

Features

Frequency range : 1MHz to 200MHz
 SMD seam sealing ceramic package
 Supply voltage : 1.8V ~ 3.3V
 CMOS output
 Tri-state function available
 Dimensions L 2.5 x W 2.0 x H 0.8 mm
 AEC-Q100 compliant (option)
 RoHS compliant & Pb free

Applications

Networking, Server, Storage
 Wireless communications
 Fibre channel, Ethernet, SATA, SAS,
 PCI-E, USB, WLAN, xDSL, xPON
 PC mainboard, Notebook, HDD, SSD,
 Graphics card, Computer peripherals
 Audio, Video, Gaming, Printer, DSC,
 IP CAM, Consumer products

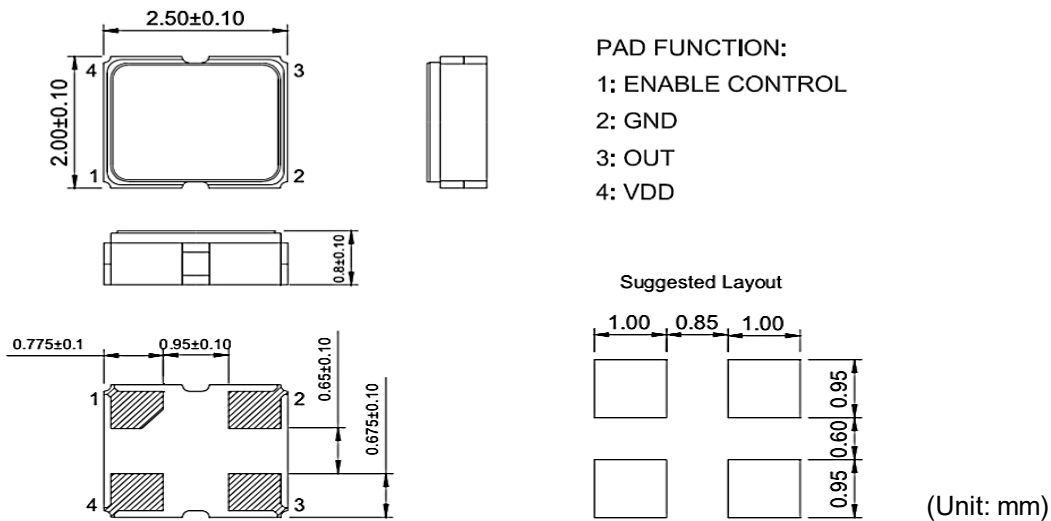
Electrical Characteristics

Item	8WJ	Conditions
Frequency Range (F_0)	1MHz ~ 125MHz	$V_{DD}=1.8V$
	1MHz ~ 200MHz	$V_{DD}=2.5V, 3.3V$
Frequency Stability (F_{stab})	±50 ppm	Note [2]
Operating Temperature Range (T_{OTR})	-40°C ~ +85°C	
	-40°C ~ +105°C	
Supply Voltage (V_{DD})	Typ. 1.8V (1.65V ~ 1.95V) Typ. 2.5V (2.25V ~ 2.75V) Typ. 3.3V (2.97V ~ 3.63V)	
Current Consumption (I_{DD})	22 mA Max.	No load, $F_0=110MHz$, $V_{DD}=2.5V\sim 3.3V$
OE Mode Disable Current (I_{od})	18 mA Max.	OE=GND, output is Pulled Down
PDB Mode Standby Current (I_{std})	400 μA Typ.	OE=GND, output is Pulled Down
Output Type	CMOS	
Output Load (C_L)	15 pF	
Duty Cycle	45% ~ 55%	
Rise & Fall Time (T_r / T_f)	1.5 ns Typ.	$C_L=15pF$, 10%~90% V_{DD} high drive ($V_{DD}=2.5V, 3.3V$)
Output Voltage High (V_{OH})	$V_{DD} - 0.4$ Min.	$I_{OH}=-4mA$, $I_{OL}=4mA$, Standard Drive
Output Voltage Low (V_{OL})	0.4 Max.	
Input Voltage High (V_{IH})	70% V_{DD} Min.	Pin1, OE
Input Voltage Low (V_{IL})	30% V_{DD} Max.	
Start-up Time (T_{start})	5ms Typ. / 7ms Max.	Note [3]
OE Enable/Disable Time (T_{oe})	10 nS Max.	Note [4]
Resume Time (T_{resume})	7 mS Max.	In PDB mode, $T_a=25^\circ C$, $C_L=15pF$
PK-PK Period Jitter (T_{jitt})	200pS Typ. / 300pS Max.	$F_0=125MHz$, $V_{DD}=2.5V$ or 3.3V
	220pS Typ. / 300pS Max.	$F_0=125MHz$, $V_{DD}=1.8V$
Phase Jitter, RMS (T_{phj})	0.7pS Typ. / 1.0pS Max.	$F_0=125MHz$, $V_{DD}=3.3V$, integrated 12kHz~20MHz
First Year aging (F_{aging})	±1.5 ppm Max.	at 25°C±3°C
10 Years Aging	±5 ppm Max.	
Storage Temperature Range (T_{STR})	-55°C ~ +125°C	

