

HF868.35

868.35MHz SAW FILTER



Approved by:
Checked by:
Issued by:

SPECIFICATION

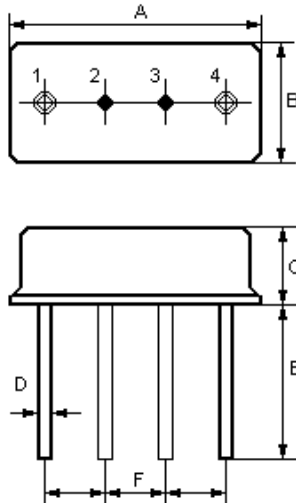
PRODUCT: SAW FILTER

MODEL: HF868.35 F-11

HOPE MICROELECTRONICS CO., LIMITED

The HF868.35 is a low-loss, compact, and economical surface-acoustic-wave (SAW) filter in a low-profile metal F-11 case designed to provide front-end selectivity in 868.350 MHz receivers. Receiver designs using this filter include superhet with 10.7 MHz or 500 kHz IF, direct conversion and superregen.

1.Package Dimension (F-11)



Pin	Configuration
1	Input / Output
4	Output / Input
2/3	Case Ground

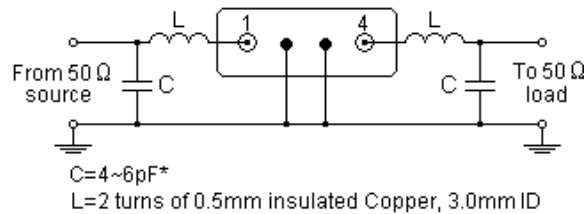
Dimensions	Data (unit: mm)
A	11.0±0.3
B	4.5±0.3
C	3.2±0.3
D	0.45±0.1
E	5.0±0.5
F	2.54±0.2

2.Marking

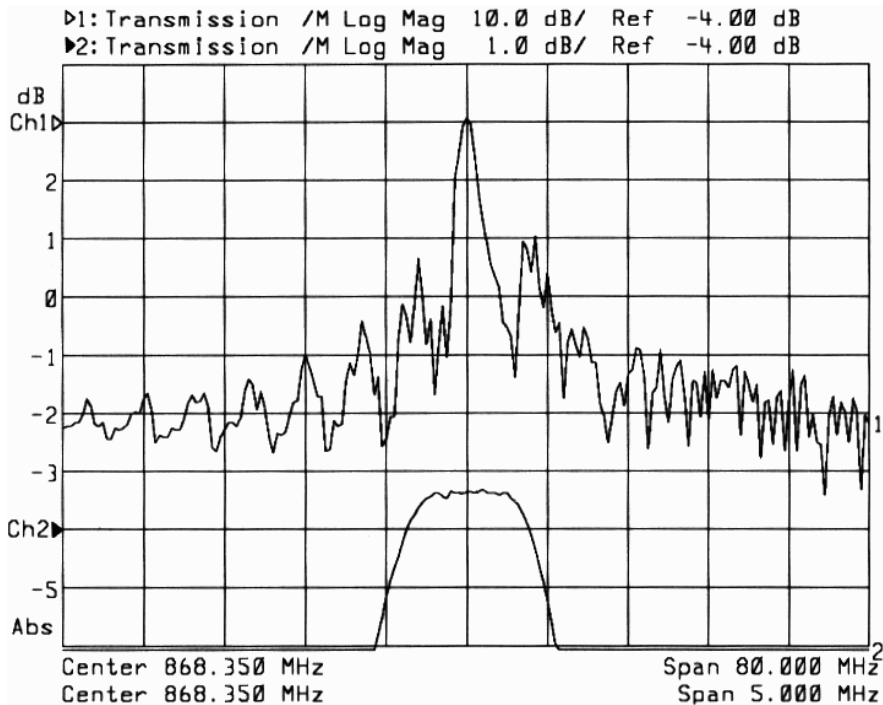
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Color: Black or Blue

3.Matching Circuit



4.Typical Frequency Response



5.Performance

5-1.Maximum Rating

Rating		Value	Unit
CW RF Power Dissipation	P	+10	dBm
DC Voltage Between Any Two Pins	V_{DC}	$\pm 30V$	V
Storage Temperature Range	T_{stg}	-40 to +85	
Operating Temperature Range	T_A	-10 to +60	

5-2.Electronic Characteristics

Characteristic		Minimum	Typical	Maximum	Unit	
Center Frequency (center frequency between 3dB points)		f_C	868.350		MHz	
Insertion Loss		IL	--	3.5	5.5	dB
3dB Pass band		BW_3	1,200		kHz	
Rejection	at f_C -21.4MHz (Image)	35	45	--	dB	
	at f_C -10.7MHz (LO)	25	35	--		
	Ultimate	--	60	--		
Temperature	Turnover Temperature	T_O	25	55		
	Turnover Frequency	f_O	f_C		MHz	
	Frequency Temperature Coefficient	FTC	0.032		ppm/ ²	
Frequency Aging	Absolute Value during the First Year	$ fA $	10		ppm/yr	

ⓘ CAUTION: Electrostatic Sensitive Device. Observe precautions for handling!

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- The frequency f_C is defined as the midpoint between the 3dB frequencies.
- Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture that is connected to a 50 test system with VSWR 1.2:1. The test fixture L and C are adjusted for minimum insertion loss at the filter center frequency, f_C . Note that insertion loss, bandwidth, and passband shape are dependent on the impedance matching component values and quality.
- Unless noted otherwise, specifications apply over the entire specified operating temperature range.
- Frequency aging is the change in f_C with time and is specified at +65°C or less. Aging may exceed the specification for prolonged temperatures above +65°C. Typically, aging is greatest the first year after manufacture, decreasing in subsequent years.
- Turnover temperature, T_O , is the temperature of maximum (or turnover) frequency, f_O . The nominal frequency at any case temperature, T_C , may be calculated from: $f = f_O [1 - FTC (T_O - T_C)^2]$.
- The specifications of this device are based on the test circuit shown above and subject to change or obsolescence without notice.
- All equipment designs utilizing this product must be approved by the appropriate government agency prior to manufacture or sale.
- Our liability is only assumed for the Surface Acoustic Wave (SAW) component(s) per se, not for applications, processes and circuits implemented within components or assemblies.
- For questions on technology, prices and delivery, please contact our sales offices or e-mail sales@hoprf.com.