



ECXV-P2 (2.5V) and ECXV-P3 (3.3V) low jitter, low current Frequency Configurable SMD Voltage Controlled Crystal Oscillators (VCXO).

ECspressCON™ ECXV-P LVPECL VCXO

Request a Sample



OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

Parameters	Conditions	ECXV-P2 (+2.5V)			ECXV-P3 (+3.3V)			Units
		MIN	TYP	MAX	MIN	TYP	MAX	
Frequency Range		10.000		1500.00	10.000		1500.00	MHz
Supply Voltage		+2.375	+2.5	+2.625	+2.97	+3.3	+3.63	VDC
Voltage Control		+0.2	+1.25	+2.3	+0.3	+1.6 5	+3.0	VDC
Frequency Pulling Range (Positive Transfer)	7 x 5 & 5 x 3.2 pkg.	±100			±100			PPM
	3.2 x 2.5 & 2.5 x 2 pkg.	±50			±50			PPM
Frequency Stability *	Option A			±100			±100	ppm
	Option B			±50			±50	ppm
	Option C			±25			±25	ppm
	Option D			±20			±20	ppm
Input Current	10.0 ~ 250.0 MHz			48			50	mA
	250.1 ~ 500.0 MHz			53			55	mA
	500.1 ~ 1500 MHz			65			68	mA
Output Symmetry	@ 50% V _{CC} level			48/52			48/52	%
Aging	@ +25°C (first year)			±2			±2	PPM
Rise and Fall Times	10% V _{dd} to 90% Level	150		250	150		250	pS
"0" Level	VOL	V _{dd} -1.85V		V _{dd} -1.6V	V _{dd} -1.85V		V _{dd} -1.6V	VDC
"1" Level	VOH	V _{dd} -1.03V		V _{dd} -0.6V	V _{dd} -1.03V		V _{dd} -0.6V	VDC
Output Load	Differential							
Output Enable	Pin 2 **	0.7%			0.7%			V _{dd}
Output Disable	Pin 2			0.3%			0.3%	V _{dd}
Output Enable Time				200			200	ns
Output Disable Time				50			50	ns
Phase Jitter, rms	12 KHz to 20 MHz		1.0			1.0		pS
Operating Temperature (Specified in P/N)	Standard	-10		+70	-10		+70	°C
	Extended (P Option)	-40		+105	-40		+105	°C
Storage Temperature		-55		+125	-55		+125	°C
Moisture Sensitivity Level				1				
Termination Finish				Au				
ESD Sensitivity	Human Body Model			3kV Max.				

*Note: Inclusive of 25°C tolerance, operating temperature, input voltage change, load change, shock and vibration.

