

Helping Customers Innovate, Improve & Grow



OX-041

Features

- Low Phase Noise
- High Stability
- SC-Cut Crystal Standard
- Frequency Range: 5 MHz to 20 MHz
- Previous Model: C4710, CO-724, CO-725, 6012, MC886 series, CO-714, CO-717

Applications

- Test Equipment
- Frequency Synthesizers
- Position Location
- Satellite Communications

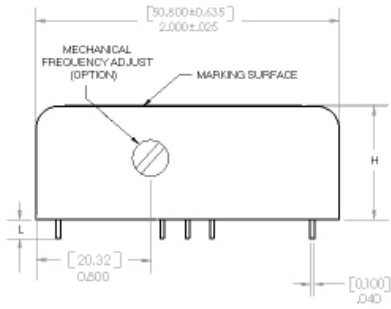
Performance Specifications

Parameter	Min	Typ	Max	Units	Condition
Frequency Stabilities¹					
vs. operating temperature range (referenced to +25°C)	-30		+30	ppb	-40... +85°C
	-25		+25	ppb	-40... +70°C
	-20		+20	ppb	-20... +70°C
	-10		+10	ppb	0... +70°C
Initial Tolerance	-100		+100	ppb	at time of shipment, nominal EFC
vs. supply voltage change	-2.0		+2.0	ppb	Vs ± 5%
vs. load change	-2.0		+2.0	ppb	Load ± 5%
vs. aging / daily	-1.0		+1.0	ppb	after 72 hours of operation
vs. aging / 1 year	-100		+100	ppb	after 72 hours of operation
vs. aging / year (following years)	-50		+50	ppb	
Warm-up Time			5	minutes	to ± 10ppb of final frequency (1 hour reading) @ +25°C
Supply Voltage (Vs)					
Supply voltage (Standard)	11.4	12.0	12.6	VDC	
Supply voltage (Option)	14.25	15.0	15.75	VDC	
Oscillator Power Consumption			0.5	Watts	
Oven Power Consumption			6.0	Watts	during warm-up
			2.0	Watts	steady state @ +25°C

Performance Specifications

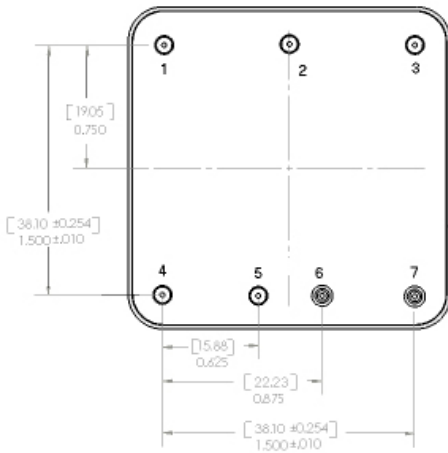
Parameter	Min	Typ	Max	Units	Condition
RF Output					
Signal (Standard)	Sinewave				
Load		50		ohm	
Output Power	+3.0	+5.5	+8.0	dBm	50 ohm load
Harmonics			-30	dBc	50 ohm load
Duty cycle	40		60	%	
Signal (Option)	HCMOS				
Load		15		pF	
Signal Level (Vol)			+0.5	VDC	
Signal Level (Voh)	+4.5			VDC	
Duty cycle	45		55	%	@ (Voh-Vol)/2
Frequency Tuning (EFC)					
Tuning Range	±0.75	±1.25	±2.0	ppm	
Linearity			20	%	
Tuning Slope	Positive				
Control Voltage Range	0.0	2.5	5.0	VDC	
Additional Parameters¹					
Reference Voltage	4.9	5.0	5.1	VDC	
Phase Noise ³ (Standard) @10 MHZ			-80 -120 -140 -145 -150	dBc/Hz dBc/Hz dBc/Hz dBc/Hz dBc/Hz	1 Hz 10 Hz 100 Hz 1 KHz 10 KHz
Phase Noise ³ (Option) @ 10 MHZ			-95 -125 -150 -160 -165	dBc/Hz dBc/Hz dBc/Hz dBc/Hz dBc/Hz	1 Hz 10 Hz 100 Hz 1 KHz 10 KHz
Weight			100	g	
Processing & Packing	Handling & processing note				
Absolute Maximum Ratings					
Supply voltage (Vs)			28	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

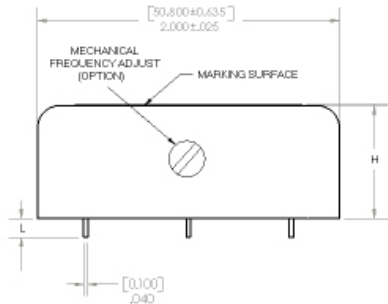


Dimensions in [mm] inches

Type A		
Code	Height "H"	Pin Length "L"
0	26.42	6.35
1	20.00	6.35

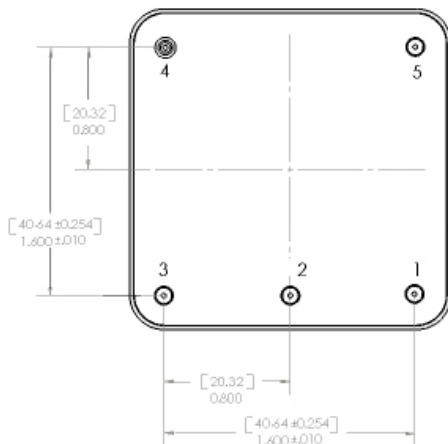


Pin Connections	
1	Oven Return
2	Oscillator Supply
3	Electronic Frequency Control (EFC)
4	Oven Supply
5	RF Output
6	Oscillator and Case Ground
7	Ground (Case)



