

Helping Customers Innovate, Improve & Grow



Features

- Reflow Process Compatible
- AT-Cut and SC-Cut Crystal Options
- Low Profile Compact Package
- Previous Model: C4600
- Frequency Range: 5 MHz to 80 MHz

Applications

- Base Stations
- Test Equipment
- Synthesizers
- Military Communication Equipment
- Digital Switching

Performance Specifications

Frequency Stabilities ¹ (AT-Cut Crystal-Standard)					
Parameter	Min	Typical	Max	Unit	Condition
vs. operating temperature range (referenced to +25°C)	-30		+30	ppb	0 to +70°C
	-80		+80	ppb	-20 to +70°C
	-100		+100	ppb	-40 to +70°C
	-200		+200	ppb	-40 to +85°C
Initial tolerance	-300		+300	ppb	at time of shipment, nominal EFC V _s ±5% static Load ±5% static after 30 days of operation after 30 days of operation after 30 days of operation
vs. supply voltage change	-5		+5	ppb	
vs. load change	-5		+5	ppb	
vs. aging/day	-2		+2	ppb	
vs. aging/1st year	-500		+500	ppb	
vs. aging/year (following years)	-250		+250	ppb	
Warm-up time			5	minutes	to ±100ppb of final frequency (1 hour reading) @ +25°C
Frequency Stabilities ¹ (SC-Cut Crystal-Option)					
vs. operating temperature range (referenced to +25°C)	-10		+10	ppb	0 to +70°C
	-15		+15	ppb	-20 to +70°C
	-20		+20	ppb	-40 to +70°C
	-30		+30	ppb	-40 to +85°C
Initial tolerance	-0.1		+0.1	ppb	at time of shipment, nominal EFC V _s ±5% static Load ±5% static after 30 days of operation after 30 days of operation after 30 days of operation
vs. supply voltage change	-5		+5	ppb	
vs. load change	-5		+5	ppb	
vs. aging/day	-1		+1	ppb	
vs. aging/1st year	-100		+100	ppb	
vs. aging/year (following years)	-50		+50	ppb	
Warm-up time			5	minutes	to ±10ppb of final frequency (1 hour reading) @ +25°C

Performance Specifications

Supply Voltage (Vs)							
Parameter	Min	Typical	Max	Unit	Condition		
Supply Voltage	3.135	3.3	3.465	VDC			
Supply Voltage	4.75	5.0	5.25	VDC			
Supply Voltage	11.4	12.0	12.6	VDC			
Power Consumption			3.5 1.0	Watts Watts	during warm-up steady state @ +25°C		
RF Output							
Signal [Standard]	HCMOS						
Load		15		pF			
Signal Level (Vol)			0.4 0.5	VDC VDC	with Vs=3.3V and 15 pF Load with Vs=5V & 12V and 15 pF Load		
Signal Level (Voh)	2.4 3.5			VDC VDC	with Vs=3.3V and 15 pF Load with Vs=5V & 12V and 15 pF Load		
Duty Cycle	45		55	%	@ (Voh-Vol)/2		
Signal	Sinewave						
Load		50		Ohms			
Output Power	+2.0 +5.0	+5.0 +8.0	+8.0 +11.0	dBm dBm	with Vs=3.3V and 50 Ohm load with Vs=5V & 12V and 50 Ohm load		
Harmonics			-30	dBc	50 Ohm load		
Frequency Tuning (EFC)							
Tuning Range	Fixed OCXO; No adjust						
Tuning Range	±6.0 ±0.75		±12.0 ±2.0	ppm ppm	with AT cut crystal with SC cut crystal		
Linearity			10	%			
Tuning Slope	Positive						
Control Voltage Range	0.0 0.0	1.4 2.0	2.8 4.0	VDC VDC	with Vs=3.3V with Vs=5V & 12V		
Reference Voltage Output (VRef)							
Reference Voltage	2.75 3.92 4.9	2.8 4.0 5.0	2.85 4.08 5.1	VDC VDC VDC	with Vs=3.3V with Vs=5V with Vs=12V		
Additional Parameters							
Phase Noise ³			-90 -120 -140 -145 -150	dBc/Hz dBc/Hz dBc/Hz dBc/Hz dBc/Hz	1 Hz 10 Hz 100 Hz 1 kHz 10 kHz	@ 10MHz with SC cut	
Phase Noise ³			-75 -105 -130 -140 -150	dBc/Hz dBc/Hz dBc/Hz dBc/Hz dBc/Hz	1 Hz 10 Hz 100 Hz 1 kHz 10 kHz	@ 10MHz with AT cut	
Weight			14	g			

