

UTE MICROWAVE, INC

Digital Catalog

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BroadBand: Circulators | Isolators



Typical Specifications

| | |
|------------------------|-------------------|
| Isolation: | 18 dB min |
| Insertion Loss: | 0.40 dB max |
| VSWR: | 1.30 : 1 max |
| Load Rating: | 1 Watt std |
| Connectors: | SMA or N |
| | Female standard |
| | Others on request |

Circulators

| Frequency Range (GHz) | SMA (F) Connectors | | N (F) Connectors | |
|-----------------------|-----------------------|--------------|-----------------------|--------------|
| | Housing Size (inches) | Model Number | Housing Size (inches) | Model Number |
| 1.00 - 2.00 | 2-1/4 x 2-1/4 x 1 | CT-2004-O | 2-1/4 x 2-1/4 x 1 | CT-2003-N |
| 1.25 - 2.50 | 1-7/8 x 1-7/8 x 1 | CT-2008-O | 1-7/8 x 1-7/8 x 1 | CT-2007-N |
| 1.60 - 3.20 | 1-1/2 x 1-1/2 x 3/4 | CT-3038-O | 1-1/2 x 1-11/16 x 1 | CT-3037-N |
| 2.00 - 4.00 | 1-1/4 x 1-1/4 x 3/4 | CT-3042-O | 1-1/4 x 1-1/2 x 1 | CT-3041-N |
| 2.60 - 5.20 | 1-1/8 x 1-1/8 x 5/8 | CT-3046-O | 1-1/4 x 1-3/8 x 1 | CT-3045-N |
| 3.20 - 6.40 | 1 x 1 x 5/8 | CT-4024-O | 1-1/4 x 1-3/8 x 1 | CT-4023-N |
| 4.00 - 8.00 | 1 x 1 x 5/8 | CT-4028-O | 1-1/4 x 1-3/8 x 1 | CT-4027-N |
| 5.00 - 10.0 | 1 x 1 x 5/8 | CT-4032-O | 1 x 1-1/4 x 1 | CT-4031-N |
| 7.00 - 11.0 | 3/4 x 7/8 x 5/8 | CT-5156-O | 1 x 1-1/4 x 1 | CT-5339-N |
| 8.00 - 12.4 | 3/4 x 7/8 x 5/8 | CT-5158-O | 1 x 1-1/4 x 1 | CT-5341-N |
| 10.0 - 15.0 | 3/4 x 7/8 x 5/8 | CT-5334-O | | |
| 12.4 - 18.0 | 3/4 x 7/8 x 5/8 | CT-6101-O | | |

Isolators

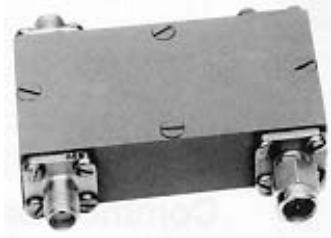
| Frequency Range (GHz) | SMA (F) Connectors | | N (F) Connectors | |
|-----------------------|-----------------------|--------------|-----------------------|--------------|
| | Housing Size (inches) | Model Number | Housing Size (inches) | Model Number |
| 1.00 - 2.00 | 2-1/4 x 2-1/4 x 1 | CT-2002-OT | 2-1/4 x 2-1/4 x 1 | CT-2001-NT |
| 1.25 - 2.50 | 1-7/8 x 1-7/8 x 1 | CT-2006-OT | 1-7/8 x 1-7/8 x 1 | CT-2005-NT |
| 1.60 - 3.20 | 1-1/2 x 1-1/2 x 3/4 | CT-3036-OT | 1-1/2 x 1-11/16 x 1 | CT-3035-NT |
| 2.00 - 4.00 | 1-1/4 x 1-1/4 x 3/4 | CT-3040-OT | 1-1/4 x 1-1/2 x 1 | CT-3039-NT |
| 2.60 - 5.20 | 1-1/8 x 1-1/8 x 5/8 | CT-3044-OT | 1-1/4 x 1-3/8 x 1 | CT-3043-NT |
| 3.20 - 6.40 | 1 x 1 x 5/8 | CT-4022-OT | 1-1/4 x 1-3/8 x 1 | CT-4021-NT |
| 4.00 - 8.00 | 1 x 1 x 5/8 | CT-4026-OT | 1-1/4 x 1-3/8 x 1 | CT-4025-NT |
| 5.00 - 10.0 | 1 x 1 x 5/8 | CT-4030-OT | 1 x 1-1/4 x 1 | CT-4029-NT |
| 7.00 - 11.0 | 3/4 x 7/8 x 5/8 | CT-5155-OT | 1 x 1-1/4 x 1 | CT-5340-NT |
| 8.00 - 12.4 | 3/4 x 7/8 x 5/8 | CT-5157-OT | 1 x 1-1/4 x 1 | CT-5342-NT |
| 10.0 - 15.0 | 3/4 x 7/8 x 5/8 | CT-5335-OT | | |
| 12.4 - 18.0 | 3/4 x 7/8 x 5/8 | CT-6102-OT | | |

Multiport Circulators: 4 Port "H" | 4 Port "Pi" | 5 Port

Where additional isolation is required, 2 or more junctions can be combined into a single package. Units are available in most frequency ranges - including octaves, most common connectors, etc. Typical units are listed below. Port 3 is terminated with a 1 Watt load.

