



P/N's 8465, 8466, 8487, 8488 & 8509 Oven Controlled Crystal Oscillators



Features

- 12.800 MHz output frequency
- Stability: Stratum 3 & Stratum 3E
- Temperature Range: -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: +5 volts

Applications

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

Description

The 8465, 8466, 8487, 8488 & 8509 have been optimized to work with the Semtech Chip ACS8510 SETS to meet the requirements of Bell Core specification GR-1244-CORE.

The 8465 & 8488 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.

The 8466, 8487 & 8509 have been designed to meet the Holdover requirements for a Stratum 3E 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

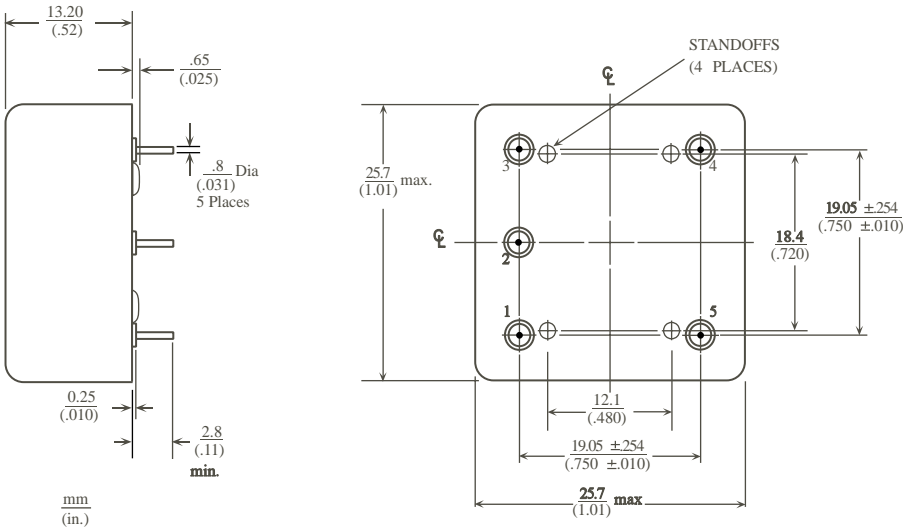
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Performance Characteristics

Parameter	Characteristics				
Part Number:	8465 (Stratum 3)	8488 (Stratum 3)	8466 (Stratum 3E)	8487 (Stratum 3E)	8509 (Stratum 3E)
Frequency:	12.800 MHz	12.800 MHz	12.800 MHz	12.800 MHz	12.800 MHz
Operating Temp Range:	-40°C to +85°C	0°C to +70°C	-40°C to +85°C	0°C to +70°C	-20°C to +75°C
Aging:	<4 ppm for 20 years	<4 ppm for 20 years	<2 ppm for 20 years	<2 ppm for 20 years	<2 ppm for 20 years
Stability vs Temperature: vs Drift (24 hours):	±280 ppb ±40 ppb	±280 ppb ±40 ppb	±10 ppb ±1 ppb	±10 ppb ±1 ppb	±10 ppb ±1 ppb
Stability vs Supply:	±2 ppb per % change in Voltage				
Initial Accuracy @ +25°C:	±1.5 ppm				
Supply Voltage:	+5.0 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 ⁻¹¹ / second				
Phase Noise: (TYPICAL)	<u>Offset</u>		<u>Phase Noise</u>		
	100 Hz		-130 dBc/Hz		
	1k Hz		-145 dBc/Hz		
	10k Hz		-150 dBc/Hz		
	100k 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)				

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Outline Drawings

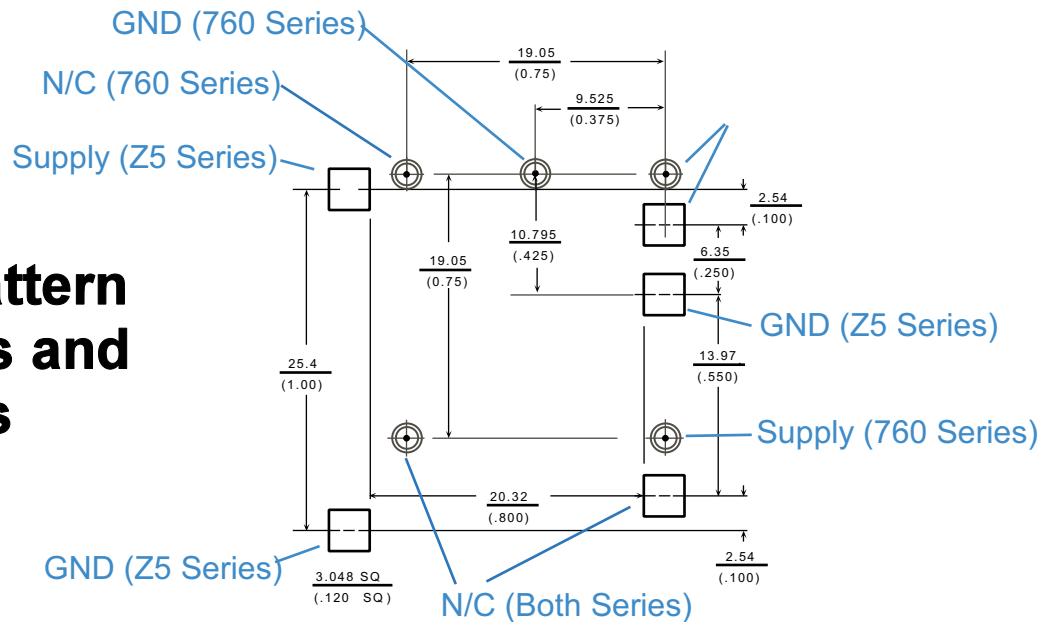


Pin	Function
1	Output
2	GND, Case
3	N/C
4	N/C
5	Supply Voltage

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

Recommended Land Pattern

Dual Land Pattern for 760 Series and Z5 Series



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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

8465	(Stratum 3, -40°C to +85°C)
8466	(Stratum 3E, -40°C to +85°C)
8487	(Stratum 3E, 0°C to +70°C)
8488	(Stratum 3, 0°C to +70°C)
8509	(Stratum 3E, -20°C to +75°C)

Visit Our Website at www.vectron.com

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