



High Power Pulsed IMPATT Amplifiers

QIP

Characteristics

- ◆ High Power Output
- ◆ Long and Short Pulse Versions
- ◆ Temperature Stabilized



Product Description

QuinStar Technology's series **QIP pulsed IMPATT amplifiers** are injection-locked amplifiers (ILA) that utilize a double drift IMPATT diode mounted in a temperature stabilized waveguide cavity to amplify and generate high RF output power. They are available in long and short pulsed, single or multiple stage configurations in commonly used frequency ranges between 43 and 97 GHz.

The amplifiers are provided with integral circulators, pulse modulators, shielded interconnecting cable, and are mounted on a baseplate. Heatsink stands and temperature controllers are also available to help maintain frequency and power stability over a wide baseplate operating temperature range.

Specifications

FREQUENCY BAND		Q	V	W
Frequency Range (GHz)		43-47	58-62	92-97
Waveguide Size		WR-22	WR-15	WR-10
Bandwidth Range (GHz)		Up to 2 GHz depending on number of stages		
Power Output Range (Watts)	Long Pulse (pulse width 1us-1ms/ duty 0-50%)	0.2-1.0	0.1-0.5	0.1-0.2
	Short Pulse (pulse width 50-150ns/ duty 0-0.5%)	—	—	1-15

Consult factory for detailed specifications and outline drawings.

Ordering Information

Model Number **QIP -** **AB CD E F**

center frequency rounded to nearest GHz

peak output power in dBm

version

L = long pulse
S = short pulse

options

H = temperature controller with baseplate
J = temperature controller with heatsink stand
K = baseplate only
L = heatsink stand only
Z = custom