For immediate release
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RAL-943

Product News

WORLD'S THINNEST SURFACE MOUNT OSCILLATOR RUNS ON 3.3 VOLTS.

- For today's smallest computers
- Tri-state output
- 7 nsec rise/fall time
- ± 50 ppm stability
- TTL fanout = 10 loads
- MOS drive level = 50 pf

Miami FL, May 17, 1999 — Raltron Electronics Corp here announces a revolutionary new fully integrated surface mount quartz crystal oscillator that operates on 3.3 V. is just 2.0 mm thin, and uses no damaging heat in its manufacturing process

New model CO-4810/4910 is a super-miniature SMT clock oscillator for today's smallest computers and peripherals. It's also available in 5.0 Volt versions.

At 2.0 mm maximum height (1.8 mm typical), 4810/4910 sets a new world standard for crystal oscillators.

Model 4910 is the higher performance of the two — maximum rise and fall times are 7 nsec (vs. 10 nsec), and output drive is 16 mA (vs. 4 mA). Model 4810's output frequency runs from 1.8432 MHz to 50 MHz; 4910 outputs up to 67 MHz.

"What's more, we've been able to eliminate the heat associated with conventional glass-sealing," explains Raltron's President Alexander Wolloch. "Other devices are typically subjected to high temperatures — 400 deg C and more. But our new 4810/4910 family never gets above 100 degrees C. This helps assure high stability and long term reliability."

Raltron's new Model CO-4810/4910 family of integrated crystal oscillators is priced at $3.00 each in 10,000s quantity Delivery is quoted at 8 weeks ARO.

Established in 1983, Raltron Electronics Corp offers a wide variety of time, frequency and resistive components for computer logic, radio, telecommunications and consumer electronics, including quartz crystals and oscillators, filters, ceramic resonators and resistive networks for through-hole and SMT uses.

Super Miniature
Surface Mount Crystal Clock Oscillator

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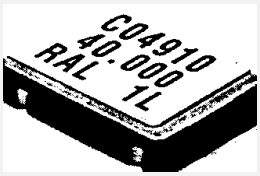
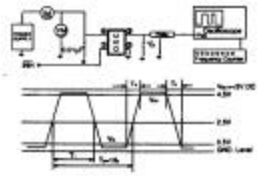
- **Model: C04810, C04910**
- **Application:**
  - ♦ HDD
  - ♦ Personal Computer
  - ♦ OA Peripheral Equipments
  - ♦ Car Electronics
  - ♦ Clock Sources for Various MPU
- **Features:**
  - ♦ Ultra Miniature Configuration (SMD)
  - ♦ High Stability & High Reliability
  - ♦ Light & Trim (Typ. 1.80mm)
  - ♦ Ceramic-Metal
  - ♦ High Hermeticity Package
  - ♦ Low Power Consumption, Heavy Load Durable
  - ♦ Enable/Disable - Tri-State Function
  - ♦ Low Voltage Version 3.3V for Battery Applications Available



- **Specifications**

Item		**Specifications**		
Model		**C04810**	**C04910**	
Package		SMD	SMD	
Frequency Range		1.8432-50 MHz	1.8432-67.0 MHz	
Frequency Stability		± 50, ± 100 ppm (- 10~70°C)	± 50, ± 100 ppm (- 10-70°C)	
Temperature Range: Operating Storage		.10 to +70°C .55°C to +125°C	-10 to +70°C -55°C to +I 25°C	
Input: Voltage		5V DC +/- 0.5V DC	5V DC +/- 0.5V DC	
Supply Current (V_{DD} = 5V) also available (V_{DD} = 3.3V)	≤ 25 MHz >25 MHz > 50 MHz	20 mA (10 mA Typ.) 35 mA (21 mA Typ.)	25 mA (17mA Typ.) 45 mA (33mA Typ.) 60 mA (45niA Typ.)	
Output: Symmetry at 2.5 VDC		55 / 45 % (53/47% Typ.)	60 / 40% (55/45% Typ.)	
Output: Rise and Fall Time		10 ns max (5 ns Typ.)	7 ns max (4 ns Typ.)	
Output Logic "0" Level		0.5V max	0.5V max	
Output Logic "1" Level		4.5V min	4.5V min	
Output Current (Min.) "0" Logic Level "1" Logic Level		 4 mA 4 mA	 16 mA 16 mA	
Output Load		10 LS-TTL, max or 15 pF MOS	10 N-TTL max or 5O pF MOS	
Output Enable Time		100 ns Max.	100 ns Max.	
Output Disable Time		100 ns Max	100 ns Max.	
Start-up Time		3 ms TYP 10 ms Max.	3 ms TYP	10 ms Max.
E/D Function	Control (PIN 1)	Open	>2.2V	<0.8V
	Output (PIN 3)	Active	Active	High Z

- **Test Circuit:** *CL=l5pF(or50pF):
  total fixture and probe capacitance
  Oscilloscope: Tektronix Inc. 2465B type (400 MHz)
- **Output Waveform**
  Symmetry = (TI/TO) X 100%



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