

Helping Customers Innovate, Improve & Grow



### Features

- Very High Stability
- Low Aging
- SC-Cut Crystal Standard
- Frequency Range: 4 MHz to 15 MHz
- Previous Model: C4650, 4884

### Applications

- Base Stations
- Test Equipment
- Synthesizers
- Digital Switching

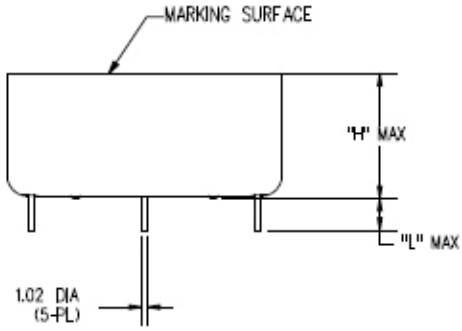
## Performance Specifications

Parameter	Min	Typ	Max	Units	Condition
<b>Frequency Stabilities<sup>1</sup></b>					
vs. operating temperature range (referenced to +25°C)	-10		+10	ppb	-40... +70°C
	-7		+7	ppb	-20... +70°C
	-5		+5	ppb	0... +70°C
Initial Tolerance	-250		+250	ppb	at time of shipment, nominal EFC
vs. supply voltage change	-1.0		+1.0	ppb	Vs ± 5%
vs. load change	-1.0		+1.0	ppb	Load ± 5%
vs. aging / day	-0.5		+0.5	ppb	after 72 hours of operation
vs. aging / 1 year	-50		+50	ppb	after 72 hours of operation
vs. aging / year (following years)	-30		+30	ppb	
Warm-up Time			10	minutes	to ± 10ppb of final frequency (1 hour reading) @ +25°C
<b>Supply Voltage (Vs)</b>					
Supply voltage (Standard)	11.4	12.0	12.6	VDC	
Supply voltage (Option)	14.25	15.0	15.75	VDC	
Power consumption			6.0 1.5	Watts Watts	during warm-up steady state @ +25°C

## Performance Specifications

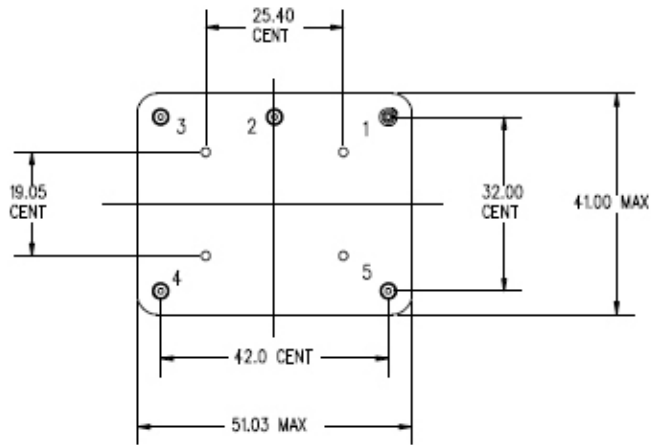
Parameter	Min	Typ	Max	Units	Condition
<b>RF Output</b>					
Signal (standard)	HCMOS				
Load		15		pF	
Signal Level (Vol)			0.5	V	with 15pF load
Signal Level (Voh)	4.5			V	with 15pF load
Duty cycle	40		60	%	@ (Voh-Vol)/2
Signal (Option)	Sinewave				
Load		50		ohm	
Output Power	+5.0	+7.0	+9.0	dBm	50 ohm load
Harmonics			-30	dBc	50 ohm load
<b>Frequency Tuning (EFC)</b>					
Tuning Range	±0.3	±0.6	±1.0	ppm	
Linearity			20	%	
Tuning Slope	Positive				
Control Voltage Range	0.0	2.5	5.0	VDC	
<b>Additional Parameters<sup>1</sup></b>					
Reference Voltage	4.7	4.9	5.1	VDC	
Phase Noise <sup>3</sup> (@ 10 MHz)			-95 -125 -145 -150 -155	dBc/Hz dBc/Hz dBc/Hz dBc/Hz dBc/Hz	1 Hz 10 Hz 100 Hz 1 kHz 10 kHz
Weight			53.0	g	
Processing & Packing	Handling & processing note				
<b>Absolute Maximum Ratings</b>					
Supply voltage (Vs)			28.0	V	
Output Load			50 25	pF ohm	with HCMOS signal with Sinewave signal
Operable temperature range	-55		+85	°C	
Storage temperature range	-55		+125	°C	

