



FEATURE

The SMK2525 OCXO is the cost effective highly stable oscillator for telecom applications.

Frequencies available are from 5MHz to 500MHz, and power supply options are 3.3V, 5V & 12V.

APPLICATION

- Sync E modules
- Stratum 3E timing modules
- Time and frequency references
- Tests equipment

25.4*25.4*12



Specification for electrical appliances

Description	Parameter
Oscillator Output	
Nominal Frequency	5~500.00MHz
Output Waveform	Sinewave、HCMOS
Signal [Option]	Sinewave
Level	+5dBm min
Harmonics Suppression	-40dBc max
Spurious Suppression	-70dBc max
Load	50Ω
Signal [Option]	HCMOS
Output High Voltage	V _{OH} : 2.4V min
Output Low Voltage	V _{OL} : 0.4V max
Rise / Fall Time (10%~90%)	6ns max
Duty Cycle	45% ~55%@50%
Load	15pF
Supply Voltage	
Operation Voltage	3.3V±5%、 5.0V±5%、 12.0V±5%
Steady Current	500mA max@25°C
Starting Current	1500mA max

Frequency Characteristics

Frequency Tolerance	$\pm 0.1 \text{ppm max @ } 25^{\circ}\text{C} \pm 3^{\circ}\text{C}$
Frequency Stability over	$\pm 0.2 \text{ppb max @ } -10^{\circ}\text{C} \sim +60^{\circ}\text{C}$
	$\pm 0.5 \text{ppb max @ } -20^{\circ}\text{C} \sim +70^{\circ}\text{C}$
	$\pm 1.0 \text{ppb max @ } -30^{\circ}\text{C} \sim +75^{\circ}\text{C}$
	$\pm 3.0 \text{ppb max @ } -40^{\circ}\text{C} \sim +80^{\circ}\text{C}$
Frequency Stability / Supply Voltage	$\pm 0.5 \text{ppb max @ } V_s \pm 5\%$
Frequency Stability/ Load	$\pm 0.5 \text{ppb max @ } \text{Load} \pm 5\%$
Short Term Stability	0.01ppb @ 1 second tau
Aging Tolerance Per Day	$\pm 0.5 \text{ppb max @ after 30 days of operation}$
Aging Tolerance 1 Year	$\pm 0.05 \text{ppm max @ after 30 days of operation}$

10.000MHz SMK2525OCAI ocxo ssp phase noise

Phase Noise		Unit
10Hz	-120	dBc/Hz
100Hz	-145	
1KHz	-155	
10KHz	-158	
100KHz	-160	
1MHz	-162dBc/Hz	

EMAIL: info@cimake.net

TEL: +0755-26906691 HP: 13164746831

B211, Wuhan University Industry-University-Research Cooperation, Yuexing Second Road,
Science and Technology Park, Yuehai Street, Nanshan District, Shenzhen

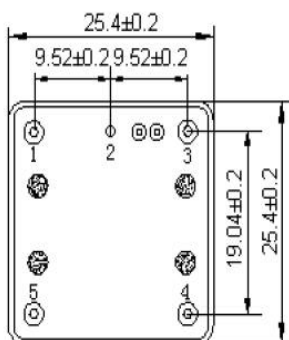


Frequency Tuning		
Voltage Control Characteristics	Control voltage Range	0Vdc ~3.3Vdc (Center voltage =1.65Vdc) @Vs=3.3Vdc
		0Vdc ~5.0Vdc (Center voltage =2.5Vdc) @Vs=5.0Vdc
		0Vdc ~5.0Vdc (Center voltage =2.5Vdc) @Vs=12.0Vdc
	Slope	Positive
	Linearity	10% max
	Adjustment Range	±0.3ppm min
	Input Impedance	100KΩ min
Environmental Information		
Vibration	IEC 68-2-06 test Fc,10g acceleration,10 - 500Hz, 0.75mm displacement./severity 500 / 10	
Shock	IEC 68-2-27 test Ea, Half sine 50g 11ms / 3 per direction. / severity 100A	
Storage Temperature range	-55°C~+105°C	

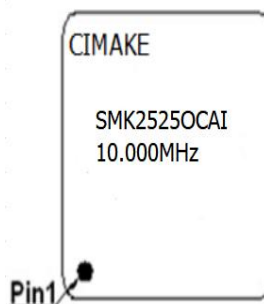
●Mechanical Structure(mm)

