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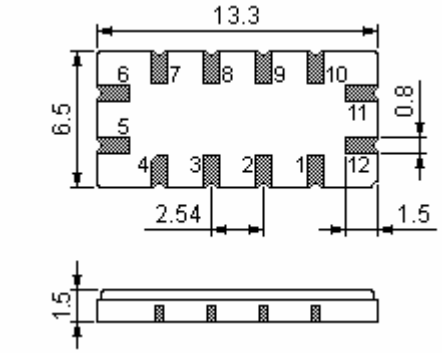
The **ACTF2088-140-SMP53** is a high performance IF band pass filter in a surface-mount ceramic **SMP-53** case with center frequency **140.00** MHz.

1. Package Dimension (SMP-53)



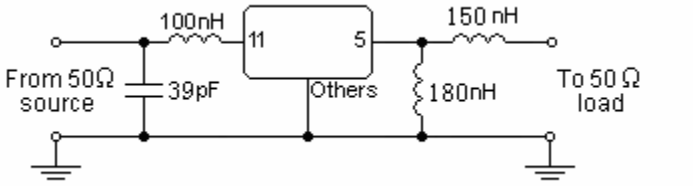
Pin	Configuration
11	Input or balanced Input
12	Input-Ground or balanced Input
5	Output or balanced Output
6	Output-Ground or balanced Output
Others	be grounded

Unit: mm

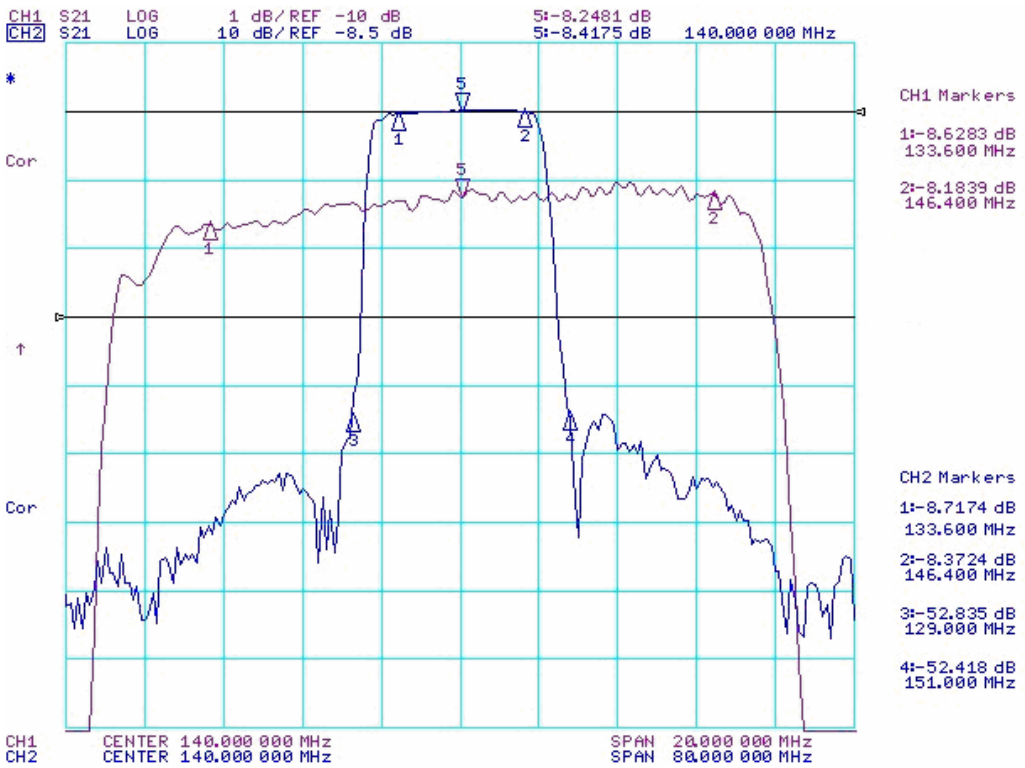
2. Marking

Laser Marking

3. Matching Network (Input and output unbalanced)



4. Typical Frequency Response



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5. Performance

5-1. Maximum Ratings

Rating		Value	Unit
Source Power (s. imp. 50Ω, duty cycle 1:100)	P_S	20	dBm
Source Power (source impedance 50Ω)	P_S	10	dBm
DC Voltage	V_{DC}	0	V
Storage Temperature Range	T_{stg}	-40 to +85	□
Operating Temperature Range	T_A	-40 to +85	□

5-2. Electronic Characteristics

Characteristic		Minimum	Typical	Maximum	Unit
Center Frequency	f_C	--	140.00	--	MHz
Insertion Loss (@140.00MHz)	IL	--	--	13	dB
3dB Bandwidth	BW_3	16	--	--	MHz
Amplitude Ripple (max peak to adjacent valley) (80% of BW_3) 133.60 …. 146.40 MHz	$\Delta\alpha$	--	0.5	0.9	dB
Phase Ripple (p-p) (80% of BW_3) 133.60 …. 146.40 MHz	$\Delta\varphi$	--	7	14	°
Relative Attenuation (relative to IL) 100.00 …. 128.70 MHz 128.70 …. 129.00 MHz 151.00 …. 152.30 MHz 152.30 …. 195.18 MHz	α_{rel}	 40 40 40 40	 45 45 45 45	 -- -- -- --	 dB dB dB dB
Group Delay Ripple (p-p) (80% of BW_3) 133.60 …. 146.40 MHz	$\Delta\tau$	--	80	140	ns
Reflected Wave Signal Suppression 0.70µs …. 3.75µs after main pulse		35	38	--	dB
Temperature Coefficient of Frequency	TC_f	--	-87	--	ppm/K

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

1. The frequency f_C is defined as the midpoint between the 3dB frequencies.
2. Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture that is connected to a 50Ω 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.
3. Unless noted otherwise, specifications apply over the entire specified operating temperature range.
4. The specifications of this device are based on the test circuit shown above and subject to change or obsolescence without notice.
5. All equipment designs utilizing this product must be approved by the appropriate government agency prior to manufacture or sale.
6. 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.