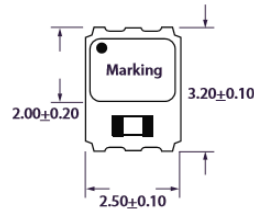
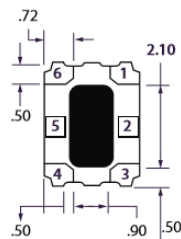
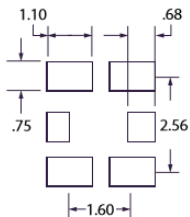


Output	LVCMOS	LVDS/LVPECL
Frequency	10.000 MHz to 245.000 MHz	10.000 MHz to 1450.000 MHz
Output Levels	Logic "0" = 10% of Vcc max Logic "1" = 90% of Vcc min	Logic "0" = Vcc - 1.85 Vmin, Vcc -1.60 Vmax Logic "1" = Vcc - 1.03 Vmin, Vcc -0.60 Vmax
Load	15pF	Differential
Duty Cycle	50% ± 5%	
Frequency Stability		
vs Temperature	See Stability in Part Number Guide Below	
vs Aging	± 1.0 ppm max per year @ +25°C	
vs Voltage	± 0.2 ppm max for ± 5% change in Supply Voltage (Vcc)	
vs Load	± 0.2 ppm max for ± 10% change in Load	
Supply Voltage	See Supply Voltage in Part Number Guide Below	
Phase Noise (RMS)	0.8 pSec typ (12.000 kHz to 20.000 MHz) Less than 400nSec (1.875 kHz to 21.000 MHz)	
Temperature Range		
Operating Temp	See Operating Temperature in Part Number Guide Below	
Storage Temp	(-55°C to +150°C)	
Supply Current	See Table 2 on Page 2	

Part Number Guide Sample Part Number: QCTV90 – EU2D-20.000					
Package and Output	Operating Temperature	Frequency Stability vs. Temp	Supply Voltage	Output Type	Frequency
QCTV90 -	A = 0° C to +70° C	*S = ±1.5 ppm	2 = 2.5 VDC	A = LVDS	20.000MHz
	C = -20° C to +70° C	*T = ±2.0 ppm	3 = 3.3 VDC	B = LVPECL	
	E = -40° C to +85° C	*U = ±2.5 ppm		D = LVCMOS	
	L = -30° C to +85° C	W = ±3.0 ppm			
		Z = ±5.0 ppm			

NOTE: A 0.01µF and 10µF bypass capacitors is recommended between Vcc (pin 6) and Gnd (pin 3) to minimize power supply noise.

*Not available in all operating temperatures ranges.



Pin Connections		
Pin 1	TCXO	N/C or Ground
Pin 2	N/C or Enable / Disable	
Pin 3	Ground	
Pin 4	Output	
Pin 5	LVCMOS	N/C
	LVPECL	Complimentary Output
	LVDS	
Pin 6	Supply Voltage (Vcc)	

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Specifications subject to change without notice (Rev A)

Table 1

Voltage Control Function (Pin 1)		E/D Function (Pin 2)	
VC Voltage Center & Range	+1.5 V \pm 1.0 V for both Vcc = +2.5 V & +3.3 V	E/D Control	0.7% of Vcc min or no connection enable output 0.3% of Vcc max to disable output (high impedance)
Frequency Pull Range	\pm 8.0 ppm	E/D Time	200 nSec max
Linearity	\pm 1% typ, \pm 10% max	Disable Time	50 nSec max
Transfer Function	Positive		
Absolute Voltage			
Vcc = +3.3 V	+3.63 V max		
Vcc = +2.5 V	+2.63 V max		
Input Impedance	770 k Ω typ		
Harmonics	-5.0 dBc max		

Table 2

Current Consumption	LVCMOS	LVPECL	LVDS
Vcc = +2.50 VDC All values are typical an over the operating temperature.	50 MHz = 24mA 125 MHz = 28 mA 200 MHz = 30 mA	156 MHz = 36mA 600 MHz = 40mA 800 MHz = 46mA 1.0G Hz = 50mA	156 MHz = 22mA 600 MHz = 28mA 800 MHz = 30mA 1.0G Hz = 34mA
Vcc = +3.30 VDC All values are typical an over the operating temperature.	50 MHz = 26mA 125 MHz = 30 mA 200 MHz = 34 mA	156 MHz = 40mA 600 MHz = 45mA 800 MHz = 48mA 1.0G Hz = 52mA	156 MHz = 25mA 600 MHz = 30mA 800 MHz = 32mA 1.0G Hz = 36mA

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