

101386C

FB173.9-19 173.9 MHz Bandpass Filter 19 MHz Bandwidth

Specifications

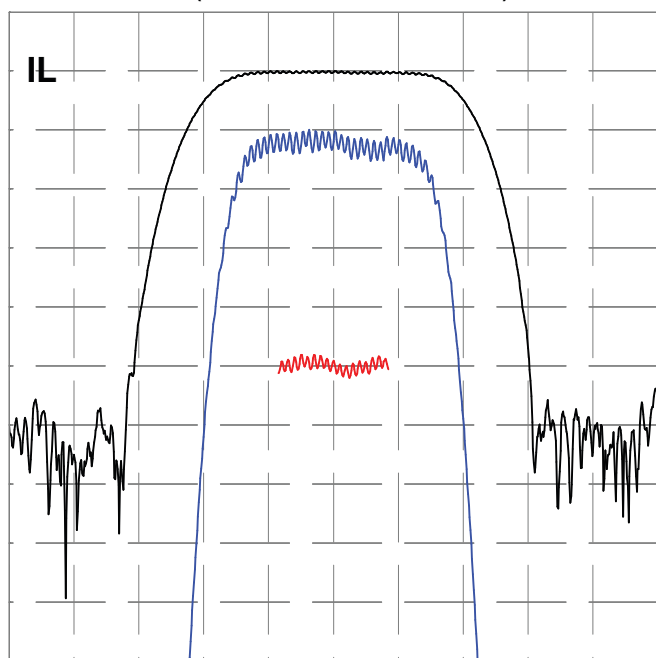
Parameter	Symbol	Min	Typical	Max	Unit
Center Frequency	F_0		173.9		MHz
Bandwidth	B		19		MHz
-3dB Bandwidth	B_3	19	19.2		MHz
-40dB Bandwidth	B_{40}		30.9	31.1	MHz
Delay	T_0	0.955	0.958	0.96	μ sec
Insertion Loss	IL		19	19.5	dB
Amplitude Ripple			0.6	0.8	dB _{P-P}
Phase Ripple			5.8	8	deg _{P-P}
Rejection		48	53		dB
Spurious for $ f - F_0 > .9T_0$			-37	-36	dB
Substrate Material		YZ-LN			

Notes

- Center Frequency (F_0) and Bandwidth (B) are defined, not measured.
- Insertion Loss is the minimum loss for $|f - F_0| < .5B$
- Ripple spec applies to the $|f - F_0| < .4B$, and is doubled for $.4B < |f - F_0| < .5B$
- Rejection spec applies to $(B_{40} \text{ Spec} - B/2) < |f - F_0| < F_0/2$
- Specifications are at 22 °C only. Unit will operate undamaged from -54 °C to 125 °C with shifts $dF_0 = -x * F_0$, $dT_0 = x * T_0$, where $x = 94E-6 * (\text{temperature} - 22^\circ\text{C})$

Typical Performance

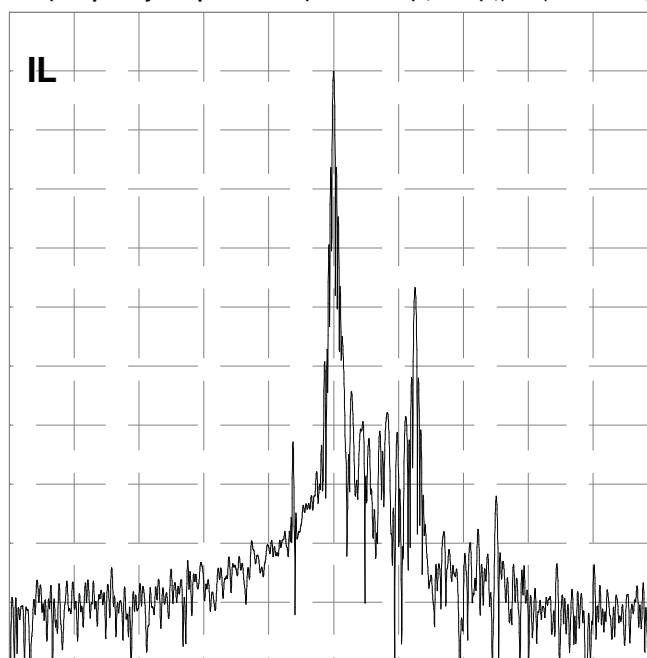
Frequency Response
(Best Fit Linear Phase Removed)



10 dB/div, 1 dB/div, 10 deg/div, 5.250 MHz/div

Impulse Response

FFT(Frequency Response * Cos(0.5*PI*MIN(1,MAX(0,|f-F0|*2.0/24-1.0)))^2)

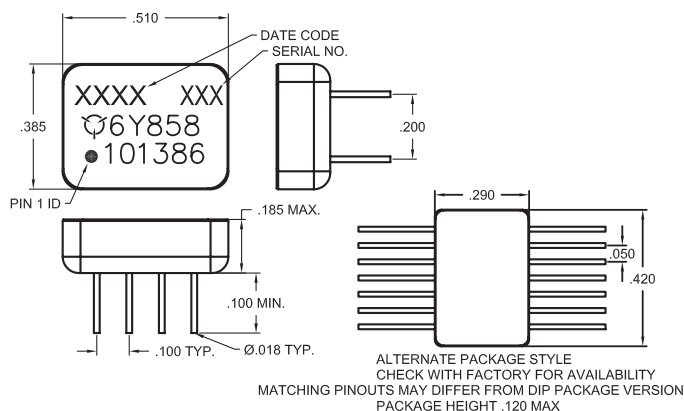


10 dB/div, 1.524 us/div

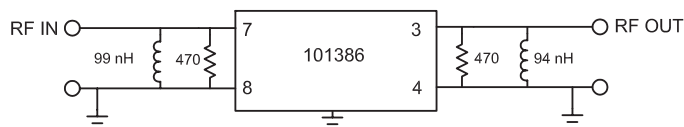
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Package Outline



Matching



For Use in a 200 Ohm system. For 50 Ohm systems use 4:1 Balun on both Input and Output.



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