Wire Wound Type Balun

BCM2012F2SO-SERIES

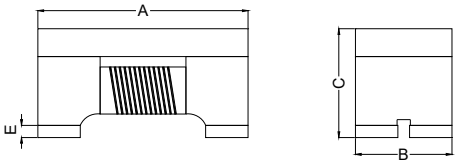
1. Features

1. Low insertion loss at frequency range.
2. BCM2012F2SO series realizes small size and low profile. 2.0x1.2x1.2 mm.
3. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
4. Operating temperature -40~+125℃ (Including self - temperature rise).

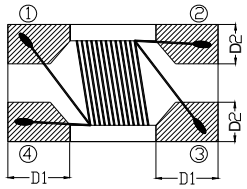
Halogen-free

RoHS

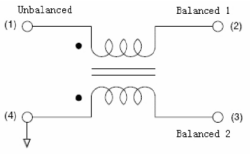
2. Dimension



Series	A(mm)	B(mm)	C(mm)	D1(mm)	D2(mm)	E(mm)
2012F2SO	2.00±0.20	1.20±0.20	1.20±0.20	0.50±0.10	0.51±0.10	0.15±0.10



Bottom View



Schematic Diagram

3. Part Numbering

BCM	2012	F	2	S	O	-	750	11	-	122
A	B	C	D	E	F		G	H		I

A: Series
B: Dimension
C: Material Ferrite Core
D: Number of Lines 2=2 lines
E: Type S=Shielded, N=Unshielded
F: Category Code Industrial Grade
G: Impedance Match 750= 75 ohm
H: Turns Rate 11=1：1
I : Control S/N Internal code

4. Specification

TAI-TECH Part Number	UB/B Impedance (Ω)	Test Frequency (MHz)	DCR (Ω) max.	Rated Power (dBm) max.	Rated Volt. (DCV) max.	Withstand Volt. (DCV) max.	Insulation Resistance (MΩ) min.	Insertion Loss (dB) max.	CMRR (dB)
BCM2012F2SO-50011-TE2	50/50	400~1800	0.50	27	20	125	10	2.2	15(typ.)
BCM2012F2SO-50011-T02	50/50	40~ 860	1.00	27	20	125	10	2.5	20(typ.)
BCM2012F2SO-50011-MN2	50/50	100~1000	0.35	27	20	50	10	1.0	10(min.)
BCM2012F2SO-50011-ST2	50/50	45~870	1.00	27	20	50	10	1.2	20(min.)
BCM2012F2SO-75011-TE2	75/75	400~1800	0.50	27	20	125	10	2.0	15(typ.)
BCM2012F2SO-75011-T02	75/75	50~1200	0.70	27	20	125	10	1.2	20(typ.)
BCM2012F2SO-75011-MS2	75/75	1000~1500	0.59	27	20	50	10	1.4	20(min.)

TAI-TECH Part Number	UB/B Impedance (Ω)	Test Frequency (MHz)	DCR (Ω) max.	Rated Power (dBm) max.	Rated Volt. (DCV) max.	Withstand Volt. (DCV) max.	Insulation Resistance (MΩ) min.	Insertion Loss (dB) max.	CMRR (dB)
BCM2012F2SO-75011-MT2	75/75	50~1200	0.77	27	20	50	10	50~870MHz: 1.0 870~1200MHz: 1.2.	20(min.)
BCM2012F2SO-75011-SA2	75/75	45~870	0.88	27	20	50	10	1.0	20(min.)
BCM2012F2SO-75011-SB2	75/75	50~1200	0.70	27	20	50	10	1.2	20(min.)
BCM2012F2SO-75011-122	75/75	1000~1500	0.59	27	20	50	10	1.4	20(min.)

Note:

- All test data referenced to 25℃ ambient.

