

OVEN CONTROLLED CRYSTAL OSCILLATOR

AOCJY3 Series



RoHS
Compliant



25.4x 25.4 x 13.0 mm

FEATURES:

- 25.4x 25.4 x 13.0 mm Leaded- RoHS Compliant Reflow-able Package
- SC-Cut, High “Q” resonator based design
- Either Sinewave or CMOS RF output
- Available with ± 30 ppb over -40°C to $+75^{\circ}\text{C}$ operating temperature Range
- Tighter Stabilities to ± 5.0 ppb over 0°C to $+50^{\circ}\text{C}$ also available
- Exceptional long-term Aging of ± 500 ppb max. over 10-Year Product Life
- Excellent close-in phase noise (-140 dBc/Hz Typical @100 Hz offset; 10MHz carrier)

APPLICATIONS:

- Cellular Infrastructure
- Radar Systems
- Test & Measurement Equipment
- GPS Tracking with precision hold-over accuracy
- WiMax / WLAN

STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
RF Output					
Frequency	10.00		100.00	MHz	Overall Frequency range
Standard Available Frequencies	10.00, 12.80, 13.00, 26.00, 38.88, 40.00, 100.00 MHz				
Waveform	CMOS				
Level "1" (Logic High)	0.9*Vdd			Volts	(Note #1)
Level "0" (Logic Low)			0.1*Vdd	Volts	(Note #1)
Load		15		pf	
Rise & Fall Time			6.0	ns	
Duty Cycle	45		55	%	
Waveform	Sinewave				
Peak Power	2.00			dBm	
Output Load		50		Ω	
Short Term Stability		1×10^{-10}		/second	Alan Variance
Operable Temperature Range	-40		75	$^{\circ}\text{C}$	See Stability Options
Frequency Stability Options					
0 $^{\circ}\text{C}$ to +50 $^{\circ}\text{C}$ (Note #2)			± 5.00	ppb	Default Spec.
-20 $^{\circ}\text{C}$ to +70 $^{\circ}\text{C}$			± 10.00	ppb	Option “E”
-40 $^{\circ}\text{C}$ to +75 $^{\circ}\text{C}$			± 30.00	ppb	Option “F”
Frequency Stability vs. Supply Voltage (Vdd $\pm 5\%$)			± 2.00	ppb	
Frequency Stability vs. Load Variation ($\pm 10\%$)			± 2.00	ppb	
Warm-Up @ 25 $^{\circ}\text{C}$			± 30.00	ppb	In ≤ 3 -minutes
Power Consumption @ turn on			3.60	Watts	
Power Consumption Steady State			1.20	Watts	
Supply Voltage (Vdd)	3.13	3.30	3.46	Volts	See Options

Note #1: When Vdd=12.0V; Level “1” = 4.50 V minimum; Level “0” = 0.50V maximum

Note #2: ± 5.00 ppb stability is only available for $F_0 \leq 40\text{MHz}$. For frequencies above 40MHz, the best available frequency stability is ± 10.00 ppb over -20°C to $+70^{\circ}\text{C}$

ABRACON IS
ISO9001:2008
CERTIFIED



ABRACON
CORPORATION

Visit www.abracon.com for Terms & Conditions of Sale **Revised: 07.22.11**
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

OVEN CONTROLLED CRYSTAL OSCILLATOR

AOCJY3 Series



RoHS
Compliant



25.4x 25.4 x 13.0 mm

STANDARD SPECIFICATIONS - continued.

Parameters	Minimum	Typical	Maximum	Units	Notes
Aging					
Daily			±1.0	ppb	
First Year			±100	ppb	
10-Years			±500	ppb	
Spectral Content					
Spurious Response			-35	dBc	
Phase Noise (10MHz Carrier) @ 5V					
@ 1 Hz offset			-90	dBc	
@ 10 Hz offset			-120	dBc	
@ 100 Hz offset			-140	dBc	
@ 1,000 Hz offset			-145	dBc	
@ 10,000 Hz offset			-155	dBc	
Electrical Frequency Adjustment					
Control Voltage Range (Vc)	0.0		Vdd	Volts	
Frequency Pull Range	±0.700			ppm	
Frequency Pull Slope		Positive			
Control Voltage Port Impedance	10			kΩ	
Center Control Voltage <i>(Note #3)</i>	(Vdd/2) -0.5	Vdd/2	(Vdd/2) +0.5	Volts	Center Control Voltage
Control Port Linearity		±10		%	
Reference Voltage (Vdd=3.3V)	2.70	2.80	2.90	Volts	Output @ Pin#4
Reference Voltage (Vdd=5.0V)	4.40	4.50	4.60	Volts	Output @ Pin#4
Reference Voltage (Vdd=12.0V)	4.90	5.00	5.10	Volts	Output @ Pin#4
Storage Temperature	-40		+100	°C	

Note #3: When Vdd=12.0V, Control Voltage Range is 0.0V to 5.0V and therefore, the Center Control Voltage is (2.50V±0.50V)

OPTIONS AND PART IDENTIFICATION (Left blank if standard)



OVEN CONTROLLED CRYSTAL OSCILLATOR

AOCJY3 Series



RoHS
Compliant



25.4x 25.4 x 13.0 mm

OUTLINE DIMENSIONS



PIN	FUNCTION:
1	R F Output
2	GND
3	Control Voltage
4	Reference Voltage
5	Power Supply

Unit:mm

PACKAGING: 15 pcs/tray



REFLOW PROFILE:



T_S max to T_L (Ramp-up Rate)	3°C/second max.
Preheat	
Temperature Min. (T_S Min.)	150°C
Temperature Typical (T_S Typ.)	175°C
Temperature Max. (T_S Max.)	200°C
Time (t_s)	60 ~ 180 seconds
Ramp-up rate (T_L to T_p)	3°C/second max.
Time Maintained Above:	
--Temperature (T_L)/Time (T_L)	217°C/60 ~ 150 seconds
Peak Temperature (T_p)	250°C max. for 10 seconds
Target Peak Temperature (T_p Target)	250°C +0/-5°C
Time within 5°C of actual peak (t_p)	20 ~ 40 seconds
Ramp-down Rate	6°C/second max.
Tune 25°C to Peak Temperature (t)	8 minutes max.

ATTENTION: Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

ABRACON IS
ISO9001:2008
CERTIFIED



ABRACON
CORPORATION

Visit www.abracon.com for Terms & Conditions of Sale **Revised: 07.22.11**
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.