

## 760 Series P/N's 8473 & 8500 Oven Controlled Crystal Oscillators



### Features

- 12.800 MHz output frequency
- Stability: Stratum 3
- Temperature Ranges: to -40°C to +85°C
- Aging: <4.0 ppm for 20 years
- Package: 1.0" x 1.0" x 0.52" (25.4x25.4x13.2mm)
- Output: HCMOS
- Supply Voltage: +3.3 volts

### Applications

- For use with Semtech Chip ACS8510 SETS
- SONET/SDH Network Timing Sources
- Computer Telephony CT-BUS

### Description

The 8473 & 8500 have been optimized to work with the Semtech Chip ACS8510 SETS to meet the requirements of Bell Core specification GR-1244-CORE.

The 8473 & 8500 have been designed to meet the Holdover requirements for a Stratum 3 Clock source as called out in GR-1244-CORE, per Table 3-1 as described in Sections 5.2 and 9.1 when used with ACS8510 SETS.

**Note:** Other stability and output options are available. technical information about additional Vectron OCXO's and Crystal Oscillators can be found on our web site at:

**[www.stratum3.com](http://www.stratum3.com)**

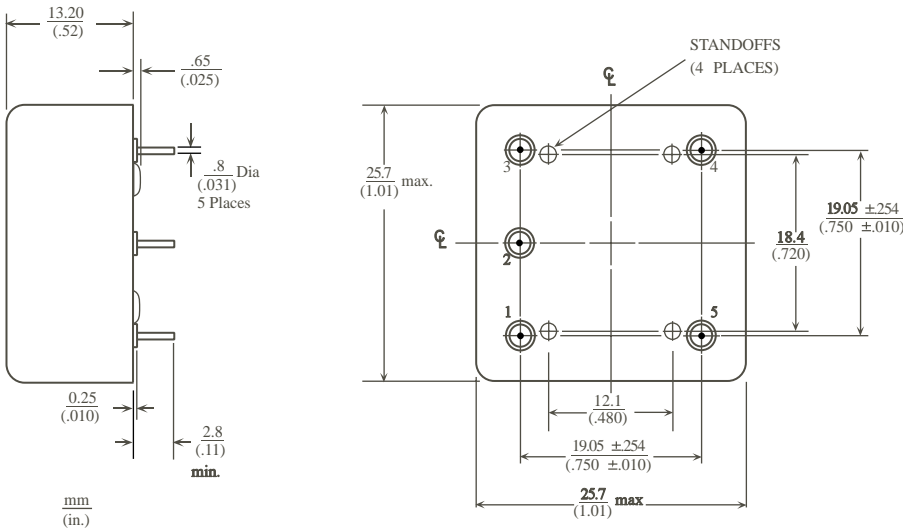
# 8473 & 8500 Oven Controlled Crystal Oscillators

## Performance Characteristics

Parameter	Characteristics	
Part Number:	8473 (Stratum 3)	8500 (Stratum 3)
Frequency:	12.800 MHz	12.800 MHz
Operating Temp Range:	-40°C to +85°C	0°C to +70°C
Aging:	<4 ppm for 20 years	<4 ppm for 20 years
Stability vs Temperature: vs Drift (24 hours):	±280 ppb ±40 ppb	±280 ppb ±40 ppb
Stability vs Supply:	±2 ppb per % change in Voltage	
Initial Accuracy @ +25°C:	±1.5 ppm	
Supply Voltage:	+3.3 Vdc ±5%	
Power Draw:	<5W peak at turn on, <1.25W stabilized @ +25°C	
Output:	HCMOS	
Symmetry (at 50% Vdd):	60/40 to 40/60, maximum	
Rise/Fall Time (10-90%):	<10 nanoseconds	
Short Term (Allan Variance):	1x10 <sup>-11</sup> / second	
Phase Noise: (TYPICAL)	<u>Offset</u> 100 Hz 1k Hz 10k Hz 100k Hz	<u>Phase Noise</u> -130 dBc/Hz -145 dBc/Hz -150 dBc/Hz -150 dBc/Hz
Shock:	30G, 11 ms per MIL-STD-202, Method 213, Condition J	
Vibration - Sine:	MIL-STD-202, Method 204, Condition A except 5G to 500 Hz	
Storage Temperature:	-55°C to +85°C	
Thermal Shock:	-55°C to +85°C per MIL-STD-202 Method 107 Condition A	
Seal:	MIL-STD-202, Method 112, Condition D	
Size:	1.00" x 1.00" x 0.52" (25.40mm x 25.40mm x 13.20mm )	