DIMENSION (mm)

Bottom View



top view



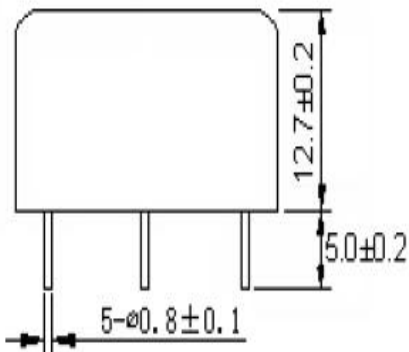


CIMAKE COMMUNICATION (SHEN ZHEN) Co.,LTD

斯玛克通讯（深圳）有限公司

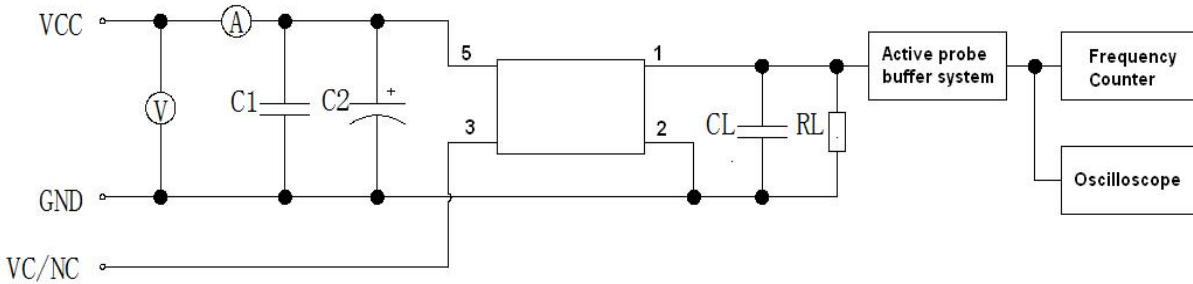
Model:SMK2525OCAI-10.000MHz

Front View



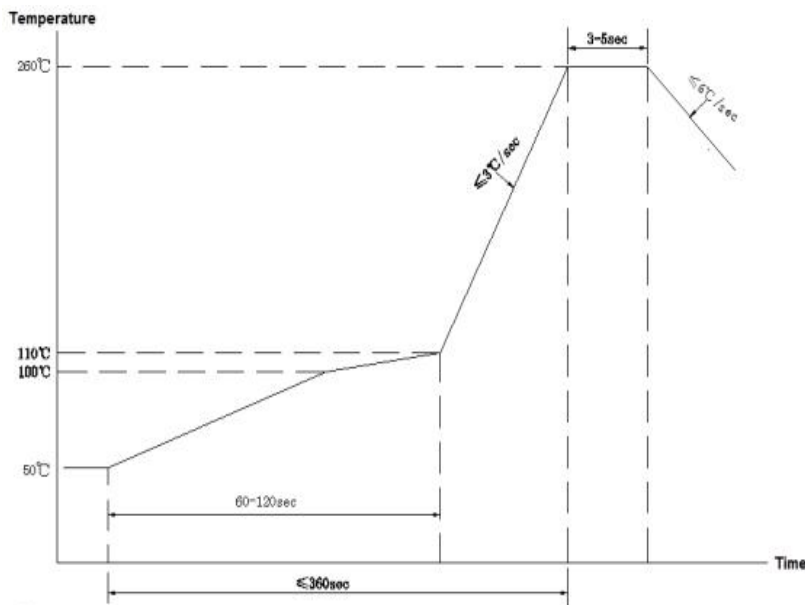
Pin Connections	
1	Output
2	Ground
3	VC/NC
4	Vref/NC
5	Supply Voltage Input

● Testing circuit diagram



Note: C1=0.1μF; C2=47μF;
 Sinewave: RL=50Ω, CL=NC;
 HCMOS: RL =NC, CL=15pF;

● Wave Soldering Curve (RoHS)



