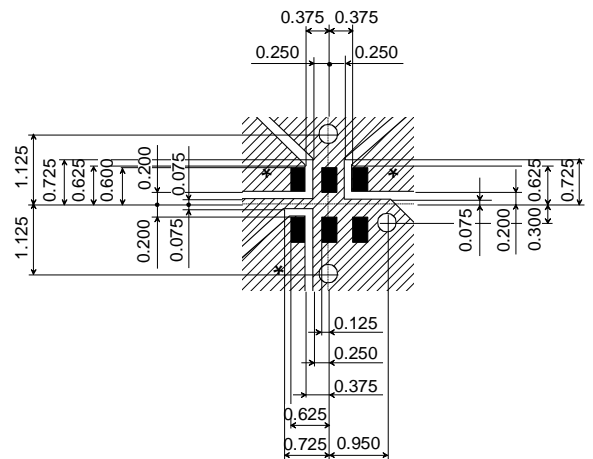
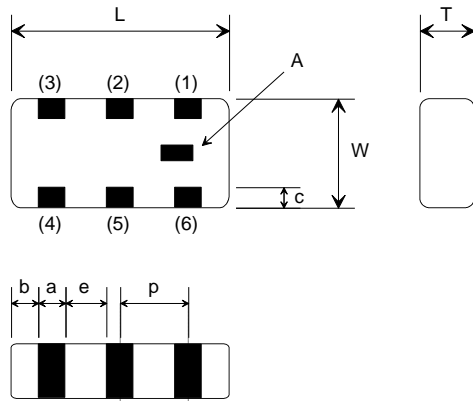


Balance Matching BAND PASS FILTER

1. Characteristics (at -40~+85 °C)

Tentative Part Number	LFB18868MBG9E212	
Unbalance Port Impedance (Nominal)	50 Ω(Nominal)	
Balance Port Impedance (Nominal)	Conjugate match to TI CC1310	
Center Frequency	f1	863.00 MHz ~ 876.00MHz
	f2	902.00 MHz ~ 928.00MHz
Insertion Loss in BW	1.90 dB max. at 25 °C	
	2.10 dB max. at -40 ~ +85 °C	
Attenuation (Absolute value)	20.0 dB min. at 1726.00 ~ 1856.00 MHz 40.0 dB min. at 2589.00 ~ 2784.00 MHz 33.0 dB min. at 3452.00 ~ 3712.00 MHz	
Unbalance Port V.S.W.R.in BW.	1.90 max.	
Balance Port V.S.W.R.in BW	2.10 max.	
Amplitude Balance	3.5 dB max	
Phase Differential	180+/-15.0 deg.	
Power Capacity	500 mW max.	

2. Construction, Dimensions & Marking 3. Land Pattern



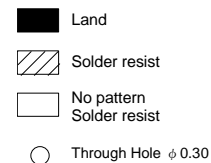
Mark	Meaning
A	Directional Input Mark

(in mm)

Mark	Dimension	Mark	Dimension	Mark	Dimension
L	1.6±0.1	a	0.2±0.1	e	0.3±0.1
W	0.8±0.1	b	0.20+0.10/-0.15	p	0.50±0.05
T	0.65 max.	c	0.15±0.10	-	-

TERMINAL CONFIGURATION

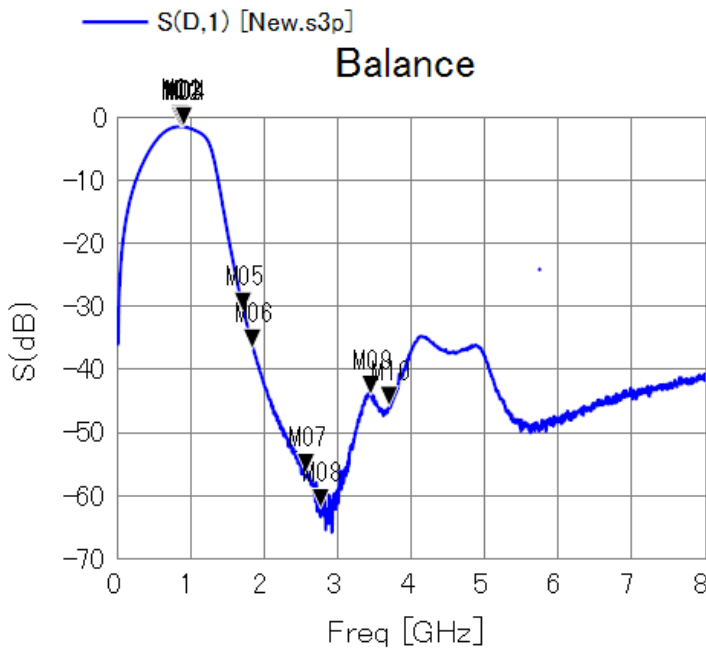
Terminal No.	Terminal Name	Terminal No.	Terminal Name
(1)	Unbalance Port	(4)	Balance Port
(2)	GND(DC feed)	(5)	GND
(3)	Balance Port	(6)	GND



*Line width to be designed to match 50Ω characteristic impedance, depending on PCB material and thickness.

