

产 品 规 格 书

Product Specification

CUSTOMER

客户:

CUSTOMER PN

客户 PN:

HANG CRYSTAL P/N

杭晶物料编码: **5236S5-10.000N12HPVS-RVO**

MODEL

产品型号: **OCXO 36x27 , Sine Wave, 12.0V**

NOMINAL FREQUENCY

频率: **10.000MHz**

ISSUE DATE

日期: **2023 / 06 / 13**

CUSTOMER'S APPROVAL

客户确认

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APPROVED

QA

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Revision	Description / ECN	Prepared	Approved	Date
1	Initial release	<i>MB</i>	<i>James Jiang</i>	2023-06-13
2	Not issued			
3	Not issued			
4	Not issued			

1. NOMINAL AND MAXIMUM RATINGS, OPERATING AND STORAGE CONDITIONS

	PARAMETER	SYMB.	MIN	TYP	MAX	Unit	Conditions / Remarks
1	Nominal frequency	F_N	10.000			MHz	--
2	Operating supply voltage range	V_{CC}	11.4	12.0	12.6	V_{DC}	
3	Output load resistance	R_L		50		Ω	Sine wave output
4	Operating temperature range	T_{OP}	-20	+25	+70	$^{\circ}C$	Note 1
5	Storage Temperature Range	T_{ST}	-55		+105	$^{\circ}C$	--

Note 1: over the whole range, the unit stays within all relevant parameter limits as specified under point 2.

2. ELECTRICAL PARAMETER LIMITS

	PARAMETER	SYMB.	MIN	TYP	MAX	Unit	Conditions / Remarks
1	Initial Frequency Accuracy	$\Delta f/F_N$	-50		+50	ppb	Offset from nominal at +25 $^{\circ}C$
2	Frequency stability over T_{OP}	$\Delta f/F_{OP}$	-10		+10	ppb	Over T_{OP} Note 1
3	Short Term Stability (in still air)				0.01	ppb/s	Max, after power on 1h
4	Warm-up Time				3.0	min	Within ± 30 ppb of final frequency with reference after 1 hour on@+25 $^{\circ}C$
5	Frequency VS voltage changes	$\Delta f/F_V$	-0.5		+0.5	ppb	$V_{CC} \pm 5\%$ at +25 $^{\circ}C$
6	Frequency VS load changes	$\Delta f/F_L$	-0.5		+0.5	ppb	$CL \pm 10\%$ at +25 $^{\circ}C$
7	Aging per day	$\Delta f/F_{Ad}$	-0.5		+0.5	ppb	Aging after 30 days of operation
8	Aging first year	$\Delta f/F_{A1}$	-75		+75	ppb	
9	Aging 10 years	$\Delta f/F_{A10}$	-0.3		+0.3	ppm	
10	Output level	V_{P-P}	7.0			dBm	Sine wave
11	Harmonic level				-30	dBc	
12	Spurious				-80	dBc	
13	Phase noise	L_{RMS}			-80	dBc/Hz	at 1Hz offset / at +25 $^{\circ}C$
					-110		at 10Hz offset / at +25 $^{\circ}C$
					-130		at 100Hz offset / at +25 $^{\circ}C$
					-155		at 1kHz offset / at +25 $^{\circ}C$
					-160		at 10kHz offset / at +25 $^{\circ}C$
					-165		at 100kHz offset / at +25 $^{\circ}C$
14	Operating Current	I_{CC}			400	mA	During warm up
					150	mA	At steady state,@25 $^{\circ}C$
15	Control Voltage Range	V_C	0	2.5	5	V_{DC}	
16	Reference Voltage	V_{REF}	4.75	5.0	5.25	V_{DC}	
17	Frequency tuning range	F_{PULL}	± 0.5			ppm	Positive Slope
18	Linearity				10	%	

