

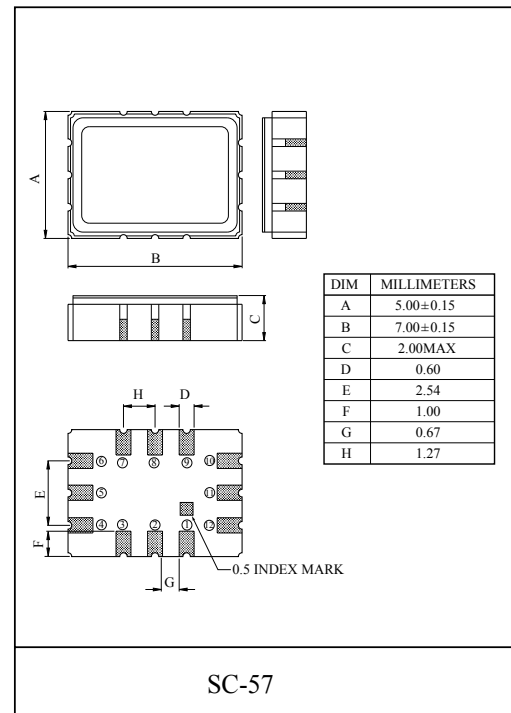
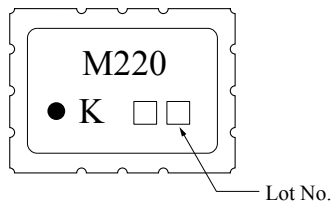
Band pass filter for Korean PCS IF stage.

- 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



ELECTRICAL CHARACTERISTICS

ITEMS	SYMBOL	MIN.	TYP.	MAX.	UNIT
Nominal Center Frequency	f_0	-	220.38	-	MHz
Insertion Loss	IL	-	8.0	9.5	dB
5 dB Lower Frequency	-	-	219.67	219.75	MHz
5 dB Upper Frequency	-	221.01	221.14	-	MHz
33 dB Lower Frequency	-	219.13	219.26	-	MHz
33 dB Upper Frequency	-	-	221.57	221.63	MHz
Attenuation at 219.13MHz *	IL_{STOP}	35	40	-	dB
Attenuation at 221.63MHz *		35	39.8	-	dB
Attenuation at 218.33MHz		-	47	-	dB
Attenuation at 222.43MHz		-	46	-	dB
Ripple over the $f_0 \pm 0.300$ MHz	A_{rip}	-	0.8	1.2	dB _(p-p)
Phase Linearity at $f_0 \pm 0.615$ MHz	PL	-	1.2	3.5	deg rms
Ultimate Rejection	UR	-	50	-	dB
Source/Load Impedance **	-	-	$50\Omega/50\Omega$ $50\Omega/500\Omega$	-	Ω

