

Helping Customers Innovate, Improve & Grow



### Features

- Ultra-High stability
- Excellent temperature stability
- SC-Cut crystal
- Previous Model: C4605
- Frequency Range: 5 MHz to 20 MHz

### Applications

- CDMA2000 and UMTS base stations
- Test and Measurement equipment

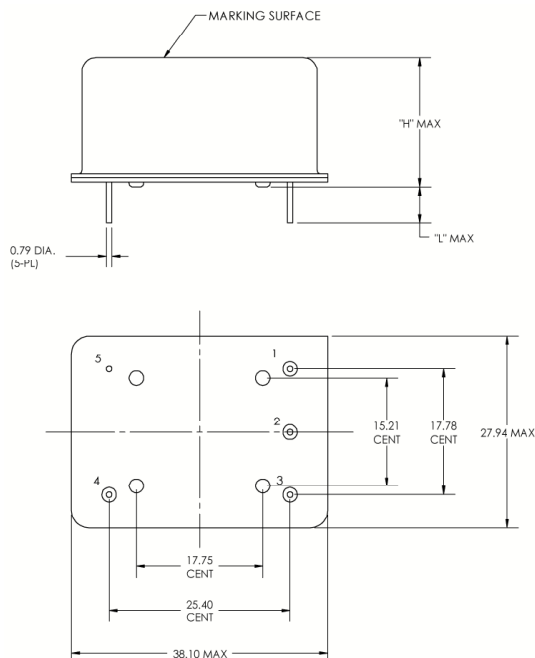
## Performance Specifications

Frequency Stabilities <sup>1</sup> (SC-Cut Crystal)					
Parameter	Min	Typical	Max	Units	Condition
vs. operating temperature range (referenced to +25°C)	-0.4		+0.4	ppb	0 to +70°C
	-0.2		+0.2	ppb	0 to +70°C
	-0.4		+0.4	ppb	-20 to +70°C
Initial tolerance	-100		+100	ppb	at time of shipment, nominal EFC
vs. supply voltage change	-0.2		+0.2	ppb	$V_s \pm 5\%$
vs. load change	-0.2		+0.2	ppb	Load $\pm 5\%$
vs. aging / 1 day	-0.5		+0.5	ppb	after 72 hours of operation
vs. aging / 1 day	-0.2		+0.2	ppb	after 7 days of operation
vs. aging / 1 year	-25		+25	ppb	after 7 days of operation
Warm-up time			5	minutes	to $\pm 10$ ppb of final frequency (1 hour reading) @ +25°C
Supply Voltage (Vs)					
Supply voltage	11.4	12.0	12.6	VDC	
Supply voltage	4.75	5.0	5.25	VDC	
Power Consumption			9	Watts	during warm-up
			3	Watts	steady state @ +25°C

# Performance Specifications

RF Output							
Parameter	Min	Typical	Max	Units	Condition		
Signal [Option]	HCMOS						
Load			15 pF				
Signal Level (Vol)			0.5	VDC	15 pF Load		
Signal Level (Voh)	4.5			VDC	15 pF Load		
Duty Cycle	45		55	%	@ (Voh-Vol)/2		
Signal [Standard]	Sinewave						
Load		50		Ohms			
Output Power	+5.0	+7.0	+9.0	dBm	50 Ohm load		
Harmonics			-30	dBc	50 Ohm load		
Frequency Tuning (EFC)							
Tuning Range	±0.25	±0.5	±0.75	ppm			
Linearity			20	%			
Tuning Slope	Positive						
Control Voltage Range	0.0	2.5	5.0	VDC			
Additional Parameters							
Phase Noise			-90 -120 -135 -140 -140	dBc/Hz dBc/Hz dBc/Hz dBc/Hz dBc/Hz	1 Hz 10 Hz 100 Hz 1 kHz 10 kHz	@ 10MHz	
Weight			50	g			
Absolute Maximum Ratings							
supply voltage (Vs)			15 7	V V	with 12V supply with 5V supply		
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

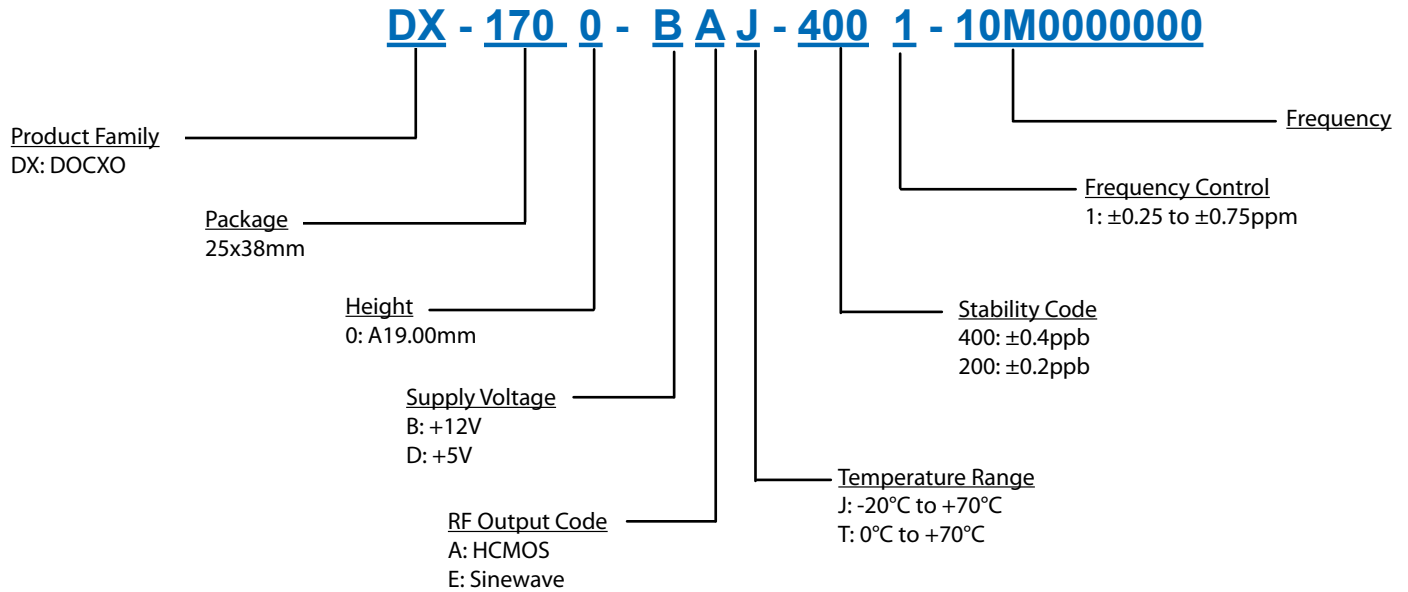


Dimensions in inches (mm)

Type A		
Code	Height "H"	Pin Length "L"
0	19.00	5.00

Pin Connections	
1	Electronic Frequency Control Input (EFC)
2	No Connect
3	Supply Voltage Input (Vs)
4	RF Output
5	Ground (Case)

## 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: 4-16-09 daf