Notes:

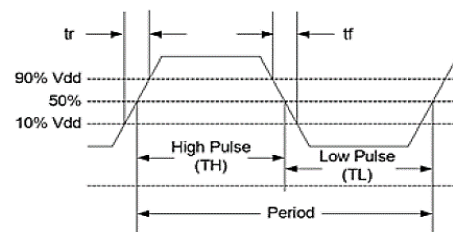
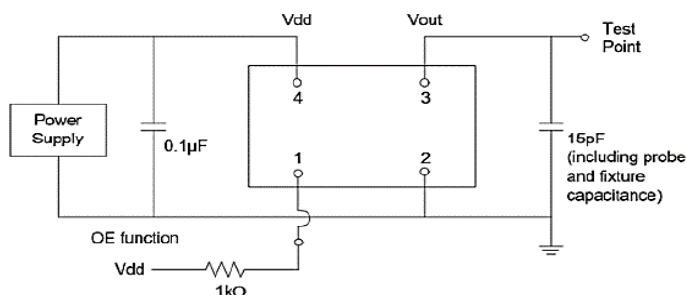
- [1] All electrical specifications in the above table are specified with 15pF output load and for all V_{DD} unless otherwise stated.
- [2] Inclusive of frequency tolerance at 25°C, 1st year aging at 25°C, and variations over operating temperature, supply voltage, and load.
- [3] Measure from the time V_{DD} reaches its rated minimum value.
- [4] OE function; $T_a = 25^\circ\text{C}$, $C_L = 15\text{pF}$. Add one clock period to this measurement for a usable clock output.

Dimensions & Pin Configuration



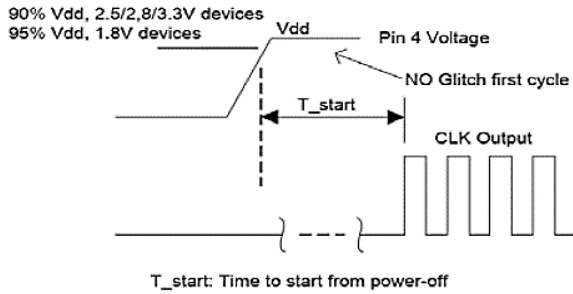
Pin	Symbol	Functionality	
1	OE	Output Enable	H or Open, Specified frequency output. L: output is high impedance. Only output driver is disabled.
		PDB mode (Option)	H or Open, Specified frequency output. L: output is low. Device goes to sleep mode. Supply current reduces to I_{std} .
2	GND	Ground	Electrical ground
3	OUT	Output	Oscillator output
4	VDD	Power	Power supply voltage

Test Circuit and Waveform

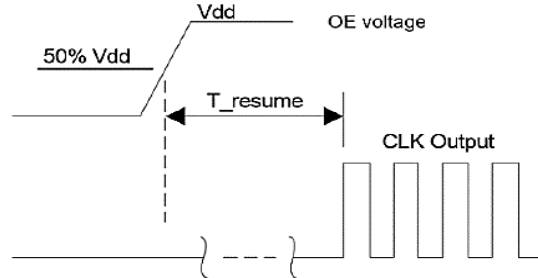


Test Diagram

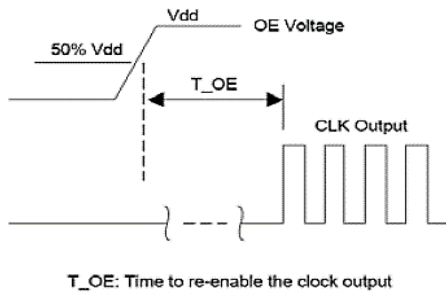
Startup Timing (OE mode)



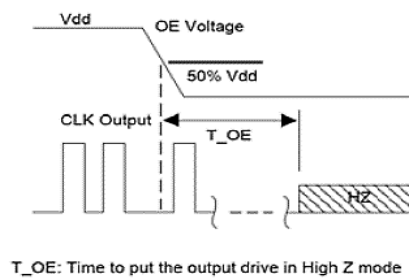
Standby Resume Timing (PDB mode)