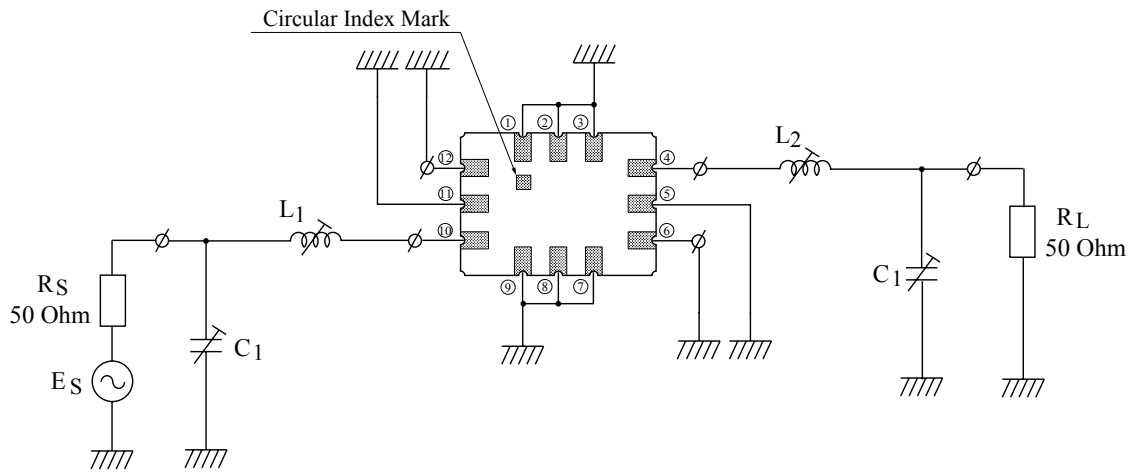
note) "*" : Specified at 25 °C

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

KFM220M

TEST CIRCUIT

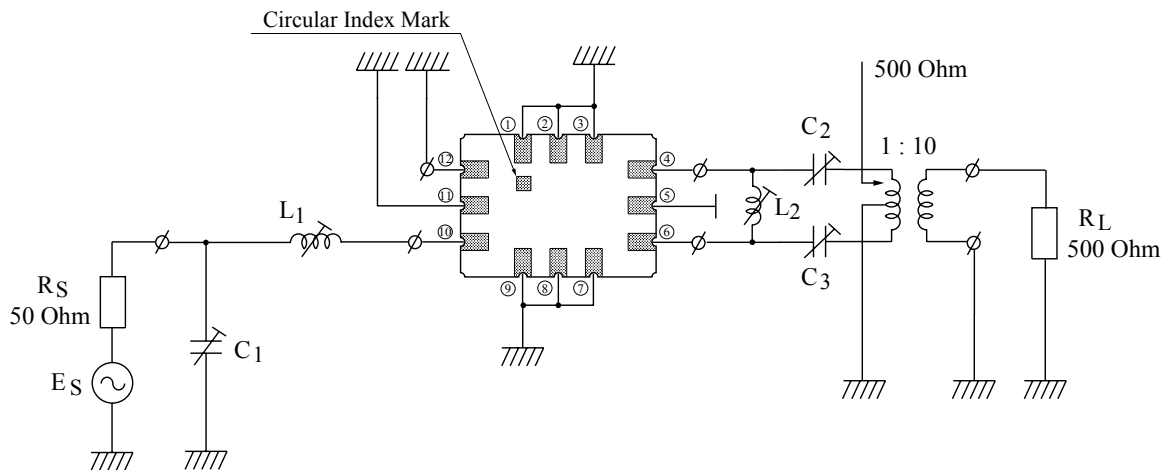
Matching Circuit (50 ohm single ended source / 50 ohm single ended load)



$$L_1=100\text{nH} (Q_1>60) \quad , \quad C_1=36\text{pF}.$$

$$L_2=100\text{nH} (Q_2>60) \quad , \quad C_2=36\text{pF}.$$

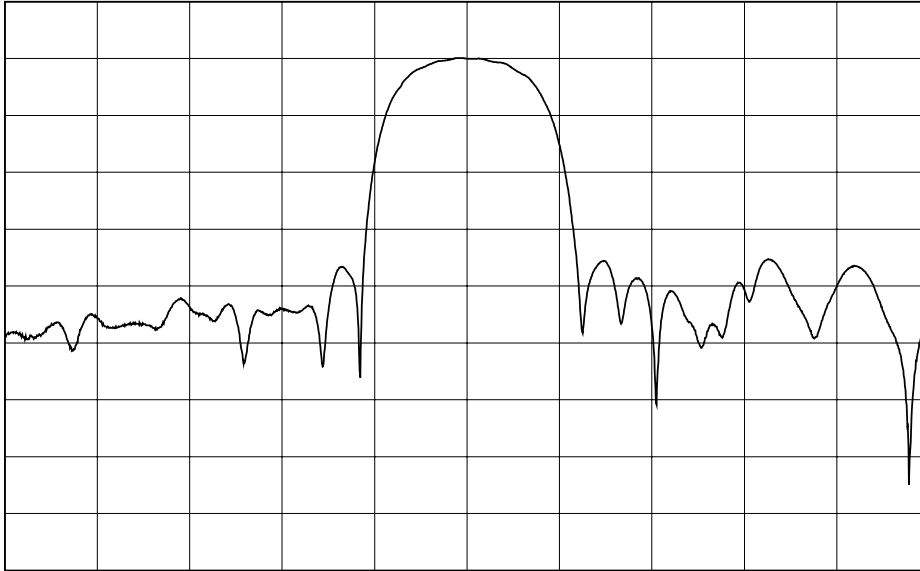
Matching Circuit (50 ohm single ended source / 500 ohm balanced load)



