

101379C

RD28-.878-50W- 28 MHz Dispersive Delay Line 0.878 MHz Bandwidth

Specifications

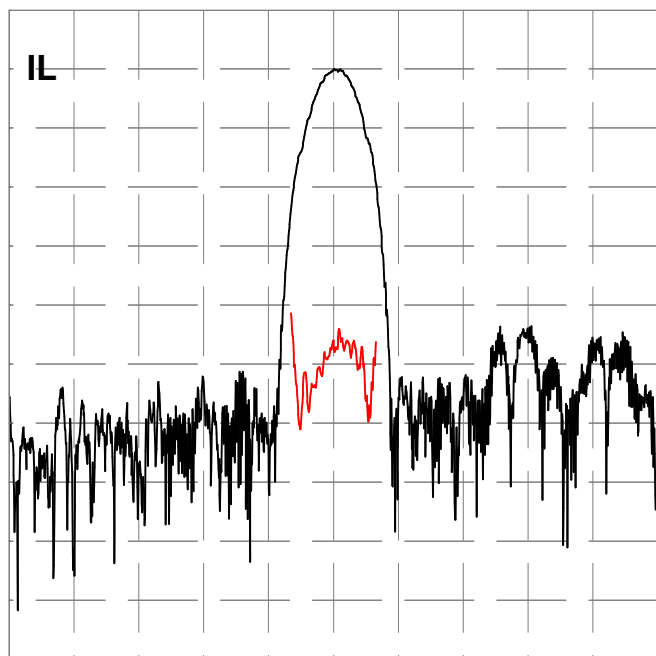
| Parameter | Symbol | Min | Typical | Max | Unit |
|-----------------------------------|--------|--------|---------|-------|--------------------------|
| Center Frequency | F_0 | | 28 | | MHz |
| Bandwidth | B | | 0.878 | | MHz |
| Dispersion | T | | 50 | | μsec |
| Delay | T_0 | 32.1 | 32.33 | 32.6 | μsec |
| Insertion Loss | IL | | 26.5 | 27.5 | dB |
| Slope | S_0 | -59.6 | -59.2 | -58.6 | $\mu\text{s}/\text{MHz}$ |
| Pulse Width at -3dB | | | 1.54 | 1.55 | μsec |
| Sidelobes for $ t - T_0 < T$ | | | -36.7 | -31 | dB |
| Time Spurious for $ t - T_0 > T$ | | | -54 | -50 | dB |
| Substrate Material | | 36YX-Q | | | |

Notes

- Center Frequency (F_0) and Bandwidth (B) are defined, not measured. Dispersion (T) is defined as $|B * S_0|$.
- Insertion Loss is the minimum loss for $|f - F_0| < .5B$
- Delay and Slope determined by best fit quadratic pulse in $|f - F_0| < .5B$.
- Specifications are at 22 °C only. Unit will operate undamaged from -54 °C to 125 °C with shifts $dF_0 = -x * F_0$, $dT_0 = x * (T_0 + S_0 * F_0)$, $dS_0 = x * 2 * S_0$, where $x = 3E-8 * (\text{temperature} - 22 \text{ } ^\circ\text{C})^2$

Typical Performance

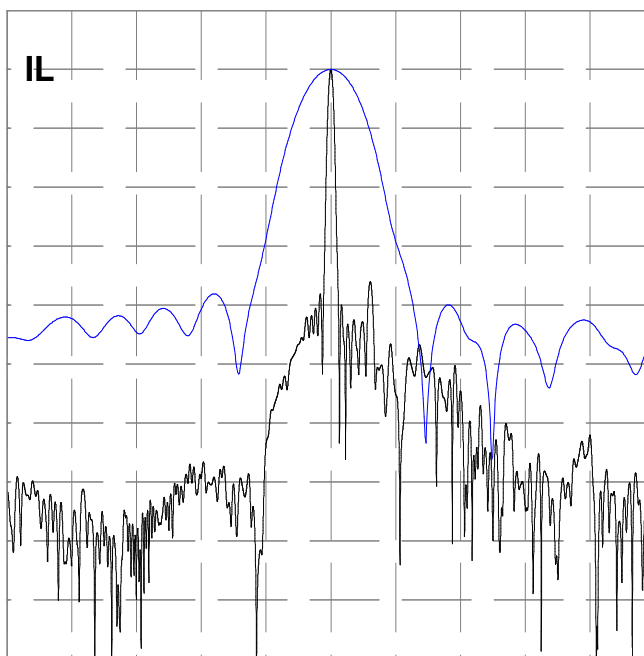
Frequency Response
(Best Fit Quadratic Phase Removed)



10 dB/div, 10 deg/div, 0.600 MHz/div

Compressed Pulse Response

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

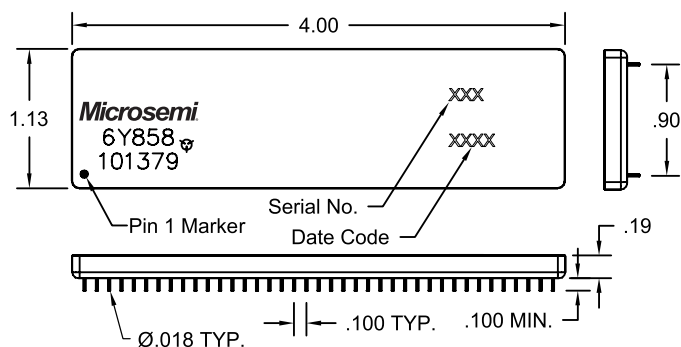


10 dB/div, 25.000 us/div, 2.278 us/div

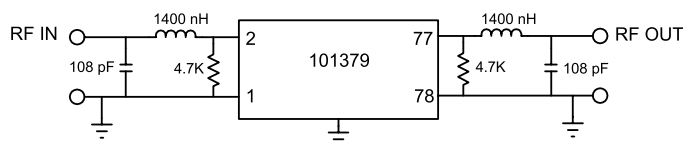
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Package Outline



Matching



Microsemi Corporate Headquarters
 One Enterprise, Aliso Viejo, CA 92656 USA
 Within the USA: +1 (800) 713-4113
 Outside the USA: +1 (949) 380-6100
 Fax: +1 (949) 215-4996
 Email: sales.support@microsemi.com
www.microsemi.com

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