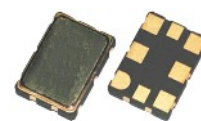


FEATURES

- Hi Freq quartz crystal oscillator to 2.1GHz
- Short lead time in both standard and custom frequencies
- Ultra low jitter 157fs rms for 250MHz
- CMOS to 250MHz, differential LVPECL, LVDS, HCSL and CML
- Supply voltage options 1.8V, 2.5V or 3.3V DC


DESCRIPTION

The EH_JF578 crystal oscillators are able to be delivered in days. The parts have gained their position in the frequency control market by the ability to deliver samples for prototypes at low cost quickly without compromise on performance.

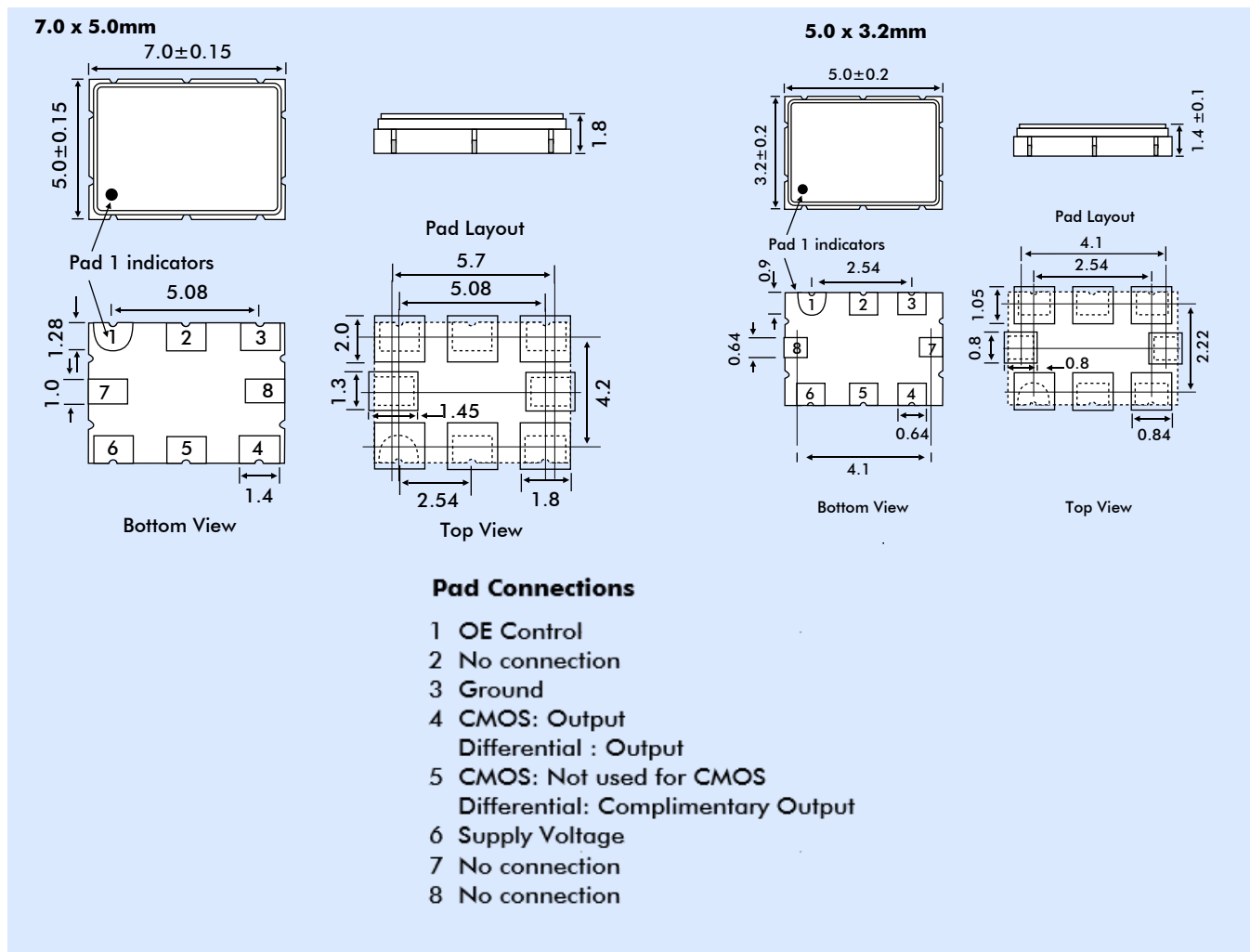
GENERAL SPECIFICATIONS at Ta = +25°C

Output Logic	LVC MOS	LVPECL	LVDS	HCSL	CML
Supply Voltage	+1.8 Vdd ±5%	--	1.8v±5% †	+1.8 Vdd ±5%	+1.8 Vdd ±5%
	+2.5 Vdd ±10%	+2.5 Vdd ±10%	+2.5 Vdd ±10%	+2.5 Vdd ±10%	+2.5 Vdd ±10%
	+3.3 Vdd ±10%	+3.3 Vdd ±10%	+3.3 Vdd ±10%	+3.3 Vdd ±10%	+3.3 Vdd ±10%
Available Frequency Range	150~250MHz	150~2100MHz	150~2100MHz	150~700MHz	150~2100MHz
Load	15pF	50Ω into Vdd -2V or Thevenin equivalent	100Ω between output/complimentary output	50Ω to GND	50Ω to Vdd
Output Logic 'HIGH' '1'	90% Vdd min.	Vdd -1.165V min. Vdd - 0.8V max.	1.4V typ. 1.6V max.	Vdd: 0.66V min. Vdd: 1.15V max.	Vdd - 0.085V min. Vdd = max.
Output Logic 'LOW' '0'	10% Vdd max.	Vdd -2.0V min. Vdd -1.55V max.	1.1V typ. 0.9V max.	Vdd: 0.0V min. Vdd: 0.15V max.	Vdd - 0.6V min. Vdd - 0.32V max.
Current Consumption (Vdd = +3.3V)	75mA typ. 90mA max.	100mA typ. 120mA max.	75mA typ. 90mA max.	94mA typ. 115mA max.	70mA typ. 85mA max.
Current with O/P Disabled	62mA typ.	99mA typ.	74mA typ.	93mA typ.	69mA typ.
Rise/Fall Time	5ns max. (10%~90% wavef.)	0.4ns max. (20%~80% wavef.)	0.4ns max. (20%~80% wavef.)	0.4ns max. (20%~80% wavef.)	0.4ns max. (20%~80% wavef.)

Phase Jitter, rms (typical) (12kHz to 20MHz)	156.250MHz: 159fs : 491.520MHz: 155fs : 644.530MHz: 151fs : 2000MHz: 163fs			
Frequency Stability Codes	Frequency Stability over Operating Temp. Range	±25ppm	±50ppm	±100ppm
	Commercial (-10° to +70°C)	A	B	C
	Industrial (-40° to +85°C)	D	E	F
Duty Cycle	50%±5%			
Start-up Time	5ms typical, 10ms maximum			
Ageing at 25°C	±3ppm maximum for first year; ±2ppm (max) per year thereafter			
Storage Temp. Range	-55° to +150°C			
OUTPUT ENABLE FUNCTION				
OE Control on pin 1	80% of Vdd (min.) To enable Output			
	20% of Vdd (max.) To Disable output			
Output Enable Time	2.5ms max.			
Output Disable Time	10μs max.			

† Requires AC coupling (100nF series capacitor) on outputs.

OUTLINE DIMENSIONS (Unit: mm) SUGGESTED PAD LAYOUT FOR SMDs



PART NUMBER FORMAT AND EXAMPLE

