

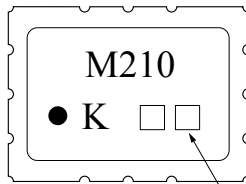
Band pass filter for US PCS IF stage.

- Low Insertion Loss.
- Balanced or Unbalanced operation possible.
- Source impedance : 50Ω single and matching circuit.
- Load impedance : 500Ω balanced and matching circuit.

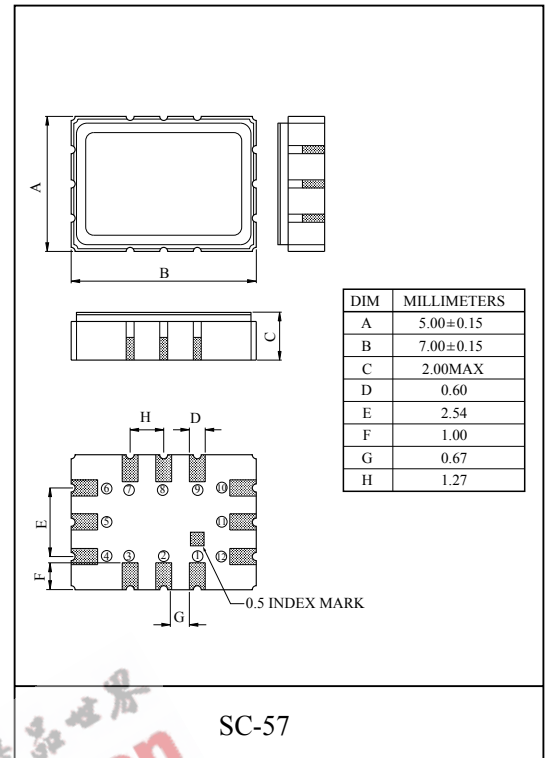
MAXIMUM RATING

ITEM	SYMBOL	RATING	UNIT
Input Signal Level	IS_{max}	10	dBm
DC Permissive Voltage	V_{DC}	0	V
Operating Temperature Range	T_{opr}	-30 ~ +80	°C
Storage Temperature Range	T_{stg}	-40 ~ +85	°C

MARKING



Lot No.



ELECTRICAL CHARACTERISTICS

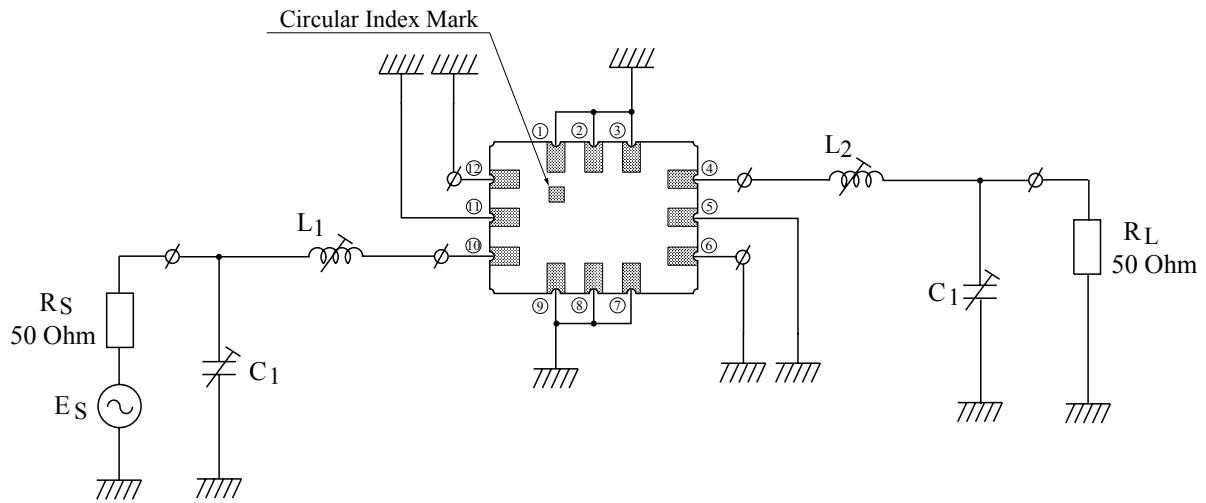
ITEMS	SYMBOL	MIN.	TYP.	MAX.	UNIT
Nominal Center Frequency	f_0	-	210.38	-	MHz
Insertion Loss	IL	-	8.0	9.2	dB
5 dB Lower Frequency	-	-	209.7	209.75	MHz
5 dB Upper Frequency	-	211.01	211.14	-	MHz
33 dB Lower Frequency	-	209.13	209.33	-	MHz
33 dB Upper Frequency	-	-	211.58	211.63	MHz
Attenuation at 209.13MHz	IL_{STOP}	33	41	-	dB
Attenuation at 211.63MHz		33	39.8	-	dB
Attenuation at 208.33MHz		-	47	-	dB
Attenuation at 212.43MHz		-	47	-	dB
Ripple over the $f_0 \pm 0.300$ MHz	Arip	-	0.9	1.5	dB _(P-P)
Phase Linearity at $f_0 \pm 0.615$ MHz	PL	-	1.8	3.5	deg rms
Ultimate Rejection	UR	-	50	-	dB
Source/Load Impedance **	-	-	$50\Omega/50\Omega$ $50\Omega/500\Omega$	-	Ω

note) "***" : Can be used 50Ω to $1k\Omega$ with degradation in Insertion Loss.

