

## Subharmonic Pumped Mixers

### FEATURES:

- ❖ Frequency coverage: 18 to 110GHz
- ❖ Balanced configuration for low conversion loss
- ❖ Up to full waveguide band operation
- ❖ LO frequency at half of RF frequency
- ❖ Standard temperature range: -10 to + 60 deg C

### APPLICATIONS:

- ❖ Communication Systems
- ❖ Radar systems
- ❖ Test instrumentations



### DESCRIPTION:

**CSHM series** subharmonically pumped mixers are GaAs Schottky beamlead diode and MMIC based mixers. The subharmonically pumped mixers are widely used in many communication systems where superior harmonic and spurious performance are concerned. In addition, these mixers have extremely low LO signal leakage at RF port. Furthermore, the LO frequency at the half of the RF frequency reduces the system cost tremendously.

The subharmonically pumped mixers are offered in seven common waveguide bands to cover the frequency range from 18 to 110GHz. The catalog models employ broadband circuitry and balanced structure to offer low conversion loss and harmonics products for near the full waveguide band operation. The typical instantaneous RF bandwidth of these mixers are 75% of the waveguide bands. Although the non biased version is the baseline design, externally biased option is available upon request. While the catalog models' focus is on broader bandwidth operation for the general applications, narrow bandwidth custom designed models are optimized to meet customers' applications needs.

### SPECIFICATIONS:

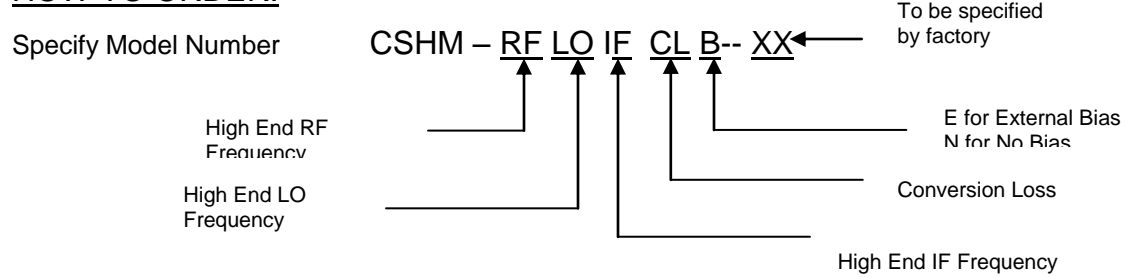
Waveguide Band	K	Ka	Q	U	V	E	W
Frequency Range (GHz)	18.0 to 26.5	26.5 to 40.0	33.0 to 50.0	40.0 to 60.0	50.0 to 75.0	60.0 to 90.0	75.0 to 110
LO Frequency Range (GHz)	9.0 to 13.25	12.25 to 20.0	16.5 to 25.0	20.0 to 30.0	25.0 to 37.5	30.0 to 45.0	37.5 to 55.0
IF Frequency Range (GHz)	DC to 5.0	DC to 5.0	DC to 5.0	DC to 5.0	DC to 5.0	DC to 5.0	DC to 5.0
C.L. (dB)	12.0	13.0	14.0	14.0	15.0	15.0	16.0
LO Power (dBm)	10 to 15	10 to 15	10 to 15	10 to 15	10 to 15	10 to 15	10 to 15
Port Isolation (dB)	15.0	15.0	15.0	15.0	15.0	15.0	15.0
RF/LO Connectors	WR-42/SMA(F)	WR-28/K(F)	WR-22/K (F)	WR-19/K(F)	WR-15/K(F)	WR-12/2.4(F)	WR-10/V(F)

CONTACT THE FACTORY FOR SPECIAL REQUIREMENTS

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### HOW TO ORDER:



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