

101047C

FB160-50 50 MHz Bandwidth 160 MHz Bandpass Filter

Specifications

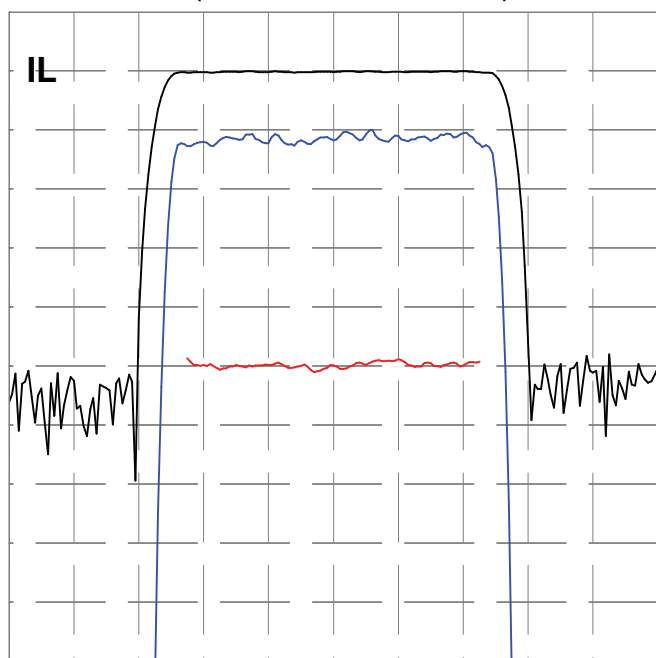
Parameter	Symbol	Min	Typical	Max	Unit
Center Frequency	F_0		160		MHz
Bandwidth	B		50		MHz
-3dB Bandwidth	B_3	52	52.3		MHz
-40dB Bandwidth	B_{40}		59.8	60.2	MHz
Delay	T_0	0.486	0.487	0.488	μsec
Insertion Loss	IL		27.7	30	dB
Amplitude Ripple			0.3	0.5	dB _{P-P}
Phase Ripple			2.3	4	deg _{P-P}
Rejection		44	50		dB
Spurious for $ t - T_0 > .9T_0$			-51	-46	dB
Substrate Material		128YX-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 $x = 75E-6 * (\text{temperature} - 22^\circ\text{C})$

Typical Performance

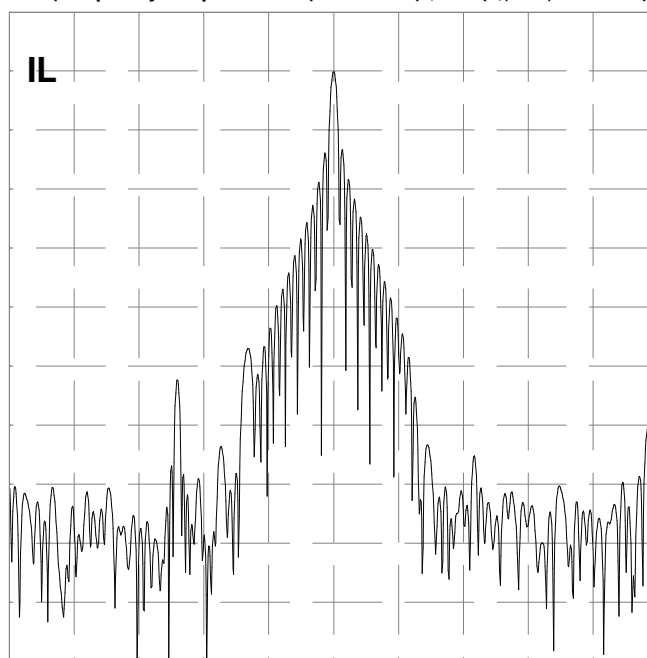
Frequency Response
(Best Fit Linear Phase Removed)



10 dB/div, 1 dB/div, 10 deg/div, 10.000 MHz/div

Impulse Response

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

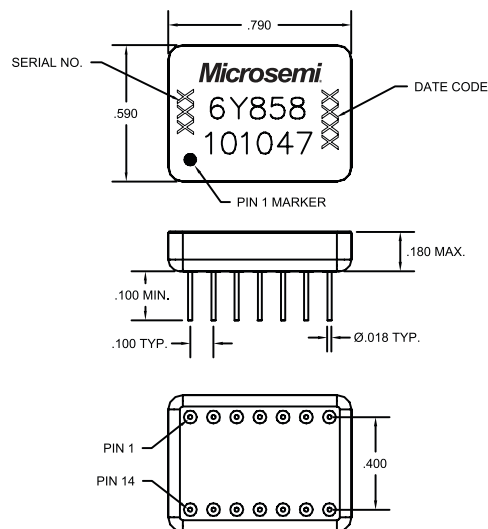


10 dB/div, 0.200 us/div

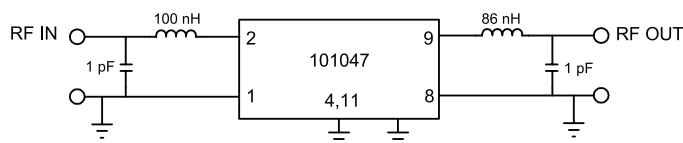
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Package Outline



Matching



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