

Specific request can be addressed to RAKON [info@rakon.com](mailto:info@rakon.com)

### Features

Rakon has a technological leadership and considerable experience in designing and manufacturing filters used in the harshest environments.

Rakon wide range of high-performance Quartz, Langasite and Lithium Tantalate filters includes:

- Band pass filters (narrow or wide)
- Notch Filters
- Monolithic Filters
- Linear phase or constant group delay
- Phase and/or amplitude matching



### Applications

Rakon provides crystal filters for various applications like radio-receivers:

### Specifications

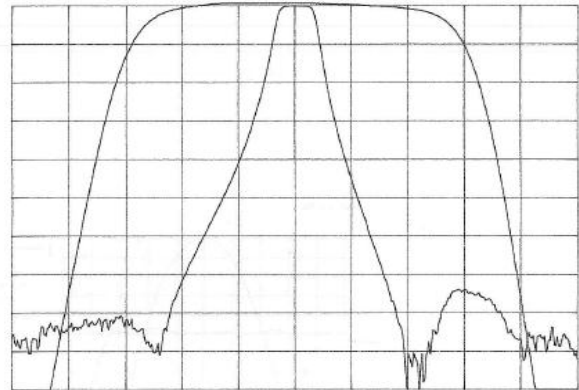
Parameter	QUARTZ	LANGASITE $La_3Ga_5SiO_{14}$	TANTALATE $LiTaO_3$
Mode	Fundamental or overtone 3 and 5	Fundamental	Fundamental
Frequency	3 to 250 MHz	8 to 30 MHz	10 to 30 MHz
Relative Bandwidth	0.001 to 1 %	0.3 to 1.2 %	0.5 to 5 %
Insertion loss	2 to 8 dB depending on frequency, number of poles and width		
Number of poles	1 to 12	2 to 8	
	Depending on the shape factor		
Max input power	Up to + 5 dBm depending on frequency		Up to + 10 dBm
Temperature range	-55° C to 125° C		



### Performance characteristics

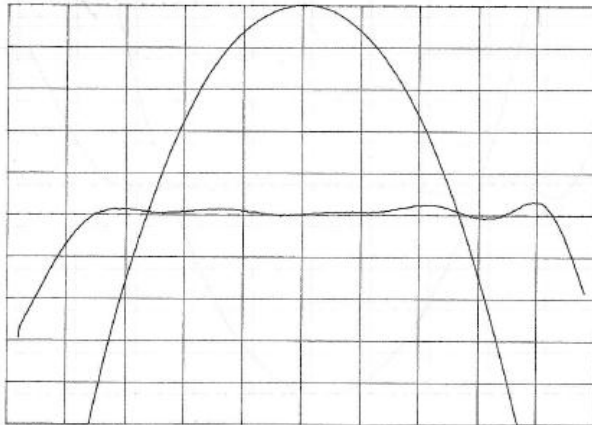
- Center frequency** 10.7 MHz
- 4 poles monolithic Langasite**
- @ 3 dB Bandwidth** ± 30 KHz
- @ 60 dB attenuation** ± 180KHz
- Group delay variation @ 1 dB Bw** < 5 μsec

REF LEVEL /DIV  
-4.930dB 1.000dB  
-4.861dB 10.000dB



CENTER 10 700 000.000Hz SPAN 100 000.000Hz  
CENTER 10 700 000.000Hz SPAN 1 000 000.000Hz

REF LEVEL /DIV  
-4.701dB 1.000dB  
27.571μSEC 3.0000μSEC



CENTER 10 700 000.000Hz SPAN 80 000.000Hz  
AMPTD 15.0dBm DELAY APER 3.200kHz

- Center frequency** 10.7 MHz
- 6 poles Langasite**
- @ 6dB Bandwidth** ± 25 KHz
- @ 60 dB attenuation** ± 180KHz
- Group delay variation @ 3 dB Bw** < 3 μsec