101529C

LR1000-500-1.5 Multiple Channel Delay Line Module

Specifications

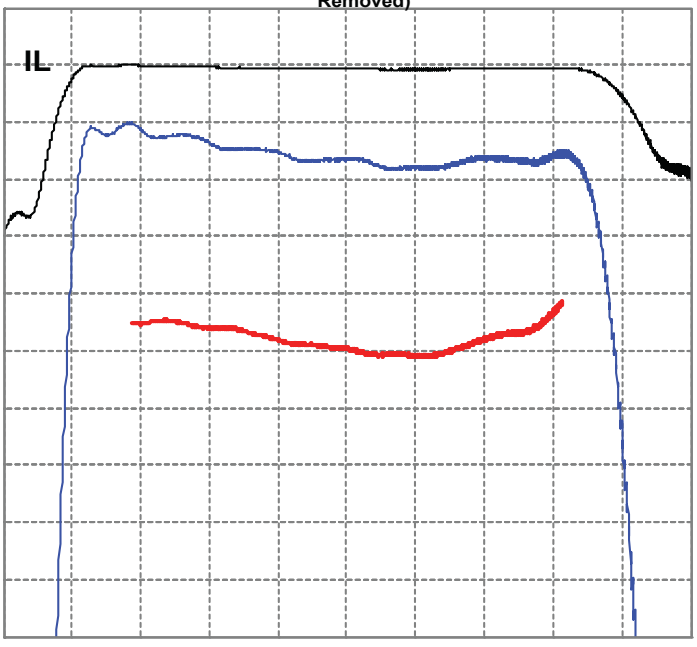
Parameter	Symbol	Unit	
Component			101528
Center Frequency	F_0	MHz defined	1000
Bandwidth	B	MHz defined	550
–3 dB Bandwidth	B_3	MHz min	617.5
–40 dB Bandwidth	B_{40}	MHz max	685
Delay	T_0	µsec typ	1.502
Amplitude Ripple		dB_{P-P} max	2
Phase Ripple		deg_{P-P} max	10
Rejection		dB max	–46
Spurious for $\|t - T_0\| > .9T_0$		dB max	9
Gain		dB min	–6
Power In for –1 dB Comp		dBm min	16
Noise Figure		dB max	10
Return Loss		dB min	10
DC Power	15 V @ 1 A		

Notes

1. Multiple Channel Delay Line Module. Unit consists of four independent identical channels.
2. Center Frequency (F_0) and Bandwidth (B) are defined, not measured.
3. Gain is the maximum gain for $|f - F_0| < .5B$
4. Ripple spec applies to $|f - F_0| < .4B$, and is doubled for $.4B < |f - F_0| < .5B$
5. 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 * (temperature – 22 °C)

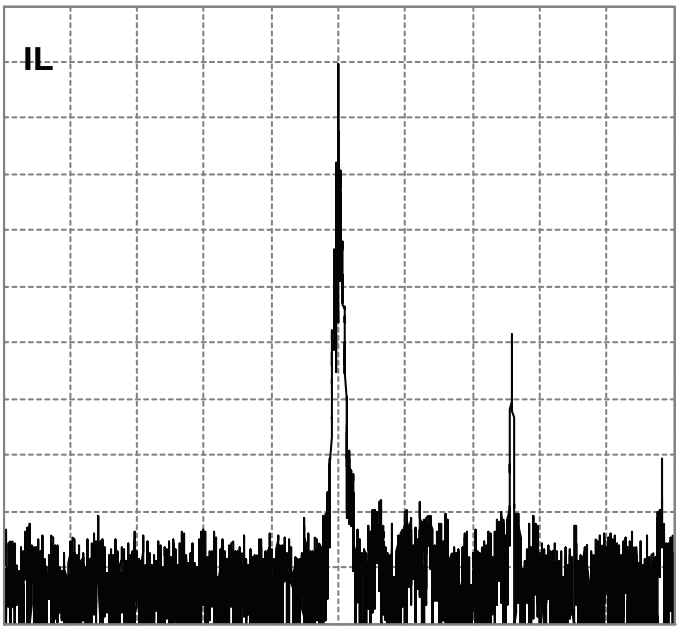
Typical Performance

Frequency Response
(Best Fit Linear Phase Removed)



10 dB/div, 1 dB/div, 10 deg/div, 79.000 MHz/div

Impulse Response
FFT(Frequency Response*Cos(0.5*PI*MIN(1,MAX(0,|f-F0|*4.6/B-2.3)))^2)



10 dB/div, 0.203 us/div

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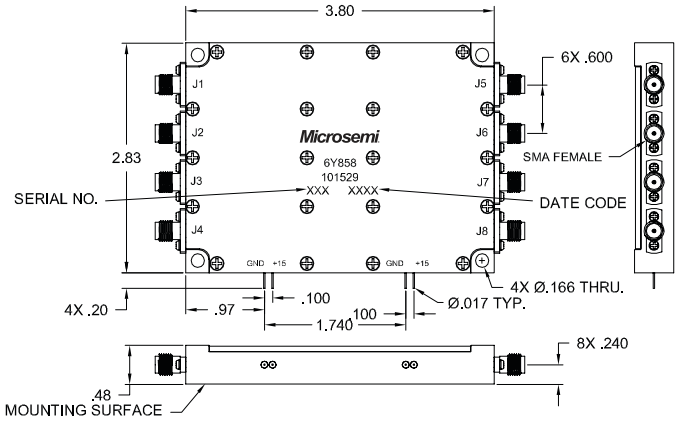
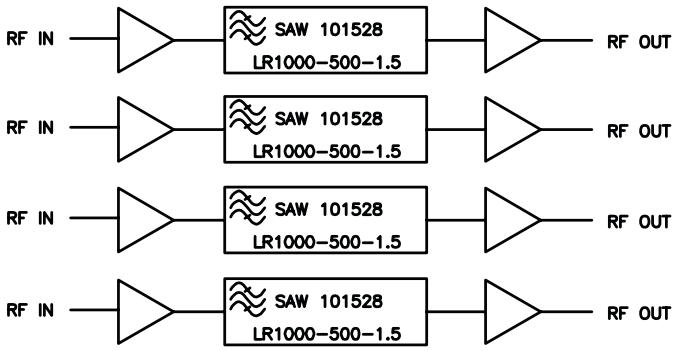
Package Outline



System Block Diagram



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