



frequency control solutions

YH1400

VERY LOW ACCELERATION SENSITIVITY

OCXO

Product Description

Greenray Industries' YH1400 Series OCXO is a very low acceleration sensitivity reference for mission critical applications.



Features

- Acceleration sensitivity as low as 0.09 ppb/g
- 25.4 mm sq., low profile, hermetic package
- CMOS or +5 dBm Sinewave Output
- Voltage Control for precise tuning or phase locking apps
- Frequency Range: 10 - 125 MHz

Applications

- High acceleration/vibration GPS system
- System reference for airborne
- Ethernet synchronization
- Airborne data router
- Communication system
- RF telemetry systems
- Multiband terminal
- Upconverter

REV: B



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YH1400 SERIES
10 MHz to 125 MHz**OCXO**

Electrical Characteristics						
Parameter	Conditions	Min	Typical	Max	Units	Ordering Code
Nominal Frequency	Sinewave @ +25°C	10		125	MHz	(FREQ.)
Frequency Stability	-40°C to +85°C		± 0.1	± 0.2	ppm	T17
Aging	Per day (4 days avg.)			± 5.0	ppb	
	Per year			± 0.5	ppm	
Acceleration Sensitivity	Worst axis tested @ 90 Hz, 10 g			1.0	ppb/g	SG
				0.2	ppb/g	LG
				0.09	ppb/g	ULG
Frequency vs Voltage	V+ ± 2%		± 0.1	± 0.05	ppm	
Frequency vs Load	± 5%		± 0.1	± 0.05	ppm	
Voltage Control (EFC)	0 to Supply, Positive Slope		± 3.0	± 5.0	ppm	
Short-term Stability	ADEV, T=1 sec.		0.08	0.1	ppb	
Warm-up Time	Within ± 0.1 ppm		2	4	min	
Phase Noise Performance						
Parameter	Frequency Offset (Hz)	Min	Typical	Max	Units	Ordering Code
Static @ 50 MHz Nom. Freq.	10		-95		dBc/Hz	
	100		-122		dBc/Hz	
	1 k		-138		dBc/Hz	
	10 k		-155		dBc/Hz	
	100 k		-158		dBc/Hz	
	1 M		-163		dBc/Hz	
Integrated Jitter	1 kHz to 5 MHz		100		x10 ⁻¹⁵ Sec	
DC Supply						
Parameter	Conditions	Min	Typical	Max	Units	Ordering Code
Supply Voltage	± 5%		5.0		Vdc	E
Input Power	Warm-up, 4 min			3.5	W	
	Idle @ +25°C			2	W	
RF Output						
Parameter	Conditions	Min	Typical	Max	Units	Ordering Code
CMOS						C
Load			15		pF	
Level		0.8 Vdd "1" Level		0.2 Vdd "0" Level	V	
Sinewave						S
Output Power	50 Ω Load	+ 5	+ 7	+ 9	dBm	
Harmonics				-25	dBc	
Spurious				-85	dBc	



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Environmental and Mechanical Specifications

Test	Standard	Method	Condition	Description
Vibration	MIL-STD-202	204	B	10 g, 10 to 500 Hz, swept sine
Shock	MIL-STD-202	213	A	50 g, 11 ms half-sine

Recommendations and General Information

Parameter	Notes
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +105°C
Terminal Finish	Sn 100 (Lead-free), SnPb 63/37 (non-RoHS)
Package Weight	3 grams
Package Finish	Stainless Steel and Ni plated Kovar
Soldering Instruction	Hand Solder
Shipping	Tray Pack
Marking	GRI Logo, Model #, Frequency, Serial #, Date Code Addition marking upon request if space is available

Ordering Example

YH1400 -	T	17	-	C	-	SG	-	10.0 MHz	-	LF
Model	Temp. Range	Stability		Output		G-Sensitivity		Freq. (MHz)		Term. Finish

17: ±0.1ppm
157: ±0.15ppm
27: ±0.2ppm
37: ±0.3ppm
47: ±0.4ppm
57: ±0.5ppm

C: CMOS
S: Sinewave

SG: < 1.0 ppb/g
LG: < 0.2 ppb/g
ULG: < 0.09 ppb/g
HG: Customer-specific

10 to 125

LF: Sn 100 (Lead-free)
PB: SnPb 63/37 (non-RoHS)

The Order ID (YH1400-T17-C-SG-10.0MHz-LF) is only used to issue the preliminary quote. The Part Number (YH1400-1) for the quoted Electrical Characteristics, Screenings, and other options, will be provided with the Greenray Sales Order.