4 Port Circulators "H"

- Typical frequency ranges and sizes are shown below.
- Port 3 is terminated with a 1 Watt load.



Typical Specifications

| | | |
|------------------------|-------------|--------------|
| Isolation: | (2-1) | 20 dB min |
| | (3-2) | 40 dB min |
| Insertion Loss: | (1-2) | 0.30 dB max |
| | (2-3) | 0.60 dB max |
| VSWR: | (all ports) | 1.25 : 1 max |

| Frequency Range (GHz) | Connectors Type | Size (inches) | Model Number |
|-----------------------|-----------------|-------------------|--------------|
| 1.70 - 2.40 | SMA | 4-1/8 x 2-1/8 x 1 | CH-3325-OT |
| 1.70 - 2.40 | N | 4-1/8 x 2-1/8 x 1 | CH-3325-NT |
| 2.60 - 3.40 | SMA | 3-1/2 x 1-3/4 x 1 | CH-3327-OT |
| 2.60 - 3.40 | N | 3-1/2 x 1-3/4 x 1 | CH-3327-NT |
| 3.60 - 4.30 | SMA | 2 x 1 x 5/8 | CH-4530-OT |
| 4.30 - 5.10 | SMA | 2 x 1 x 5/8 | CH-4531-OT |
| 5.30 - 6.00 | SMA | 2 x 1 x 5/8 | CH-4532-OT |
| 5.80 - 6.50 | SMA | 2 x 1 x 5/8 | CH-4533-OT |
| 7.00 - 8.50 | SMA | 2 x 1 x 5/8 | CH-5226-OT |
| 8.40 - 9.70 | SMA | 1-5/8 x 3/4 x 5/8 | CH-5227-OT |
| 10.7 - 12.2 | SMA | 1-5/8 x 3/4 x 5/8 | CH-5228-OT |

[Continue to 4 Port "Pi" and 5 Port](#)

Multiport Circulators: 4 Port "H" | 4 Port "Pi" | 5 Port (continued)

4 Port Circulators "Pi"



Typical Specifications

| | | |
|------------------------|-------------|--------------|
| Isolation: | (2-1) | 20 dB min |
| | (3-2) | 40 dB min |
| Insertion Loss: | (1-2) | 0.30 dB max |
| | (2-3) | 0.60 dB max |
| VSWR: | (all ports) | 1.25 : 1 max |

| Frequency Range (GHz) | Connectors Type | Size (inches) | Model Number |
|-----------------------|-----------------|---------------------|--------------|
| 1.70 - 2.40 | SMA | 3 x 1-1/2 x 3/4 | CP-3051-OT |
| 1.70 - 2.40 | N | 4 x 2-1/8 x 1 | CP-3351-NT |
| 2.60 - 3.40 | SMA | 2-1/2 x 1-1/4 x 3/4 | CP-3052-OT |
| 2.60 - 3.40 | N | 3-3/8 x 1-3/4 x 1 | CP-3552-NT |
| 3.60 - 4.30 | SMA | 2-1/4 x 1-1/8 x 5/8 | CP-4057-OT |
| 3.60 - 4.30 | N | 2-5/8 x 1-1/2 x 1 | CP-4557-NT |
| 4.30 - 5.10 | SMA | 2 x 1 x 5/8 | CP-4577-OT |
| 4.30 - 5.10 | N | 2-3/8 x 1-3/8 x 1 | CP-4577-NT |
| 5.80 - 6.50 | SMA | 2 x 1 x 5/8 | CP-4578-OT |
| 5.80 - 6.50 | N | 2-3/8 x 1-3/8 x 1 | CP-4578-NT |
| 7.00 - 8.50 | SMA | 2 x 1 x 5/8 | CP-4579-OT |
| 8.40 - 9.70 | SMA | 1-1/2 x 7/8 x 5/8 | CP-5392-OT |
| 9.50 - 10.7 | SMA | 1-1/2 x 7/8 x 5/8 | CP-5393-OT |
| 10.7 - 12.2 | SMA | 1-1/2 x 7/8 x 5/8 | CP-5394-OT |

5 Port Circulators

Available in most frequency ranges with Port 2 optimized for reactance amplifier application. Also 6 or 7 port variations and "Pi" configurations. Two ports are terminated with 1 Watt loads.

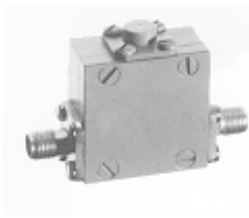


Typical Specifications

| | | |
|------------------------|-------------|--|
| Isolation: | (2-1) | 40 dB min |
| | (3-2) | 40 dB min (2 integral terminations) |
| Insertion Loss: | (1-2) | 0.60 dB max |
| | (2-3) | 0.60 dB max |
| VSWR: | (all ports) | 1.25 : 1 max |

| Frequency Range (GHz) | Connectors Type | Size (inches) | Model Number |
|-----------------------|-----------------|---------------------|--------------|
| 1.70 - 2.40 | SMA | 5-3/8 x 2-1/8 x 1 | CF-3326-OT |
| 1.70 - 2.40 | N | 5-3/8 x 2-1/8 x 1 | CF-3326-NT |
| 2.60 - 3.40 | SMA | 4-1/2 x 2-9/16 x 1 | CF-3328-OT |
| 2.60 - 3.40 | N | 4-1/2 x 2-9/16 x 1 | CF-3328-NT |
| 3.60 - 4.30 | SMA | 2-3/4 x 1-1/2 x 5/8 | CF-4534-OT |
| 4.30 - 5.10 | SMA | 2-3/4 x 1-1/2 x 5/8 | CF-4535-OT |
| 5.30 - 6.00 | SMA | 2-3/4 x 1-1/2 x 5/8 | CF-4536-OT |
| 5.80 - 6.50 | SMA | 2-3/4 x 1-1/2 x 5/8 | CF-4537-OT |
| 7.00 - 8.50 | SMA | 2-3/4 x 1-1/2 x 5/8 | CF-5229-OT |
| 8.40 - 9.70 | SMA | 1-7/8 x 1-1/8 x 5/8 | CF-5230-OT |
| 10.7 - 12.2 | SMA | 1-7/8 x 1-1/8 x 5/8 | CF-5231-OT |