# 8473 & 8500 Oven Controlled Crystal Oscillators

## Outline Drawings

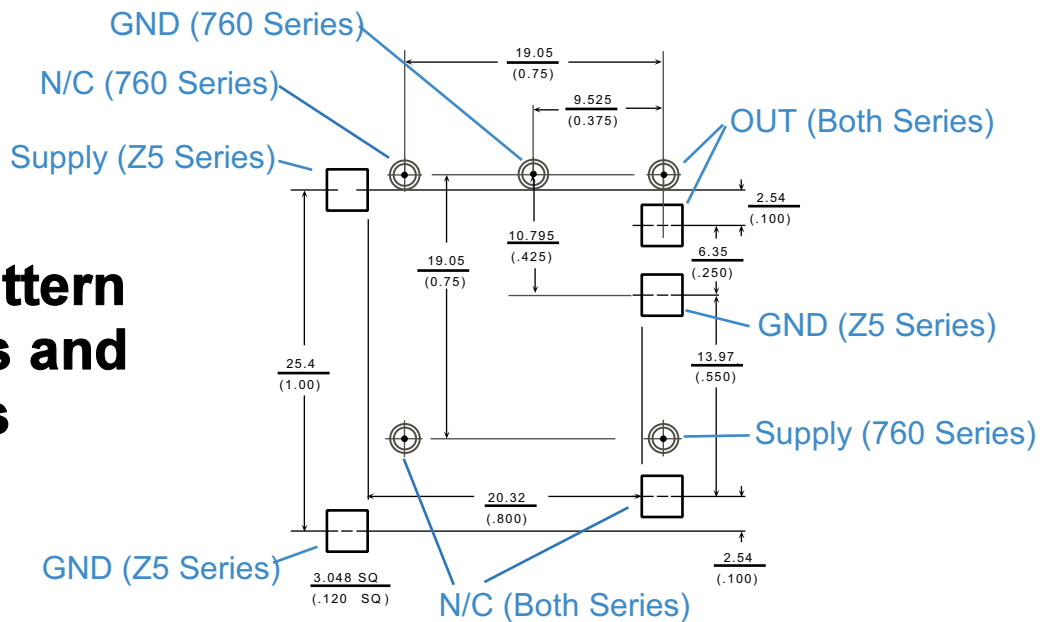


Pin	Function
1	Output
2	GND, Case
3	N/C
4	N/C
5	Supply Voltage

Pin Numbers are optional and may not appear on the unit.

## Recommended Land Pattern

### Dual Land Pattern for 760 Series and Z5 Series



# 8473 & 8500 Oven Controlled Crystal Oscillators

## Recommended Soldering and Handling Conditions

This precision oscillator contains a quartz crystal which is susceptible to damage if handled roughly or Dropped. Transportation and handling should be carefully performed. ESD precautions should be taken. When stored, units should be kept in conductive containers and only handled at properly grounded workstations by operators using proper ESD procedures.

We recommend hand placing and hand soldering units into a PCB. The soldering tip and temperature should be appropriate for 60/40 type solder. If cleaning is required then a manual brush cleaning with an appropriate solvent is recommended. If lead trimming is required, it may be performed either manually or by machine methods. In either case care should be given to prevent mechanical shock to the unit.

## How to Order

**8473** (Stratum 3, -40°C to +85°C)

**8500** (Stratum 3, 0°C to +70°C)

Visit Our Website at [www.vectron.com](http://www.vectron.com)

For additional information please contact:



USA: Vectron International 267 Lowell Road, Hudson, NH 03051 . . . . .Tel: 1-88-VECTRON-1 Fax: 1-888-FAX-VECTRON  
EUROPE: . . . . .Tel: 49 (0) 3328 4784 17 Fax: 49 (0) 3328 4784  
30ASIA: . . . . .Tel: +86 21 28909740 / 41 / 42 Fax: +86 21 28909240 / 28909999

[www.vectron.com](http://www.vectron.com)