Other specification options are available, please use the contact information below for more information.



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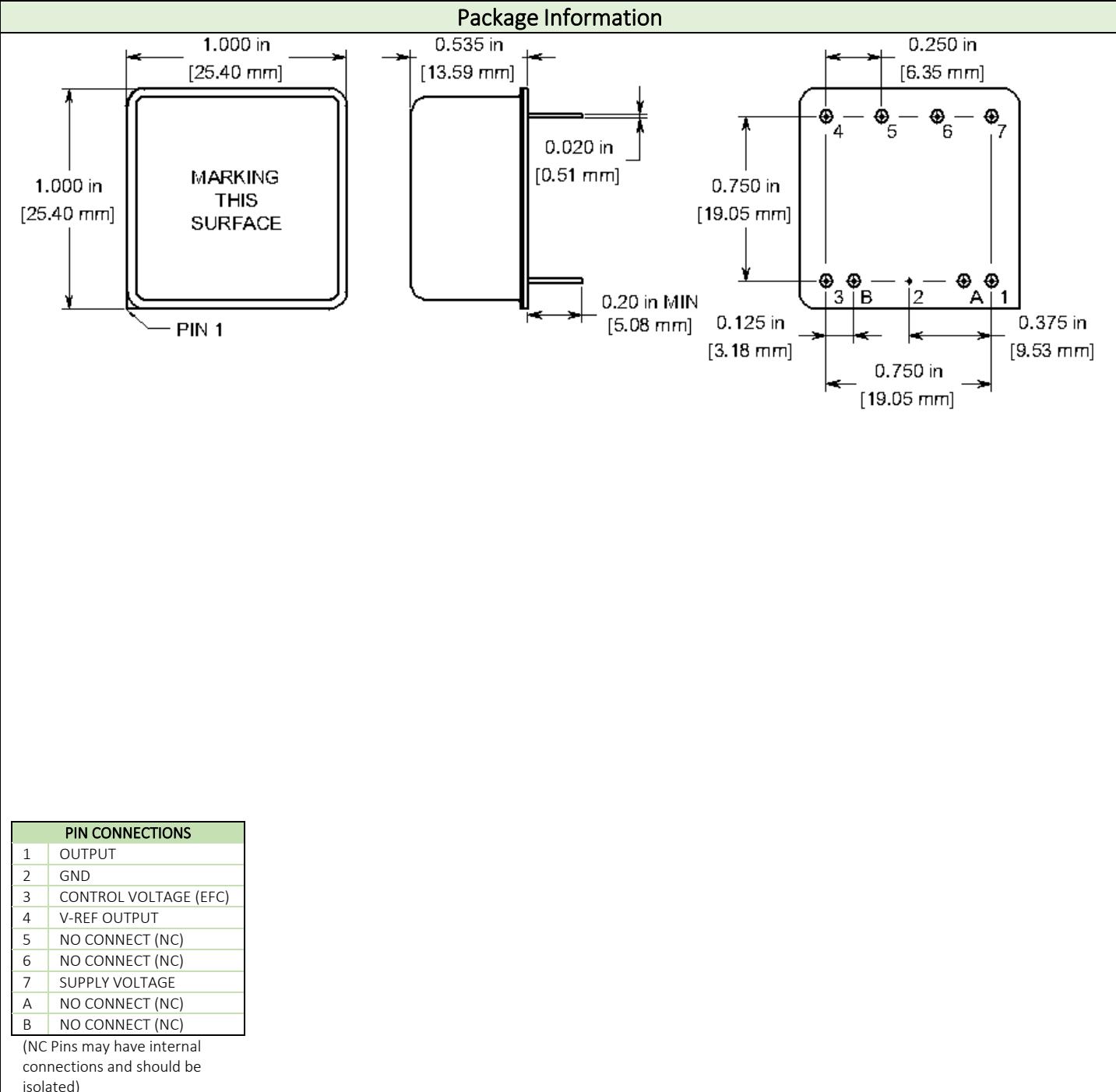


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Package Information



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