**Note: Internal pull-up resistor active output if pin 2 is left open.

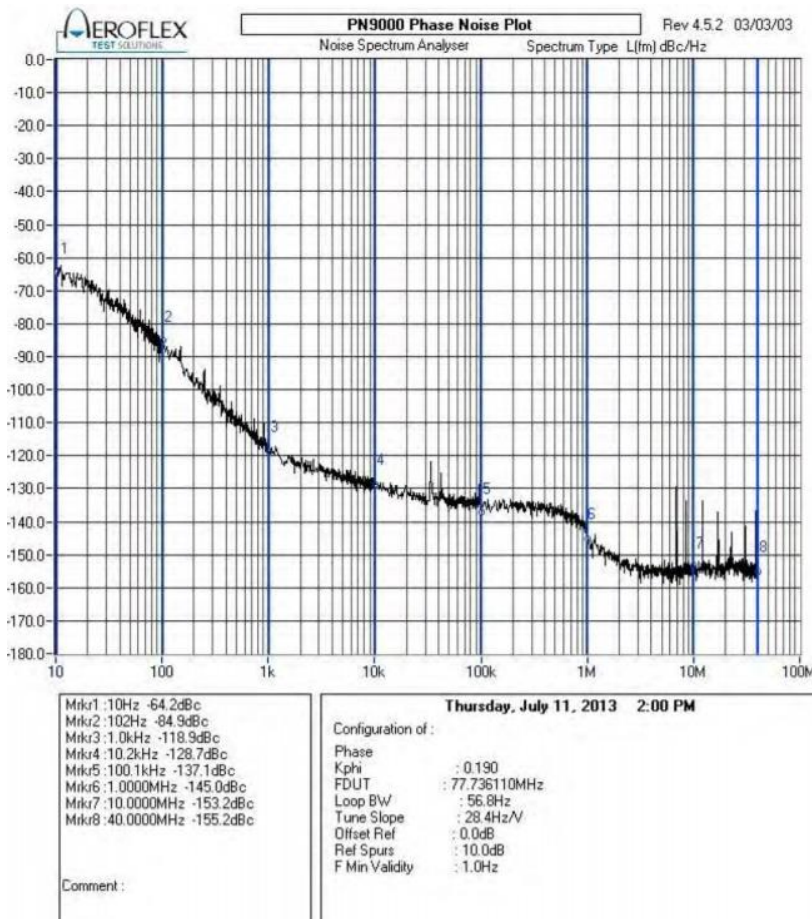
*** Pull Range is package dependent

Part Numbering Guide: Example ECXV-P35B2N-156.250						
Series	Voltage	Package Size (mm)	Stability	Pull Range(***)	Operating Temperature	Frequency
ECXV-P (LVPECL Output)	2 = +2.5V 3 = +3.3V	2 = 2.5 x 2 3 = 3.2 x 2.5 5 = 5 x 3.25 7 = 7 x 5	A = ± 100 ppm B = ± 50 ppm C = ± 25 ppm D = ± 20 ppm	1 = ±50 PPM 2 = ±90 PPM 3 = ±100 PPM	L = -10 ~ +70°C M = -20 ~ +70°C N = -40 ~ +85°C P = -40 ~ +105°C	Customer Specified

Phase Noise and Jitter Data (typical)

SSB Phase Noise Data (dBc/Hz typical)	Frequency (offset)	77.760	122.880	125.00	156.250	212.5	491.520	622.080	1000	1250
	10 Hz	-64	-68	-63	-55	-62	-61	-48	-58	-45
	100 Hz	-84	-99	-94	-85	-93	-86	-85	-82	-81
	1 KHz	-118	-113	-113	-109	-105	-100	-101	-93	-81
	10 KHz	-128	-119	-118	-116	-113	-105	-102	-97	-96
	100 KHz	-137	-120	-119	-118	-115	-105	-103	-97	-97
	1 MHz	-145	-140	-137	-139	-135	-126	-124	-116	-119
	5 MHz	-152	-142	-146	-146	-143	-137	-133	-127	-129
Phase Jitter pS 12 KHz ~ 20 MHz, RMS		0.9	0.8	1.1	0.9	1.0	1.1	1.2	1.5	1.1

Phase Noise Plot of ECXV-H35B3B-77.760 (typical)



Package Data	
Item	Description
Lid	Metal
Base	Ceramic
Plating	Gold/Nickel Surface/Under

Dimensions (mm)

7 = 7x5 Package

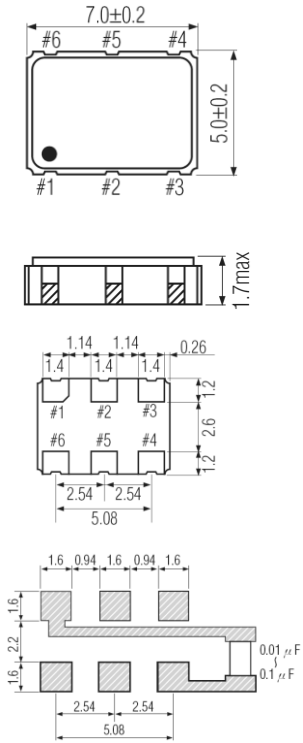


Figure 1) Top, Side, Bottom & Land

5 = 5x3.2 Package

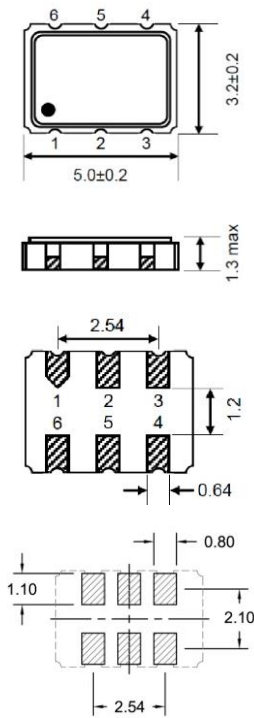


Figure 2) Top, Side, Bottom & Land

3 = 3.2x2.5 Package



Figure 3) Top, Side, Bottom & Land

2 = 2.5x2 Package

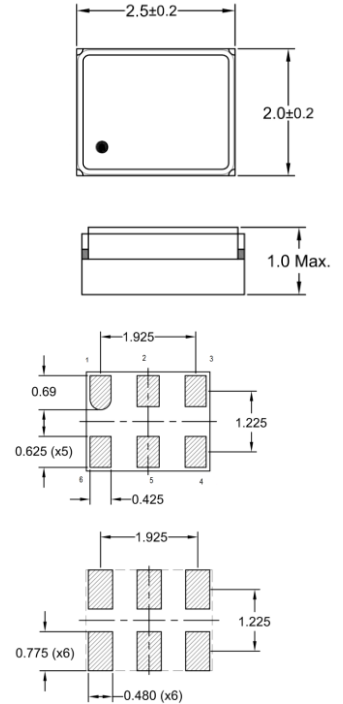


Figure 4) Top, Side, Bottom & Land

Suggested Reflow Profile



Pin Connections	
Pin #	Function
1	Control Voltage
2	OE: High Enable
3	Ground
4	LVPECL Output
5	Complementary Output
6	Supply Voltage