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TEST CIRCUIT

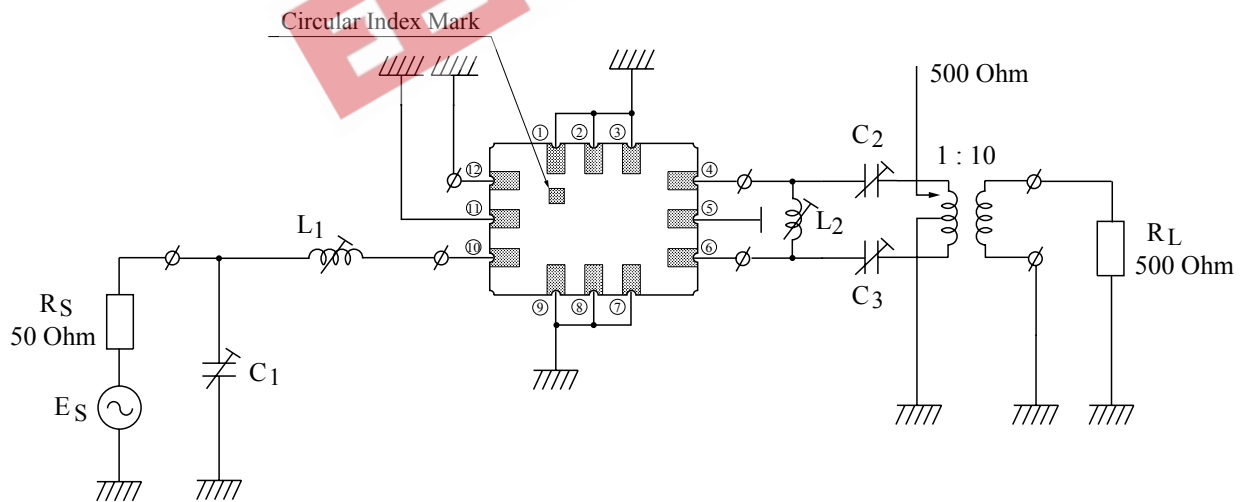
Matching Circuit (50 ohm single ended source / 50 ohm single ended load)



$$L_1 = 110 \text{ nH } (Q_1 > 60) \quad , \quad C_1 = 36 \text{ pF.}$$

$$L_2 = 110 \text{ nH } (Q_2 > 60) \quad , \quad C_2 = 36 \text{ pF.}$$

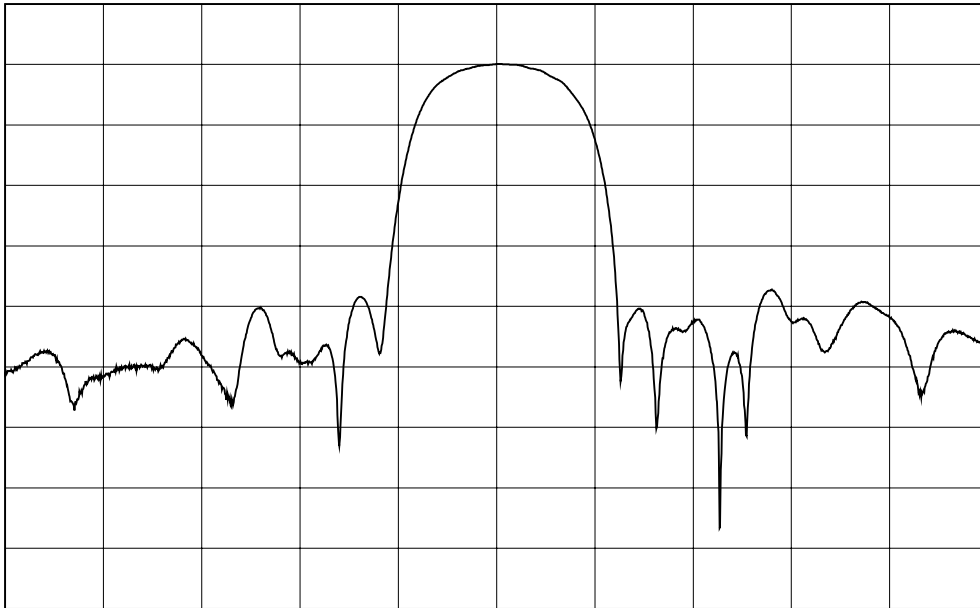
Matching Circuit (50 ohm single ended source / 500 ohm balanced load)



