



COMPANY NEWS

News from Raltron Electronics Corporation

NEW DIGITAL TCXO EXTENDS FREQUENCY RANGE

For immediate release: September 17, 2004 Miami, Florida

Meeting an increased demand for high frequency signal sources with low jitter characteristics, Raltron Electronics Corp. has announced the release of their TU-146 series, which is the newest product addition to their DTCXO product family.

Featuring low jitter and high stability Stratum 3 specifications, the TU-146 is offered at a voltage of 3.3 VDC in a 1.5" sq. package. The frequency range is 51.840 MHz to 210 MHz. "The TU-146 complies with all Stratum 3 clock requirements, especially the wander specification of ± 0.37 ppm over 24 hours and overall stability of ± 4.6 ppm stability over 10 years. The peak to peak cycle to cycle jitter is well below 30 picoseconds over a bandwidth of 12 KHz to 20 MHz, supporting SONET requirements." states Ronen Cohen, Marketing Manager.



The TU-146 is supplied with a LVPECL output and is offered with various options for frequency stability and temperature ranges. The TU-146 also offers extremely fast rise and fall times below 0.5 ns. The TU-146 is also available with other output types and custom specifications.

Delivery of Raltron's TU-146 series is currently quoted at 8 to 10 weeks ARO with pricing at \$29.00 in quantities of 1000 pieces.

For complete specifications, sample requests and for the latest price and availability quotations, please contact Raltron at their Miami headquarters facility:

Raltron Electronics Corporation
10651 NW 19th Street Miami, FL 33172
Tel. (305) 593-6033 Fax: (305) 594 3973
Web: www.raltron.com Email: sales@raltron.com

- Miami** Founded in 1983, Raltron Electronics Corp. is a world leader in the design and manufacturing of frequency management products. Raltron offers an extensive portfolio of quartz crystals, crystal oscillators, VCOs, VCXOs, TCXOs, OCXOs, filters, ceramic resonators, synchronization modules, and other precision frequency control products. It is a privately held ISO-9001 certified company, with facilities in Miami, Japan, Korea, Hong Kong, China, Singapore, Taiwan, Israel and Europe. Its products are marketed through a worldwide network of independently owned representatives and franchised distributors.
- Germany**
- Israel**
- Korea**
- Japan** Product Contact:
Ronen Cohen
- China** 305-593-6033 Ext .298
ronen@raltron.com
- Taiwan**
- Singapore**

LVPECL STRATUM 3 DIGITAL TCXO 146 SERIES

■ FEATURES:

- Fully meeting free run frequency accuracy and 24 hours maximum frequency drift requirements for STRATUM 3 according to Telecordia GR-1244-CORE*
- High Frequency LVPECL output

■ ELECTRICAL SPECIFICATION**

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Supply voltage 1, nom.	Vs(1)	Vs(1)±5%	3.3	V
Supply voltage 2, nom	Vs(2)	Vs(2)±5%	5.0	V
Supply current 1, max.	Is(1)	Vs(1), nom. / Ta=25°C	70	mA
Supply current 2, max.	Is(2)	Vs(2) nom. / Ta=25°C	20	mA
Frequency, nom.	fo	-	51.840 to 210.000	MHz
Overall frequency stability over 10 years of operation including Initial Frequency Calibration	Δfc/fo	Ta=-40°C to +85°C or Ta= 0°C to +70°C	±4.6	ppm
Frequency drift during 24 hours of continuous operation, max (See note 1)	Δfc/fo	Ta=-40°C to +85°C or Ta= 0°C to +70°C	±0.37	ppm
Temperature Stability (See note 2)		Ta=-40°C to +85°C	±0.30	ppm
		Ta=0°C to +70°C	±0.28	ppm
Jitter (peak to peak), max (Fnom = 20 MHz)	J(f)	Offset Δf = 12kHz to 20MHz	30	ps
LVPECL output levels	VOH/VOL	Load = 50Ω to 1.3VDC, Vs(1) nom	2.275 / 1.68	V
Duty Cycle	DCy	Load = 50Ω to 1.3VDC, Vs(1) nom	40...60	%
Rise/Fall time, max	tr/tf	20% - 80% Vout, 80% - 20%Vout	1.7/1.7	ns

■ ENVIRONMENTAL SPECIFICATION

Storage temperature range	-	-45°C...+85°C	
Vibration	-	IEC 68-2-6, test Fc: 20..500 Hz, 10g, 2 h, 3 directions	All parameters within initial limits
Mechanical shocks	-	IEC 68-2-27, test Ea: 50g, ½ sine, 3 bumps, 6 directions	All parameters within initial limits

Notes:

- 1 The 24 hours drift can be measured any time after minimum 1 hour from initial turn on. Please contact factory for details.
- 2 The Temperature Stability is calculated with regard to frequency reading at 25°C±1°C.

* Telecordia is a trademark of Telecordia Technologies

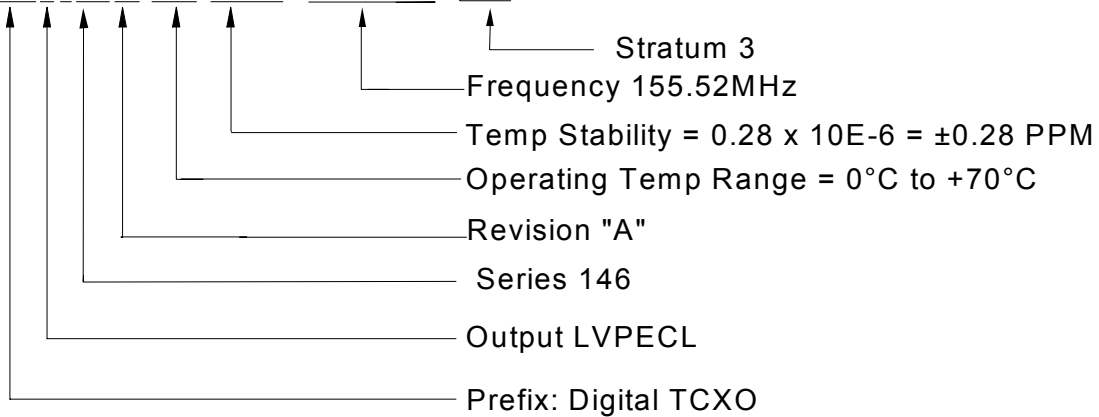
** This specification is typical. Other frequencies, output types and custom parameters are available. Please, contact factory for details.

■ HOW TO ORDER (PART NUMBER)

Prefix	Output Type	Series	Revision	Temperature Range	Stability	Frequency	Stratum3
TU: Digitally compensated TCXO	9: LVPECL	146	A	First letter Lowest Temperature, Second letter Highest Temperature: LZ: 0°C to +70°C D3: -40°C to +85°C	Value x 10E-6 Example 0.28= 0.28PPM 0.3= 0.3PPM	In MHZ	S3

Example:

TU9146A-LZ- 0.28 -155.520 - S3



MECHANICAL SPECIFICATION

