

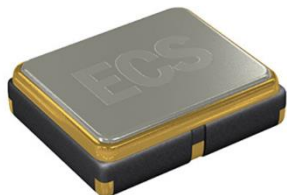
The ECS-2520SMVQ is a miniature SMD AEC-Q200 HCMOS Oscillator with Multi Volt™ capability of 1.62 ~ 3.63 V with a tight stability of ± 20 ppm $-40 \sim +125^\circ\text{C}$. The 2.5 x 2.0 x 1.0 mm ceramic package is ideal for Automotive, Industrial and IOT applications.

ECS-2520SMVQ

SMD Multi Volt™ Crystal Oscillator
Tight Stability

[Request a Sample](#)

ECS-2520SMVQ SMD XO



- 2.5 x 2.0 mm Footprint
- AEC-Q200 Qualified
- Extended Temp Range
- Wide Supply Voltage
- Tight Stability
- Compatible with 1.8V, 2.5V or 3.3V Power Supply

DIMENSIONS (mm)

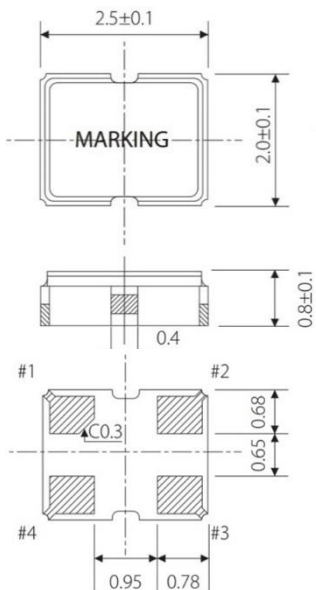


Figure 1) Top, Side, and Bottom views

PART NUMBERING GUIDE: Example ECS-2520SMVQ-250-DS-TR

ECS	-	SERIES	FREQUENCY ABBREVIATION	-	* STABILITY	TEMP RANGE -	PACKAGING
		2520SMVQ 2.5 x 2.0 mm AEC-Q200 Multi Volt Oscillator Tight Stability	250 = 25.000 MHz See Developed Frequencies Pg.2		D = ± 20 ppm F = ± 10 ppm G = ± 5 ppm	N = $-40 \sim +85^\circ\text{C}$ P = $-40 \sim +105^\circ\text{C}$ † S = $-40 \sim +125^\circ\text{C}$	-TR = Tape & Reel 1K/Reel

† 20 ppm is only option for $-40 \sim +125^\circ\text{C}$ temperature range.

Rev.2024

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECS-2520SMVQ			UNITS
		MIN	TYP	MAX	
Frequency Range		8.000		60.000	MHz
* Frequency Stability	$-40 \sim +125^\circ\text{C}$ (DS Opt)			± 20	ppm
Supply Voltage		1.62		3.63	V
Output Load	CMOS			15	pF
Output voltage Level	VOL: 0.2 V _{dd} max./VOH: 0.8V _{dd} min. V DC				
Rise & Fall time	20%V _{dd} – 80%V _{dd}			3	nS
Start Up Time				10	mS
Phase Jitter	12 KHz to 20 MHz		0.362	0.5	pS
Duty Cycle	@ 1/2 V _{dd}		45/55		%
Input Current (No Load)			6	10	mA
Standby Current				10	μA
Operating Temp*	S Option	-40		+125	°C
Storage Temp		-55		+125	°C

* Frequency Stability includes initial tolerance, temperature, supply voltage & load change reflow frequency shift, and aging.

PAD CONNECTIONS

1	Tri-state
2	Gnd
3	Output
4	Vdd

Tri State Function

Pin 1	Output
0.7 * V _{dd} Min OR NC	Active
0.3 * V _{dd} Max.	High Impedance

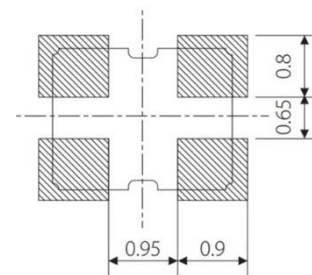


Figure 2) Suggested Land Pattern

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[33E156.250000X](#) [9365AC-1E2-33E156.253906X](#) [KK3270021](#) [HX7124001Q](#) [9003AC-23-18DQ-40.00000Y](#) [SG7050CAN 26.000000M-](#)
[TJGA3](#) [632L3I007M37280](#) [FO3HFCYM0.032768-T3](#) [SiT1602BI-23-18E-33.333330G](#)