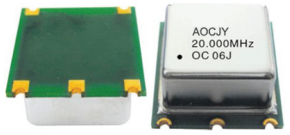
SMD OVEN CONTROLLED CRYSTAL OSCILLATOR

AOCJY Series



25.4 x 22.1 x 12.7 mm

Pb RoHS Compliant

FEATURES:

- 25.4 x 22.1 x 12.7 mm True SMT- 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°C operating temperature Range
- Tighter Stabilities to ±5.0 ppb over 0°C to +50°C also available
- Exceptional long-term Aging of ±500 ppb over 10-Year Product Life
- Excellent close-in phase noise (-135 dBc/Hz Typical @100 Hz offset from 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	1.00		160.00	MHz	CMOS output
	1.00		100.00	MHz	Sinewave output*
Standard Available Frequencies	10.00, 12.80, 13.00, 16.384, 20.00, 26.00, 38.40, 38.88, 40.00, 100.00 MHz				
Operable Temperature Range	0		50	° C	***See Stability Options***
Frequency Stability Options					
0° C to +50°C			±5.00	ppb	Default Spec.
-20° C to +70°C			±10.00	ppb	Option "E"
-40° C to +75°C			±30.00	ppb	Option "F"
Frequency Stability vs. Supply Voltage (Vdd ± 5%)			±20.00	ppb	
Warm-Up @ 25 °C			±100.00	ppb	In ≤ 3-minutes
Power Consumption @ turn on			3.60	Watts	
Power Consumption Steady State			1.40	Watt	
Supply Voltage (Vdd)	3.135	3.30	3.465	Volts	***See Options***
Reference Voltage (Vref) (available as an output to facilitate oscillator tuning)	2.60	2.80	3.00	Volts	***For Vdd=+3.3V version***
	4.30	4.50	4.70	Volts	***For Vdd=+5.0V version***
Aging					
Daily aging (after 30 days)			±1.0	ppb	
Yearly			±100	ppb	
10-Years			±500	ppb	
Waveform	**LVCMOS**				
Level "1" (Logic High)	0.9*Vdd			Volts	
Level "0" (Logic Low)			0.1*Vdd	Volts	
Load		15		pf	
Rise & Fall Time			5.0	ns	
Duty Cycle	45		55	%	

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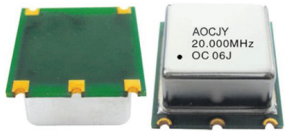


25.4 x 22.1 x 12.7 mm

Pb RoHS Compliant

STANDARD SPECIFICATIONS contd.

Parameters	Minimum	Typical	Maximum	Units	Notes
Waveform		**Sinewave**			
Peak Power	2.00			dBm	
Output Load		50		Ω	
Spectral Content					
Spurious Response			-70	dBc	
Phase Noise @ 10MHz carrier (Vdd = 3.3V)					
1Hz			-90	dBc / Hz	
10Hz			-120	dBc / Hz	
100Hz			-135	dBc / Hz	
1,000Hz			-145	dBc / Hz	
10,000Hz			-150	dBc / Hz	
100,000Hz			-150	dBc / Hz	
1,000,000Hz			-150	dBc / Hz	
Electrical Frequency Adjustment					
Control Voltage Range (Vc)	0.0		Vdd	Volts	
Frequency Pull Range	±0.7			ppm	
Frequency Pull Slope		Positive			
Control Voltage Port Impedance	10			kΩ	
Center Control Voltage	(Vdd/2) -0.5	Vdd/2	(Vdd/2) +0.5	Volts	

OPTIONS AND PART IDENTIFICATION (Left blank if standard)

AOCJY - ☐ - ☐ MHz - ☐ - ☐☐

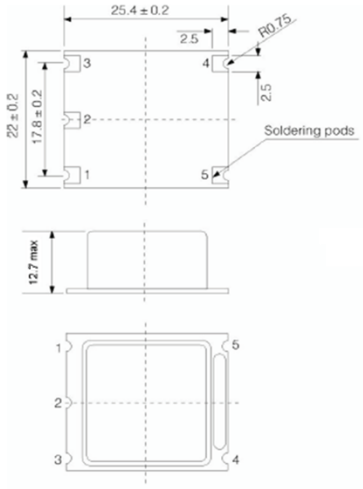
Supply Voltage Option
Blank: 3.30V±5%
A: 5.00V±5%

Frequency in MHz
Such as; 10.000 MHz
26.000 MHz
100.000 MHz

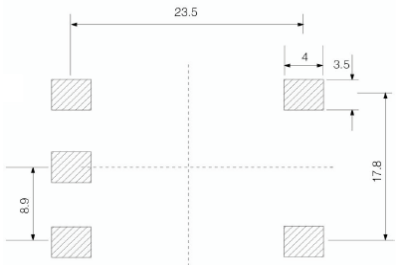
Temperature Options
Blank: ±5.0ppb/0°C to+50°C
E: ±10.0ppb/-20°C to +70°C
F: ±30.0ppb/-40°C to +75°C