# Outline Drawing / Enclosure



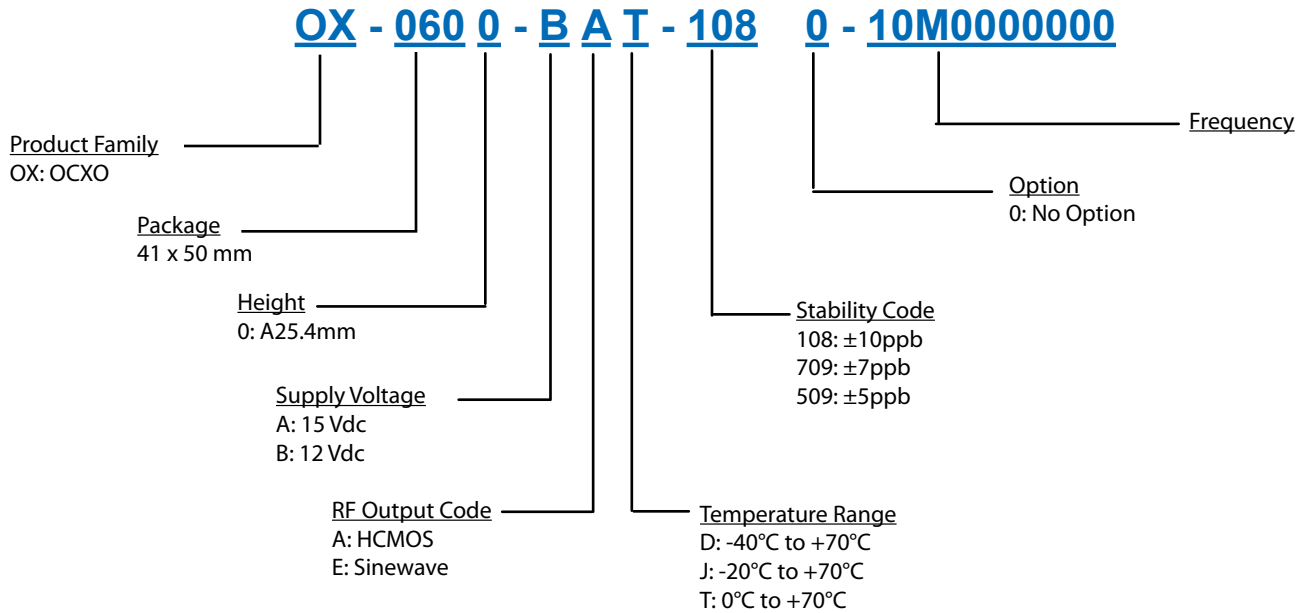
Dimensions in mm

Type A		
Code	Height "H"	Pin Length "L"
0	25.4	6.40



Pin Connections	
1	Ground (Case)
2	Electronic Frequency Control Input(EFC)
3	Reference Voltage Output
4	Supply Voltage Input (Vs)
5	RF Output

## Ordering Information



**Notes:**

1. Contact factory for improved stabilities or additional product options. Not all options and codes are available at all frequencies.
2. Unless other stated all values are valid after warm-up time and refer to typical conditions for supply voltage, frequency control voltage, load, temperature (25°C).
3. Phase noise degrades with increasing output frequency.
4. Subject to technical modification.
5. Contact factory for availability.

## For Additional Information, Please Contact

**USA:**

Vectron International  
267 Lowell Road  
Hudson, NH 03051  
Tel: 1.888.328.7661  
Fax: 1.888.329.8328

**Europe:**

Vectron International  
Landstrasse, D-74924  
Neckarbischofsheim, Germany  
Tel: +49 (0) 3328.4784.17  
Fax: +49 (0) 3328.4784.30

**Asia:**

Vectron International  
1F-2F, No 8 Workshop, No 308 Fenju Road  
WaiGaoQiao Free Trade Zone  
Pudong, Shanghai, China 200131  
Tel: 86.21.5048.0777  
Fax: 86.21.5048.1881

**Disclaimer**

Vectron International reserves the right to make changes to the product(s) and or information contained herein without notice. No liability is assumed as a result of their use or application. No rights under any patent accompany the sale of any such product(s) or information.

Rev: 2/23/2009 daf