

FEATURES

- ❖ High power handling
- ❖ High isolation
- ❖ Low insertion loss
- ❖ Compact size
- ❖ TTL Controlled

APPLICATIONS

- ❖ Antenna beam switching
- ❖ Channel selection

DESCRIPTION

Model **CP4T-77303030-D2** and **CP10T-77308030-D2** are PIN diode based SP10T and SP4T switches that operate at the RF frequency range from 75 to 78 GHz. These switches are offered with a built-in TTL driver to simplify the channel switching and to reduce the switching time. The DC and logic control ports are accessed via a single Molex miniature connector. The RF interface of the switches WR-10 waveguide with standard UG387/U-M flange on the input and a miniature flange at the outputs. Operational frequency ranges other than 75 to 78 GHz or number of switching channels other than 4 or 10 are available on request.

SPECIFICATIONS

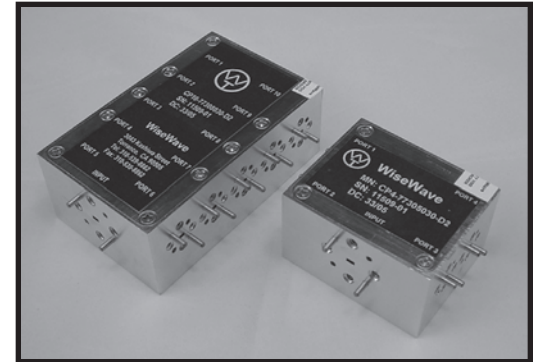
| Description | SP4T (CP4-77305030-D2) | SP10T (CP10-77308030-D2) |
|--------------------------|--|--------------------------------------|
| RF Frequency | 75 to 78 GHz | 75 to 78 GHz |
| Insertion Loss | 6.5 dB (Max) | 10.0 dB (Max) |
| Isolation | 30 dB (Min) | 30 dB (Min) |
| Switching Speed | 150 ns (Max) | 150 ns (Max) |
| DC Bias | +5 Vdc / 50 mA; -5 Vdc / 0 mA (Typ) | +5 Vdc / 160 mA; -5 Vdc / 0 mA (Typ) |
| Waveguide | Input: WR-12 with UG387/U Flange; Outputs: WR-12 with Miniature Flange | |
| DC Connector/TTL Control | MOLEX 87833-1020 | |

SP4T TRUTH TABLE

| C1 | C0 | Port "On" |
|----|----|-----------|
| 0 | 0 | Port 1 |
| 0 | 1 | Port 2 |
| 1 | 0 | Port 3 |

SP10T TRUTH TABLE

| C3 | C2 | C1 | C0 | Port "On" | C3 | C2 | C1 | C0 | Port "On" |
|----|----|----|----|-----------|----|----|----|----|-----------|
| 0 | 0 | 0 | 0 | Port 1 | 0 | 1 | 0 | 1 | Port 6 |
| 0 | 0 | 0 | 1 | Port 2 | 0 | 1 | 1 | 0 | Port 7 |
| 0 | 0 | 1 | 0 | Port 3 | 0 | 1 | 1 | 1 | Port 8 |
| 0 | 0 | 1 | 1 | Port 4 | 1 | 0 | 0 | 0 | Port 9 |
| 0 | 1 | 0 | 0 | Port 5 | 1 | 0 | 0 | 1 | Port 10 |



SP4T & SP10T Series

OUTLINE DRAWINGS

