

# FTF4835

## Monolithic Crystal Filter

Part number: 4835 | Revision: W1 | Date: 25 January 2023



### 1.0 Main parameters

N°	Characteristics	Symbol	Value	Unit	Note
1.1	Nominal centre frequency	fc	45.0	MHz	
1.2	Number of poles		4		

### 2.0 Insection loss

N°	Characteristics	Symbol	Min.	Nom.	Max.	Unit	Note
2.1	Insertion Loss (IL) at fc	IL			2.5	dB	Measured on smallest attenuation in pass band

### 3.0 Passband

N°	Characteristics	Symbol	Nom.	Unit	-Δ F <sub>min</sub>	+Δ F <sub>max</sub>	Unit	Note
3.1	Bandwidth between 3dB frequencies		3	dB	-6.0	+6.0	kHz	Referred to f <sub>c</sub>

### 4.0 Ripple over

N°	Characteristics	Symbol	Nom.	Unit	-Δ F <sub>min</sub>	+Δ F <sub>max</sub>	Unit	Note
4.1	Ripple over		≤1.0	dB	-4.0	+4.0	kHz	Referred to f <sub>c</sub>

### 5.0 Stopband

N°	Characteristics	Symbol	Nom.	Unit	-Δ F <sub>min</sub>	+Δ F <sub>max</sub>	Unit	Note
5.1	StopBand 1		≥15	dB	-12.5	+12.5	kHz	Referred to f <sub>c</sub>
5.2	StopBand 2		≥80	dB	-910		MHz	Referred to f <sub>c</sub>

### 6.0 Matching

N°	Characteristics	Symbol	Resistance	Unit	Capacitance	Unit	Note
6.1	Input and output		550	Ω	3	pF	
6.2	Coupling capacitance				12.5	pF	

### 7.0 Temperature range

N°	Characteristics	Symbol	Min.	Nom.	Max.	Unit	Note
7.1	Operating	OTR	-40		60	°C	
7.2	Storage	STR	-55		85	°C	

### 8.0 Intermodulation

N°	Characteristics	Symbol	Inband	Outband	Unit	Note
8.1	Frequency 1		45.05	45.10	MHz	
8.2	Frequency 2		45.95	45.90	MHz	
8.3	Input power level			-15	dBm	
8.4	IM			>90	dB	

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### 9.0 Package, marking and pin connections

N°	Characteristics	Specifications	Model outline drawing
9.1	Package type	SMD, 7.0 x 5.0 mm	
9.2	Marking	Line 1: FTF4835 Line 2: VFS0xx Line 3: YWW (Date code)	
9.3	Pin connections	Pin 1: Input Pin 2, 5*: Coupling capacitance Pin 3: Output Pin 6: GND  * Pins 2 and 5 are not physically connected in the package and must be connected together on the PCB.	

Unit: mm

### 10.0 Test circuit

N°	Test circuit diagram
10.1	

### 11.0 Specification History

Revision	Change notes	Date
W0	Preliminary Datasheet creation	Jan, 22 <sup>nd</sup> 2013
W1	Re-branding Rakon to RakonXpress	Jan, 25 <sup>th</sup> 2023