

CRYSTAL FILTERS

MCF FOR MOBILE COMMUNICATION / PAGING SYSTEM (SURFACE MOUNT TYPE)

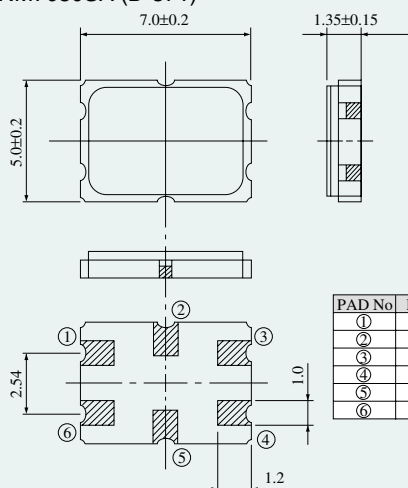
Ultra-compact, thin and lightweight crystal filter for surface mounting.

The compact size (7.0×5.0×1.35mm) is made possible with a lead free type ceramic container.

- Features
- Ultra-small, thin (height 1.35mm)
 - IR reflow, VPS are applicable.
 - For surface mount (Emboss carries taping applicable)
 - Excellent shock resistance
 - Excellent heat resistance
 - Good Guaranteed attenuation

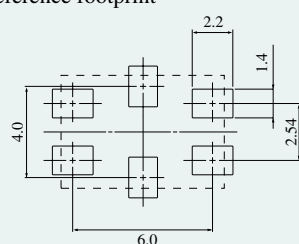


NM7050SA (D-371) (mm)



PAD No	PAD CONNECTION
①	GND
②	GND
③	OUT PUT
④	GND
⑤	GND
⑥	IN PUT

Reference footprint



Fundamental

Model	21E15AA	45E15AF	90E9A
Pole	2	2	2
Nominal Frequency	21.7MHz	45.15MHz	90MHz
3dB Pass Bandwidth	±7.5kHz min	±7.5kHz min	±4.5 kHz min
Attenuation Bandwidth	15dB ±25kHz max	13dB ±25kHz max	3dB ±12.5kHz max
Ripple	1.0dB max	1.0dB max	0.5dB max
Insertion Loss	1.5dB max (minimum loss)	3.0dB max (minimum loss)	5dB max (minimum loss)
Guaranteed Attenuation	F ₀ -910kHz 60dB min	F ₀ -910kHz 70dB min	F ₀ -910kHz 70dB min
Spurious	15dB min	10dB min	20dB min
Terminating Impedance	1.5kΩ//1.0pF	1kΩ//4pF	200Ω//8pF
Operating Temp. Range	-20~+70°C	-30~+70°C	-20~+70°C
Type	NM7050SA (D-371)		

* [Type name] In () is previous name.

Overtone

Model	73E16.5A	90E9AA
Pole	2	2
Nominal Frequency	73.35MHz	90MHz
3dB Pass Bandwidth	±8.25kHz min	±4.5kHz min
Attenuation Bandwidth	13dB ±25kHz max	8.5dB ±12.5kHz max
Ripple	1.0dB max	0.5dB max
Insertion Loss	2.0dB max (minimum loss)	4.0dB max (minimum loss)
Guaranteed Attenuation	F ₀ -910kHz 40dB min	F ₀ -910kHz 65dB min
Spurious	10dB min	3dB min
Terminating Impedance	2.5kΩ//1.2pF	0.4kΩ//0.6pF
Operating Temp. Range	-30~+70°C	-20~+70°C
Type	NM7050SA (D-371)	

* [Type name] In () is previous name.

Model : 90E9AA

