

## Description

Mi-Wave's 179 is an H-plane, three-port Y-junction ferrite device. All external mating surfaces are machined to extreme flatness to provide connection to standard waveguide flanges for minimum discontinuity. The 179 Series circulators are available in standard waveguide sizes from 18.0 to 110 GHz, in round style flanges only.

- Low Loss
- Low VSWR
- High Isolation
- Broad Bandwidth
- Compact & Rugged
- Optimal Temperature Response

## Applications

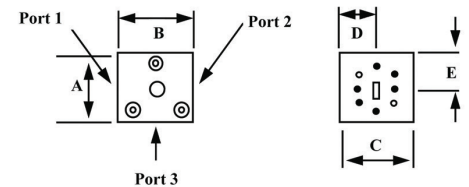
179 Series Y-junction circulators are useful in test setup and operational systems

\* Wider Bandwidths Available

| Dimensional Specifications |      |      |      |      |      |       |      |      |      |      |
|----------------------------|------|------|------|------|------|-------|------|------|------|------|
| Model No.                  | A    |      | B    |      | C    |       | D    |      | E    |      |
|                            | in.  | mm   | in.  | mm   | in.  | mm    | in.  | mm   | in.  | mm   |
| 179K                       | 1.50 | 38.1 | 1.25 | 31.8 | 1.18 | 29.97 | 0.59 | 14.9 | 0.59 | 14.9 |
| 179A                       | 1.50 | 38.1 | 1.25 | 31.8 | 1.18 | 29.97 | 0.59 | 14.9 | 0.59 | 14.9 |
| 179B                       | 1.50 | 38.1 | 1.25 | 31.8 | 1.18 | 29.97 | 0.59 | 14.9 | 0.59 | 14.9 |
| 179U                       | 1.50 | 38.1 | 1.25 | 31.8 | 1.18 | 29.97 | 0.59 | 14.9 | 0.59 | 14.9 |
| 179V                       | 1.10 | 27.9 | 1.00 | 25.4 | 0.90 | 22.9  | 0.50 | 12.7 | 0.50 | 11.4 |
| 179E                       | 1.10 | 27.9 | 1.00 | 25.4 | 0.90 | 22.9  | 0.50 | 12.7 | 0.50 | 11.4 |

| TECHNICAL SPECIFICATIONS               |               |          |          |          |             |          |          |
|--|---------------|----------|----------|----------|-------------|----------|----------|
| (TYPICAL)                              |               |          |          |          |             |          |          |
| Model No.                              | 179K          | 179A     | 179B     | 179U     | 179V        | 179E     | 179W     |
| Frequency Band (GHz)                   | 18–26.5       | 26.5–40  | 33–50    | 40–60    | 50–75       | 60–90    | 75–110   |
| Bandwidth <sup>1</sup>                 | 1.8 GHz       | 1.3 GHz  | 1.2 GHz  | 1.2 GHz  | 1.3 GHz     | 1.3 GHz  | 1.3 GHz  |
| Isolation <sup>2</sup> (dB) (typ)      | 18.0          | 18.0     | 18.0     | 15.0     | 15.0        | 15.0     | 15.0     |
| Insertion Loss (dB) <sup>1</sup> (typ) | 0.4           | 0.4      | 0.5      | 0.7      | 1.0         | 1.0      | 1.0      |
| VSWR Max (typ)                         | 1.30          | 1.30     | 1.30     | 1.35     | 1.40        | 1.4      | 1.4      |
| Temperature Range                      | -15° to +65°C |          |          |          | 0° to +50°C |          |          |
| Peak Power (kW)                        | 1.0           | 1.0      | 1.0      | 1.0      | 1.0         | 1.0      | 1.0      |
| Average Power (Watts)                  | 30            | 30       | 25       | 15       | 10          | 5        | 5        |
| Weight (oz)                            | 2.0           | 2.0      | 2.0      | 2.0      | 3.0         | 3.0      | 3.0      |
| Flange Type                            | UG-425/U      | UG-381/U | UG-383/U | UG-383/U | UG-385/U    | UG-387/U | UG-387/U |

1. Specify center frequency.



## Ordering Information

