**DL-DC6G-7-5-Q** is a four channel delay line, which is programmable, designed for adjusting the time delay or phase of radio, microwave or even digital signals with bandwidths from DC to 6 GHz.

Features:

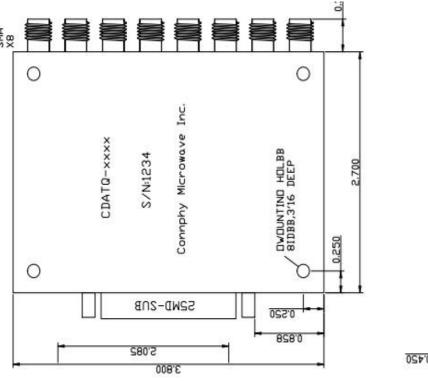
Frequency range: DC~6G, with 4 independent channels;

7 bits range;

Step size option: 5ps, 10ps, or 20ps; XX-XX-5 for 5ps step size;

Time or phase shifting, with very compact size

### **Mechanical Outline:**



# 080.0

## **Specifications:**

Bandwidth(4dB): 6 GHz

Step size(ps): 5, 10, 20 optional,

eg: DL-DC3G-10-5 for 5ps step

size

Channels: 4 independent channels

Isolation: > 63 dB Accuracy: 1 LSB

VSWR max: 1.3 for DC to 5 GHz;

1.5 for 5 to 6 GHz

Insertion loss: <7.0 dB DC to 5 GHz

<8 dB 5 to 6 GHz

Linearity: +0.3 dB DC to 3 GHz

+0.4dB 3 to 4 GHz +0.7dB 5 to 6 GHz

Dispersion (1-4GHz): -0.0007 x (total delay)

Insertion delay: 0.5 ns
Control signal setup time for latching: 0 ns
Control propagation delay: 12 ns Max
Delay-state switch time: 80 ns

# **Environmental Ratings:**

Temperature: -25°C to +80 °C Operating

-65 °C to +100 °C Non-Operating

Vibration: MIL-STD-810F, Method 514.5 Cond. B
Altitude: MIL-STD-202F, Method 105C Cond. B
Temperature Cycle: MIL-STD-202F, Method 107D Cond. A

| Delay Line<br>DL-DC6G-7-5-Q |                   |                      |   |  |
|-----------------------------|-------------------|----------------------|---|--|
| DRAWN:                      | DWG NO.:          | REV CODE:<br>Rev.1.0 | CONNPHY<br>Microwave Inc.                         |  |
| CHECKRD:                    | DATE:<br>15/03/15 | SHEET:<br>1 OF 2     | www.connphy.com<br>sales@connphy.com              |  |
| ISSUED:                     | SIZE:<br>A        | SCALE :<br>N / A     | Notes: SPEC ARE SUBJECT TO CHANGE WITHOUT NOTICE. |  |

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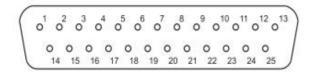
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### **Pin Definition:**



| 1-7      | _DO - D6 respectively active high  |  |
|----------|------------------------------------|--|
| 8-10, 13 | _NC                                |  |
| 11       | _A3 "4" "                          |  |
| 14-17    | _+5.0V Power                       |  |
| 18-21    | _Ground                            |  |
| 22       | _DS = Device Select active low     |  |
| 23       | WE = Write Enable active low       |  |
| 24       | _A2 "3" "                          |  |
| 25       | A0 "1" Channel select, active high |  |

\_A1 "2" "

| Delay Line<br>DL-DC6G-7-5-Q |                   |                      |   |  |  |
|-----------------------------|-------------------|----------------------|---|--|--|
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