Common Band: Circulators | Isolators



Specifications

| | |
|------------------------|-------------------|
| Isolation: | 22 dB min |
| Insertion Loss: | 0.30 dB max |
| VSWR: | 1.20 : 1 max |
| Load Rating: | 1 Watt std |
| Connectors: | SMA or N |
| | Female standard |
| | Others on request |

Circulators

| Frequency Range (GHz) | SMA (F) Connectors | | N (F) Connectors | |
|-----------------------|-----------------------|--------------|-----------------------|--------------|
| | Housing Size (inches) | Model Number | Housing Size (inches) | Model Number |
| 1.20 - 1.40 | 1-5/8 x 1-5/8 x 1 | CT-2025-O | 1-5/8 x 1-5/8 x 1 | CT-2027-N |
| 1.40 - 1.70 | 1-7/8 x 1-7/8 x 1 | CT-2011-O | 1-7/8 x 1-7/8 x 1 | CT-2021-N |
| 1.70 - 2.00 | 1-1/2 x 1-1/2 x 3/4 | CT-2065-O | 1-1/2 x 1-11/16 x 1 | CT-2067-N |
| 1.70 - 2.40 | 1-1/2 x 1-1/2 x 3/4 | CT-3047-O | 1-1/2 x 1-11/16 x 1 | CT-3061-N |
| 2.00 - 2.70 | 1-1/4 x 1-1/4 x 3/4 | CT-3049-O | 1-1/4 x 1-1/2 x 1 | CT-3063-N |
| 2.60 - 3.40 | 1-1/4 x 1-1/4 x 3/4 | CT-3051-O | 1-1/4 x 1-1/2 x 1 | CT-3065-N |
| 3.60 - 4.30 | 1 x 1 x 5/8 | CT-4037-O | 1 x 1-1/4 x 1 | CT-4061-N |
| 4.00 - 4.60 | 1 x 1 x 5/8 | CT-4039-O | 1 x 1-1/4 x 1 | CT-4063-N |
| 4.30 - 5.10 | 1 x 1 x 5/8 | CT-4041-O | 1 x 1-1/4 x 1 | CT-4065-N |
| 4.70 - 5.50 | 1 x 1 x 5/8 | CT-4043-O | 1 x 1-1/4 x 1 | CT-4067-N |
| 5.30 - 6.00 | 1 x 1 x 5/8 | CT-4045-O | 1 x 1-1/4 x 1 | CT-4069-N |
| 5.80 - 6.50 | 1 x 1 x 5/8 | CT-4047-O | 1 x 1-1/4 x 1 | CT-4077-N |
| 6.40 - 7.20 | 1 x 1 x 5/8 | CT-4827-O | 1 x 1-1/4 x 1 | CT-4829-N |
| 7.00 - 8.50 | 3/4 x 7/8 x 5/8 | CT-5159-O | 1 x 1-1/4 x 1 | CT-5343-N |
| 8.40 - 9.70 | 3/4 x 7/8 x 5/8 | CT-5161-O | 1 x 1-1/4 x 1 | CT-5447-N |
| 9.50 - 10.7 | 3/4 x 7/8 x 5/8 | CT-5449-O | 1 x 1-1/4 x 1 | CT-5571-N |
| 10.7 - 12.7 | 3/4 x 7/8 x 5/8 | CT-5163-O | 1 x 1-1/4 x 1 | CT-5661-N |
| 12.2 - 13.3 | 3/4 x 7/8 x 5/8 | CT-5165-O | | |
| 12.6 - 14.0 | 3/4 x 7/8 x 5/8 | CT-6105-O | | |
| 13.2 - 14.5 | 3/4 x 7/8 x 5/8 | CT-6151-O | | |
| 14.0 - 15.5 | 3/4 x 7/8 x 5/8 | CT-6107-O | | |
| 15.5 - 16.5 | 3/4 x 7/8 x 5/8 | CT-6109-O | | |
| 16.5 - 17.7 | 3/4 x 7/8 x 5/8 | CT-6338-O | | |
| 17.2 - 18.2 | 3/4 x 7/8 x 5/8 | CT-6345-O | | |

[Continue to Isolators](#)

Common Band: Circulators | Isolators (Continued)

