# EURO QUARTZ

# **Oven Controlled Oscillators**

### EOC12T & EOC12E OCXOs

- 25.4 x 22.1 x 11.0mm package
- Surface mount package
- +3.3V, +5.0V supply voltage options
- Electronic Frequency Tuning as standard

### 5.00MHz to 40.00MHz Page 1 of 2



#### **GENERAL SPECIFICATION**

Output Waveform		Square Wave		True Sine Wave	
Supply Voltage		+3.3V±5%	+5.0V±5%	+3.3V±5%	+5.0V±5%
Frequency Range		5.0 ~ 40.0MHz		5.0 ~ 40.0MHz	
Initial Calibration Tolerance		±200ppb (max.)		±200ppb (max.)	
		V con = +1.65V	Vcon = +2.5V	Vcon = +1.65V	Vcon = +2.5V
Crystal Cut		SC-cut or IT-cut			
Frequency Stability	vs Temperature	±5ppb max. over 0°C to +70°C			
		±10ppb max. over -30°C to +70°C			
		±10ppb max. over -40°C to 85°C			
	vs Voltage Change	±0.5ppb max. for ±5% voltage change			
	vs Warm-up Time (+25°C)	10 min. max., within ±10ppb of its reference frequency			
	vs Aging	±0.5ppb max. after 30 days, ±50ppb max. first year, ±400ppb max. over 10 years			
Voltage Control (EFC)	Frequency Deviation Range	$\pm$ 0.5ppm min., $\pm$ 2ppm max., reference to Fo at +25°C and over temp. range			
	Control Voltage Range	+1.65±1.65V	+2.5±2.5V	+1.65±1.65V	+2.5±2.5V
	Transfer Function	Positive: Increasing control voltage increases output frequency			
	Input Impedance	50k $\Omega$ min.			
	EFC Linearity	±10% max.			
Power Dissipation (at +25°C)		1.2W max. at steady state; 1,000mA max. at turn-on			
Output	Output Level	+8dBm typ., +10dBm max. into 50Ω l		n max. into 50Ω load	
	Harmonics	30dBc min.		: min.	
	Spurious			-60dBc min.	
	Load	15pF		50Ω	
	Output Logic High	+2.4V min.			
	Output Logic Low	+0.4V max		-	
	Duty Cycle	50±5% at +1.4V			
	Rise and Fall Time	7nsec. max (20% ~ 80% of waveform)		-	
	Phase Noise Offset	1Hz	10Hz	1kHz	10kHz
	(typ. at 10.0MHz)	-98dBc	-126dBc	-145dBc	-152dBc

#### **PACKAGE OUTLINE**



#### **Pad Connections**

- Pad 1: Voltage Control
- Pad 2: Not Connected
- Pad 3: Supply Voltage
- Pad 4: Output
- Pad 5: Not Connected
- Pad 6: Not Connected
- Pad 7: Ground

Issue 1

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#### **ORDERING/PART NUMBER GENERATION**