Mouser Electronics

Authorized Distributor

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

ECS:

[ECXV-P37C2N-693.483](#) [ECXV-P35C2M-1000.000](#) [ECXV-P37C2M-1024.000](#) [ECXV-P37C2M-166.6286](#) [ECXV-P37C2M-672.000](#) [ECXV-P37C2M-614.640](#) [ECXV-P25C2M-479.500](#) [ECXV-P37C2N-775.0692](#) [ECXV-P37C2N-807.703](#) [ECXV-P37C2M-640.000](#) [ECXV-P37C2N-153.600](#) [ECXV-P37C2N-96.000](#) [ECXV-P35C2N-1000.000](#) [ECXV-P37C2M-312.500](#) [ECXV-P37C2M-334.800](#) [ECXV-P35C2M-983.040](#) [ECXV-P35C2N-90.000](#) [ECXV-P37C2M-110.000](#) [ECXV-P37C2M-120.000](#) [ECXV-P37C2M-400.000](#) [ECXV-P37C2M-629.832](#) [ECXV-P37C2N-250.000](#) [ECXV-P35C2M-672.16271](#) [ECXV-P35C2N-155.520](#) [ECXV-P37C2M-153.600](#) [ECXV-P37C2N-155.520](#) [ECXV-P37C2N-16.000](#) [ECXV-P37C2M-65.0159](#) [ECXV-P37C2N-24.000](#) [ECXV-P37C2N-622.080](#) [ECXV-P37C2N-709.526](#) [ECXV-P37C2M-983.040](#) [ECXV-P37C2N-156.250](#) [ECXV-P37C2N-806.400](#) [ECXV-P37C2M-537.600](#) [ECXV-P37C2N-1000.000](#) [ECXV-P37C2N-64.152](#) [ECXV-P37C2N-737.280](#) [ECXV-P37C2M-644.4563](#) [ECXV-P37C2M-307.200](#) [ECXV-P37C2M-77.850](#) [ECXV-P37C2N-739.3153](#) [ECXV-P37C2M-500.500](#) [ECXV-P37C2N-240.000](#) [ECXV-P37C2N-500.000](#) [ECXV-P35C2N-500.000](#) [ECXV-P37C2M-460.800](#) [ECXV-P37C2M-368.640](#) [ECXV-P37C2M-491.520](#) [ECXV-P37C2M-77.885](#) [ECXV-P37C2N-200.000](#) [ECXV-P35C2M-320.000](#) [ECXV-P37C2N-12.000](#) [ECXV-P37C2N-25.000](#) [ECXV-P37C2N-433.333333](#) [ECXV-P35C2M-500.000](#) [ECXV-P27C2N-400.000](#) [ECXV-P37C2M-150.000](#) [ECXV-P37C2M-32.000](#) [ECXV-P37C2N-125.000](#) [ECXV-P37C2N-491.520](#) [ECXV-P37C2M-666.5143](#) [ECXV-P37C2N-32.768](#) [ECXV-P35C2N-125.000](#) [ECXV-P35C2N-16.000](#) [ECXV-P37C2M-125.000](#) [ECXV-P37C2M-160.000](#) [ECXV-P37C2M-61.440](#) [ECXV-P35C2N-36.70016](#) [ECXV-P37C2N-76.800](#) [ECXV-P37C2M-156.250](#) [ECXV-P37C2M-81.920](#) [ECXV-P37C2N-184.320](#) [ECXV-P37C2N-62.208](#) [ECXV-P37C2N-880.000](#) [ECXV-P37C2M-1000.000](#) [ECXV-P37C2N-56.000](#) [ECXV-P35C2N-1060.000](#) [ECXV-P37C2N-155.020](#) [ECXV-P37C2N-400.000](#) [ECXV-P37C2N-804.310](#) [ECXV-P37C2N-669.3125](#) [ECXV-P37C2M-320.000](#) [ECXV-P37C2M-52.000](#) [ECXV-P35C2M-155.000](#) [ECXV-P37C2N-716.800](#) [ECXV-P35C2N-300.000](#) [ECXV-P37C2M-644.5205](#) [ECXV-P37C2N-224.000](#) [ECXV-P37C2N-771.8127](#) [ECXV-P37C2M-155.520](#) [ECXV-P37C2M-27.092008](#) [ECXV-P37C2N-448.000](#) [ECXV-P35C2M-460.800](#) [ECXV-P35C2N-622.080](#) [ECXV-P37C2M-622.080](#) [ECXV-P37C2M-800.000](#) [ECXV-P37C2N-155.000](#) [ECXV-P37C2N-742.4348](#) [ECXV-P37C2M-92.160](#)