Isolators

| Frequency Range (GHz) | SMA (F) Connectors | | N (F) Connectors | |
|-----------------------|-----------------------|--------------|-----------------------|--------------|
| | Housing Size (inches) | Model Number | Housing Size (inches) | Model Number |
| 1.20 - 1.40 | 1-5/8 x 1-5/8 x 1 | CT-2026-OT | 1-5/8 x 1-5/8 x 1 | CT-2028-NT |
| 1.40 - 1.70 | 1-7/8 x 1-7/8 x 1 | CT-2012-OT | 1-7/8 x 1-7/8 x 1 | CT-2022-NT |
| 1.70 - 2.00 | 1-1/2 x 1-1/2 x 3/4 | CT-2066-OT | 1-1/2 x 1-11/16 x 1 | CT-2068-NT |
| 1.70 - 2.40 | 1-1/2 x 1-1/2 x 3/4 | CT-3048-OT | 1-1/2 x 1-11/16 x 1 | CT-3062-NT |
| 2.00 - 2.70 | 1-1/4 x 1-1/4 x 3/4 | CT-3050-OT | 1-1/4 x 1-1/2 x 1 | CT-3064-NT |
| 2.60 - 3.40 | 1-1/4 x 1-1/4 x 3/4 | CT-3052-OT | 1-1/4 x 1-1/2 x 1 | CT-3066-NT |
| 3.60 - 4.30 | 1 x 1 x 5/8 | CT-4038-OT | 1 x 1-1/4 x 1 | CT-4062-NT |
| 4.00 - 4.60 | 1 x 1 x 5/8 | CT-4040-OT | 1 x 1-1/4 x 1 | CT-4064-NT |
| 4.30 - 5.10 | 1 x 1 x 5/8 | CT-4042-OT | 1 x 1-1/4 x 1 | CT-4066-NT |
| 4.70 - 5.50 | 1 x 1 x 5/8 | CT-4044-OT | 1 x 1-1/4 x 1 | CT-4068-NT |
| 5.30 - 6.00 | 1 x 1 x 5/8 | CT-4046-OT | 1 x 1-1/4 x 1 | CT-4070-NT |
| 5.80 - 6.50 | 1 x 1 x 5/8 | CT-4048-OT | 1 x 1-1/4 x 1 | CT-4078-NT |
| 6.40 - 7.20 | 1 x 1 x 5/8 | CT-4828-OT | 1 x 1-1/4 x 1 | CT-4830-NT |
| 7.00 - 8.50 | 3/4 x 7/8 x 5/8 | CT-5160-OT | 1 x 1-1/4 x 1 | CT-5344-NT |
| 8.40 - 9.70 | 3/4 x 7/8 x 5/8 | CT-5162-OT | 1 x 1-1/4 x 1 | CT-5448-NT |
| 9.50 - 10.7 | 3/4 x 7/8 x 5/8 | CT-5450-OT | 1 x 1-1/4 x 1 | CT-5572-NT |
| 10.7 - 12.7 | 3/4 x 7/8 x 5/8 | CT-5164-OT | 1 x 1-1/4 x 1 | CT-5662-NT |
| 12.2 - 13.3 | 3/4 x 7/8 x 5/8 | CT-5166-OT | | |
| 12.6 - 14.0 | 3/4 x 7/8 x 5/8 | CT-6106-OT | | |
| 13.2 - 14.5 | 3/4 x 7/8 x 5/8 | CT-6152-OT | | |
| 14.0 - 15.5 | 3/4 x 7/8 x 5/8 | CT-6108-OT | | |
| 15.5 - 16.5 | 3/4 x 7/8 x 5/8 | CT-6110-OT | | |
| 16.5 - 17.7 | 3/4 x 7/8 x 5/8 | CT-6340-OT | | |
| 17.2 - 18.2 | 3/4 x 7/8 x 5/8 | CT-6344-OT | | |

Special Custom Designs:

Shown here are a few examples of some special designs we have built for our customers. Submit your [custom requirements](#) to our Engineering Department for a solution.



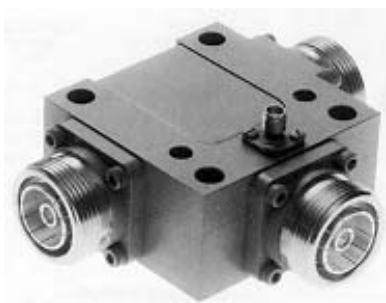
COMPACT 50 dB ISOLATOR

280 MHz
250 Watts CW
Load 75W



ISO FILTER

920 - 960 MHz
75 dB Isolation
500 Watt Avg. Power
Integral Loads and Reverse Power Monitor



LOW-LOSS - HIGH POWER

2450 MHz Circulator
750 Watts CW
Din 7/16" Connectors



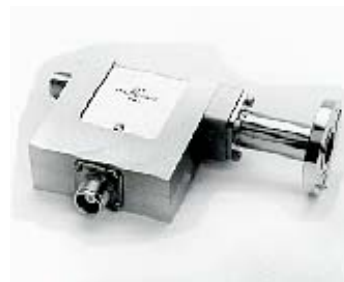
HIGH POWER ISOLATOR

920 - 960 MHz
100 Watt Load
Convection Cooling



SO-ADAPTER

CPR 284 to 7/16" Coax, Connector
250 Watts CW at 2450 MHz
Water Cooled Load - Reverse Power Monitor



HIGH POWER CIRCULATOR

735 - 920 MHz
75 kWatt peak 0.001 Duty Cycle
Conduction Cooling

High Power TV : Low Frequency | Common Bands

Four high performance units give coverage for the VHF Channels 7-13 and UHF TV Bands 470 - 860 MHz. Optimized for LOW LOSS, these circulators typically operate at 500 Watts cw, 900 Watts peak power level.

