

Typical Applications

PCS Base Stations
Land Mobile Radio
Cellular Telephony
Radio in the Local Loop
Test Equipment
Avionics

Features

High Frequency
3.3 Volt Supply
Low Profile Package
Standard 4-Pin DIP Package
Mechanical Control, EFC Optional
Surface Mount Options Available

Frequency Range

> 30 MHz – 120 MHz

Parameters

		Model Numbers	
Operating Temperature Range	Frequency Stability (ppm)	Clipped Sine Wave (1 Vpp min. into 1kΩ)	Square Wave (CMOS)
0....50°C	± 1.0 ppm ± 2.0 ppm	978WCB 978WAD	978WHCB 978WHAD
0.....70°C	± 2.5 ppm ± 5.0 ppm	978WDE 978WDF	978WHDE 978WHDF
-20....+70°C	± 2.0 ppm ± 2.5 ppm	978WBD 978WBE	978WHBD 978WHBE
-30....+70°C	± 1.0 ppm ± 2.0 ppm ± 2.5 ppm	978WCB 978WCD 978WCE	978WHCB 978WHCD 978WHCE
-40....+85°C	± 1.0 ppm ± 2.0 ppm ± 2.5 ppm	978WEB 978WED 978WEE	978WHEB 978WHED 978WHEE

Note: Model 978W custom versions available with output waveforms of ACMOS, SINE, ECL & PECL

Additional Parameters

Supply Voltage: +3.3 Vdc ± 5%

Current

Clipped Sinewave: 2 mA to 6 mA

CMOS: 5 mA to 40 mA

Aging: ± 1 ppm/year

Mechanical Frequency Control: ± 3.5 ppm min.

Electrical Frequency Control

Voltage Range:

0 to 3 Vdc

Deviation: ± 8 ppm min.

(others available)

Slope: Positive

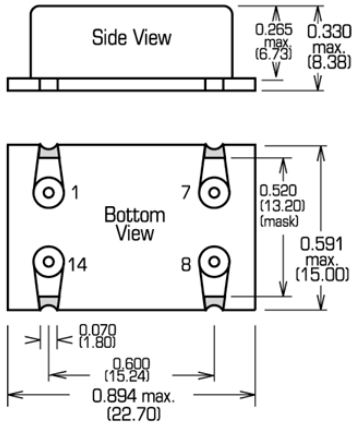
Input Impedance: > 10 kohms

Typical Phase Noise @ 40 MHz

1Hz Offset <- 55 dBc / Hz
10Hz Offset <-90 dBc / Hz
100Hz Offset <-120 dBc / Hz
1kHz Offset <-140dBc / Hz
10kHz Offset <-150dBc / Hz

Enclosures

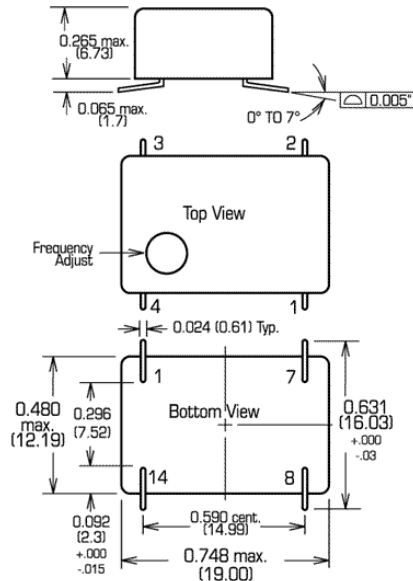
SMT "S" Package



PIN CONNECTIONS

- 1 - Voltage Control or N/C
- 7 - GND
- 8 - RF Output
- 14 - Vcc

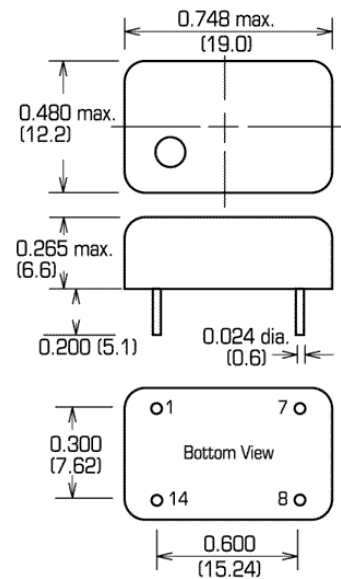
Gullwing "G" Package



PIN CONNECTIONS

- 1 - Voltage Control or N/C
- 7 - GND
- 8 - RF Output
- 14 - Vcc

Through-hole "T" Package



PIN CONNECTIONS

- 1 - EFC when specified
(Pin 1 eliminated when not required.)
- 7 - GND
- 8 - RF Output
- 14 - Supply Voltage

Model	EFC	Waveshape Freq. Stab. Temp. Range	Package Code	Frequency
978W	Blank = No EFC V= EVC Option	WHAB	T = Through-hole S = SMT G = Gullwing	40M00000

* Typical P/N = 978VWHABT40

Note: Package is non-hermetic