Temperature Compensated Crystal Oscillator

- Excellent frequency stability
- Ultra miniature size SMD, reflow soldering available
- Clipped sine output, tight specifications and an internal trimmer
- Suited for communications equipment, cellular radios, and instrumentation.
- Complies with Directive 2002/95/EC (RoHS Compliant)

TO521

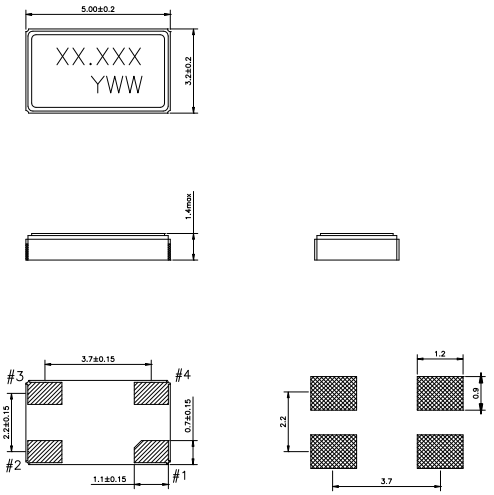
Specifications:

Frequency Range:	10.000 MHz ~ 26.0000 MHz	
Operating Temperature:	0°C ~ +50°C	- A
	-10°C ~ +60°C	- B
	-20°C ~ +70°C	- C
	-30°C ~ +75°C	- D
	0°C ~ +85°C	- E
	-40°C ~ +85°C	- L
Storage Temperature:	-40°C ~ +85°C	
Frequency Stability:		
Vs. Temperature:	± 1.0 ppm ~ ± 5.0 ppm	
Vs. Input Voltage:	± 0.2 ppm at voltage ± 5%	
Vs. Load:	± 0.2 ppm at load ± 10%	
Aging:	± 1.0 ppm max first year	
Supply Current:		
10 MHz ~ 15 MHz	1.5 mA max	
15 MHz ~ 26 MHz	2.0 mA max	
Pulling Range:	TCXO	- T
	VC-TCXO	- V
Vss+0.5V ~ Vcc –0.5V:	5 ~ 25 ppm/V (optional)	
Control Slope:	Positive	
Start-Up Time:	2 msec (typical)	
Output Waveform:	Clipped Sine, 10KΩ//10pF	
Output Voltage:	0.8 Vp-p min.	
SSB Phase Noise: (Typical at 12.8 MHz)	- 90 dBc/Hz (offset 10Hz) -115 dBc/Hz (offset 100Hz) -135 dBc/Hz (offset 1KHz) -148 dBc/Hz (offset 10KHz)	
Supply Voltage:	+3.3 VDC (± 0.2%)	
	+5.0 VDC (± 0.3%)	- P

Note:

1. Other frequencies, stabilities, and operating temperature ranges available. Consult VTC Support for specific requirements.
2. Not all combinations of the above, stabilities, and temperature ranges are available. Consult VTC Support if your requirement is not standard.
3. All specifications subject to change without notice.

TO-V



Land Pattern

Pin	Configurations
#1	VC or NC
#2	Ground
#3	Output
#4	Supply V_{DD}

All dimensions are in mm

Ordering Information

Product name + Operating Temperature + Stability + Pulling Range + Frequency (MHz)

i.e. TO521B2.5T-10.0MHz ±2.5ppm/-10°C~+60°C/3.3V

Or TO521D2.5V8P-10.0MHz

±2.5ppm/-30°C~+75°C/VC-TCXO Pulling ±8ppm/5.0V

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