OE Enable Timing



OE Disable Timing



Ordering Information

8WJ - 30.000M B E - T

Frequency in Hz
Please contact us for available frequencies

Packaging Method
T Tape & Reel

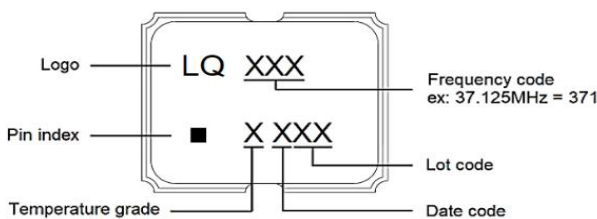
Supply Voltage

B	3.3 V
C	2.5 V
D	1.8 V

Frequency Stability

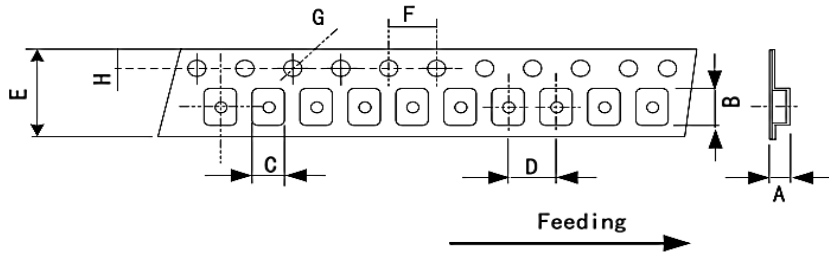
E	± 50 ppm (-40°C ~ +85°C)
J	± 50 ppm (-40°C ~ +105°C)

Making

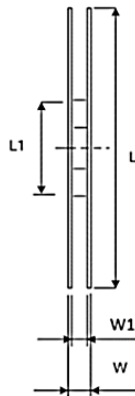
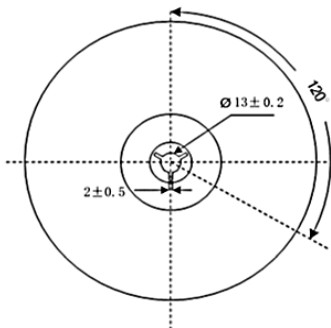
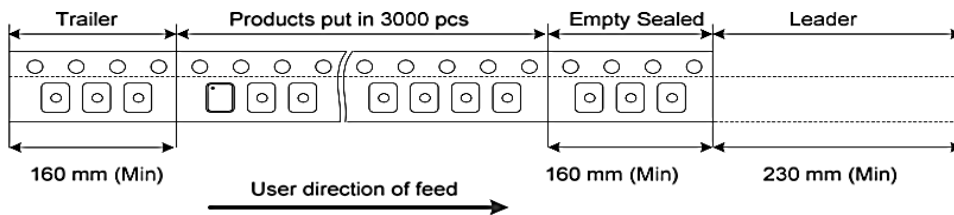


Temperature grade	Temperature range
I	-40°C ~ +85°C
E	-40°C ~ +105°C

Packing



Dimensions	A	B	C	D	E	F	G	H	(Unit:mm)
	1.15 ±0.05	2.70 ±0.05	2.25 ±0.05	4.00 ±0.10	8.00 ±0.20	4.00 ±0.10	1.55 ±0.05	1.75 ±0.10	

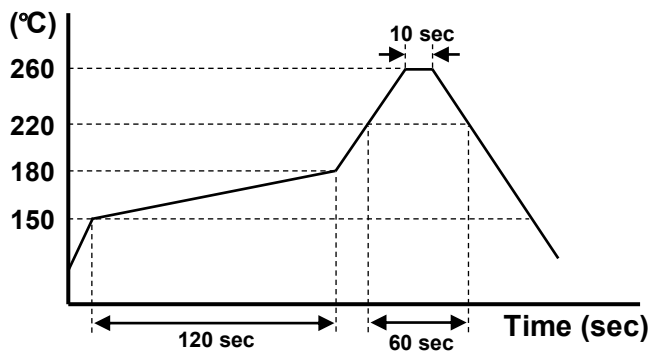


Dimensions	L	L1	W	W1	Standard Reel Quantity is 3,000 pcs per reel (Unit:mm)
	180 0/-3	60 +1/0	11.4 ±1	9 ±0.3	

Reflow Profile

Solder melting point : 220°C ± 10°C, 60 sec. Min.

