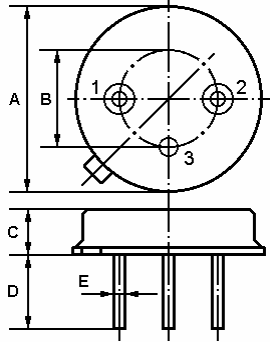


The ACTF4811/480.0/TO39-3 is a compact and economical surface-acoustic-wave (SAW) IF filter in a low-profile metal TO-39 case for DBS receivers with constant group delay.

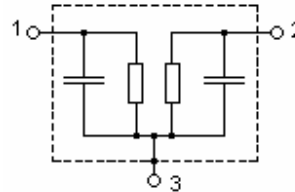
Package Dimension (TO-39)



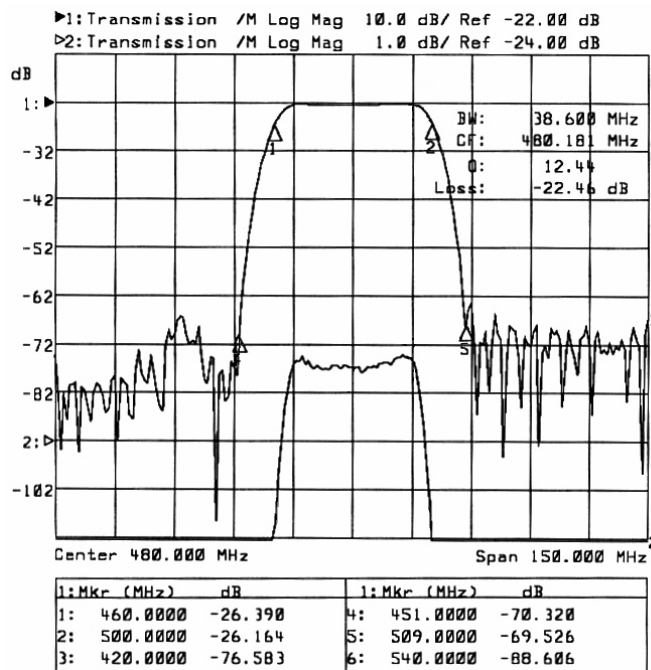
Pin	Configuration
1	Input / Output
2	Output / Input
3	Ground

Dimensions	Data (Unit: mm)
A	9.15±0.20
B	5.08±0.20
C	3.30±0.20
D	3.00±0.20
E	Φ0.45±0.10

2. Equivalent LC Model



3. Frequency Response



In keeping with our ongoing policy of product evolution and improvement, the above specification is subject to change without notice.

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3 The Business Centre, Molly Millars Lane, Wokingham, Berks, RG41 2EY, UK

<http://www.actcrystals.com>

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5. Performance

5-1. Maximum Ratings

Rating	Value	Unit
AC Voltage Between Any Two Pins	V_{PP} 5	V
DC Voltage Between Any Two Pins	V_{DC} 0	V
Storage temperature range	T_{stg} - 40 to + 85	
Operable temperature range	T_A - 25 to + 80	

5-2. Electronic Characteristics

Reference temperature:	$T_A = 25$ °C
Terminating source impedance:	$Z_S = 50 \Omega$
Terminating load impedance:	$Z_L = 50 \Omega$
Group delay aperture:	0.25 MHz

Characteristic	Min.	Typ.	Max.	Unit
Center frequency	f_C 479.00	480.00	481.00	MHz
Insertion attenuation 480.00 MHz (Reference level for the following data)	α --	22.0	24.0	dB
Pass bandwidth $\alpha_{rel} \leq 3dB$	B_{3dB}	38.6		MHz
Relative attenuation 460.00 MHz	α_{rel} --	4.5	5.8	dB
500.00 MHz	--	4.2	5.6	dB
Lower sidelobe 420.00 ... 451.00 MHz	36.0	43.0	--	dB
Upper sidelobe 509.00 ... 540.00 MHz	35.0	42.0	--	dB
Reflected wave signal suppression 0.14µs ... 2.0µs after main pulse	40.0	45.0	--	dB
Amplitude ripple (p-p) 467.00 ... 493.00 MHz	$\Delta \alpha$ --	0.4	0.8	dB
Group delay ripple (p-p) 461.00 ... 499.00 MHz	$\Delta \tau$ --	11.0	18.0	ns
Temperature coefficient of frequency	TC_f --	-86	--	ppm/K

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

1. 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 pass band shape are dependent on the impedance matching component values and quality.
2. Unless noted otherwise, specifications apply over the entire specified operating temperature range.
3. The specifications of this device are based on the test circuit shown above and subject to change or obsolescence without notice.
4. All equipment designs utilizing this product must be approved by the appropriate government agency prior to manufacture or sale.
5. 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.

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