Upconverters

## FEATURES:

```
* Low Driver (Biased)
* Low Conversion Loss
* Wide Choice of IF Inputs
* With or Without RF Filter
* High Drive (Unbiased) Options
```


## DESCRIPTION:



## CUP Series

Cernex's CUP series millimeter wave upconverters use MIC balanced mixers to provide optimum electrical performance throughout the standard product line. Cernex's GaAs beam-lead diode technology means power levels as high as +5 dBm . Low conversion loss specifications ensure efficient upconversion.

SPECIFICATIONS:

| Waveguide Band | K | Ka | Q | U | V | E | W |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Waveguide Size | WR-42 | WR-28 | WR-22 | WR-19 | WR-15 | WR-12 | WR-10 |
| Frequency Range (GHz) | 18 to 26.5 | 26.5 to 40 | 33 to 50 | 40 to 60 | 50 to 75 | 60 to 90 | 75 to 110 |
| IF Input Range | 10 MHz to <br> 14 GHz | 10 MHz to <br> 16 GHz | 10 MHz to <br> 18 GHz | 10 MHz to <br> 18 GHz | 10 MHz to <br> 18 GHz | 10 MHz to <br> 18 GHz | 10 MHz to <br> 18 GHz |
| RF Output Power $^{1}(\mathrm{dbm})$ | 2.0 | 2.0 | 2.0 | 1.5 | 1.0 | 0 | 0 |

1. LO drive +14 dBm , IF drive $+10 \mathrm{dBm} @ 2$

| RF Bandwidth | Up to Full Bandwidth |
| :---: | :---: |
| Conversion Flatness | $\pm 1 \mathrm{~dB}$, Typical |
| LO Input Power | +20 dBm, Max. |
| IF Input Power | +20 dBm, Max. |
| Combined Power | +23 dBm, Max. |
| RF Output Power | $\pm 0 \mathrm{dBm}$, Typical |
| LO VSWR | $2: 1$, Typical |
| IF VSWR | $2: 1$, Typical |
| LO/RF Isolation | 20 dB, Min. |
| Operating Termpature | $-40^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$ |

HOW TO ORDER:
Specify Model Number


Example: To order WR-15, specify CSM-15-XX.

