NuWaves engineering

Trusted RF Solutions™

ConvertaWave™ RF Downconverter

225 - 500 MHz RF Input
70 MHz IF Output

P/N: RF225-500DCV1

The ConvertaWave™ is a robust RF downconverter, providing high dynamic range performance over the 225 to 500 MHz frequency range. The 70 MHz IF output is band-limited to ~500 kHz.

The ConvertaWave downconverter provides superior rejection of out-of-band signals, Automatic Gain Control / Manual Gain Control (AGC/MGC) operation, and operates over VHF and UHF frequencies in 100 kHz steps. The ConvertaWave has extremely low noise figure and user-selectable features.

The ConvertaWave has over 100 dB of manual gain control, inclusive of an automatic gain control (AGC) mode. Boasting a system noise figure under 5 dB and a local oscillator (LO) with extremely low phase noise, the ConvertaWave is well suited for industrial, commercial, and military applications.

Features

- 225 to 500 MHz
- Small Form Factor
- High Intercept Point
- Low Phase Noise
- 70 MHz IF Output
- 100 kHz Tuning Resolution
- Manual and Automatic Gain Control (MGC / AGC)
- 50 dB RF Attenuation
- 50 dB IF Attenuation
- Excellent Out-of-Band Rejection
- Wide Supply Voltage Range
- Simple RS-232 Interface

Applications

- RF Signal Receivers
- RF Front-End for Tactical Receivers
- Software Defined Radios (SDR)
- Test Bed Developments
- Programmable RF Frequency Conversion
- Waveform Receivers

132 Edison Drive, Middletown, OH 45044 | 513.360.0800 | product.sales@nuwaves.com | www.nuwaves.com

ConvertaWave™ RF Downconverter

Specifications

Operational

Frequency Range	200 MHz to 500 MHz
IF Output	70 MHz
IF Bandwidths	500 KHz
IF Rejection	80 dB (typ)
Image Rejection	76 dB (typ)
Tuning Resolution	100 kHz
Noise Figure	5 dB (max)
Supply Voltage	+10 to +18 VDC (+12 VDC Nominal)
Current Consumption	220 mA @ +12 VDC (typ)
Serial Interface	RS-232
Interface Connector	9 pin Micro-D (Socket)
RF Connectors	SMA (Female)

Mechanical

Size	6.50" x 4.00" x 0.75" (L x W x H)
Weight	11.3 oz.

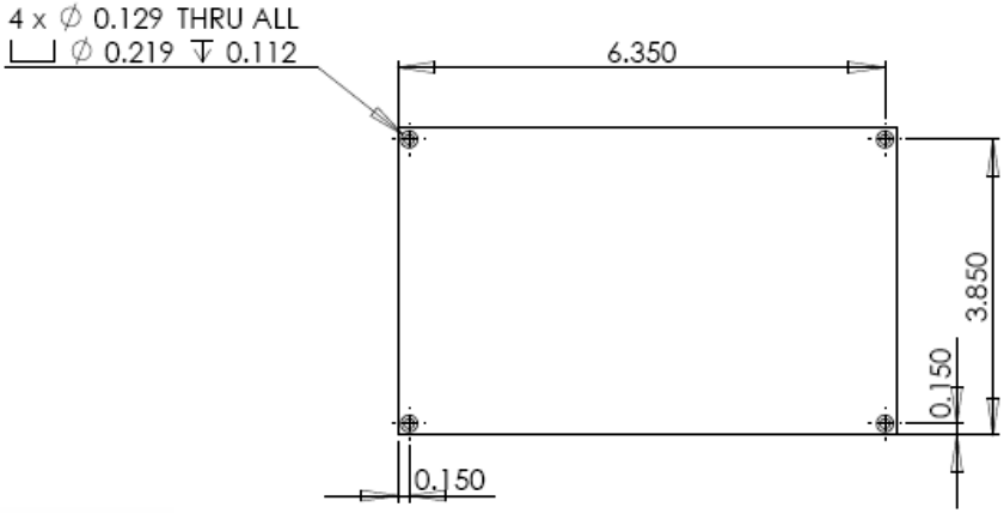
Environmental

Operating Temperature	-20 to +50 °C
Storage Temperature	-40 to +85 °C

Export

Classification	ITAR Controlled

Mechanical Outline



For information on product disposal (end-of-life), please refer to this document:
https://nuwaves.com/wp-content/uploads/Product-Disposal-End-of-Life.pdf

Contact NuWaves

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