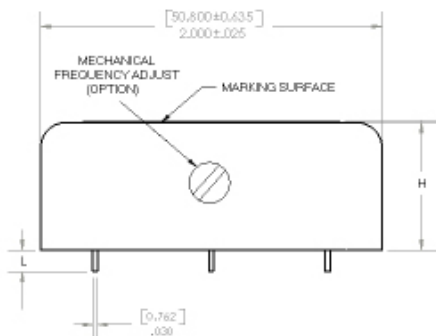
Dimensions in [mm] inches

Type B		
Code	Height "H"	Pin Length "L"
2	26.42	6.35
3	20.00	6.35



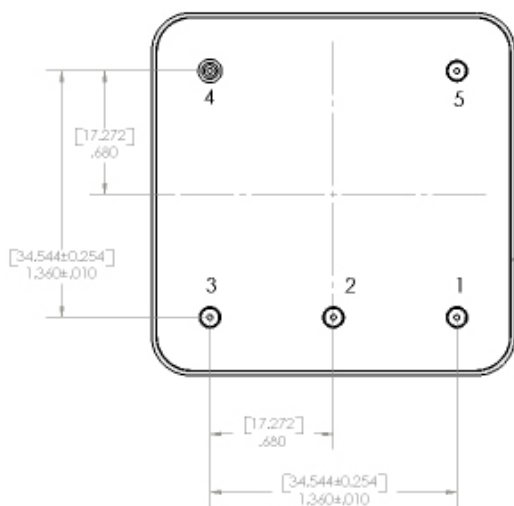
Pin Connections	
1	Electronic Frequency Control (EFC)
2	Reference Voltage Output
3	RF Output
4	Ground (Case)
5	Supply Voltage Input (Vs)

Outline Drawing / Enclosure



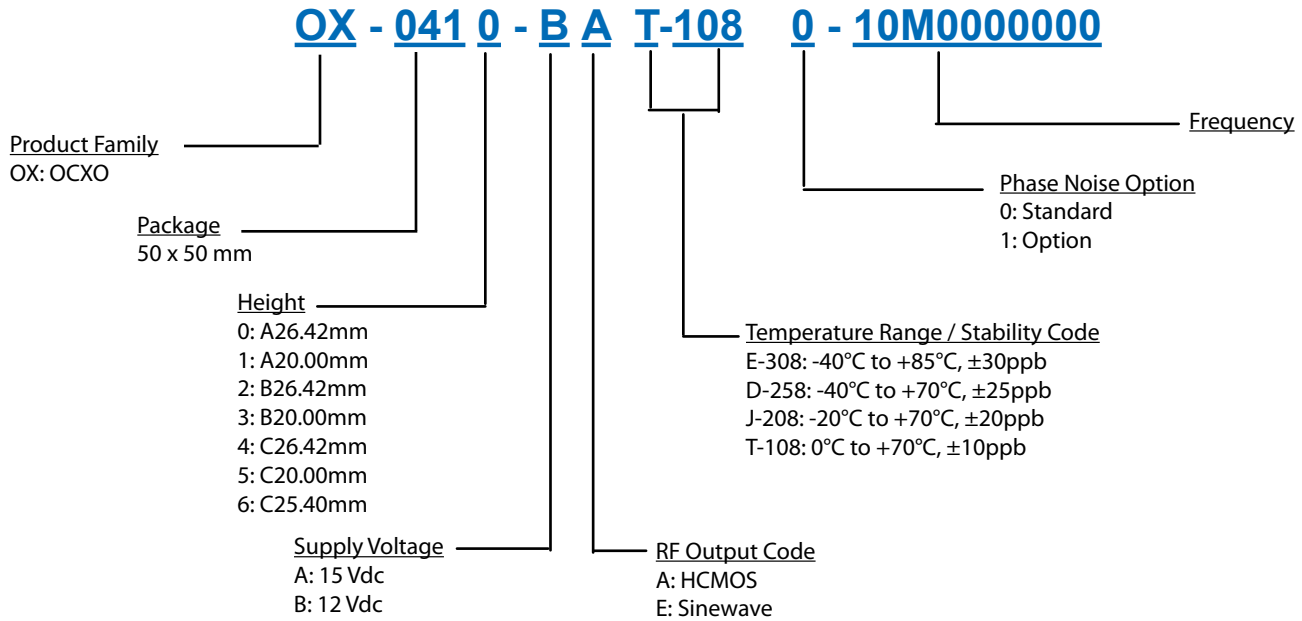
Dimensions in [mm] inches

Type C		
Code	Height "H"	Pin Length "L"
4	26.42	6.35
5	20.00	6.35
6	25.40	6.35



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

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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