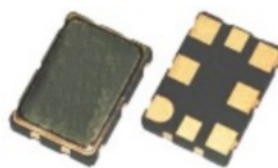


HTQF CMOS Oscillator

10MHz to 250MHz

FEATURES

- Low Cost
- Low Power Consumption
- 3.2 x 2.5 mm, 5.0 x 3.2mm, and 7.0 x 5.0mm Package Sizes Available



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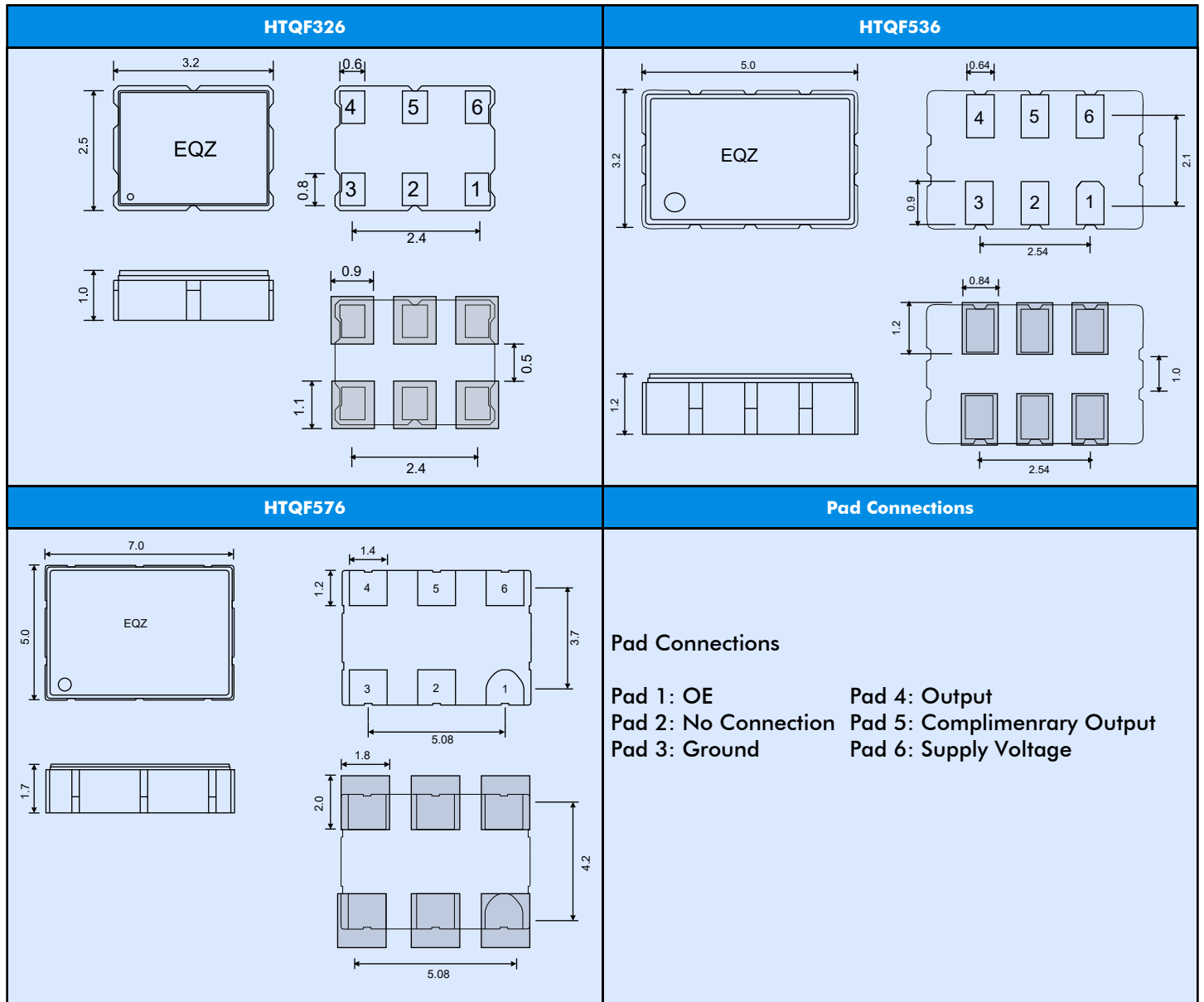
General Specifications at Ta = +25°C

Output Logic	CMOS		
Model	HTQF		
Package Size (mm)	HTQF326 (3.2 x 2.5 x 1.0)	HTQF536 (5.0 x 3.2 x 1.2)	HTQF576 (7.0 x 5.0 x 1.7)
Supply Voltage (V _{DD})	+2.5V ±5%		+3.3V ±10%
Frequency Range	10MHz (min.) ~ 250MHz (max.)		
Output Logic "High", "1"	90% V _{DD}		
Output Logic "Low", "0"	10% V _{DD}		
Output Load	15pF		
Current Consumption (max.) (V _{DD} = +3.3V)	10 ~ 50MHz: 30mA 50 ~ 150MHz: 38mA 150 ~ 250MHz: 48mA		
Disable Current	16 mA (typ.)		
Rise / Fall Time	1.5 nsec (typ.), 3.0 nsec (max.) (10% to 90% Waveform)		

Frequency Stability Code	Frequency Stability Over Operating Temperature Range	±25 ppm	±50 ppm	±100 ppm
	Commercial (-10°C to +70°C)	A	B	C
	Industrial (-40°C to +85°C)	D	E	F

Duty Cycle	50±5%							
Start-up Time	10 msec. (Max.)							
RMS Jitter (typ.) (12KHz to 20MHz)	0.8 psec (typ.)							
Storage Temperature	-55°C to 150°C							
Aging at Ta = +25C	±2 ppm (max.) First year ; ±10 ppm (max.) per year thereafter							
Enable / Disable Function on Pad 1	70% of V _{DD} (min.) to enable output							
	30% of V _{DD} (max.) to disable output							
Enable / Disable Time	2.5 msec (max.) / 10usec. (max)							
SSB Phase Noise [dBc/Hz (typ.)]	Offset	10Hz	100Hz	1KHz	10KHz	100KHz	1MHz	10MHz
	156.250MHz	-55	-85	-109	-116	-118	-139	-146
	622.08MHz	-48	-85	-101	-102	-103	-124	-133

Outline Dimensions (in mm) and suggested pad layout



Pad Connections

- Pad 1: OE
- Pad 2: No Connection
- Pad 3: Ground
- Pad 4: Output
- Pad 5: Complimentary Output
- Pad 6: Supply Voltage

Part Number Format

HTQF part numbers are derived as follows:
 Example: 25HTQF5761E/125.000

