

CDPS-8G12G-360-8 is an 8-Bit Digital Phase Shifter that operates over the 8.0 GHz to 12.0 GHz frequency range. This model offers 360° of phase shift with an LSB of 1.4° .

Features:

- 8.0-12.0 GHz
- 1.4° LSB,360° Range
- TTL Driver

Specifications:

| | |
|-----------------------------|---------------------------------|
| Frequency Range: | 8.0-12.0 GHz |
| Insertion Loss: | 10 dB Max |
| Number of Bits: | 8 |
| Least Significant Bit(LSB): | 1.4° |
| Phase Range: | 360° |
| Phase accuracy: | +/-5° Max |
| VSWR: | 2.0:1 Max |
| Operating Power: | +25 dBm Max |
| Switching Time: | 5 us Max |
| Control Logic: | TTL |
| Power supply: | +5Vdc @ 510 mA -5Vdc @ 510mA |

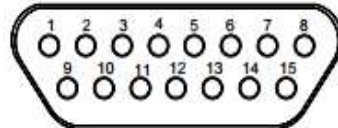
Environmental Ratings:


| | |
|--------------------|--|
| Temperature: | -40°C to +65 °C Operating -45 °C to +85°C Non-Operating |
| Vibration: | MIL-STD-202F, Method 204D Cond. B |
| Altitude: | MIL-STD-202F, Method 105C Cond. B |
| Temperature Cycle: | MIL-STD-202F, Method 107D Cond. A |

Mechanical Specifications:

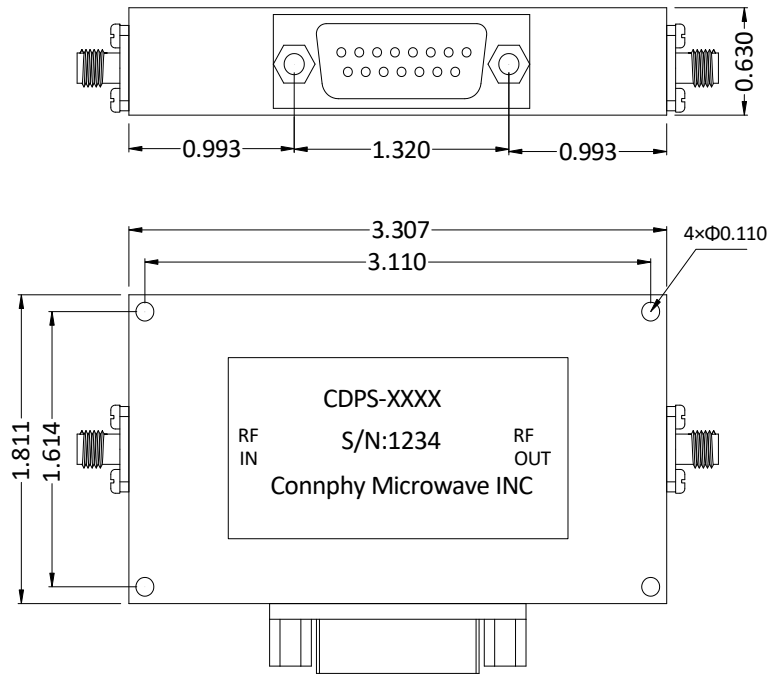
| Parameter | Specification |
|----------------------|--------------------------|
| Dimensions WxHxD | 3.307X1.811X0.630 inches |
| RF Connectors In/Out | SMA-Female |
| DC Connector | D-SUB 15 Pin(Female) |
| Material | Aluminum |

DC Connector PIN Assignment:

| Pin | Function | Pin Definition |
|-------|-----------|---|
| 1-8 | Bit1-Bit8 |  |
| 9 | GND | |
| 10-11 | +5V | |
| 12-13 | -5V | |
| 14-15 | GND | |

| 8-Bit Digital Phase Shifter CDPS-8G12G-360-8 | | | |
|---|-------------------|----------------------|---|
| DRAWN: | DWG NO.: | REV CODE: Rev.1.0 |  www.connphy.com sales@connphy.com |
| CHECKRD: | DATE: 08/07/15 | SHEET : 1 OF 2 | |
| ISSUED: | SIZE: A | SCALE : N / A | |
| Notes: SPEC ARE SUBJECT TO CHANGE WITHOUT NOTICE. | | | |

Mechanical Outline(Inches) :




Environmental Ratings:

| | |
|--------------------|--|
| Temperature: | -40°C to +65 °C Operating -45 °C to +85°C Non-Operating |
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| Temperature Cycle: | MIL-STD-202F, Method 107D Cond. A |

Truth Table :

| Control Voltage TTL Input for 8 bits resolution | | | | | | | | Phase Shift |
|---|-------|-------|-------|-------|-------|-------|-------|--------------|
| Bit 1 | Bit 2 | Bit 3 | Bit 4 | Bit 5 | Bit 6 | Bit 7 | Bit 8 | RFin - RFout |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Reference |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.40° |
| 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2.81° |
| 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5.62° |
| 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 11.25° |
| 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 22.50° |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 45.00° |
| 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 90.00° |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 180.00° |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 358.60° |

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