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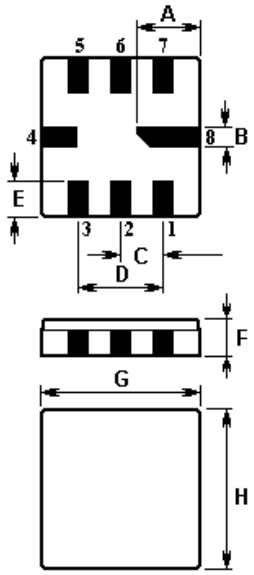
The ACTF4014/480.0/QCC8C is an IF filter for DBS receivers with constant group delay. The device is housed in a QCC8C package. Centre frequency ; 480.0MHz.

1.Package Dimension (QCC8C)

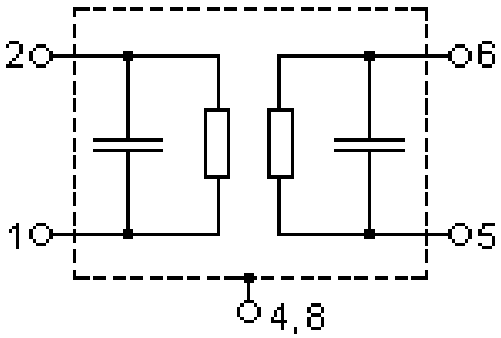


2.

Pin	Connection
2	Input
1	Input Ground
6	Output
5	Output Ground
3, 7	To be Grounded
4,8	Case Ground

Sign	Data (unit: mm)	Sign	Data (unit: mm)
A	2.08	E	1.20
B	0.60	F	1.35
C	1.27	G	5.00
D	2.54	H	5.00

3.Equivalent LC Model



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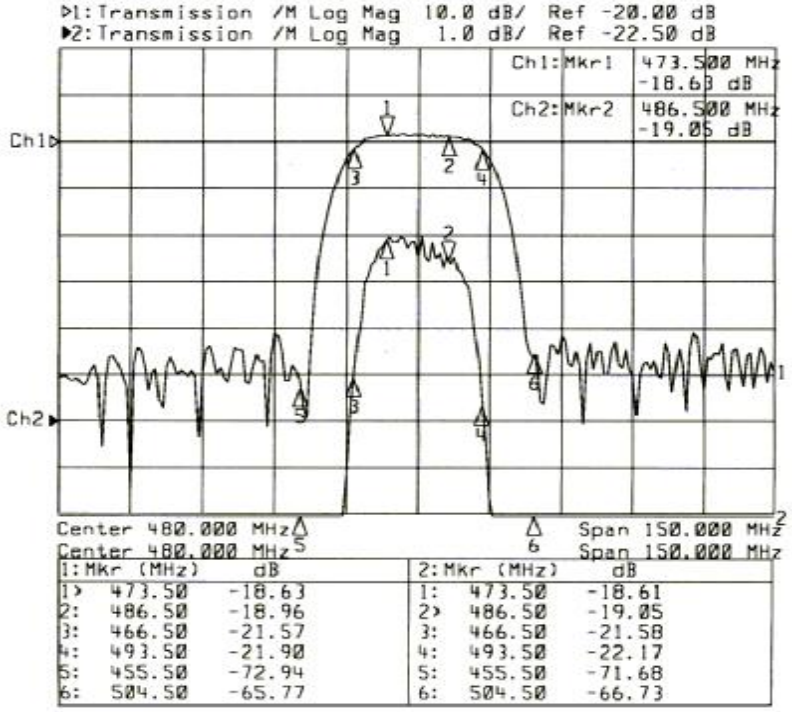
4.Typical Frequency Response



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	°C
Operable temperature range	T_A	-25 to +85	°C

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5-2.Electronic Characteristics

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

Characteristic			Min.	Typical	Max.	Unit
Centre Frequency		f_C	479.00	480.00	481.00	MHz
Insertion attenuation (Reference level for the following data)	480.00 MHz	α	--	22.5	24	dB
Pass bandwidth	α_{rel}≤3dB	B_{3dB}	25.6	26.6	27.6	MHz
Relative attenuation		α_{rel}				
	466.50 MHz		--	3.0	4.6	dB
	493.50 MHz		--	3.2	4.6	dB
Lower sidelobe	430.00 ….455.50 MHz		40.0	46.0	--	dB
Upper sidelobe	504.50 … 530.00 MHz		38.0	43.0	--	dB
Reflected wave signal suppression 0.15µs … 2.0µs after main pulse			40.0	46.0	--	dB
Amplitude ripple (p-p)	473.50 … 486.50 MHz	$\Delta\alpha$	--	0.6	1.0	dB
Group delay	480.00 MHz	t	--	227.5	--	ns
Group delay ripple (p-p)	467.00 … 493.00 MHz	Δt	--	8.5	15	ns
Temperature coefficient of frequency		TC_f	--	-86	--	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 centre 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.