

CRYSTAL OSCILLATORS VCTCXO Automotive Grade

VTOF-211 SERIES

CERAMIC PACKAGE

- Navigation
- Camera

- Telematics
- RKE

Features

- Seam Seal
- Excellent Solderability
- RoHS Compliant
- IATF-16949 Certified
- Low Power Consumption
- AEC-Q200 Qualified

Specification

MODEL	
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Actual Size:

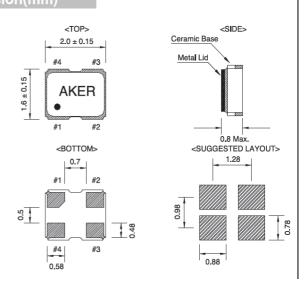
MODEL					
FREQUENCY RANGE	MHz	10.000 ~ 52.000			
FREQUENCY TOLERANCE	ppm	± 2.0 Max.			
OPERATING TEMPERATURE	°C	- 20 ~ + 70 Or - 40 ~ + 85			
STORAGE TEMPERATURE	°C	- 55 ~ + 125			
POWER SUPPLY VOLTAGE	VDC	+1.8 ± 5%	+2.5 ± 5%	+3.3 ± 5%	
FREQUENCY STABILITY					
VS. OPERATING TEMPERATURE*	ppm	± 0.5 ~ ± 2.0	± 0.5 ~ ± 2.0	± 0.5 ~ ± 2.0	
VS. POWER SUPPLY VOLTAGE	ppm (Max.)	± 0.2	± 0.2	± 0.2	
VS. OUTPUT LOAD	ppm (Max.)	± 0.2	± 0.2	± 0.2	
OUTPUT WAVEFORM		CLIPPED SINEWAVE			
OUTPUT LOAD		10KΩ//10pF			
OUTPUT LEVEL	Vp-p (Min.)	0.8	0.8	0.8	
CONTROL VOLTAGE RANGE	V	0.3 ~ 1.5	0.4 ~ 2.4	0.4 ~ 2.4	
FREQUENCY CONTROL RANGE	ppm (Min.)	± 5	± 5	± 5	
INPUT CURRENT					
10.000 ~ 52.000MHz	mA (Max.)	2.5	2.5	2.5	
PHASE NOISE					
@100Hz offset		-114	-114	-114	
@1KHz offset	dBc/Hz (Typ.)	-131	-131	-131	
@10KHz offset		-148	-148	-148	
START UP TIME	ms (Max.)	2.0	2.0	2.0	
AGING	ppm/Year	± 1	±1	± 1	

^{*}Refer to the middle point between the minimum and maximum frequency values.

Pin Connection

PIN No.	Connection
#1	VCON
#2	GND
#3	Output
#4	VDC

VTOF-211



^{**}Specification subject to change without notice.