11 9	Input Impedance		100		K Ω	
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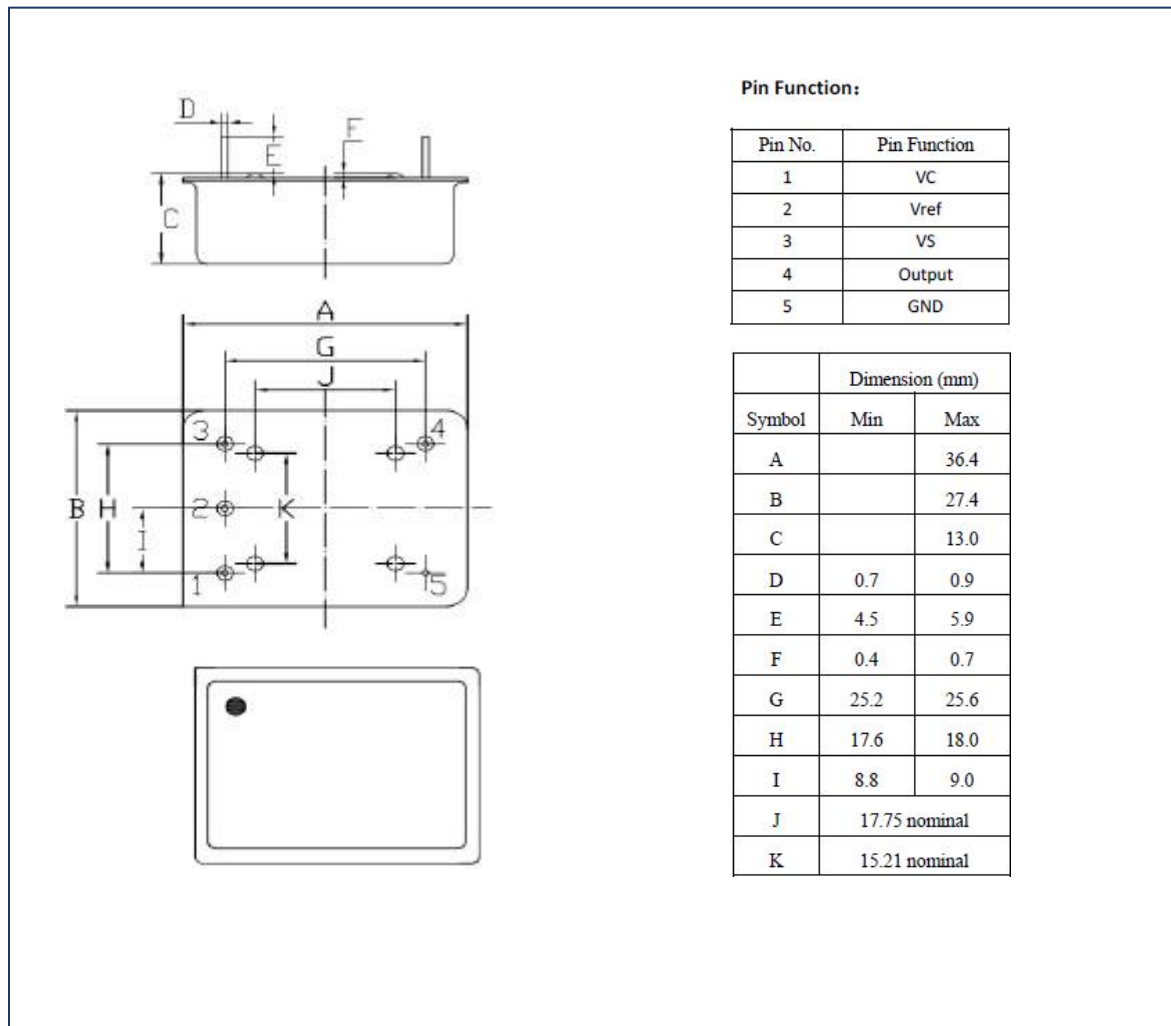
Note 1: Referenced to midpoint between minimum and maximum frequency over specified temperature range.

3. PRODUCT MARKING

To be defined.

4. OUTLINE DRAWING

	Package description	Package model	Remarks
1	OCXO 36x27 SMD with 5 pins	3627-5P	--



5. TEST CIRCUIT