Insertion Loss& CMRR

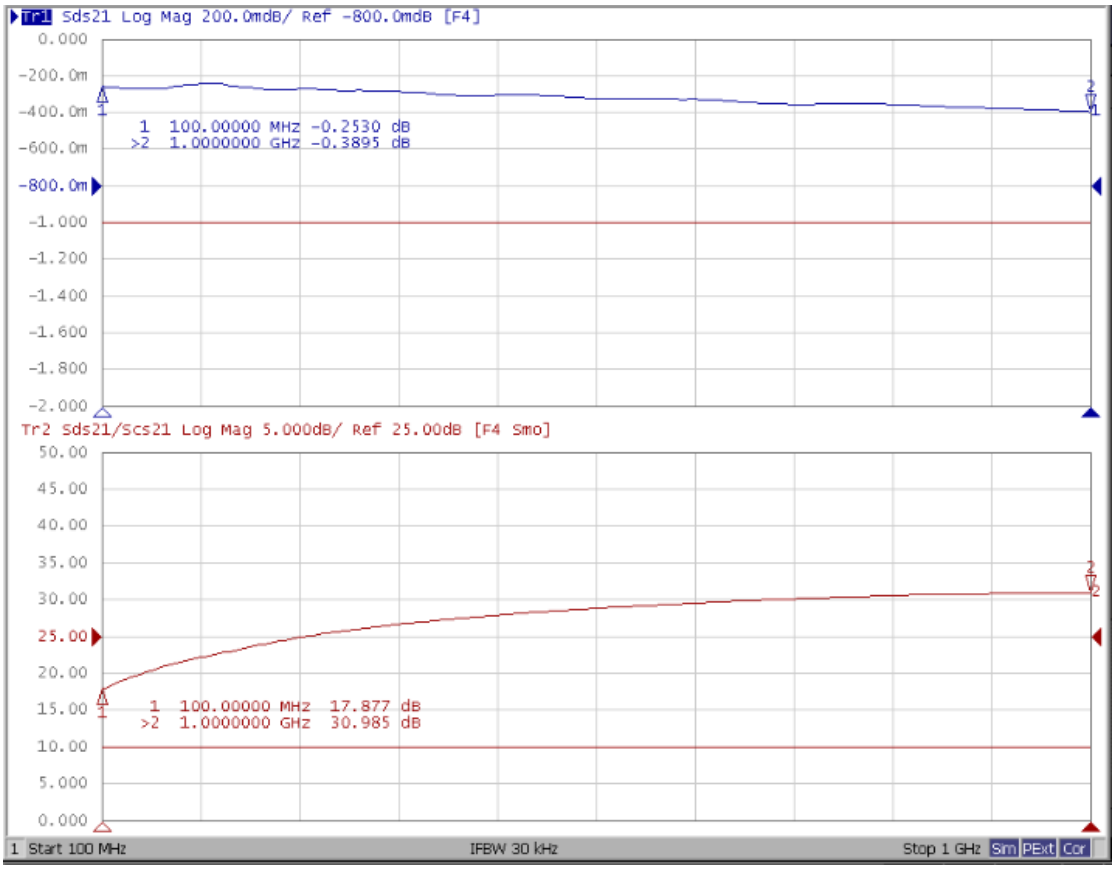
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BCM2012F2SO-50011-T02