The units are designed for efficient heat transfer, however heat sinking must be adequate to transfer the internally dissipated power (from less than 25 Watts in the circulator to about 150 watts for the isolator absorbing rated reverse power.) The forward power rating may be raised by providing adequate heat sinking to keep the circulator body temperature within the rated temperature range of -10°C to + 70°C and will not be damaged by even greater temperature extremes (-30°C to + 90°C).

The isolator version has an integral 125 Watt loaded designed to provide a minimum of 20 dB isolation.

Typical Specifications



| | |
|------------------------|---|
| Isolation: | 20 dB min |
| Insertion Loss: | 0.25 dB max 0.12 dB typ |
| VSWR: | 1.20 : 1 max |
| Temp. Range: | -10°C to + 70°C |
| Size: | 2-3/4 x 2-15/16 x 1-1/4 |
| Connectors: | N - Fe standard DIN 7/16 special order |

| Channels | Frequency | Circulator | Isolator | Size |
|----------|---------------|------------|------------|--------------|
| 7-10 | 174-200 MHZ | CT-1682-N | | 3.5x3.5x1.25 |
| 11-13 | 200-220 MHZ | CT-1683-N | | |
| 14 - 26 | 470 - 548 MHZ | CT-1325-N | CT-1345-NT | |
| 26 - 44 | 542 - 656 MHZ | CT-1326-N | CT-1346-NT | |
| 44 - 69 | 650 - 806 MHZ | CT-1327-N | CT-1347-NT | |
| 69 - 78 | 800 - 860 MHZ | CT-1328-N | CT-1348-NT | |

Low Frequency/Common Bands

These units cover most common frequency ranges at power levels of 100 Watts cw or average. They are also available for any specific ranges you designate.



Typical Specifications

| | |
|------------------------|--------------|
| Isolation: | 20 dB min |
| Insertion Loss: | 0.40 dB max |
| VSWR: | 1.25 : 1 max |

| Frequency Range (MHz) | SMA (F) Connectors | | N (F) Connectors | | Housing Size(inches) |
|-----------------------|--------------------|----------------------|--------------------|----------------------|-----------------------|
| | Isolator Model No. | Circulator Model No. | Isolator Model No. | Circulator Model No. | |
| 340 - 365 | CT-1230-OT | CT-1163-O | CT-1231-NT | CT-1161-N | 3-1/2 x 3-1/2 x 1-1/4 |
| 400 - 450 | CT-1130-OT | CT-1128-O | CT-1129-NT | CT-1126-N | 2-1/2 x 2-1/2 x 1 |
| 450 - 515 | CT-1249-OT | CT-1248-O | CT-1251-NT | CT-1250-N | 2 x 2 x 1 |
| 470 - 560 | CT-1253-OT | CT-1252-O | CT-1255-NT | CT-1254-N | 2 x 2 x 1 |
| 560 - 675 | CT-1257-OT | CT-1256-O | CT-1259-NT | CT-1258-N | 2 x 2 x 1 |
| 670 - 810 | CT-1261-OT | CT-1260-O | CT-1263-NT | CT-1262-N | 2 x 2 x 1 |
| 755 - 985 | CT-1057-OT | CT-1058-O | CT-1045-NT | CT-1046-N | 2 x 2 x 1 |
| 800 - 960 | CT-1059-OT | CT-1060-O | CT-1047-NT | CT-1048-N | 1-5/8 x 1-5/8 x 1 |
| 960 - 1225 | CT-1061-OT | CT-1062-O | CT-1247-NT | CT-1223-N | 1-5/8 x 1-5/8 x 1 |

High cw or average power units are also available for your specific applications.

Flange Mount Drop-in:

These economical units give high performance in micro strip and stripline applications where space and cost are important.

They are ideal for both small and high volume applications such as cellular, PCS, and communications.



Typical Specifications

Isolation: 20 dB min
Insertion Loss: 0.50 dB max
VSWR: 1.25 : 1 max

Flange Mount:

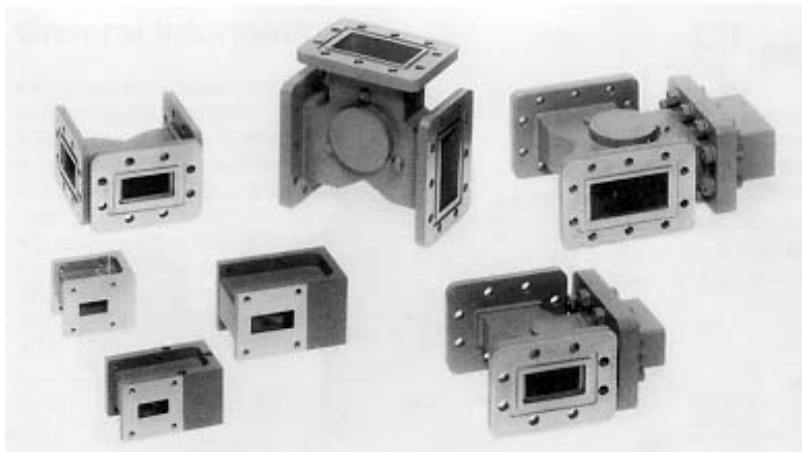
Isolators and Circulators

| Frequency Range (GHz) | Mounting Size | Outline | Isolator Model Number | Circulator Model Number | Average Power Watts |
|-----------------------|---------------|---------|-----------------------|-------------------------|---------------------|
| 0.810 - .845 | 1.00 x 1.25 | B | CD-828-ST | CD-828-S | 65 |
| 0.824 - .900 | 1.00 x 1.00 | C | CD-862-ST | CD-862-S | 5 |
| 0.860 - .900 | 1.00 x 1.25 | B | CD-880-ST | CD-880-S | 65 |
| 0.960 - 1.225 | 1.00 x 1.12 | B-1 | CD-1090-ST | CD-1090-S | 10 |
| 1.020 - 1.100 | 1.00 x 1.00 | C | CD-1060-ST | CD-1060-S | 5 |
| 1.200 - 1.400 | 1.00 x 1.00 | C | CD-1300-ST | CD-1300-S | 5 |
| 1.400 - 1.600 | 0.75 x 0.75 | D | CD-1500-ST | CD-1500-S | 5 |
| 1.750 - 1.850 | 0.75 x 0.75 | D | CD-1800-ST | CD-1800-S | 5 |
| 2.000 - 2.300 | 0.75 x 0.75 | D | CD-2150-ST | CD-2150-S | 5 |
| 2.000 - 2.400 | 0.75 x 0.75 | D | CD-2300-ST | CD-2300-S | 5 |
| 2.300 - 2.700 | 0.75 x 0.75 | D | CD-2450-ST | CD-2450-S | 5 |
| 2.700 - 3.100 | 0.75 x 0.75 | D | CD-2900-ST | CD-2900-S | 5 |
| 3.100 - 3.500 | 0.75 x 0.75 | D | CD-3300-ST | CD-3300-S | 5 |
| 3.700 - 4.200 | 0.75 x 0.75 | D | CD-3950-ST | CD-3950-S | 5 |
| 4.000 - 4.400 | 0.50 x 0.58 | G | CD-4200-ST | CD-4200-S | 1 |
| 4.400 - 5.000 | 0.50 x 0.58 | G | CD-4700-ST | CD-4700-S | 1 |
| 5.400 - 5.900 | 0.50 x 0.58 | G | CD-5650-ST | CD-5650-S | 1 |
| 5.900 - 6.400 | 0.50 x 0.58 | G | CD-6150-ST | CD-6150-S | 1 |
| 6.400 - 7.200 | 0.50 x 0.58 | G | CD-6800-ST | CD-6800-S | 1 |
| 7.200 - 8.400 | 0.50 x 0.58 | G | CD-7800-ST | CD-7800-S | 1 |
| 8.500 - 9.600 | 0.35 x 0.48 | I | CD-9050-ST | CD-9050-S | 1 |
| 9.500 - 10.70 | 0.35 x 0.48 | I | CD-10100-ST | CD-10100-S | 1 |
| 10.70 - 12.70 | 0.35 x 0.48 | I | CD-11700-ST | CD-11700-S | 1 |
| 12.20 - 13.30 | 0.25 x 0.50 | J | CD-12750-ST | CD-12750-S | 1 |

Waveguide Junctions :

Standard units are available as circulators or isolators.

Other commonly used frequency ranges also are available. Special frequencies, W/G sizes or flanges available as custom designs. Most units are aluminum, however, some items are supplied in copper alloy.



Typical Specifications

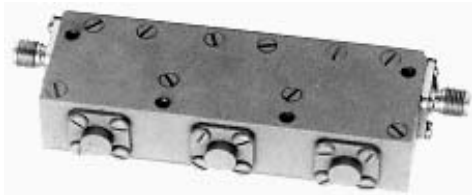
| | |
|------------------------|--------------|
| Isolation: | 26 dB min |
| Insertion Loss: | 0.15 dB max |
| VSWR: | 1.10 : 1 max |

| Frequency Range (GHz) | Waveguide WR () | Flange Type | Circulator Model Number | Isolator Model Number |
|-----------------------|------------------|-------------|-------------------------|-----------------------|
| 3.62 - 4.20 | 229 | CPR-(G) | CWT-4907-W | CWT-4916-WT |
| 5.85 - 6.45 | 159 | CPR-(G) | CWT-4918-W | CWT-4917-WT |
| 5.85 - 6.45 | 137 | CPR-(G) | CWT-4873-W | CWT-4876-WT |
| 5.85 - 6.45 | 137 | CMR | CWT-4806-W | CWT-4804-WT |
| 6.40 - 7.20 | 159 | CPR-(G) | CWT-4878-W | CWT-4877-WT |
| 6.40 - 7.20 | 159 | CMR | CWT-4730-W | CWT-4729-WT |
| 6.40 - 7.20 | 137 | CPR-(G) | CWT-4926-W | CWT-4838-WT |
| 6.40 - 7.20 | 137 | CMR | CWT-4705-W | CWT-4707-WT |
| 7.90 - 8.40 | 112 | UG | CWT-5586-W | CWT-5597-WT |
| 8.50 - 9.60 | 90 | UG | CWT-5713-W | CWT-5634-WT |
| 10.7 - 11.7 | 90 | UG | CWT-5604-W | CWT-5598-WT |
| 10.7 - 11.7 | 75 | SQUARE | CWT-5756-W | CWT-5600-WT |
| 10.7 - 12.7 | 75 | SQUARE | CWT-5707-W | CWT-5706-WT |
| 11.7 - 12.7 | 75 | SQUARE | CWT-5757-W | CWT-5599-WT |
| 12.2 - 13.3 | 75 | SQUARE | CWT-5758-W | CWT-5601-WT |
| 14.0 - 14.5 | 75 | SQUARE | CWT-6348-W | CWT-6396-WT |
| 14.0 - 14.5 | 62 | UG | CWT-6334-W | CWT-6296-WT |
| 17.3 - 18.1 | 62 | UG | CWT-6341-W | CWT-6339-WT |

