

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

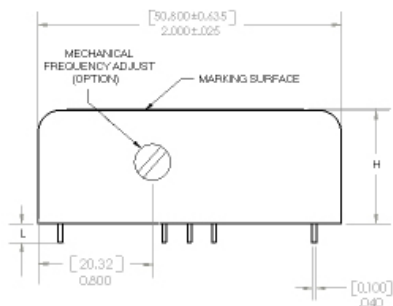
Performance Specifications

Parameter	Min	Typ	Max	Units	Condition
Frequency Stabilities ¹					
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 2.0	Watts Watts	during warm-up 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 Parameters ¹					
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	

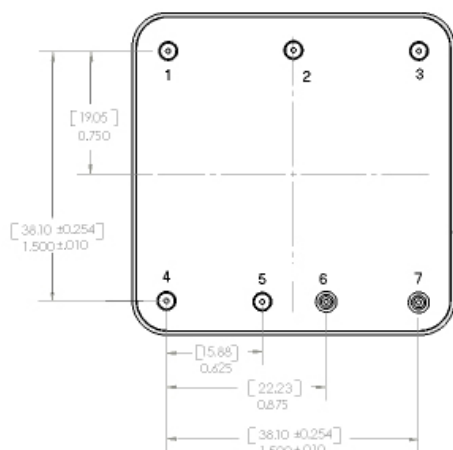
Outline Drawing / Enclosure



Dimensions in [mm] inches

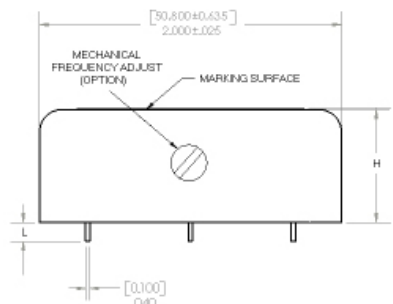
Type A

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



Pin Connections

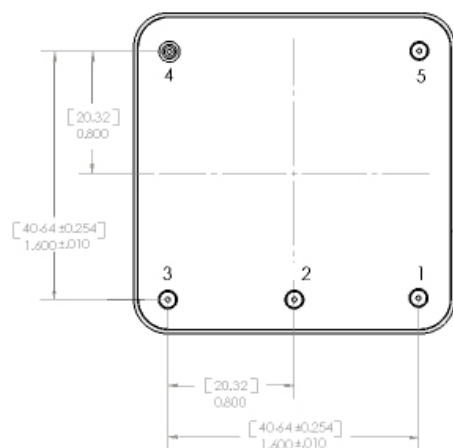
1	Oven Return
2	Oscillator Supply
3	Electronic Frequency Control (EFC)
4	Oven Supply
5	RF Output
6	Oscillator and Case Ground
7	Ground (Case)



Dimensions in [mm] inches

Type B

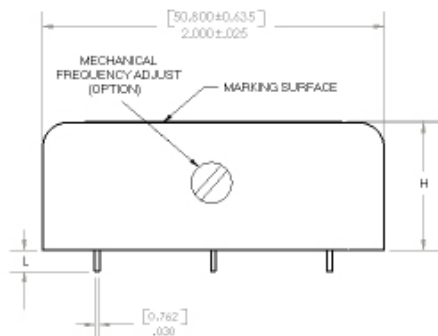
Code	Height "H"	Pin Length "L"
2	26.42	6.35
3	20.00	6.35



Pin Connections

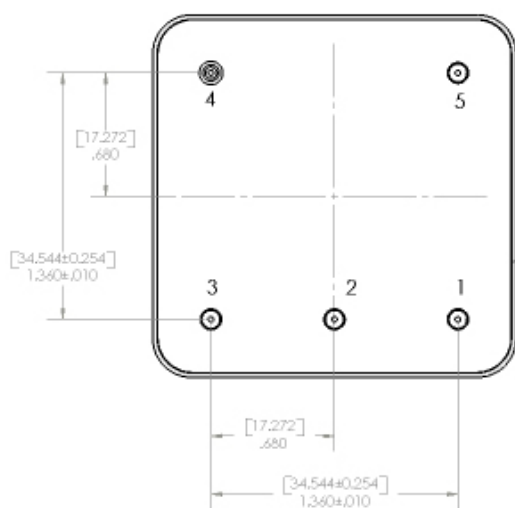
1	Electronic Frequency Control (EFC)
2	Reference Voltage Output
3	RF Output
4	Ground (Case)
5	Supply Voltage Input (Vs)

Outline Drawing / Enclosure



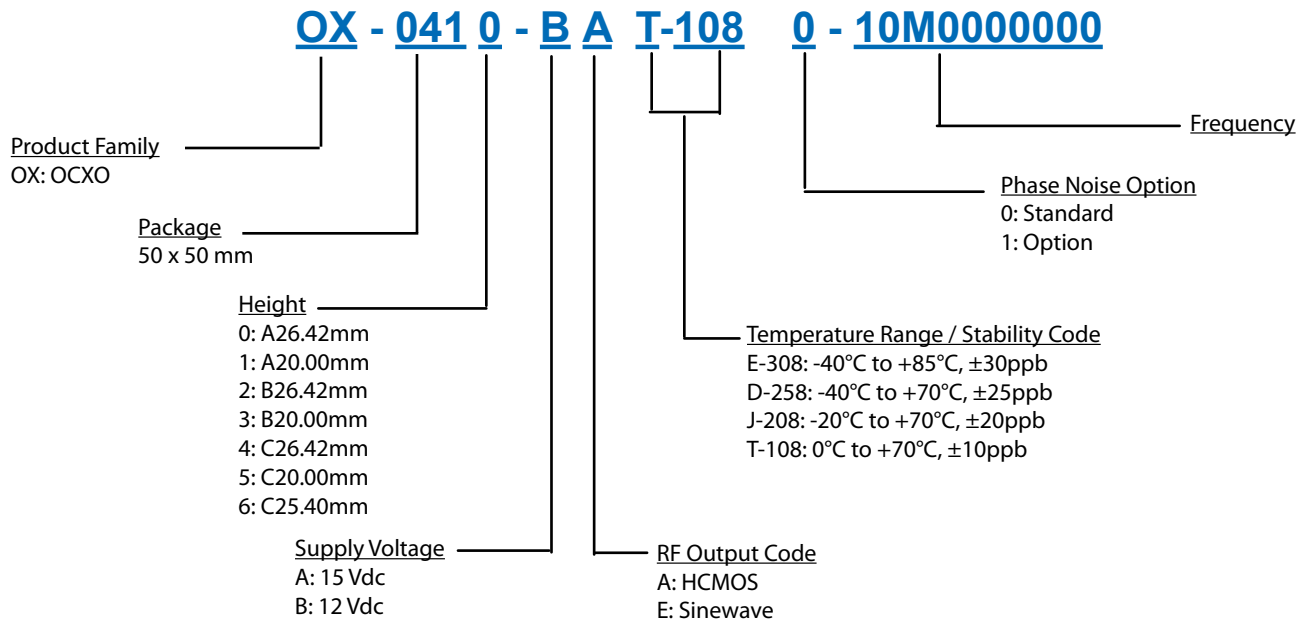
Dimensions in [mm] inches

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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