

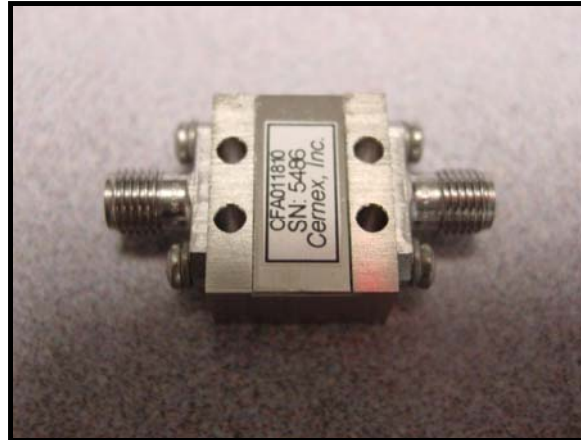
## Pin Diode Attenuators (Waveguide & Coaxial)

### FEATURES:

- ❖ Covers 1-110GHz
- ❖ Narrow band Attenuators 10 to 60 dB  
– 6% Bandwidth
- ❖ Full band Attenuator 10 to 40 dB

### APPLICATIONS:

- ❖ Wave shaping
- ❖ Amplitude Modulation
- ❖ Signal Switching
- ❖ Receiver Protection



### DESCRIPTION:

### CPD Series

Cernex's CPD series PIN diode attenuator is a SPST reflective attenuator that combines low loss, high isolation performance in a compact package. Attenuation options are available for the CPD series attenuation with isolation versions up to 60 dB. These attenuators are supplied without drivers; control is typically 0 to +10 Vdc. For full band applications, the CPD series attenuation features an excellent on/off ratio and a full bandwidth.

### SPECIFICATIONS:

| Waveguide Band           | S                                | CI           | C           | Cs           | XI           | XII          | X             | Xs            |
|--------------------------|----------------------------------|--------------|-------------|--------------|--------------|--------------|---------------|---------------|
| Waveguide Size           | WR-229                           | WR-187       | WR-159      | WR-137       | WR-112       | WR-102       | WR-90         | WR-75         |
| Frequency Range (GHz)    | 3.3 to 4.90                      | 3.95 to 5.85 | 4.9 to 7.05 | 5.85 to 8.20 | 7.05 to 10.0 | 7.0 to 11.00 | 8.20 to 12.40 | 10.0 to 15.00 |
| Attenuation              | -10, -20, -30, -40, -50, -60     |              |             |              |              |              |               |               |
| Insertion Loss (db max)  | 0.4                              | 0.5          | 0.6         | 0.7          | 0.7          | 0.8          | 0.8           | 1.0           |
| Operating Specifications |                                  |              |             |              |              |              |               |               |
| Control Input            | 0 to + Vdc                       |              |             |              |              |              |               |               |
| Operating Temperature    | 0°C to 60°C                      |              |             |              |              |              |               |               |
| Storage Temperature      | -55°C to +125°C                  |              |             |              |              |              |               |               |
| VSWR                     | 1.5 Typical (Low Loss Condition) |              |             |              |              |              |               |               |

| Waveguide Band          | Ku                           | K          | Ka         | Q        | U        | V        | E        | W         |
|-------------------------|------------------------------|------------|------------|----------|----------|----------|----------|-----------|
| Waveguide Size          | WR-62                        | WR-42      | WR-28      | WR-22    | WR-19    | WR-15    | WR-12    | WR-10     |
| Frequency Range (GHz)   | 12.4 to 14.0                 | 18 to 26.5 | 26.5 to 40 | 33 to 50 | 40 to 60 | 50 to 75 | 60 to 90 | 75 to 110 |
| Attenuation             | -10, -20, -30, -40, -50, -60 |            |            |          |          |          |          |           |
| Insertion Loss (db max) | 1.0                          | 1.0        | 1.0        | 1.0      | 1.2      | 1.5      | 2.0      | 2.0       |

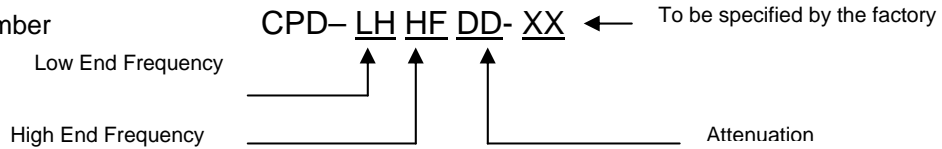
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V, E, W are 50% bandwidth

### HOW TO ORDER:

Specify Model Number



**Example:** To order WR-15 pin diode attenuator with a frequency range of 57 to 62 Ghz and an attenuation of 60db, specify CPD-576260-XX.

CERNEX RESERVE THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE