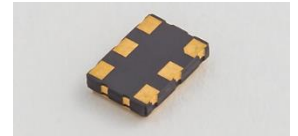


### XVO393KV1-156.250



#### ■ ELECTRICAL SPECIFICATION

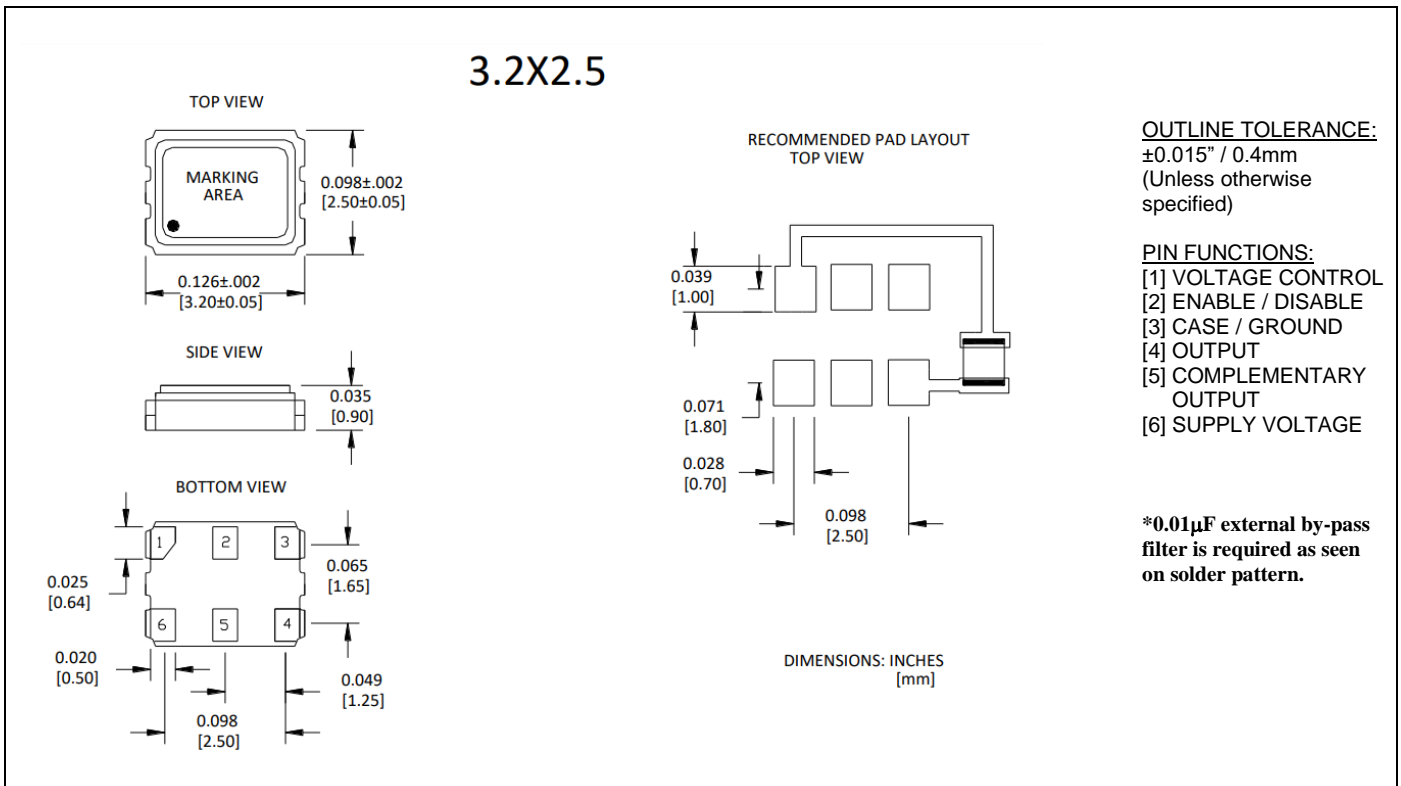
PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Frequency, nom.	Fo		156.250	MHz
Supply Voltage, nom.	Vcc	Vcc ±5%	3.3	V
Input Current, max	I	Vcc ±5%	95	mA
Stability Over Temperature Range, max	$\Delta f/\Delta T$		±50	ppm
Absolute Pull Range <sup>1</sup>	APR $\Delta f/f_c$	Min./max guaranteed frequency pull over $\Delta f/f_c$	±20	ppm
Voltage control input range	Vc		0 ~ 3.3	V
Voltage Control Center	Vc	Centered = $\frac{1}{2}$ (Vcc)	1.65	V
Modulation Bandwidth	Bw	-3 dB	20	kHz
Vc Input Impedance, typ.	Zin	Vcc = 3.3V, 0 ≤ Vc ≤ Vcc	500	kΩ
Linearity, max	Lin	Positive slope	±10	%
Enable / Disable	E	PIN 2=HIGH or open (min)	2.475	V
	D	PIN 2=LOW (max)	0.3	V
Operating Temperature Range	Ta		-40 ~ +85	°C
Storage Temperature Range	T(stg)		-55 ~ 125	°C
RMS Phase Jitter, max.	J	RMS Fj=12 kHz...20MHz	0.6	ps

<sup>1</sup> Inclusive of 25°C calibration, tolerance, operating temperature range, input voltage variation, load change, 20 years aging, shock and vibration

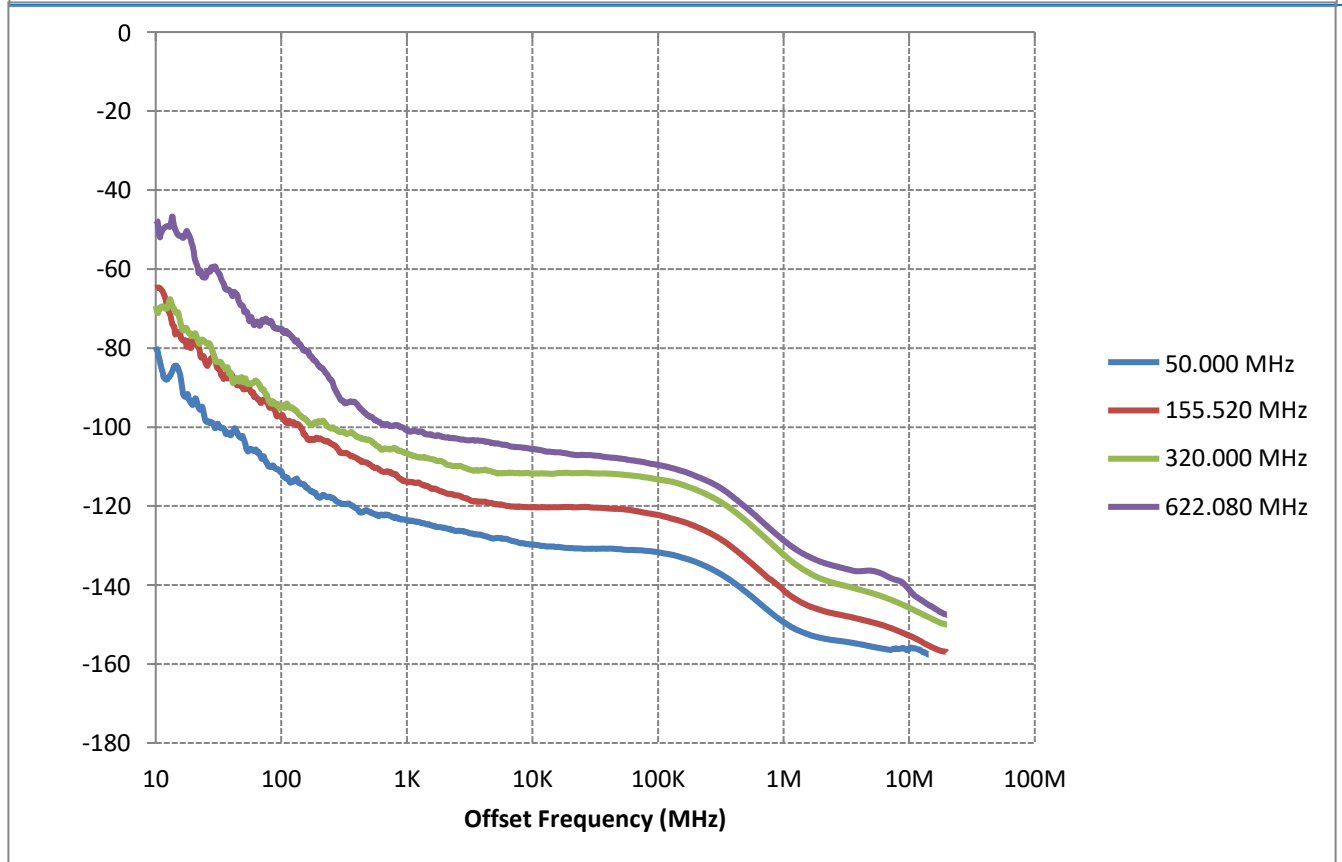
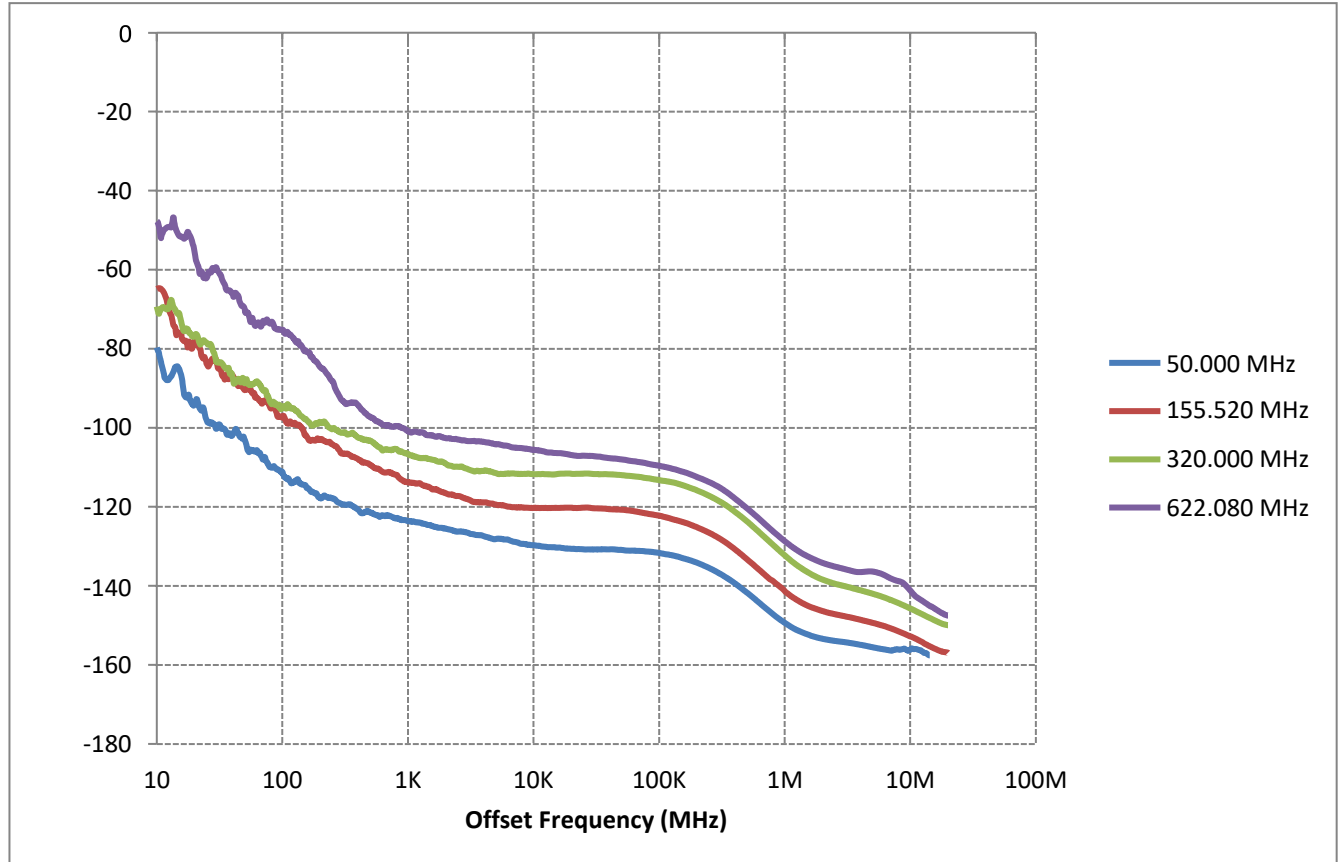
### ■ LVPECL OUTPUT CHARACTERISTICS

PARAMETER	SYMBOL	CONDITION	VALUE			UNIT
			Min	Typ.	Max	
Output Levels	V <sub>OH</sub>	Output termination 50Ω to V <sub>CC</sub> - 2.0V, 3.3V ±5%	V <sub>CC</sub> -1.03		V <sub>CC</sub> -0.60	V
	V <sub>OL</sub>		V <sub>CC</sub> -1.85		V <sub>CC</sub> -1.60	V
Rise/Fall Time	T <sub>r</sub> /T <sub>f</sub>	10%~90%			0.25	ns
Output voltage swing	V <sub>p-p</sub>		0.6		1.0	V
Duty cycle	DC	Measured at 50% of V <sub>CC</sub>	45		55	%
Output Load	O <sub>CL</sub>	V <sub>CC</sub> = 3.3V ± 5%			50	Ω

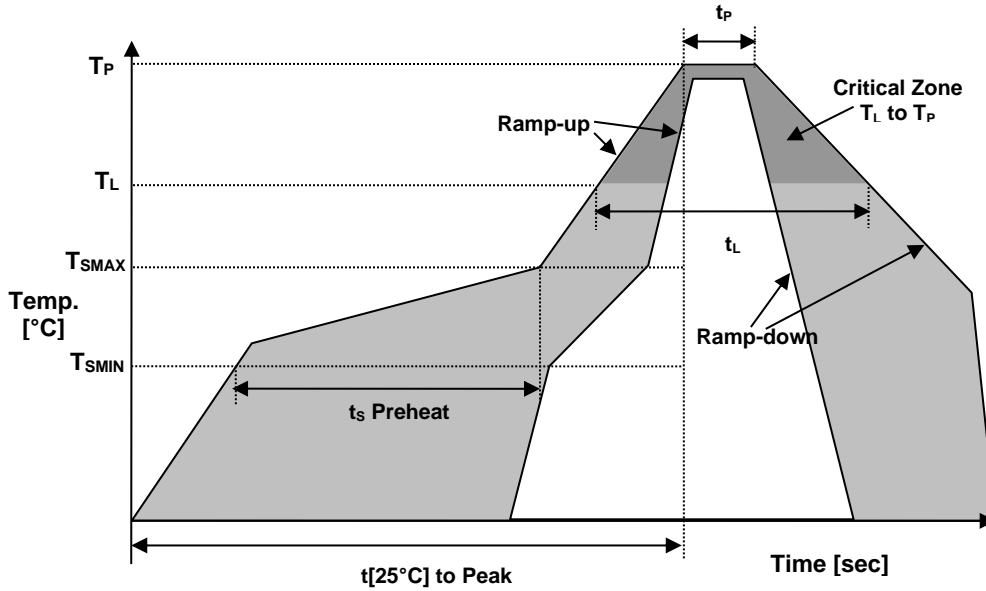
### ■ MECHANICAL SPECIFICATION



### ■ PHASE NOISE (TYPICAL):



REFLOW PROFILE



Reflow profile IPC/JEDEC J-STD-020 REV. C		
Temperature Min Preheat	$T_{SMIN}$	150°C
Temperature Max Preheat	$T_{SMAX}$	200°C
Time ( $T_{SMIN}$ to $T_{SMAX}$ )	$t_s$	60-180 sec.
Temperature	$T_L$	217°C
Peak Temperature	$T_P$	260°C
Ramp-up rate	$R_{UP}$	3°C/sec max.
Ramp-down rate	$R_{DOWN}$	6°C/sec max.
Time within 5°C of Peak Temperature	$t_p$	10 sec.
Time $t[25^\circ\text{C}]$ to Peak Temperature	$t[25^\circ\text{C}]$ to Peak	480 sec.
Time	$t_L$	60-150 sec.

ENVIRONMENTAL

PARAMETER	VALUE
MOISTURE SENSITIVITY LEVEL	1
REACH-SVHC	Compliant
RoHS	Compliant
TERMINATION FINISH	Au



RALTRON
Eng. approval, date: XL, May 15, 2020
Created by, date: CP, May 15, 2020
Revision: A

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