BCM2012F2SO-50011-MN2



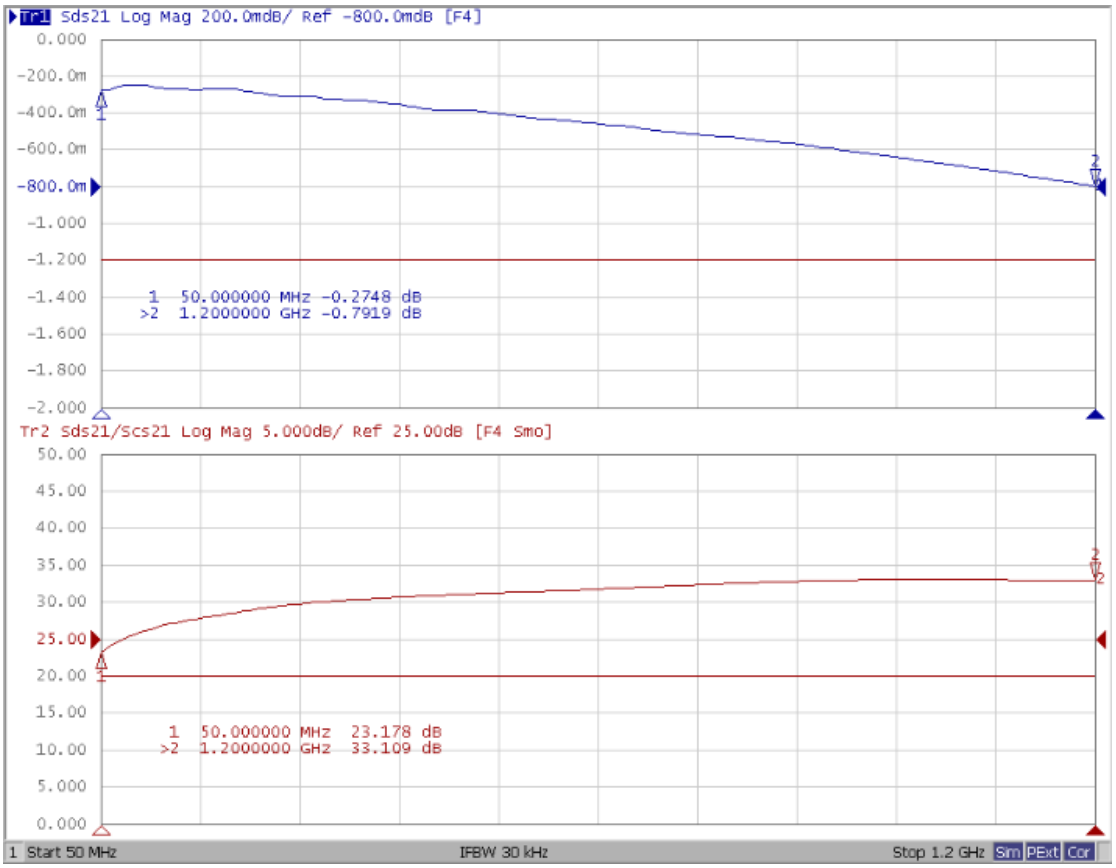
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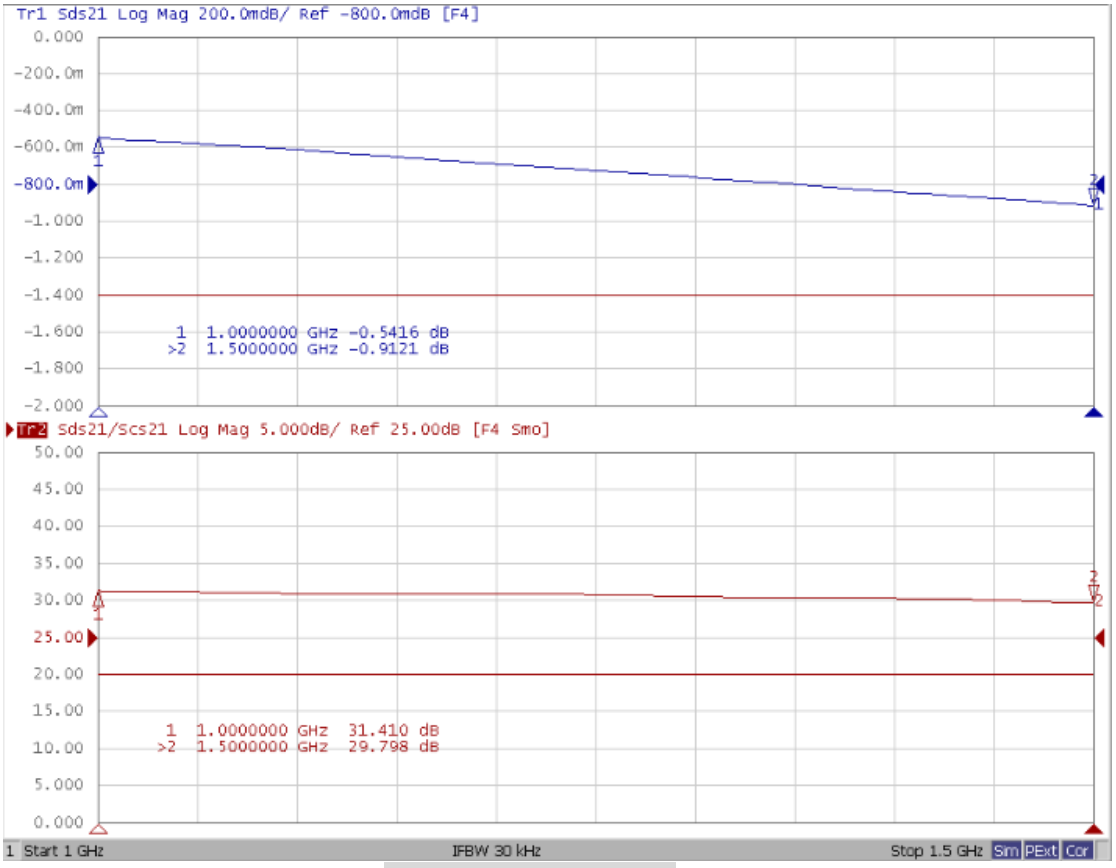
