

## TMX FT01

### SAW Filter datasheet

5.0 x 5.0 x 1.5 mm, SMD

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# TMX FT01

SAW Bandpass Filters | Wireless Communications

## Features

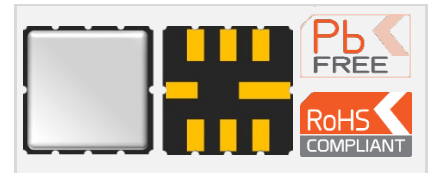
### Features

- 169 MHz center frequency
- Ceramic Package for Surface Mounted Technology
- RF SAW Filter

### Applications

- Wireless M-Bus
- Wireless applications:
  - Smart Building
  - Smart Industry

5.0 x 5.0 x 1.5 mm



## Maximum Ratings

Parameter	Min.	Typ.	Max.	Unit
Storage temperature range ( $T_{stg}$ )	-10		70	°C
Operating temperature range ( $T_A$ )	-40		85	°C
DC voltage ( $V_{DC}$ )			3	V
Input Power Level			10	dBm

## Frequency and Electrical Characteristics (Reference temperature @ 25°C)

Parameter	Min.	Typ. <sup>1</sup>	Max.	Unit
Center frequency ( $f_c$ )		169		MHz
Insertion loss (IL) at $IL_{min}$ <sup>2</sup>		1.5	2.8	dB
Bandwidth (BW @ -3dB, passband width)	6.00	8.80		dB
Relative Attenuation (Relative to $IL_{min}$ )				dB
From 119 to 139 MHz	42	54		
From 139 to 154 MHz	36	52		
From 199 to 219 MHz	40	51		
Source impedance <sup>3</sup> (Single ended)		50		$\Omega$
Load impedance <sup>3</sup> (Single ended)		50		$\Omega$

<sup>1</sup> Typical values are nominal performances at room temperature

<sup>2</sup>  $IL_{min}$  is the minimum of the pass band attenuation. The center frequency  $f_c$  is the mean value of the upper and lower frequencies at the 3dB filter attenuation level relative to the  $IL_{min}$ .

<sup>3</sup> No external matching circuit is required

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## Model Outline, Pin Connection and Marking

**TOP VIEW**

**FRONT VIEW**

**BOTTOM VIEW**

Marking		Note
Line 1	FT01	Reference to RakonXpress part number with only the last 4 digits
Line 2	T227AA	T = Partner identifier 2 = Last digit of the year 27 = Number of week in the year AA = Lot number in the week (from AA to ZZ)
Line 3	•	• = Identify black dot

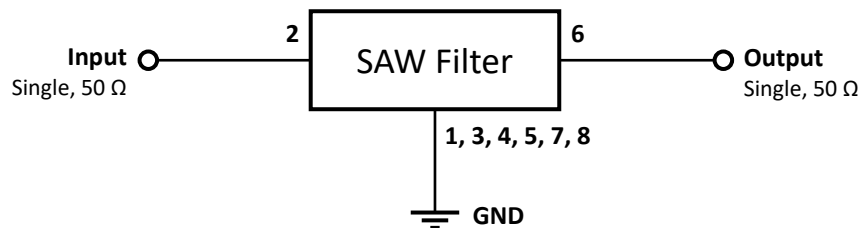
Pin	Connections
2	Input
6	Output
1, 3, 4, 5, 7, 8	Ground

**RECOMMENDED PAD LAYOUT (TOP VIEW)**

Unit: mm

## Test Circuit

### 50 Ω / 50 Ω Configuration



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## Frequency Characteristics

