HALF SIZE DIP LOW VOLTAGE 3.3VHCMOS/TTL COMPATIBLE CRYSTAL CLOCK OSCILLATOR

13.2 x 13.2 x 5.5mm

ACHL Series

Moisture Sensitivity Level (MSL) – This product is Hermetically Sealed and not Moisture Sensitive - MSL = N/A: Not Applicable

RoHS Compliant

FEATURES:

- Tri-state Enable/Disable option
- Low supply voltage 3.3V
- HCMOS and TTL compatible
- Tight symmetry option 50% +/-5%

APPLICATIONS:

- Clock signal sources for digital chips and microprocessors
- Low power applications

STANDARD SPECIFICATIONS:

Parameters		Minimum	Typical	Maximum	Units	Notes
Frequency Range		0.400	-----	160.000	MHz	
Operating Temperature		0	-----	+70	°C	See options
Storage Temperature		-55	-----	+125	°C	
Overall Frequency Stability		-100	-----	+100	ppm	See options
Supply Voltage (Vdd)		2.97	3.3	3.63	V	
Input Current	0.400MHz ~ 24.999MHz	-----	-----	20	mA	
	25.000MHz ~ 99.999MHz	-----	-----	40		
	100.000MHz ~ 16000MHz	-----	-----	80		
Symmetry (@ 1/2Vdd)		40	50	60	%	See options
Rise and Fall Time (Tr/Tf)	0.400MHz ~ 24.999MHz	-----	-----	10	ns	
	25.000MHz ~ 99.999MHz	-----	-----	5		
	100.000MHz ~ 16000MHz	-----	-----	4		
Output Load		-----	-----	15	pF	See options
		-----	-----	5	TTL	
Output Voltage	VOH	0.9*Vdd	-----	-----	V	
	VOL	-----	-----	0.1*Vdd	V	
Tri-state Function	VIH	2.2	-----	-----	V	"1" or Open: Oscillation
	VIL	-----	-----	0.8	V	"0": Output disable (Hi Z)
Output Enable time		-----	-----	4	ms	For option A only
Output Disable time		-----	-----	100	ns	For option A only
Start-up Time		-----	1	10	ms	
Phase Jitter RMS (12~20MHz)		-----	-----	1	ps	Reference only. Please contact Abracon for specific frequencies
Aging		-5.0	-----	+5.0	ppm	@+25°C First year

*** Overall frequency stability includes initial tolerance, temperature stability, and aging.**

OPTIONS & PART IDENTIFICATION:

(Left blank if standard)

ACHL - [ ] MHz - [ ][ ] - [ ] - [ ] - [ ] - [ ]

Frequency in MHz
e.g. 24.576MHz
14.31818MHz
26.000MHz

Operating Temp.
I: 0°C ~ +50°C
D: -10°C ~ +60°C
E: -20°C ~ +70°C
F: -30°C ~ +70°C
N: -30°C ~ +85°C
L: -40°C ~ +85°C

Freq. Stability
J: ± 20 ppm(*)
R: ± 25 ppm
K: ± 30 ppm
H: ± 35 ppm
C: ± 50 ppm

(*) Temp option I, D, E and 0°C ~ +70°C only.

Symmetry
Blank: 40/60% @1/2Vdd
S: 45/55% @1/2Vdd

Tri-state
Blank: No Tri-state
A: Tri-state on pin 1

Output Load
Blank: 15pF
30: 30pF
50: 50pF

Pin form
G: Gull Wing
G3; Gull Wing
Q25: 0.25" (6.35)
Q20: 0.20" (5.08)
Q15: 0.15" (3.81)

2 Faraday, Suite# B | Irvine | CA 92618 **Revised: 01.20.16**
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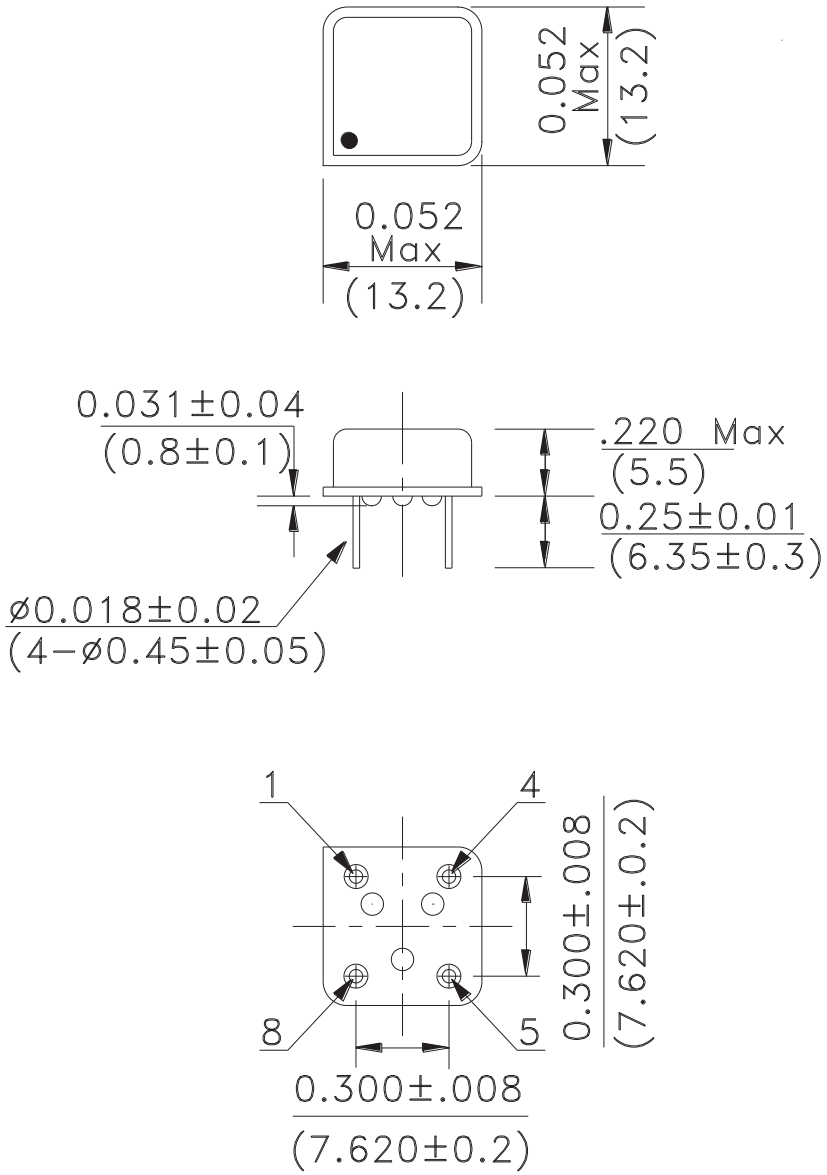
OUTLINE DIMENSIONS:



Pin	Function
1	Tri-State/NC
4	GND
5	Output
8	Vdd

Note: Recommend using an approximately 0.01uF bypass capacitor between PIN 2 and 4.

Dimensions: inches (mm)

Packaging

40pcs /tube

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