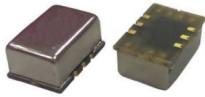




PLETRONICS OSK6xxx-xx.xxM OCXO Oscillator



OSK6 Series
14.3 x 9.3 x 6.5 mm
6 Pad SMD Package

Features

- Pletronics' OSK6 Series Ovenized Quartz Crystal High Precision Square Wave Generator
- HCMOS Output
- 3.3V nominal Supply Voltage
- 10.0-40.0 MHz frequency range
- Voltage control option available
- Stratum 3 (Overall ± 4.6 ppm inc 20 yrs aging)

Applications

SONET / SDH / DWDM
Test & Measurement
Telecom Transmission & Switching Equipment
Base Stations / Picocell
Wireless Communication Equipment
Packet Timing Protocol (e.g. 1588)

Electrical Characteristics

Parameter	Min	Typ	Max	Unit	Condition
Frequency	10	-	40	MHz	Standard frequencies are 10, 12.8, 19.2, 20, 25, and 38.88MHz
Frequency Stability vs Temperature	± 30	-	± 50	ppb	± 20 ppb available over temp range -20 to 70°C
Frequency Stability vs Supply	-5	-	+5	ppb	$\pm 5\%$ voltage change
Warm-up	-0.1	-	+0.1	ppm	In 5 minutes @ $+25^\circ\text{C}$, referenced to 1 hour
Aging	-2.0	-	+2.0	ppb	per day after 30 days
	-0.4	-	+0.4	ppm	per year
	-2.0	-	+2.0	ppm	10 years
Operating Temperature Range	-40	-	+85	$^\circ\text{C}$	
Supply Voltage ¹ V _{CC}	3.135	3.3	3.465	V	5.0V input voltage available
Current	-	500	600	mA	@turn on
Steady State	-	0.5	0.6	W	@ 25°C
Spurious	-	-	-60	dBc	
Phase Noise					
	10 Hz	-98			
	100 Hz	-126			
	1 kHz	-145			
	10 kHz	-152			
				dBc/Hz	
Storage Temperature Range	-55	-	+125	$^\circ\text{C}$	
Vcontrol Range	0	1.65	3.3	V	
Pullability	± 5	-	-	ppm	Slope positive
Input Impedance	100	-	-	k Ω	

HCMOS

Parameter	Min	Typ	Max	Unit	Condition
Output Waveform	HCMOS				
"1" Level	2.4	-	-	V	
"0" Level	-	-	0.4	V	
Load	-	15	-	pF	
Duty Cycle	45	50	55	%	@1.65V

Note: ¹ Place a 10nF power supply bypass capacitor next to device for correct operation



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Device Marking

PLE
OSK6xxx
xx.xxM
YMDz
S/N: xxx

PLE = Pletronics
OSK6xxx = Model number/Part number*
xx.xxM = Frequency (M = MHz)
YMD = Date code (Year-Month-Day: See Table below)
z = Internal Factory Code
S/N: xxx = Serial number

* A unique number is assigned for your exact specifications.
Specifications such as part number, frequency stability, supply voltage and operating temperature range, etc. are not identified from marking.
External packaging labels and packing list will correctly identify the ordered Pletronics part number.

Codes for Date Code YMD (Year Month Day)

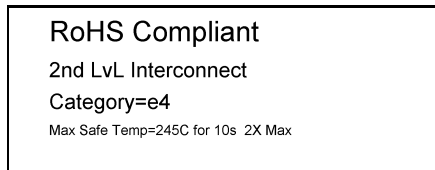
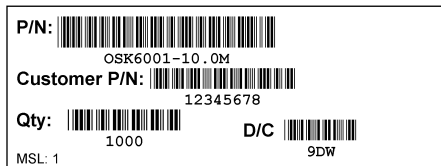
Code	9	0	1	2	3	Code	A	B	C	D	E	F	G	H	J	K	L	M
Year	2019	2020	2021	2022	2023	Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

Code	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	T	U	V	W	X	Y	Z
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Package Labeling

P/N Label is 1" x 2.6" (25.4mm x 66.7mm)
Font is Courier New
Bar code is 39-Full ASCII

RoHS Label is 1" x 2.6" (25.4mm x 66.7mm)
Font is Arial



Pletronics Inc. certifies this device is in accordance with the RoHS 2 (2011/65/EU) and WEEE (2002/96/EC) directives.
Pletronics Inc. guarantees the device does not contain the following: Cadmium, Hexavalent Chromium, Lead, Mercury, PBB's, PBDE's
Moisture Sensitivity Level: 1 As defined in J-STD-020D
Second Level Interconnect code: e4

