PCA ELECTRONICS INC.

# 16 Pin 5 Tap TTL Compatible Logic Delay Line Modules

# EP1212XXA & EP1212XXA-RC

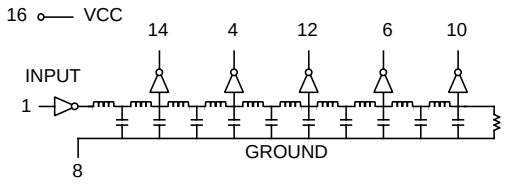
Add "-RC" after part number for RoHS Compliant

| PCA Part Number | Tap Delays (†± 10% or ± 2nS) | Total Delay (nS) | Output Rise Time (nS Max.) | Pulse Width (nS) | Δ LL-TT (nS Max.) |
|---|---|---|---|---|---|
| EP121215A(-RC) | 5 | 25 ± 2 | 3 | 40 ± 2 | 2.0 |
| EP121216A(-RC) | 10 | 50 ± 2.5 | 3 | 40 ± 4 | 4.0 |
| EP121217A(-RC) | 20 | 100 ± 5 | 3 | 40 ± 4 | 4.0 |
| EP121218A(-RC) | 30 | 150 ± 7.5 | 4 | 60 ± 10 | 10.0 |
| EP121219A(-RC) | 40 | 200 ± 10 | 4 | 60 ± 10 | 10.0 |
| EP121220A(-RC) | 50 | 250 ± 12.5 | 4 | 100 + 10 | 12.5 |

• *†Whichever is greater* • *Delay times referenced from input @ 25°C, 5.0 Vdc.* • *Test Frequency is 1.0 MHz* •

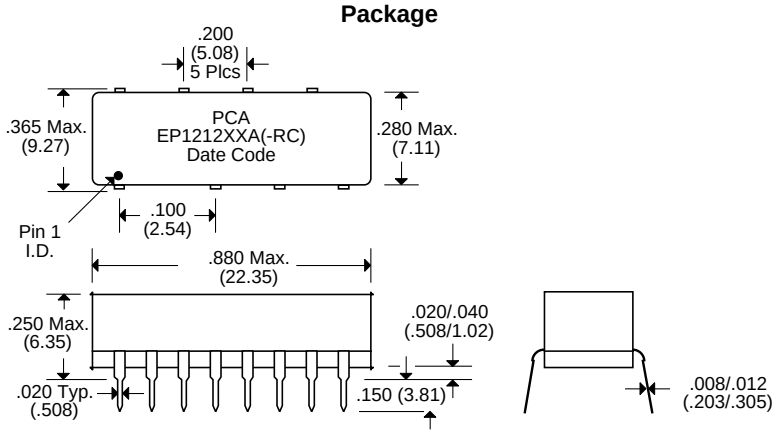
| DC Electrical Characteristics Parameter | | Test Conditions | Min. | Max. | Unit |
|---|---|---|---|---|---|
| $V_{OH}$ | High-Level Output Voltage | $V_{CC}$ = min. $V_{IL}$ = max. $I_{OH}$ = max | 2.7 | | V |
| $V_{OL}$ | Low-Level Output Voltage | $V_{CC}$ = min. $V_{IH}$ = min. $I_{OL}$ = max | | 0.5 | V |
| $V_{IK}$ | Input Clamp Voltage | $V_{CC}$ = min. $I_I$ = $II_K$ | | -1.2 | V |
| $I_{IH}$ | High-Level Input Current | $V_{CC}$ = max. $V_{IN}$ = 2.7V | | 50 | µA |
| | | $V_{CC}$ = max. $V_{IN}$ = 5.25V | | 1.0 | mA |
| $I_{IL}$ | Low-Level Input Current | $V_{CC}$ = max. $V_{IN}$ = 0.5V | | -2 | mA |
| $I_{OS}$ | Short Circuit Output Current | $V_{CC}$ = max. $V_{OUT}$ = 0. (One output at a time) | -40 | -100 | mA |
| $I_{CCH}$ | High-Level Supply Current | $V_{CC}$ = max. $V_{IN}$ = OPEN | | 75 | mA |
| $I_{CCL}$ | Low-Level Supply Current | $V_{CC}$ = max. $V_{IN}$ = 0 | | 75 | mA |
| $N_H$ | Fanout High-Level Output | $V_{CC}$ = max. $V_{OH}$ = 2.7V | | 20 TTL Load | |
| $N_L$ | Fanout Low-Level Output | $V_{CC}$ = max. $V_{OL}$ = 0.5V | | 10 TTL Load | |

**Schematic**




| Recommended Operating Conditions | | Min. | Max. | Unit |
|---|---|---|---|---|
| $V_{CC}$ | Supply Voltage | 4.75 | 5.25 | V |
| $V_{IH}$ | High-Level Input Voltage | 2.0 | | V |
| $V_{IL}$ | Low-Level Input Voltage | | 0.8 | V |
| $I_{IK}$ | Input Clamp Current | | -18 | mA |
| $I_{OH}$ | High-Level Output Current | | -1.0 | mA |
| $I_{OL}$ | Low-Level Output Current | | 20 | mA |

**Package**




| Notes : | EP1212XXA | EP1212XXA-RC |
|---|---|---|
| 1. Lead Finish | SnPb | Hot Tin Dip (Sn) † |
| 2. Peak Solder Rating (for wave solder process Only) | 225°C | 260°C |
| 3. Weight | 3.4 grams | 3.4 grams |
| 4. Packaging Information (Tube) | TBD pcs / tube | TBD pcs / tube |

† Lead Material : Matte Tin with Ni Barrier

Unless Otherwise Specified Dimensions are in Inches /mm ± .010 /.25

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Product performance is limited to specified parameters. Data is subject to change without prior notice.



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