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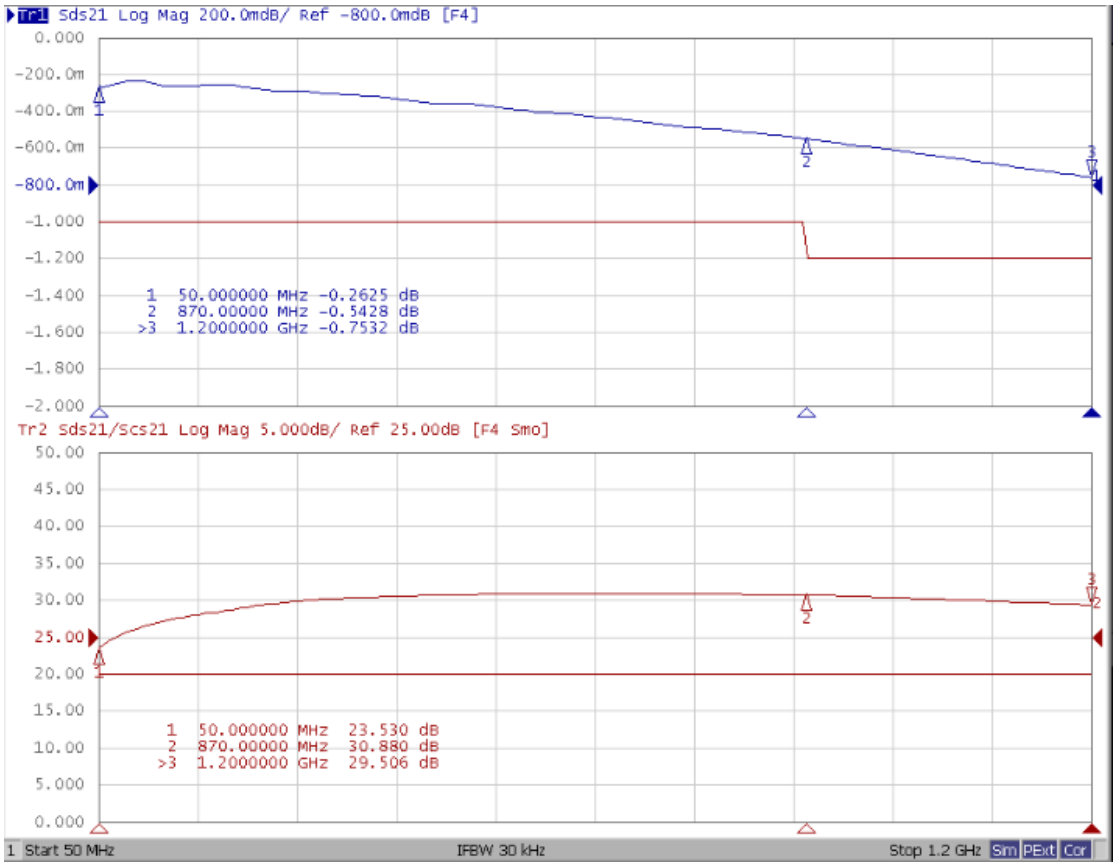
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BCM2012F2SO-75011-MS2



