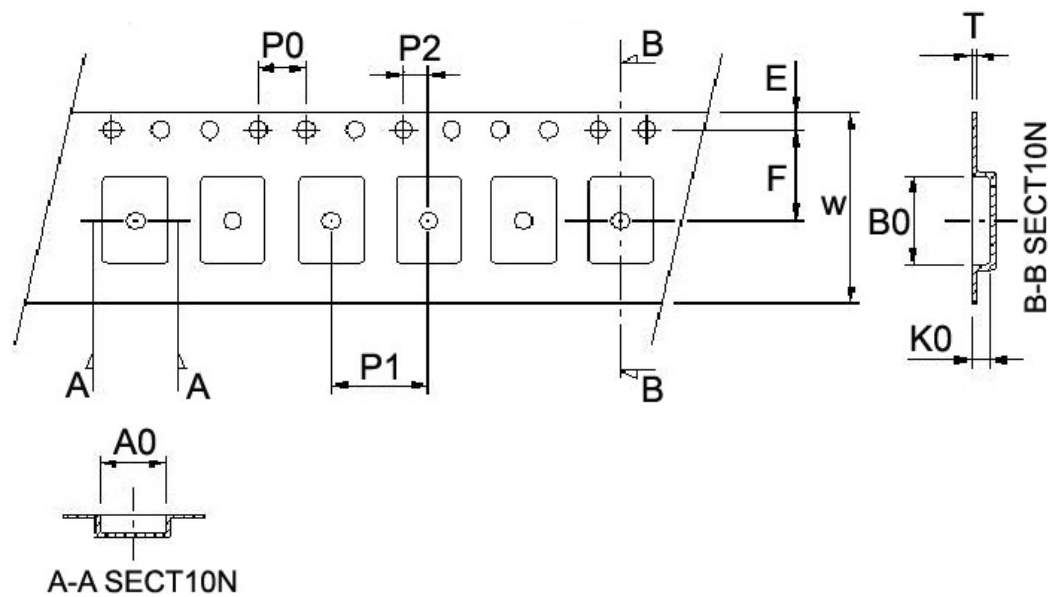
BAL2010T5500HA1



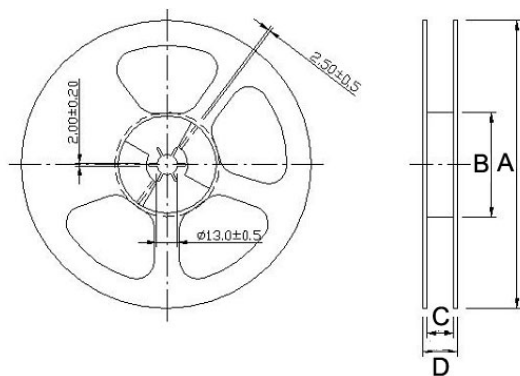
BAL2020T2450HA1



Packaging Specifications



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions									Reel Dimensions				Quantity PCS / REEL
	A0	B0	T	E	W	P1	P2	F	K0	A	B	C	D Max	
BAL18XTXXXXHA X	0.95	1.80	0.22	1.75	8.1	4	2	3.5	0.75	178	62	8.4	14.4	4000
BAL20XT2450HA X	1.42	2.25	0.22	1.75	8.1	4	2	3.5	0.80	178	62	8.4	14.4	4000