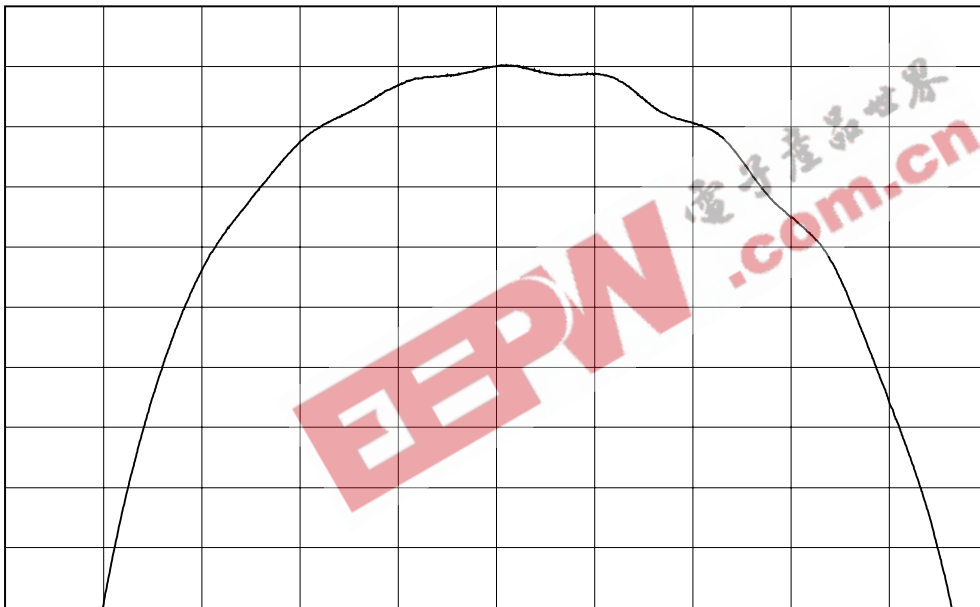
$$L_1 = 110 \text{ nH } (Q_1 > 60) \quad , \quad C_1 = 36 \text{ pF.}$$

$$L_2 = 110 \text{ nH } (Q_2 > 60) \quad , \quad C_2 = 2.4 \text{ pF} \quad C_3 = 2.4 \text{ pF.}$$

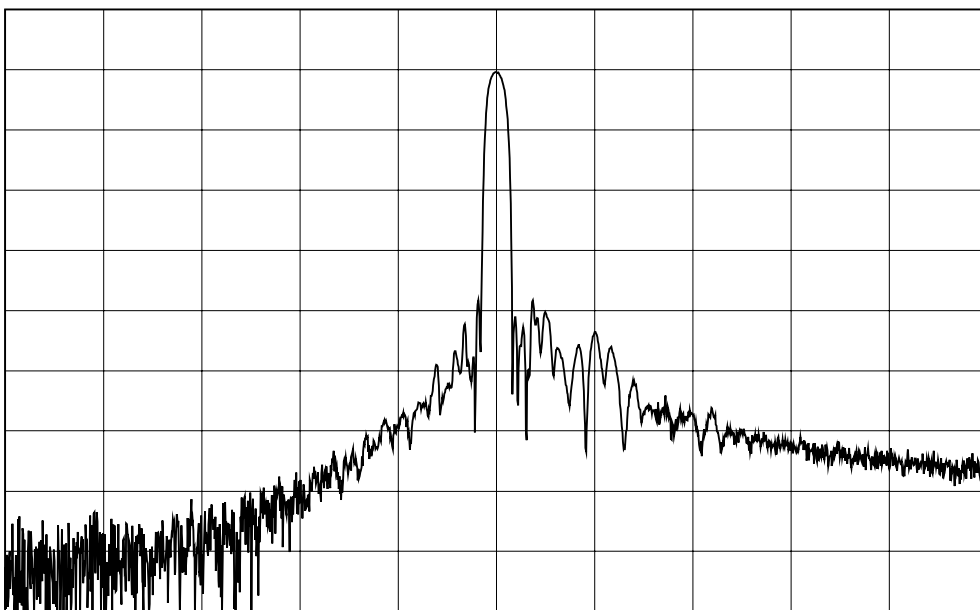
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HORIZONTAL : 1MHz/Div
VERTICAL : 8dB/Div



HORIZONTAL : 0.2MHz/Div
VERTICAL : 1dB/Div



HORIZONTAL : 7.5MHz/Div
VERTICAL : 10dB/Div