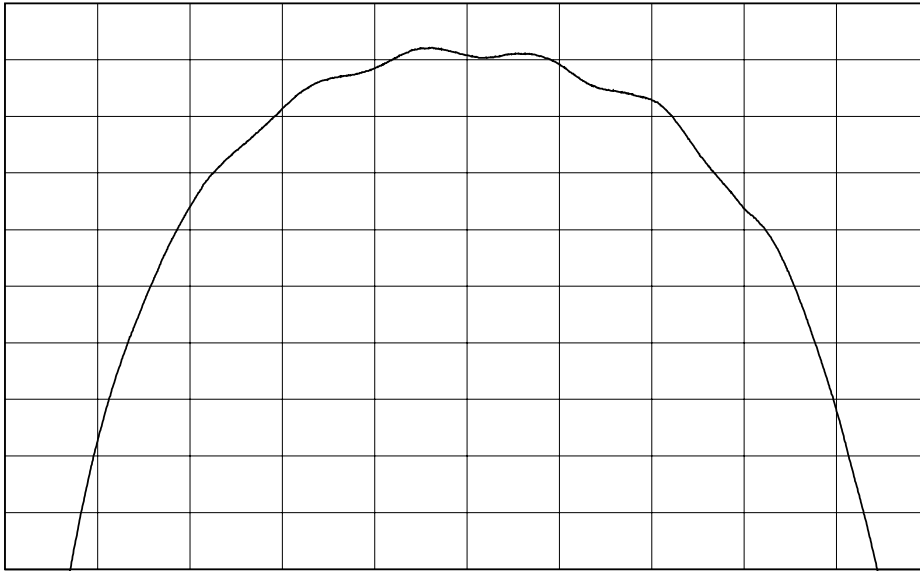
$$L_1=100\text{nH} (Q_1>60) \quad , \quad C_1=36\text{pF}.$$

$$L_2=100\text{nH} (Q_2>60) \quad , \quad C_2=2.4\text{pF} \quad C_3=2.4\text{pF}.$$

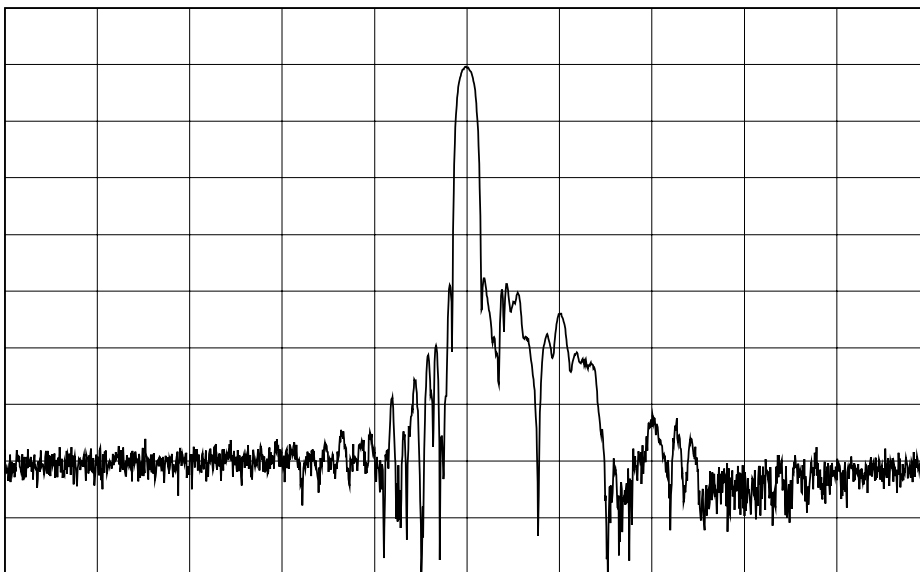
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HORIZONTAL : 1MHz/Div
VERTICAL : 8dB/Div



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



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