



CW Injection-Locked Gunn Amplifiers

QTI

Characteristics

- ◆ High Power Output
- ◆ CW Operation
- ◆ Frequency Up to 100 GHz



Product Description

QuinStar Technology's series **QTI CW injection-locked Gunn amplifiers** are alternatives to 3-terminal devices and IMPATT diode-based CW amplifiers, especially at high millimeter wave frequencies. They are offered in the frequency range of 26.5-100 GHz in four waveguide sizes with power levels up to 300 mW. The spectrum purity of the output signal is the same as that of the input signal when the amplifier is injection-locked. In the absence of an

in-band input signal of sufficient power to attain injection-lock, there is a free running output signal. The amplifiers are provided with integral circulators and a DC voltage regulator, and an optional heater is available for improved temperature stability. To achieve higher gain, broader locking bandwidth and higher output, multi-stage and multi-diode configurations are available.

Specifications

Frequency Band	Ka	Q	V	W
Frequency Range (GHz)	26.5-40	33-50	50-75	90-100
Waveguide Size	WR-28	WR-22	WR-15	WR-10
Bandwidth Range (GHz)	Up to 1 GHz depending on input power			
Power Output Range (mW) ¹	Up to 200	Up to 150	Up to 100	Up to 50
Input Power (mW typ)	10 to 50 depending upon output power and bandwidth.			

¹ Single diode configuration.

Contact factory for detailed specifications and outline drawings.

Ordering Information

Model Number **QTI- AB CD E 0**



Please specify exact frequency range when ordering.

center frequency rounded to nearest GHz

power output in dBm

options

0 = none
H = heater