



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Oven Controlled Crystal Oscillators

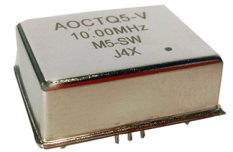
AOCTQ5



ESD Sensitive



RoHS/RoHS II compliant



36.1 x 27.1 x 12.1 mm Leaded

FEATURES:

- 36.1x 27.1 x 12.1mm Leaded- RoHS Compliant Package
- SC-Cut, High “Q” resonator based design
- Either CMOS or Sinewave output
- Tight frequency stability:
 - ± 3 ppb accuracy over -40°C to +85°C temperature range
 - ± 5 ppb accuracy over -55°C to +85°C temperature range
- Excellent close-in phase noise (-145 dBc/Hz max. @1kHz offset; 10MHz carrier)
- Ideal for Low-g-Sensitivity Designs (0.3 ppb/g maximum)

APPLICATIONS:

- COTS Military & Industrial Radios & Timing Circuits
- Cellular Infrastructure
- Radar Systems
- Test & Measurement Equipment
- GPS Tracking with precision hold-over accuracy
- WiMax / WLAN

STANDARD SPECIFICATIONS:

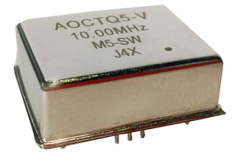
Parameters	Min.	Typ.	Max.	Units	Notes
RF Output					
Frequency		10.00		MHz	
Supply Voltage (Vdd)		5		Vdc	
Power Consumption			5	W	During Warming-up
			1.6	W	Steady-State @ +25°C & under still air
Waveform	Sinewave				
Output Level	+7		+14	dBm	
Harmonics			-35	dBc	
Spurious			-70	dBc	
Output Load		50		Ω	
Waveform	HCMOS				
V _{OH}	2.4			V	With Load =15pF
V _{OL}			0.4	V	
Duty Cycle	45		55	%	@ (V _{OH} - V _{OL})/2
Rise/Fall Time			6	ns	With Load =15pF
Output Load			15	pF	
Storage Temperature Range	-55		+125	°C	
Initial Frequency Tolerance			±10	ppb	At shipment, nominal EFC
Short-term Stability (1 sec)			5 x 10 ⁻¹¹		Test after 15 minutes
Warm-up Time			10	Minutes	@+25°C, with-in ±5ppb of final frequency
G-Sensitivity			0.3	ppb/g	
Frequency Stability vs. Temp.					Available Options
-40° C to +85°C			±3	ppb	Option “I3”
			±5	ppb	Option “I5”
-55° C to +85°C			±5	ppb	Option “M5”
			±10	ppb	Option “M10”
Frequency Stability vs. Supply Voltage (Vdd ± 5%)			±3	ppb	
Frequency Stability vs. Load Variation (Load ± 5%)			±3	ppb	
Aging					
Per Day			±0.5	ppb	After 30 days in operation
Per Year			±50	ppb	

Oven Controlled Crystal Oscillators

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36.1 x 27.1 x 12.1 mm Leaded

STANDARD SPECIFICATIONS:

Parameters	Min.	Typ.	Max.	Units	Notes
Phase Noise (10MHz Carrier) @ +25°C					
@ 10 Hz offset		-120		dBc/Hz	
@ 100 Hz offset		-140		dBc/Hz	
@ 1,000 Hz offset		-145		dBc/Hz	
@ 10,000 Hz offset		-155		dBc/Hz	
@ 100,000 Hz offset		-160		dBc/Hz	
Electrical Frequency Adjustment					For Voltage Control Option only
Control Voltage Range (Vc)	0		5	Vdc	
Center Control Voltage (Vc)	2.30	2.50	2.70	Vdc	To be with-in ±10 ppb from 10.000MHz (as received)
Frequency Pull Range	±500			ppb	
Frequency Pull Slope	Positive				

Maximum Ratings

Parameters	Min.	Typ.	Max.	Units	Notes
Supply Voltage (Vdd)	-0.3		15	V	
Control Voltage (Vc)	0		5	V	
ESD, HBM/CDM/MM	3kV/1kV/200V				

PART IDENTIFICATION:

AOCTQ5 - -10.000 MHz - -

Fixed or Voltage Controlled
X = Fixed
V = Voltage Controlled

Operating Temp. Range	Frequency Stability (ppb)		
	±3	±5	±10
-40°C to +85°C	I3	I5	
-55°C to +85°C		M5	M10

Output Type
Blank: CMOS
SW: Sinewave