■ Measurement S-parameters

< Insertion Loss & Attenuation >



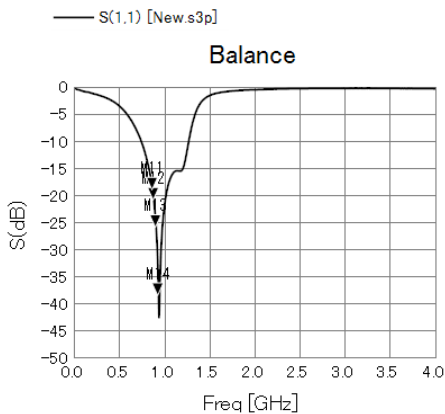
M01 : S(D,1) [New.s3p] Freq 863.000M Hz S(dB) -1.467	M02 : S(D,1) [New.s3p] Freq 876.000M Hz S(dB) -1.478
M03 : S(D,1) [New.s3p] Freq 902.000M Hz S(dB) -1.504	M04 : S(D,1) [New.s3p] Freq 928.000M Hz S(dB) -1.550

M05 : S(D,1) [New.s3p] Freq 1.726G Hz S(dB) -31.012	M06 : S(D,1) [New.s3p] Freq 1.856G Hz S(dB) -36.894
---	---

M07 : S(D,1) [New.s3p] Freq 2.589G Hz S(dB) -56.757	M08 : S(D,1) [New.s3p] Freq 2.784G Hz S(dB) -62.270
---	---

M09 : S(D,1) [New.s3p] Freq 3.452G Hz S(dB) -44.326	M10 : S(D,1) [New.s3p] Freq 3.712G Hz S(dB) -45.976
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< Return Loss & Impedance >

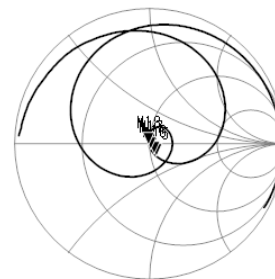


M11 : S(1,1) [New.s3p] Freq 863.000M Hz S(dB) -19.055	M12 : S(1,1) [New.s3p] Freq 876.000M Hz S(dB) -20.897
---	---

M13 : S(1,1) [New.s3p] Freq 902.000M Hz S(dB) -26.003	M14 : S(1,1) [New.s3p] Freq 928.000M Hz S(dB) -38.526
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S(1,1) [New.s3p]