High Ratio Isolators: Common Band | Broadband

Common Band

| Frequency Range (GHz) | Isolation (dB) | Ins. Loss (dB) | Connector Type | Size (inches) | Model Number |
|-----------------------|----------------|----------------|----------------|---------------------|--------------|
| 1.70 - 2.40 | 40 | 0.75 | N | 4 x 2-1/8 x 1 | CP-3329-NT |
| 1.70 - 2.40 | 40 | 0.75 | SMA | 3 x 1-1/2 x 3/4 | CP-3039-OT |
| 2.60 - 3.40 | 40 | 0.70 | N | 3-3/8 x 1-3/4 x 1 | CP-3330-NT |
| 2.60 - 3.40 | 40 | 0.70 | SMA | 2-1/2 x 1-1/4 x 3/4 | CP-3032-OT |
| 3.60 - 4.30 | 40 | 0.70 | N | 2-5/8 x 1-1/2 x 1 | CP-4503-NT |
| 3.60 - 4.30 | 40 | 0.70 | SMA | 2-1/4 x 1-1/8 x 5/8 | CP-4038-OT |
| 4.30 - 5.10 | 40 | 0.70 | N | 2-3/8 x 1-3/8 x 1 | CP-4529-NT |
| 4.30 - 5.10 | 40 | 0.70 | SMA | 2 x 1 x 5/8 | CP-4039-OT |
| 5.80 - 6.50 | 40 | 0.60 | N | 2-3/8 x 1-3/8 x 1 | CP-4551-NT |
| 5.80 - 6.50 | 40 | 0.60 | SMA | 2 x 1 x 5/8 | CP-4040-OT |
| 5.80 - 6.50 | 60 | 0.80 | SMA | 3 x 1 x 5/8 | CF-4647-OT |
| 8.40 - 9.70 | 40 | 0.60 | SMA | 1-1/2 x 7/8 x 5/8 | CP-5232-OT |
| 8.40 - 9.70 | 60 | 0.80 | SMA | 2-1/4 x 7/8 x 5/8 | CF-5233-OT |
| 10.7 - 12.7 | 40 | 0.60 | SMA | 1-1/2 x 7/8 x 5/8 | CP-5446-OT |
| 12.2 - 13.3 | 40 | 0.60 | SMA | 1-1/2 x 7/8 x 5/8 | CP-6353-OT |
| 14.0 - 14.5 | 40 | 0.60 | SMA | 1-1/2 x 7/8 x 5/8 | CP-6391-OT |
| 16.5 - 17.5 | 40 | 0.60 | SMA | 1-1/2 x 7/8 x 5/8 | CP-6320-OT |
| 17.2 - 18.2 | 40 | 0.60 | SMA | 1-1/2 x 7/8 x 5/8 | CP-6426-OT |



- Female connectors are standard.
- Other combinations are available on special order.
- Termination ratings are 1 Watt std.
- Higher powers available on special order.

Broadband

| Frequency Range (GHz) | Isolation (dB) | Ins. Loss (dB) | Connector Type | Size (inches) | Model Number |
|-----------------------|----------------|----------------|----------------|---------------------|--------------|
| 2.00 - 4.00 | 40 | 0.80 | N | 3-3/8 x 1-3/4 x 1 | CP-3378-NT |
| 2.00 - 4.00 | 35 | 0.75 | SMA | 2-1/2 x 1-1/4 x 3/4 | CP-3094-OT |
| 4.00 - 8.00 | 40 | 0.80 | N | 2-3/8 x 1-3/8 x 1 | CP-4597-NT |
| 4.00 - 8.00 | 35 | 0.75 | SMA | 2 x 1 x 5/8 | CP-4070-OT |
| 7.00 - 11.0 | 40 | 0.80 | SMA | 1-1/2 x 7/8 x 5/8 | CP-5436-OT |
| 8.00 - 12.4 | 40 | 0.80 | SMA | 1-1/2 x 7/8 x 5/8 | CP-5416-OT |
| 10.0 - 15.0 | 35 | 0.80 | SMA | 1-1/2 x 7/8 x 5/8 | CP-6260-OT |
| 12.4 - 18.0 | 35 | 0.80 | SMA | 1-1/2 x 7/8 x 5/8 | CP-6262-OT |

Wireless/PCN : Drop-in | Coaxial | High Power 500 Watt

UTE Microwave offers a complete line of circulators and isolators for applications at all the wireless and PCN frequencies. In addition, our devices cover the power spectrum from "milliwatts to many Watts".