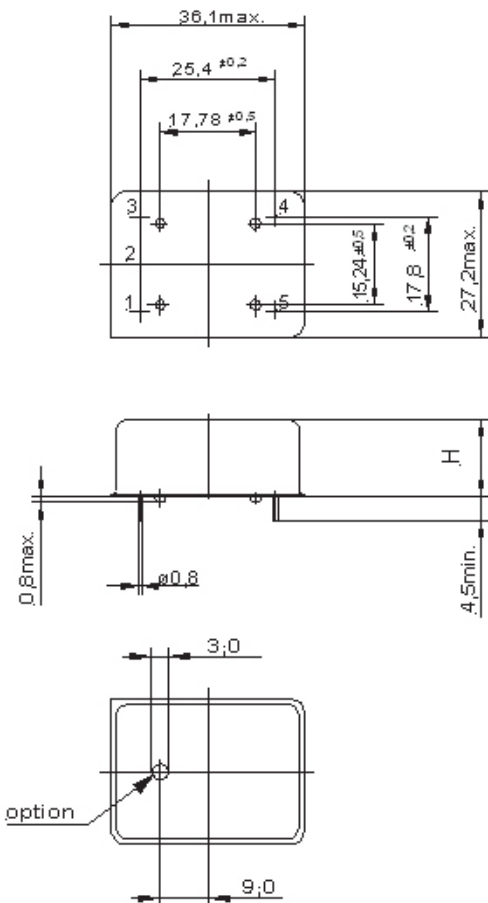
Performance Specifications

Absolute Maximum Ratings					
Parameter	Min	Typical	Max	Unit	Condition
Supply Voltage (Vs)			6.5 15	V V	with Vs=3.3V & 5V with Vs=12V
Output Load			50	pF	
Operable Temperature Range	-55		+85	°C	
Storage Temperature Range	-55		+125	°C	

Outline Drawing / Enclosure

G157

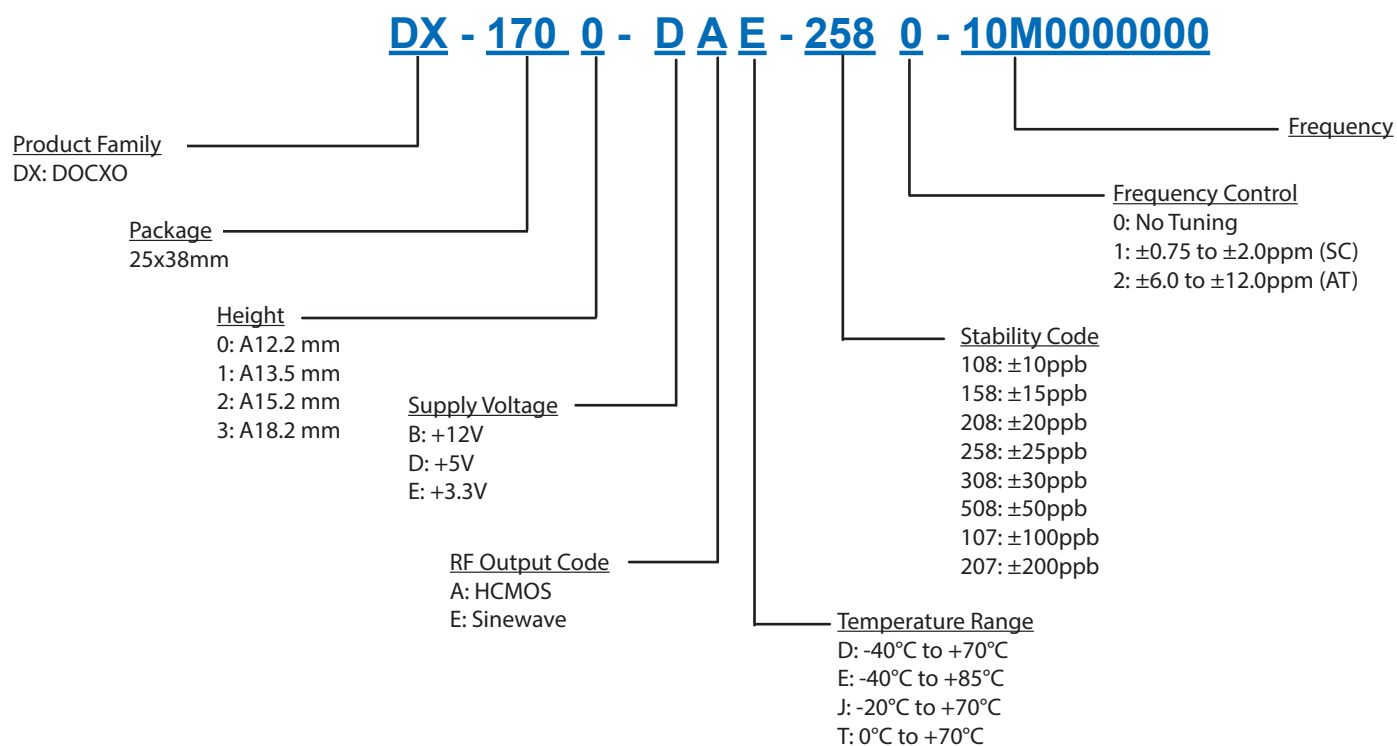
Dimensions in mm



Type A		
Code	Height "H"	Pin Length "L" Min
0	12.2	4.5
1	13.5	4.5
2	15.2	4.5
3	18.2	4.5

Pin Connections	
1	Electronic Frequency Control Input (EFC)
2	No Connect / Reference Voltage Output
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.

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