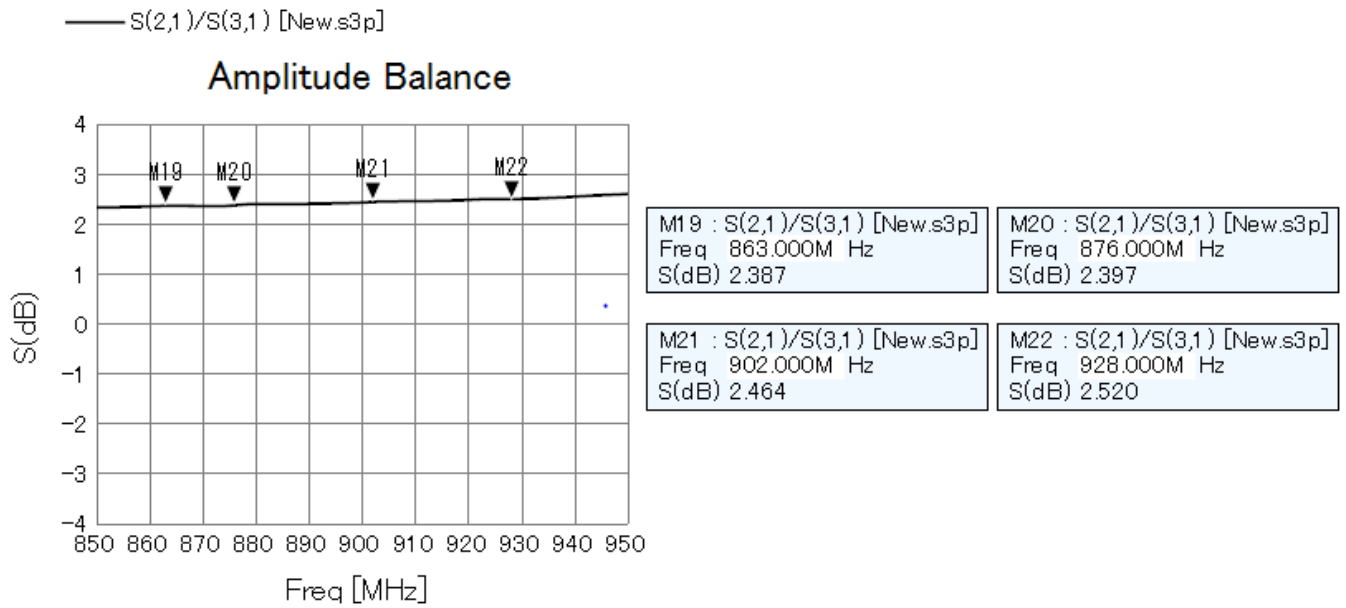
S parameter



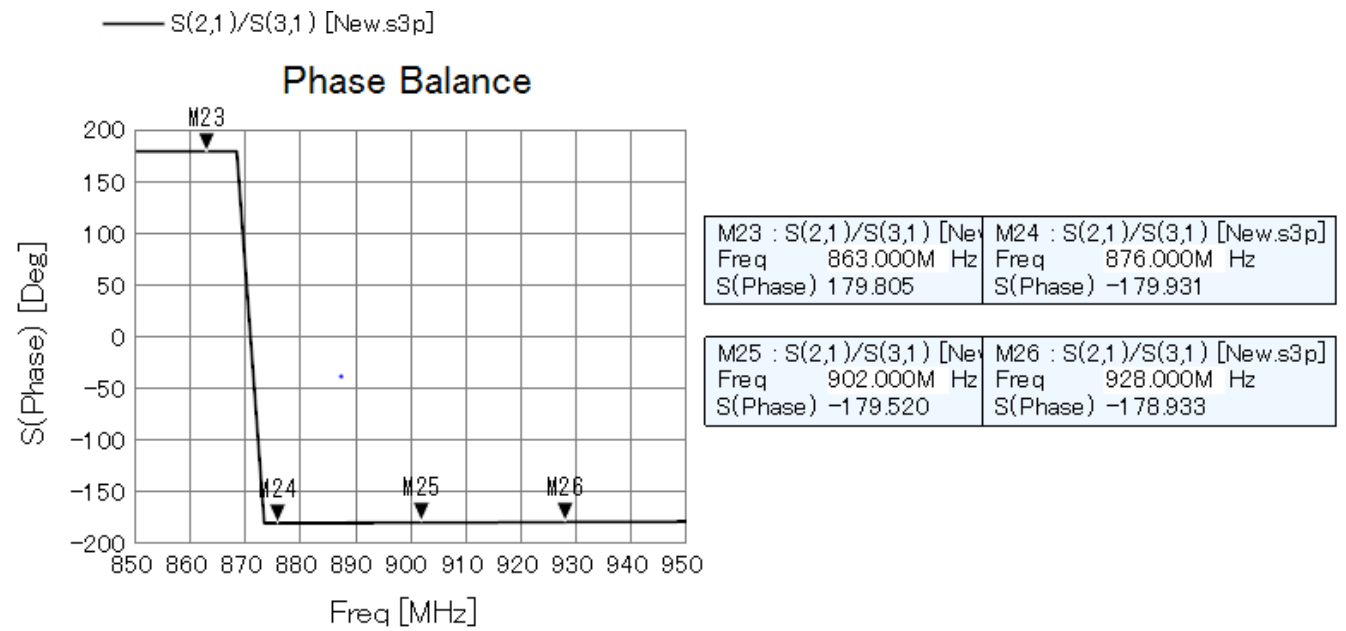
Freq (0.01GHz to 4.00GHz)

M15 : S(1,1) [New.s3p] Freq 863.000M Hz Z = 54.883 - j10.694 Ohm
M16 : S(1,1) [New.s3p] Freq 876.000M Hz Z = 53.369 - j8.737 Ohm
M17 : S(1,1) [New.s3p] Freq 902.000M Hz Z = 51.066 - j4.967 Ohm
M18 : S(1,1) [New.s3p] Freq 928.000M Hz Z = 49.646 - j1.132 Ohm

< Amplitude Balance >



< Phase Balance >



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