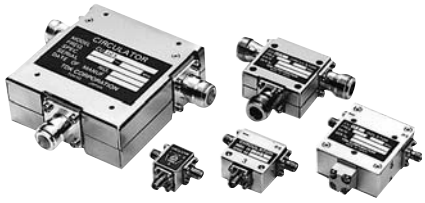
TDK

# Circulators/Isolators
# For Base-station, Connector Type

## CU Series



These compact, wide-band lumped element type CU series are perfect for protecting various microwave circuits, and for preventing mismatching.

### PRODUCT IDENTIFICATION

Type name □*a □*b □*c- □*d- □*f

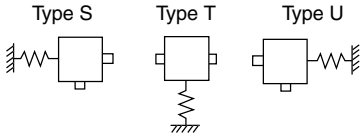
□*a: Direction of circulation. Fill in with a letter A or B.
A: CW (clock-wise)
B: C·CW (counter clock-wise)

□*b: Bandwidth
3: Wide bandwidth

□*c: Connector type
N: N-type
3: SMA-type

□*d: Center frequency

□*f: Connector position
C: Circulator specification
S,T,U: Isolator specification(Type T:standard type)




### ELECTRICAL CHARACTERISTICS

| Part No. Circulator/ Isolator | Frequency range*1 (MHz) | Band width (%) max. | Isolation (dB) min. | Insertion loss (dB) max. | VSWR max. Z0=50Ω | Maximum handling power (W) | Capacity of built-in dummy load(W)*2 | Dimensions (mm) [Except connector] L×W×T | Temperature range (°C) | Weight (g) | Connector type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CU10N□*a3*b□*c-□*d-C*f/ CU10N□3□-□-□ | 820 to 950 | ±5 | 20 | 0.4 | 1.2 | 100 | 40 | 40×40×20 | –10 to +50 | 220 | SMA/N |
| | 810 to 960 | Full | 18 | 0.5 | 1.3 | | | | | | |
| | 1429 to 1501 | Full | 20 | 0.4 | 1.2 | | | | | | |
| CU12M□33□-C/ CU12M□33-□-□ | 1500 to 1700 | Full | 18 | 0.7 | 1.3 | 30 | 1 | 26×25.4×13 | –10 to +50 | 55 | SMA |
| | 1600 to 1800<br>1700 to 1900 | Full | 18 | 0.5 | | | | | | | |
| | 1800 to 2000<br>1900 to 2100<br>2000 to 2200<br>2100 to 2300<br>2200 to 2400<br>2300 to 2500<br>2400 to 2600<br>2500 to 2700 | Full | 20 | 0.4 | 1.2 | | | | | | |
| | 1900 to 2200 | Full | 18 | 0.5 | 1.3 | | | | | | |
| CU113□33-□-C/ CU113□33-□-□ | 1700 to 2200 | ±10 | 20 | 0.4 | 1.2 | 15 | 1 | 44×40×19 | –10 to +50 | 200 | SMA |
| CU13M□33-□-C/ CU13M□33-□-□ | 3300 to 4000 | Full | 20 | 0.5 | 1.2 | 10 | 1 | 26×25.4×13 | –10 to +50 | 55 | SMA |
| | 3500 to 4300<br>4300 to 5100<br>5600 to 6200<br>5800 to 6500<br>6300 to 7200 | Full | 20 | 0.3 | | | | | | | |
| CU171□33-□-C/ CU171□33-□-□ | 6000 to 8000 | ±10 | 20 | 0.4 | 1.2 | 15 | 1 | 19×15×15 | –10 to +50 | 45 | SMA |
| | 8000 to 10000 | ±5 | | | | 10 | | | | | |
| | 10000 to 13000 | ±4 | | | | 10 | | | | | |
| | 6000 to 7000 | Full | | | | 15 | | | | | |
| | 7000 to 8000 | | | | | 15 | | | | | |
| | 9000 to 10000 | | | | | 10 | | | | | |
| | 10000 to 11000 | | | | | 10 | | | | | |
| | 11000 to 12000 | | | | | 10 | | | | | |
| | 12000 to 13000 | | | | | 10 | | | | | |
| CU171□83-100-T | 8000 to 12000 | Full | 17 | 0.7 | 1.3 | 10 | 0.5 | | | | |
| CU181□33□-C/ CU181□33-□-□ | 13000 to 15000 | ±4 | 20 | 0.4 | 1.2 | 10 | 1 | 16.5×13×15 | –10 to +50 | 40 | SMA |
| | 15000 to 20000 | ±2.5 | 20 | 0.5 | 1.2 | 3 | 0.5 | | | | |

*1 The tunable frequencies are represented in different ways for different models.

- The center frequency range and the banwidth (the bandwidth is shown as a ratio)
  Example CU10N□3□-□-C

| Center frequency tunable range (MHz) | Bandwidth (%)max. |
|---|---|
| 820 to 950 | ±5 |

- A fixed frequency range (the bandwidth is shown as “Full”)
  Example CU12M□33□-C

| Frequency range (MHz) | |
|---|---|
| 1500 to 1700<br>1600 to 1900 | Full |

*2 Dummy load capability when converted to isolator.

- TDK will be pleased to submit quotations on any customer’s requirements which are not included in this data. Please contact our branch office or representative.

• All specifications are subject to change without notice.