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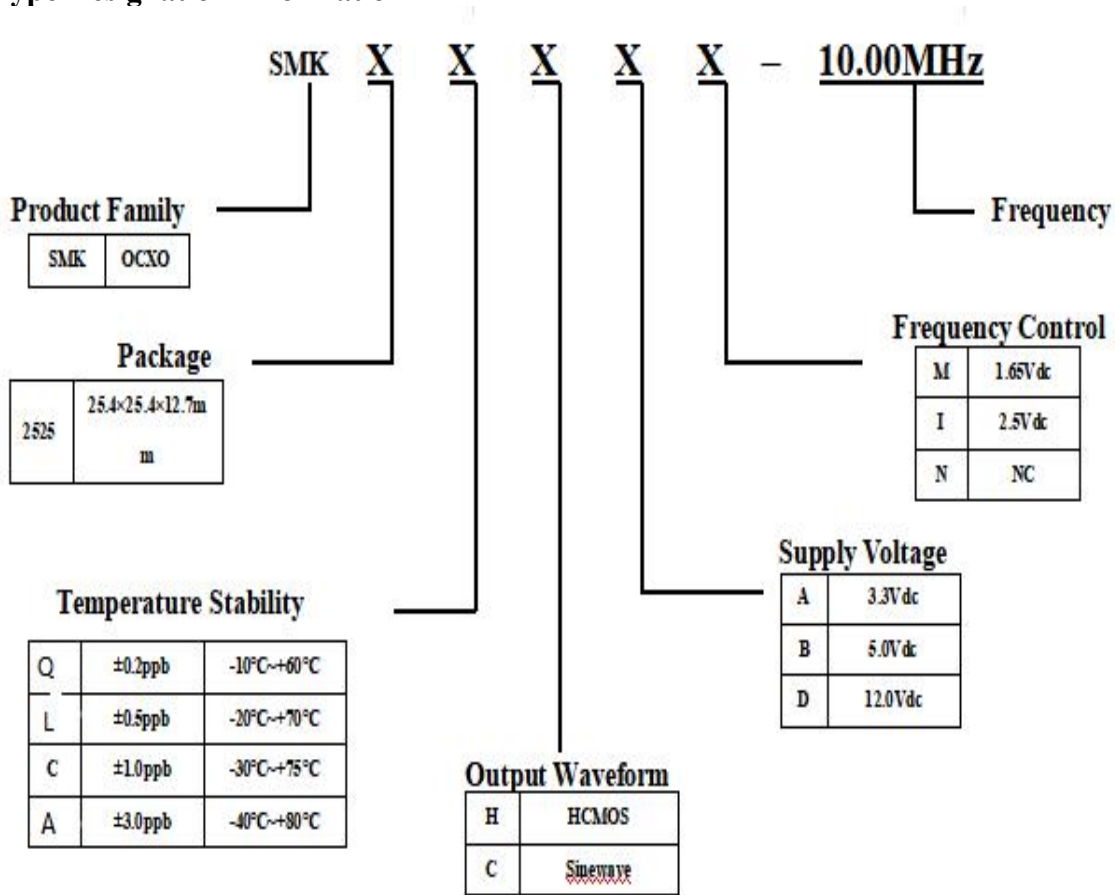
TEL: +0755-26906691 HP:13164746831

B211, Wuhan University Industry-University-Research Cooperation, Yuexing Second Road,

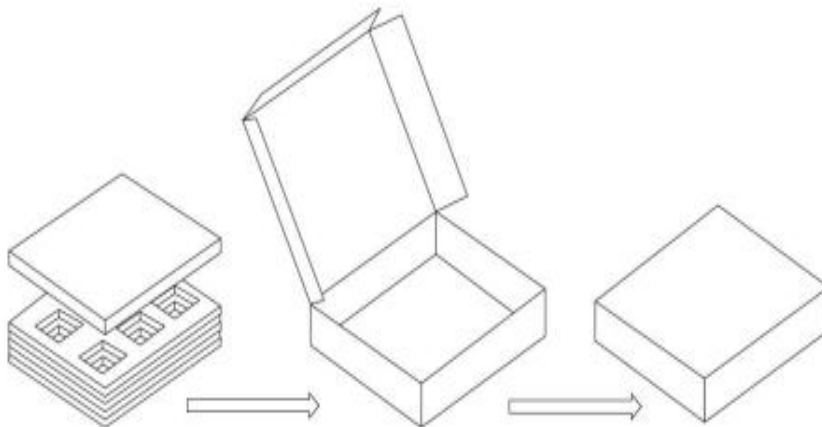
Science and Technology Park, YuehaiStreet,Nanshan District, Shenzhen



● Type Designation Information



● PACKAGING INSTRUCTIONS:



Buffer material

outer packaging box

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