# 101060C

## ID1200-100-.5 1200 MHz Dispersive Delay Line 100 MHz Bandwidth

## Specifications

| Parameter | Symbol | Min | Typical | Max | Unit |
|---|---|---|---|---|---|
| Center Frequency | $F_0$ | | 1200 | | MHz |
| Bandwidth | B | | 100 | | MHz |
| Dispersion | T | | 0.5 | | µsec |
| Delay | $T_0$ | 0.79 | 0.8 | 0.805 | µsec |
| Insertion Loss | IL | | 22.1 | 26.5 | dB |
| Slope | $S_0$ | –0.0053 | –0.0052 | –0.005 | µs/MHz |
| Pulse Width at –3 dB | | | 0.0124 | 0.0131 | µsec |
| Sidelobes for $\|t - T_0\| < T$ | | | –26.3 | –22 | dB |
| Time Spurious for $\|t - T_0\| > T$ | | | –49 | –44 | dB |
| Substrate Material | YZ-LN | | | | |

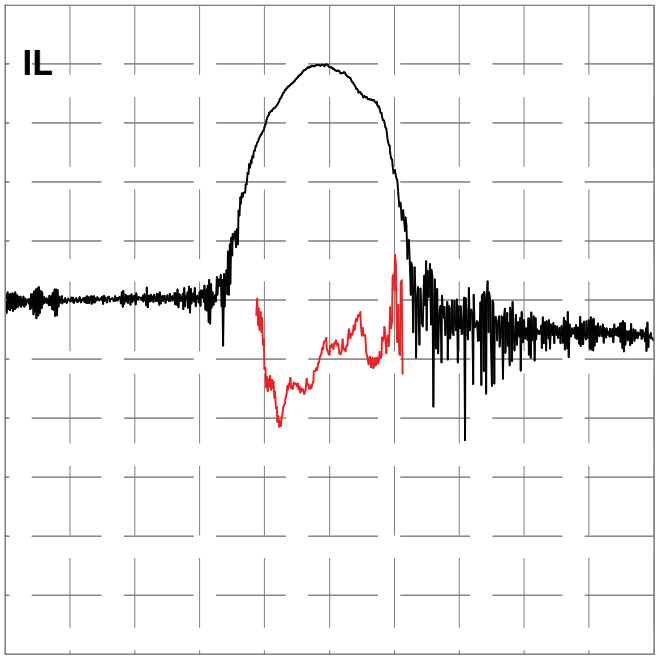
### Notes

1. Center Frequency ($F_0$) and Bandwidth (B) are defined, not measured. Dispersion (T) is defined as $|B * S_0|$.
2. Insertion Loss is the minimum loss for $|f - F_0| < .5B$
3. Delay and Slope determined by best fit quadratic pulse in $|f - F_0| < .5B$.
4. 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 $x$ = 94E-6 * (temperature – 22 °C)

## Typical Performance

### Frequency Response

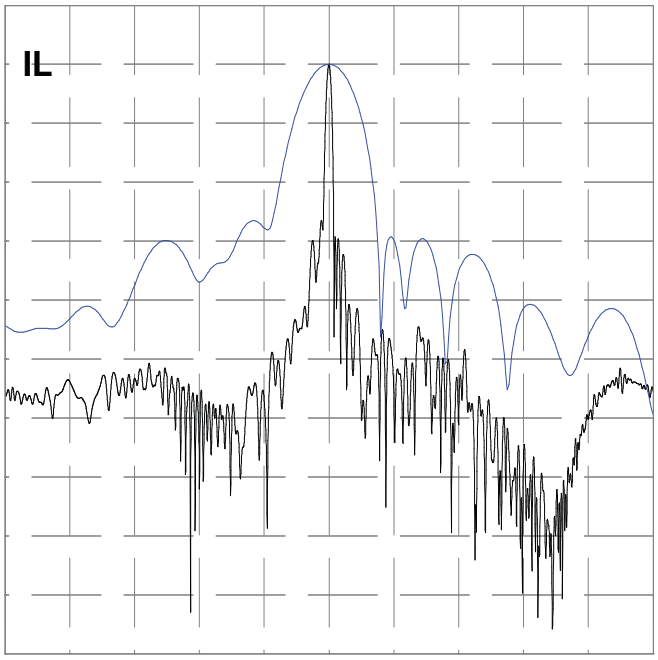
**(Best Fit Quadratic Phase Removed)**




**10 dB/div, 10 deg/div, 40.000 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, 0.200 us/div, 0.020 us/div**

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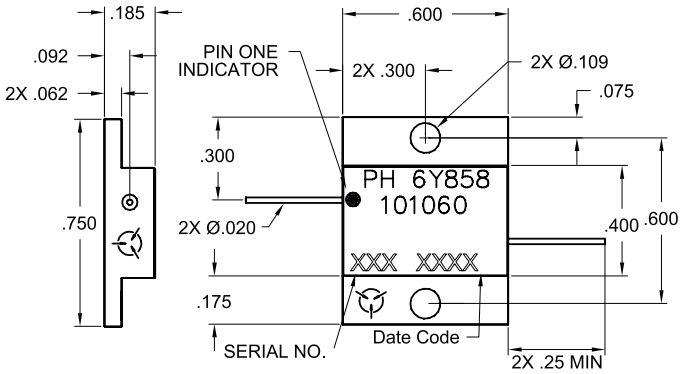
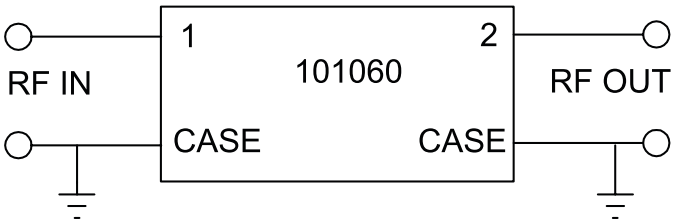
## Package Outline




## Matching





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