



Accurate Kinetic Energy

No.11-3 Jianguo Rd., Tanzi Dist., 42760 Taiwan

All dimensions are millimeters.

CAD: TCR

Review: EG

Appr: JL

Page: 1/4 Date: February 5,2025

Specification Title:

HCMOS Output Clock Oscillator

Low Profile

7.0 x 5.0 millimeter Surface Mount

General Product Specification

Part Number:

S7 Series

Electrical Specifications:

Frequency Range		10.000~40.000	10.000~50.000	10.000~50.000	1.000~110.000	1.000~156.250	1.000~156.250	1.000~110.000	1.000~40.000	MHz
Frequency Stability		±20 ~ ±100								ppm
Aging per Year		±3								ppm Max.
Operating Temperature Range	Standard	-20 ~ +70								°C
	Extended	-40 ~ +85 Or Specify (-40~+125 is available)								
Storage Temperature Range		-55 ~ +125								
Supply Voltage		0.9 ± 5%	1.2 ± 5%	1.5 ± 5%	1.8 ± 10%	2.5 ± 10%	3.3 ± 10%	1.62 ~ 3.63	5.0 ± 10%	VDD
Input Current	1.000 to 9.999MHz	-	-	-	5	6	7	7	10	mA Max.
	10.000 to 19.999MHz	1.5	2.5	3.5	6	7	7	7	15	
	20.000 to 31.999MHz	1.5	2.5	3.5	6	8	12	12	25	
	32.000 to 40.000MHz	2	3.5	4.5	15	20	20	20	35	
	40.001 to 79.999MHz	-	3.5	4.5	15	20	25	25	-	
	80.000 to 110.000MHz	-	-	-	20	25	30	30	-	
	110.001 to 156.250MHz	-	-	-	-	30	40	-	-	
Output Voltage	Logic High (Voh)	90%								VDD Min.
	Logic Low (Vol)	10%								VDD Max.
Output Symmetry (Duty Cycle)	Standard	40 ~ 60 (at 50% VDD)								%
	Tight	45 ~ 55 (at 50% VDD)								
Output Load		15								pF Max.
		30								
Rise and Fall Time	1.000 to 31.999MHz	15	12	10	5	5	5	5	5	ns Max.
	32.000 to 40.000MHz	15	12	10	5	5	5	5	5	
	40.001 to 79.999MHz	-	12	10	4	4	4	4	-	
	80.000 to 110.000MHz	-	-	-	3	3	3	3	-	
	110.001 to 156.250MHz	-	-	-	-	3	3	-	-	
Phase Jitter RMS (12 KHz to 20 MHz)		1								ps Max.
Enable-Disable Function		Tri-State								
Start Up Time		5								ms Max.

Temperature stability is Inclusive of all conditions:

Calibration Tolerance at +25°C, frequency stability over the operating temperature range, supply voltage change, output load change, shock, vibration, and 1st year aging at +25°C.