RF Output Options
Blank: CMOS
SW: Sinewave

OUTLINE DIMENSIONS



Recommended Soldering Pattern



Pin	Function
1	Control Voltage
2	VREF
3	Supply Voltage
4	RF-output
5	Ground. Case

Dimensions: Inches (mm)

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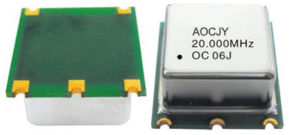

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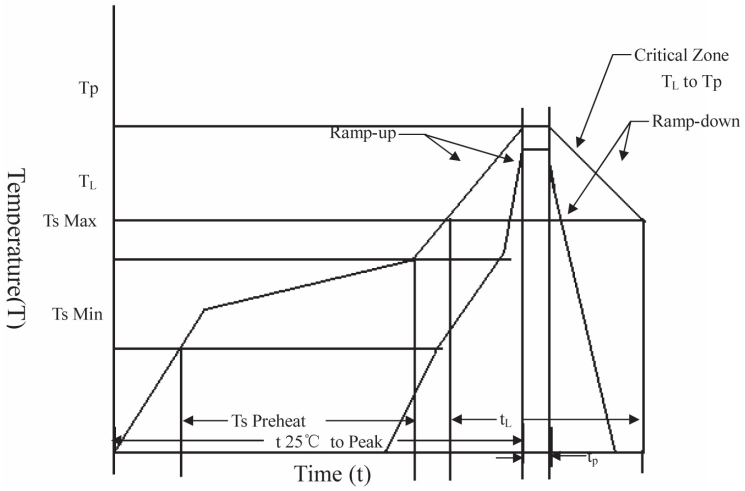
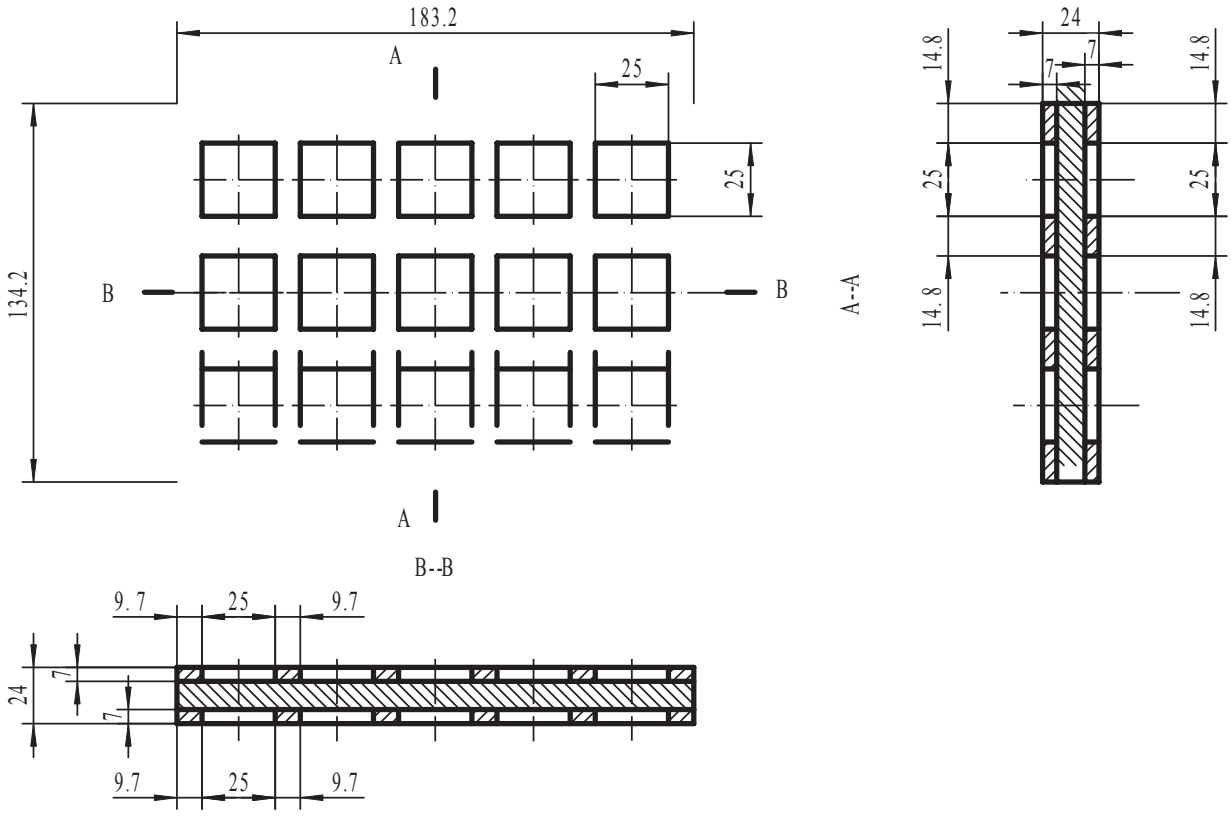
REFLOW PROFILE:



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.

PACKAGING: 15 pcs/tray



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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.);

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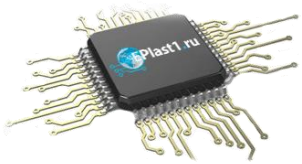
- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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