Typical Specifications

| | |
|------------------------|--------------|
| Isolation: | 20 dB min |
| Insertion Loss: | 0.50 dB max |
| VSWR: | 1.25 : 1 max |

Drop-in

| Frequency Range (MHz) | Isolator Model Number | Circulator Model Number |
|-----------------------|-----------------------|-------------------------|
| 824 - 849 | CD-836-ST | CD-836-S |
| 862 - 890 | CD-881-ST | CD-881-S |
| 900 - 930 | CD-915-ST | CD-915-S |
| 1700 - 1800 | CD-1750-ST | CD-1750-S |
| 1800 - 1950 | CD-1875-ST | CD-1875-S |
| 2400 - 2483 | CD-2442-ST | CD-2442-S |
| 5725 - 5850 | CD-5787-ST | CD-5787-S |

[Click here for more details](#)

Coaxial

| Frequency Range (MHz) | Low Power Model Number | Medium Power Model Number |
|-----------------------|------------------------|---------------------------|
| 824 - 849 | CT-1358-OT | CT-1368-OT |
| 862 - 890 | CT-1359-OT | CT-1369-OT |
| 900 - 930 | CT-1360-OT | CT-1370-OT |
| 1800 - 1950 | CT-2381-OT | CT-2382-OT |
| 2000 - 2700 | CT-3050-OT | CT-3753-OT |

SMA connectors. Other types available.



Typical Specifications

| | |
|------------------------|--------------|
| Isolation: | 20 dB min |
| Insertion Loss: | 0.30 dB max |
| VSWR: | 1.25 : 1 max |

High Power 500 Watt

| Frequency Range (MHz) | Circulators Model Number |
|-----------------------|--------------------------|
| 850 - 890 | CT-1361-N |
| 860 - 960 | CT-1362-N |
| 1900 - 2100 | CT-2383-N |
| 2450 | CT-3695-N |

High-Power Communications: Industrial | Medical | Cellular | Paging

To meet the needs of increased power levels used in current cellular, paging, TV and medical equipment - the following typical units are listed. Consult us with your exact requirements.



Communication Bands

| Model Number | Frequency Range (MHz) | POWER (Watts) cw | ISOL (dB) min | LOSS (dB) max | VSWR (: 1) max | Size (inches) |
|---------------------------|-----------------------|------------------|---------------|---------------|------------------|-------------------------|
| CT-1237-N | 270 - 290 | 150 | 23 | 0.25 | 1.20 | 3-1/2 x 3-5/8 x 1-1/4 |
| CP-1244-NT ⁽¹⁾ | 270 - 290 | 250 | 50 | 0.50 | 1.20 | 3-3/8 x 4-1/2 x 1-1/2 |
| CT-1204-N | 420 - 450 | 150 | 23 | 0.25 | 1.20 | 2 x 2 x 1 |
| CP-1205-NT ⁽¹⁾ | 420 - 450 | 250 | 50 | 0.50 | 1.20 | 2 x 4 x 1 |
| CT-1181-N | 820 - 900 | 100 | 23 | 0.25 | 1.25 | 1-5/8 x 1-5/8 x 1 |
| CT-1182-N | 860 - 900 | 500 | 23 | 0.25 | 1.20 | 2-1/8 x 2-1/4 x 1-1/4 |
| CT-1183-N | 860 - 900 | 1000 | 20 | 0.25 | 1.25 | 2-3/4 x 2-15/16 x 1-1/4 |

⁽¹⁾ - Integral power loads.

Industrial and Medical

| Model Number | Frequency Range (MHz) | POWER (Watts) cw | ISOL (dB) min | LOSS (dB) max | VSWR (: 1) max | Size (inches) |
|-----------------------------|-----------------------|------------------|---------------|---------------|------------------|-------------------------|
| CT-1103-N | 915 | 100 | 23 | 0.25 | 1.10 | 1-5/8 x 1-1/8 x 1 |
| CT-1125-N | 915 | 500 | 25 | 0.25 | 1.10 | 2 x 2 x 1 |
| CT-1245-N | 915 | 750 | 25 | 0.25 | 1.10 | 2-1/8 x 2-1/4 x 1-1/4 |
| CT-1246-N | 915 | 1000 | 25 | 0.25 | 1.10 | 2-1/8 x 2-1/4 x 1-1/4 |
| CT-3826-N | 2450 | 100 | 25 | 0.25 | 1.10 | 1-3/4 x 1-3/4 x 1 |
| CT-3695-N | 2450 | 500 | 25 | 0.25 | 1.10 | 2-1/2 x 2-1/2 x 1-5/16 |
| CT-3664-D ⁽¹⁾ | 2450 | 1000 | 25 | 0.25 | 1.10 | 2-3/4 x 2-15/16 x 1-1/4 |
| CWT-3711ST ^(1,2) | 2450 | 500 | 25 | 0.25 | 1.10 | (TEM / Guide) |
| CWT-3712-NT ⁽²⁾ | 2450 | 500 | 25 | 0.25 | 1.10 | (TEM / Guide) |

⁽¹⁾ - DIN 7/16 Coax connectors

⁽²⁾ - CPR - 284 Input 100 Watt watercooled load..

UTE Microwave produces a broad range of ferrite devices for use in military, commercial, medical and scientific applications. Over 35 years experience in this field gives us a breadth of knowledge we can apply to your requirements.

Terms

Net 30, FOB Asbury Park, NJ for approved accounts. Shipments are by UPS Ground unless otherwise directed and authorized.

Export order payment will be by Letter of Credit, Bank Draft or check drawn on a U.S. commercial bank. Freight and insurance charges are collect on delivery.

We accept VISA and MasterCard orders.

Warranty

Our products are warranted to the original purchaser to be free of defects in material and workmanship for 1 year from date of original shipment. This obligation is limited to repair or replacement at our option. Returns must be authorized by the factory and returned by pre-paid transportation.

In keeping with our policy to improve our products, we reserve the right to change specifications without notice.