Environmental / ESD Ratings

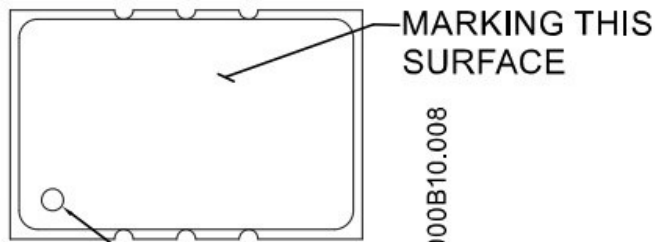
Reliability: Environmental Compliance

Parameter	Ref Standard	Condition
Solderability	MIL-STD-202, Method 208	
Mechanical Shock	MIL-STD-202, Method 213 Test Cond J	30g, 11ms, half-sine
Vibration	MIL-STD-202, Method 201	0.06" Total p-p, 10 to 55 Hz
Thermal Shock	MIL-STD=202, Method 107 Test Cond B	5 cycles -65 to +125 Deg C

Model	Min Voltage
Human Body Model	2000V
Charged Device Model	500V
Machine Model	200V

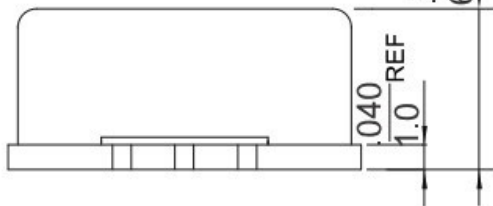
Mechanical Dimensions

[TOP VIEW]

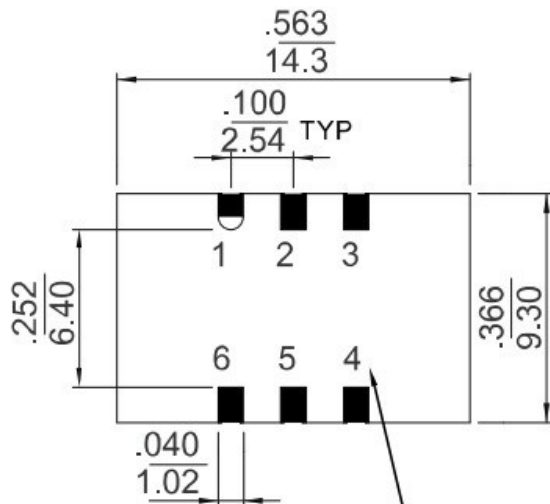


PIN 1 SYMBOL

[SIDE VIEW]



[BOTTOM VIEW]



Numbers for reference only .
(Not stamped on unit)

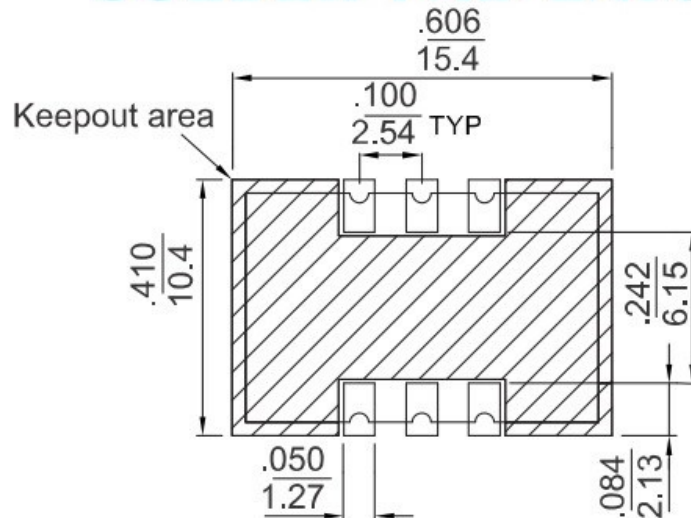
PIN CONNECTIONS	
PIN	FUNCTION
1 (See NOTE 1)	VCO INPUT or NOT CONNECTED
2 (See NOTE 1)	R.F.ENABLE or NOT CONNECTED
3	0 VOLTS AND CASE
4	R.F. OUTPUT
5	NOT CONNECTED
6	+VDC

Notes:

- 1.If the specification does not specify parameters for PIN 1 ,PIN 2 then that respective PIN is not internally CONNECTED.
- 2.Non-hermetic seal package

$\frac{\text{INCH}}{\text{mm}}$ (REFERENCE ONLY)

SOLDER PAD LAYOUT



For Optimum Jitter Performance, Pletronics recommends:

- A ground plane under the device
- Do not route large transient signals (both current and voltage) under the device
- Do not place near a large magnetic field such as a high frequency switching power supply
- Do not place near piezoelectric buzzers or mechanical fans
- Minimize air flow across the device



Important Notice

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