



# SURFACE ACOUSTIC WAVE FILTER

muRata

SAFC902.5 / 947.5MA(C)70N(T) for Digital Cellular

## SAW Filter for GSM RF Interstage

SAFC902.5/947.5MA(C)70N(T) are wide band SMD SAW Filters for GSM RF interstage. They are designed on LiNbO<sub>3</sub> (LiTaO<sub>3</sub>) substrates which give wide band width and high selectivity. Multi-layered ceramic package(SC44) is suitable for miniaturization.

### FEATURES

1. 1.5mm max. thickness, well-suited for small, light and thin design.
2. Applicable for reflow soldering, washable and available to supply with taping.
3. High selectivity.
4. Excellent stop band attenuation.
5. Non-adjustment, uniform performance.

### SPECIFICATIONS

Part number : SAFC902.5MA70N(Tx side)

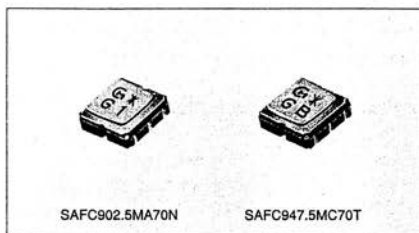
Item	Spec.	Typical
Nominal Center Frequency (fo)	902.5 MHz	—
Insertion Loss -		
I) 890~915MHz	4.5 dB max.	3.5 dB
II) 935~960MHz	20 dB min.	26 dB
Ripple Deviation (890~915MHz)	2.0 dB max.	0.7 dB
VSWR (890~915MHz)	2.5 max.	2.0
Input and Output Impedance	50 Ω//OpF	—

(Operating Temperature Range : -25°C ~ +75°C)

Part number : SAFC947.5MA70N(Rx side)

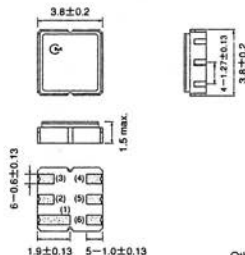
Item	Spec.	Typical
Nominal Center Frequency (fo)	947.5 MHz	—
Insertion Loss		
I) 935~960MHz	4.5 dB max.	3.5 dB
II) 890~915MHz	20 dB min.	27 dB
Ripple Deviation (935~960MHz)	2.0 dB max.	0.7 dB
VSWR (935~960MHz)	2.5 max.	1.7
Input and Output Impedance	50 Ω//OpF	—

(Operating Temperature Range : -25°C ~ +75°C)



### DIMENSIONS

• SC44 Package



(2) : Input  
 (5) : Output  
 Others : Ground  
 (in mm)

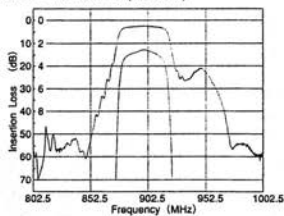
Part number : SAFC947.5MC70T(Rx side)

Item	Spec.	Typical
Nominal Center Frequency (fo)	947.5 MHz	—
Insertion Loss		
I) 935~960MHz	3.8 dB max.	3.0 dB
II) 440~890MHz	40 dB min.	48 dB
III) 890~915MHz	30 dB min.	37 dB
IV) 1005~1035MHz	30 dB min.	40 dB
V) 1070~1500MHz	40 dB min.	49 dB
VI) 1500~2000MHz	30 dB min.	37 dB
Ripple Deviation (935~960MHz)	1.5 dB max.	0.6 dB
VSWR (935~960MHz)	2.3 max.	1.7 dB
Input and Output Impedance	50 Ω//OpF	—

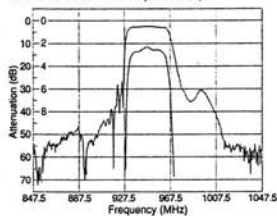
(Operating Temperature Range : -25°C ~ +75°C)

## FREQUENCY CHARACTERISTICS

S AFC902.5MA70N(Tx side)

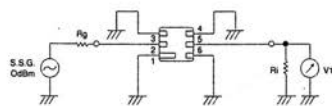


S AFC947.5MC70T(Rx side)



## TEST CIRCUIT

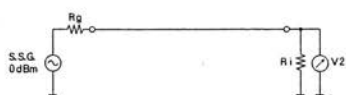
• Test Circuit



$$R_g = R_i = 50 \Omega$$

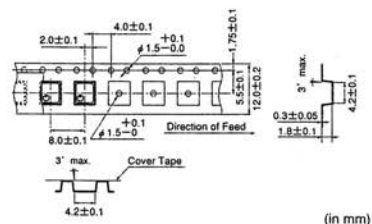
## REEL DIMENSIONS

• 0dB Level



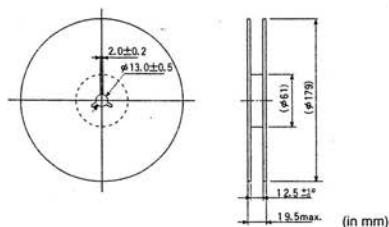
$$R_g = R_i = 50 \Omega$$

## TAPING DIMENSIONS



- The marked part number is faced on the cover tape side.
- The direction of filter shall be fixed. The output terminal shall be faced on the hole of the tape.

## REEL DIMENSIONS



- SAFC902.5MA70N-TC: "-TC" shows that SAW filter are taped in a plastic tape package.

## NOTE

Please note that SAW filter may be deteriorated or damaged, when static electricity is impressed to it.

## MINIMUM QUANTITY (order in sets only)

500 pcs. / reel