Protec GmbH
Vertrieb elektronischer Bauteile

Q-TECH CORPORATION
www.q-tech.com

COMPONENTS NEWSLETTER DECEMBER 2016

Other Standard Q-Tech Products:

Q-Tech's XOs:
QT606C/L – 100kRad – 50kHz to 150MHz
QT625C/L – 100kRad – 50kHz to 150MHz
QT641C/L – 100kRad – 50kHz to 150MHz

Q-Tech's TCXOs:
QT801 to 6 – 100kRad – 2MHz to 150MHz
QT811 to 6 – 100kRad – 2MHz to 350MHz
QT821 to 6 – 100kRad – 2MHz to 225MHz

Q-Tech's VCXOs:
QTV701 to 6 – 100kRad – 2MHz to 150MHz
QTV711 to 6 – 100kRad – 2MHz to 350MHz
QTV721 to 6 – 100kRad – 2MHz to 225MHz
QT725 – 100kRad – 2MHz to 225MHz

CLASSB+ Oscillators:
Fully approved for Flight, RadHard up to 100krad TID, No SEL, HCMOS, TTL, LVDS, LVCMOS. Swept Quartz Crystal. Low Phase Noise, Class S Screening available. Different Package Options available. Class K / TOR Element Evaluation. Smaller Form Factor and Lower Cost.

QT122 – 100kRad – 250kHz to 350MHz
QT128 – 100kRad – 250kHz to 350MHz
QT178 – 100kRad – 250kHz to 350MHz
QT193 – 100kRad – 250kHz to 350MHz
QT188 to 92 – 100kRad – 250kHz to 165MHz

Q-Tech does also offer OCXOs if you need more information on these please contact us.

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Q-Tech - New Multiple-Output XO

3.3Vdc, 1 to 12 Differential LVDS Pairs, Space Qualified Crystal Oscillators - 15MHz to 162.5MHz

Q-Tech QT625LW & QT697LW series Space Qualified, 100kRad(Si) Tolerant Hybrid Oscillators are Class 2 hybrids per MIL-PRF-55310, Multiple-Output LVDS, hermetically sealed in a 20-pin Flat-Pack .625" SQR or 1.25" x 1.65" 62-pin custom Flat-Pack, and operate at 3.3Vdc over full military -55°C to +125°C temperature range.

Features:
Hermetically sealed packages, Supply voltage 3.3Vdc, Screened and Quality Conformance, Inspection to MIL-PRF-38534, Class K (modified), LVDS differential outputs, 100k(Si) Radiation tolerant, Low phase noise and jitter

Description / Applications / Problems solved:
The problem this part solves is "deterministic latency". "Latency" refers to the difference in synchrony between two or more signals. "Deterministic Latency" simply means the absolute guaranteed worst latency difference between signals, and in our product we specify this as "Maximum Skew between outputs = 0.4 ns.

It is also possible to slightly customize from our standard QT625LW and QT627LW data sheets, but our standard data sheets are a perfect starting point.

This new Q-tech oscillator only uses one crystal, which offers immediate and significant improvement. The importance of minimizing deterministic latency has become and is increasingly becoming much more important as system frequencies go higher and the need for higher data rates goes up, especially in real time applications of chains of analog to digital converters, ADCs, FPGAs, Processors and so on.

Ordering Code:

QT	6254	LW	D	9	M	-	125.000MHz

Terminal Finish
QT = Standard Gold Plated
QS = Hot Solder Dip Sn60Pb40

Part Number

QT6251	= QT625 1 LVDS Pairs
QT6252	= QT625 2 LVDS Pairs
QT6253	= QT625 3 LVDS Pairs
QT6254	= QT625 4 LVDS Pairs
QT6976	= QT697 6 LVDS Pairs
QT6978	= QT697 8 LVDS Pairs
QT6972	= QT697 12 LVDS Pairs

Supply Voltage and Logic
+3.3V±5% LVDS

Frequency
15MHz to 162.5MHz

Screening Options
M = Flight Units
E = Engineering Model
B = Breadboard Model

Stability/Temperature Options

2	= ±65ppm, -55°C to +125°C
9	= ±50ppm, -55°C to +125°C
6	= ±50ppm, -55°C to +105°C
11	= ±50ppm, -40°C to +85°C

Tristate (Enable/Disable)
Blank = N/C
D = Tristate E/D
Note: QT697LW has Tristate as a default option