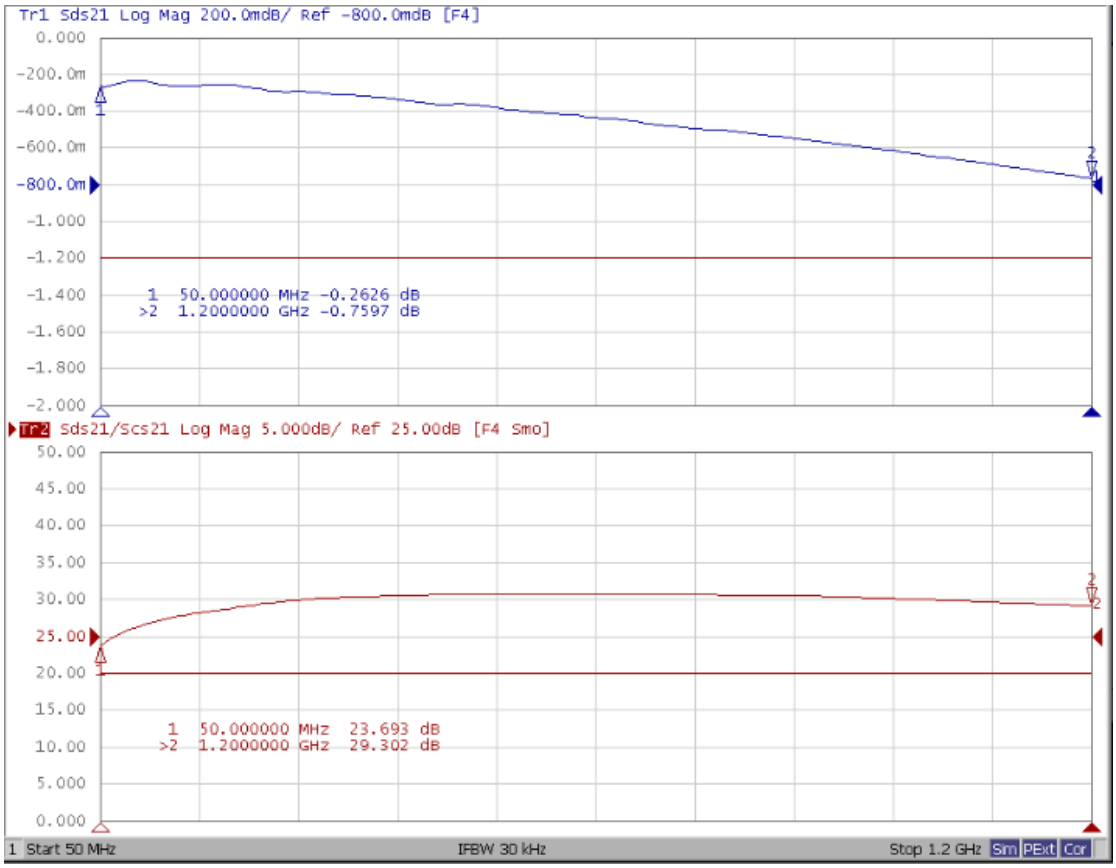
BCM2012F2SO-75011-MT2



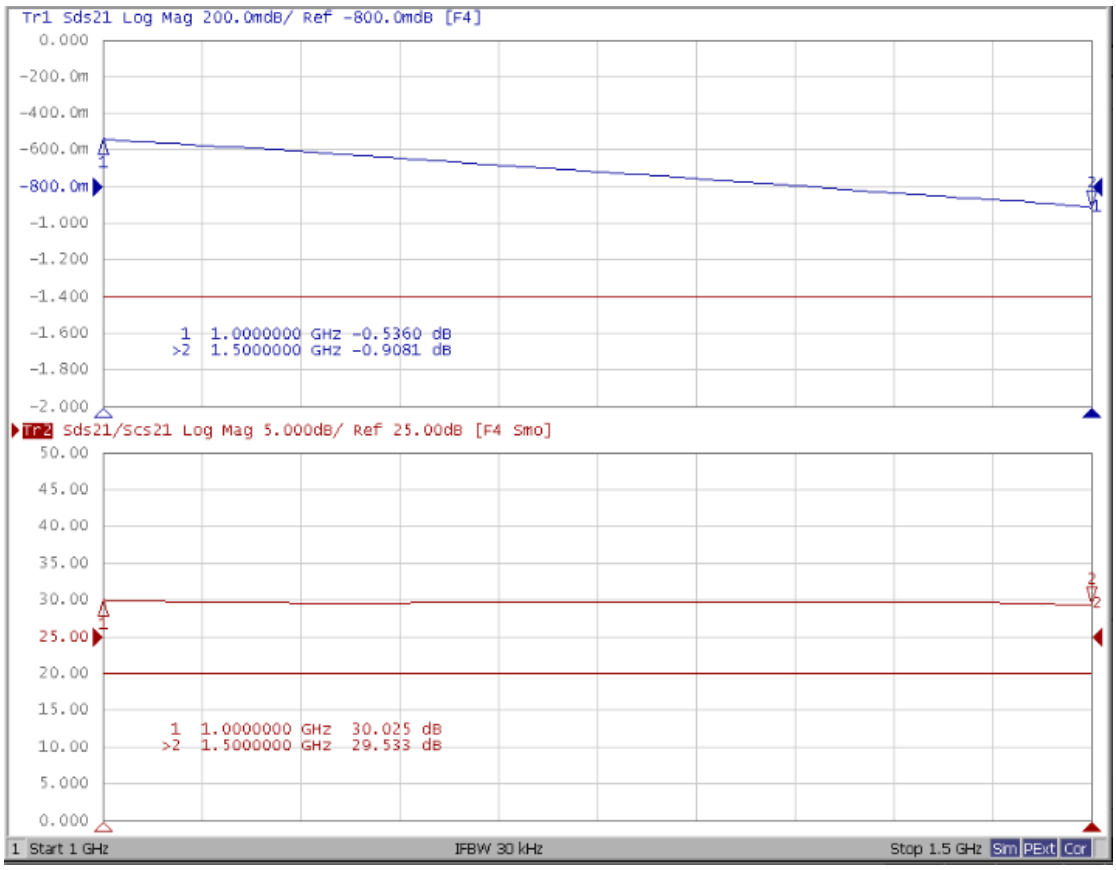
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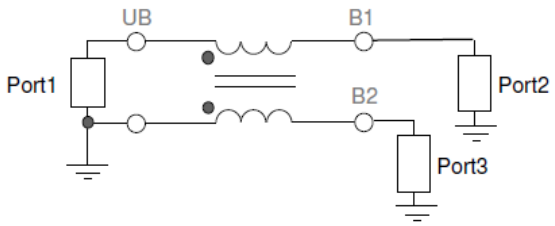
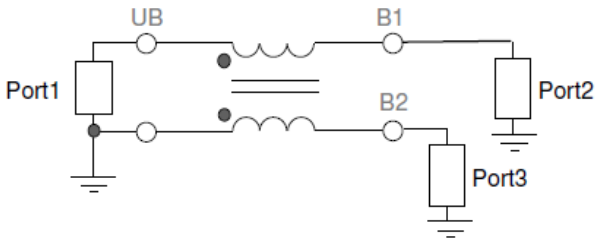


BCM2012F2SO-75011-SB2



BCM2012F2SO-75011-122



ITEM	Definition and Measurement Method
Insertion Loss	Insertion Loss is measured with Vector Network Analyzer (VNA). Insertion Loss is Sds21 mag extracted from the following circuit. Parasitic and loss factors caused by the test board have to be removed by "De-embedding" computation. IL[dB] = 20log10(Sds21) Where Sds21 is S-parameter of single mode stimulus - Differential mode response. 
CMRR	Common Mode Rejection Ratio (CMRR) is a function of both amplitude imbalance and phase imbalance. If a differential VNA is not available, CMRR can be computed based on single ended measurement. CMRR[dB] = 20log10(Sds21/Scs21) = 20log10{(S21+S31)/(S21-S31)} Where Sds21 is S-parameter of single mode stimulus - Differential mode response. Scs21 is S-parameter of single mode stimulus - Common mode response. Measurement setup for the single ended measurement is as follows. It is assumed that the single-ended S-parameters are obtained with proper matched-load termination at each port. Parasitic and loss factors caused by the test board have to be removed by "De-embedding" computation. 

5. Recommended PC Board Pattern

	BCM2012F2S
L(mm)	2.60
H(mm)	1.40
G1(mm)	1.25
G2(mm)	0.45