RoHS Compliant
Pb - Lead Free

Ltr

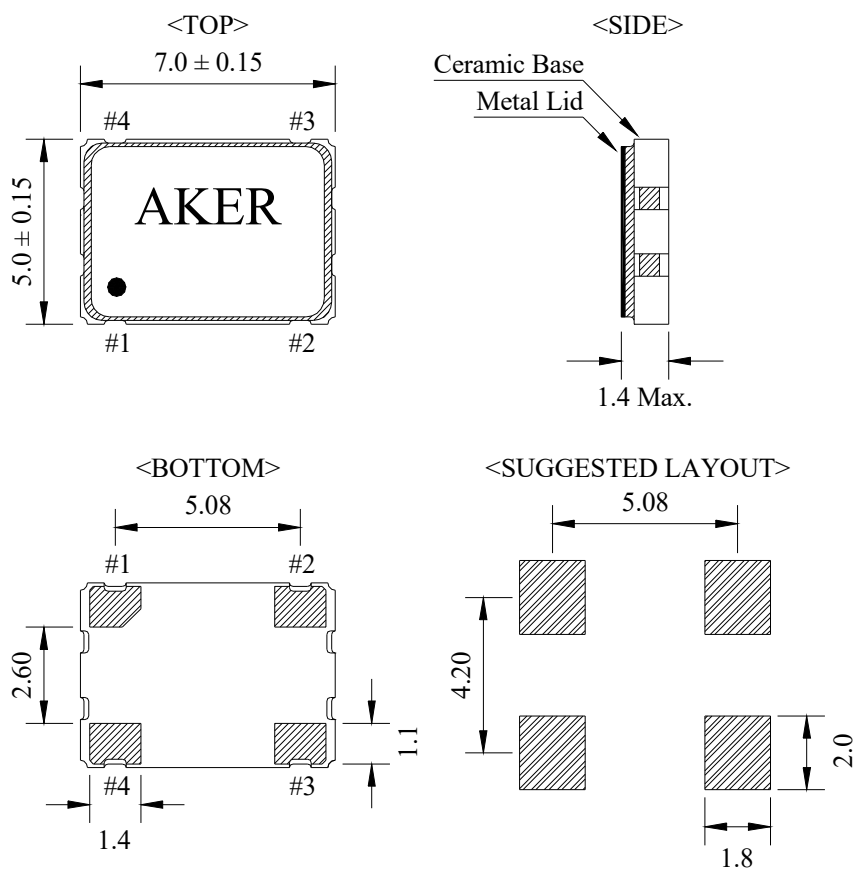
Revisions

Date

Date

Appr

Mechanical Outline and Solder Pad Layout:

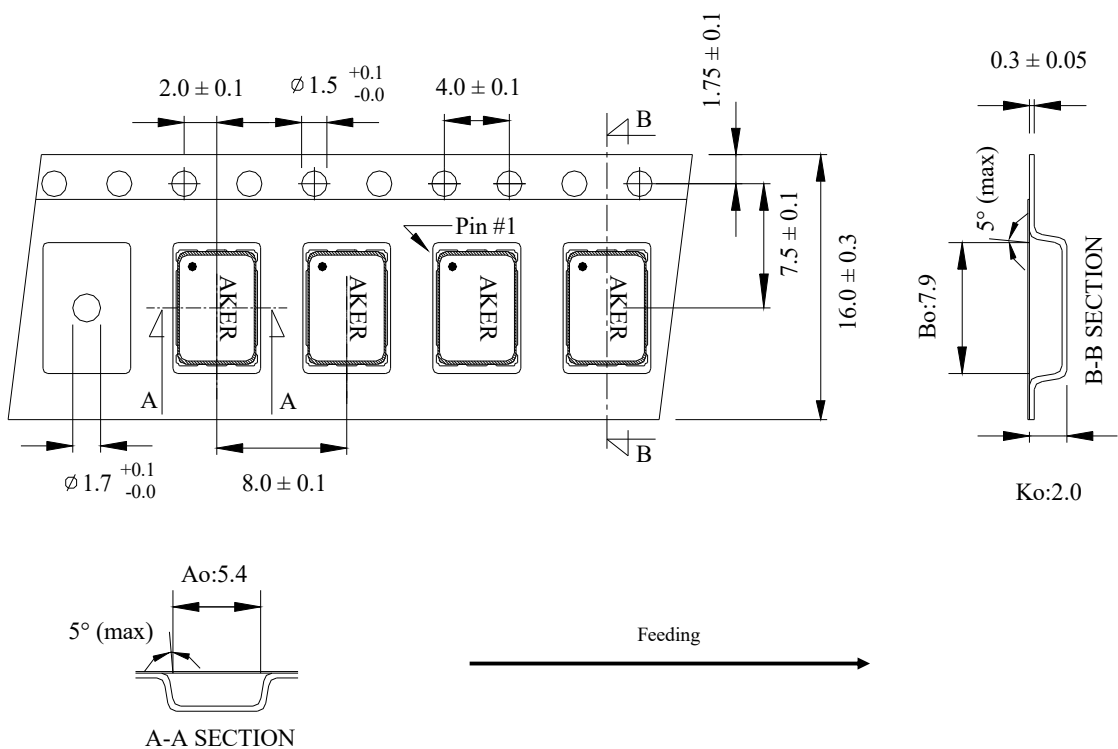


Pin Connection	
PIN No.	Connection
#1	Enable/Disable
#2	GND
#3	Output
#4	VDD

Enable/Disable Function	
PIN #1	PIN #3
HIGH or OPEN	Operating
LOW	High Impedance

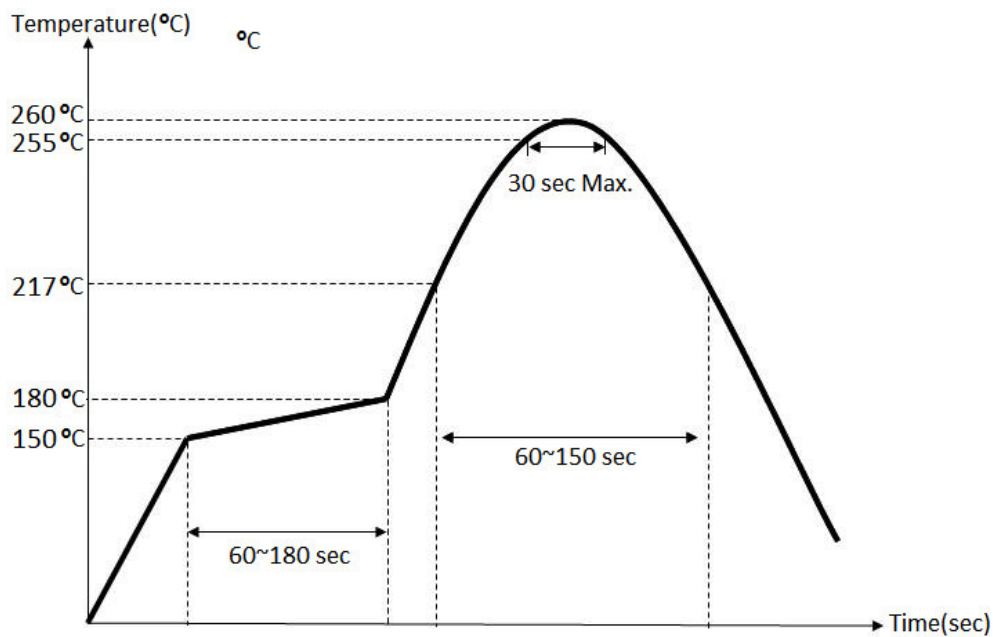
Package is Seam Sealed Ceramic-Metal.
Terminator Pads are Ni/Au.
Dimensions are millimeters.

Carrier Tape Dimensions:



Dimensions are millimeters.

Solder Reflow Characteristics:



How to build a Part Number:

Series	S	Parameter
Package	7	7.0 x 5.0 mm
Supply Voltage	50	+5.0 VDD ± 10%
	33	+3.3 VDD ± 10%
	25	+2.5 VDD ± 10%
	18	+1.8 VDD ± 10%
	15	+1.5 VDD ± 5%
	12	+1.2 VDD ± 5%
	09	+0.9 VDD ± 5%
	M	+1.62 ~ +3.63 VDD
Temperature Stability	10	±100 ppm
	05	±50 ppm
	025	±25 ppm
	020	±20 ppm
Duty Cycle	See Notes	40%~60%
	T	45%~55%
Frequency	1.000~156.250	MHz
Temperature Range	See Notes	-20 ~ +70 °C
	X	-40 ~ +85 °C
	X1	-40 ~ +125 °C
	X2	-40 ~ +105 °C
Output Load	15	pF Max
	30	
Packaging	M	250pcs Reel
	R	1000pcs Reel

Part Number Example:

S73305T-50.000-X-15-R

S7: 7.0 x 5.0 mm SMD Package

33: +3.3 $\pm$ 10% VDD Supply Voltage

05: $\pm$ 50 ppm Temperature Stability

T: 45%~55% Tight Symmetry

50.000 MHz Nominal Frequency

X: -40 ~ + 85°C Extended Temperature Range

15: 15 pF Max Output Load

R: Tape and Reel Packaging - 1000pcs Reel

Notes:

- 1- Standard Duty Cycle and Temperature Range do not need to be included in Part Number description.
- 2- Product is shipped in Tape and Reel configuration.
- 3- Quantities less than 250pcs are shipped in tape only.
- 4- Specification subject to change without notice.