Peak temperature : 260°C ± 10°C, 10 sec. Min.



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[TXC Corporation:](#)

[8WJ-1.8432MBE-T](#) [8WJ-1.8432MBJ-T](#) [8WJ-1.8432MDE-T](#) [8WJ-1.8432MDJ-T](#) [8WJ-10.000MBE-T](#) [8WJ-10.000MBJ-T](#) [8WJ-10.000MDE-T](#) [8WJ-10.000MDJ-T](#) [8WJ-100.000MBE-T](#) [8WJ-100.000MBJ-T](#) [8WJ-100.000MDE-T](#) [8WJ-100.000MDJ-T](#) [8WJ-11.2896MBE-T](#) [8WJ-11.2896MBJ-T](#) [8WJ-11.2896MDE-T](#) [8WJ-11.2896MDJ-T](#) [8WJ-12.000MBE-T](#) [8WJ-12.000MBJ-T](#) [8WJ-12.000MDE-T](#) [8WJ-12.000MDJ-T](#) [8WJ-12.288MBE-T](#) [8WJ-12.288MBJ-T](#) [8WJ-12.288MDE-T](#) [8WJ-12.288MDJ-T](#) [8WJ-125.000MBE-T](#) [8WJ-125.000MBJ-T](#) [8WJ-125.000MDE-T](#) [8WJ-125.000MDJ-T](#) [8WJ-14.7456MBE-T](#) [8WJ-14.7456MBJ-T](#) [8WJ-14.7456MDE-T](#) [8WJ-14.7456MDJ-T](#) [8WJ-150.000MBE-T](#) [8WJ-150.000MBJ-T](#) [8WJ-150.000MDE-T](#) [8WJ-150.000MDJ-T](#) [8WJ-155.520MBE-T](#) [8WJ-155.520MBJ-T](#) [8WJ-155.520MDE-T](#) [8WJ-155.520MDJ-T](#) [8WJ-156.250MBE-T](#) [8WJ-156.250MBJ-T](#) [8WJ-156.250MDE-T](#) [8WJ-156.250MDJ-T](#) [8WJ-16.000MBE-T](#) [8WJ-16.000MBJ-T](#) [8WJ-16.000MDE-T](#) [8WJ-16.000MDJ-T](#) [8WJ-16.384MBE-T](#) [8WJ-16.384MBJ-T](#) [8WJ-16.384MDE-T](#) [8WJ-16.384MDJ-T](#) [8WJ-160.000MBE-T](#) [8WJ-160.000MBJ-T](#) [8WJ-160.000MDE-T](#) [8WJ-160.000MDJ-T](#) [8WJ-161.1328MBE-T](#) [8WJ-161.1328MBJ-T](#) [8WJ-161.1328MDE-T](#) [8WJ-161.1328MDJ-T](#) [8WJ-166.000MBE-T](#) [8WJ-166.000MBJ-T](#) [8WJ-166.000MDE-T](#) [8WJ-166.000MDJ-T](#) [8WJ-18.432MBE-T](#) [8WJ-18.432MBJ-T](#) [8WJ-18.432MDE-T](#) [8WJ-18.432MDJ-T](#) [8WJ-19.200MBE-T](#) [8WJ-19.200MBJ-T](#) [8WJ-19.200MDE-T](#) [8WJ-19.200MDJ-T](#) [8WJ-2.048MBE-T](#) [8WJ-2.048MBJ-T](#) [8WJ-2.048MDE-T](#) [8WJ-2.048MDJ-T](#) [8WJ-20.000MBE-T](#) [8WJ-20.000MBJ-T](#) [8WJ-20.000MDE-T](#) [8WJ-20.000MDJ-T](#) [8WJ-200.000MBE-T](#) [8WJ-200.000MBJ-T](#) [8WJ-200.000MDE-T](#) [8WJ-200.000MDJ-T](#) [8WJ-24.000MBE-T](#) [8WJ-24.000MBJ-T](#) [8WJ-24.000MDE-T](#) [8WJ-24.000MDJ-T](#) [8WJ-24.576MBE-T](#) [8WJ-24.576MBJ-T](#) [8WJ-24.576MDE-T](#) [8WJ-24.576MDJ-T](#) [8WJ-25.000MBE-T](#) [8WJ-25.000MBJ-T](#) [8WJ-25.000MDE-T](#) [8WJ-25.000MDJ-T](#) [8WJ-26.000MBE-T](#) [8WJ-26.000MBJ-T](#) [8WJ-26.000MDE-T](#) [8WJ-26.000MDJ-T](#)