

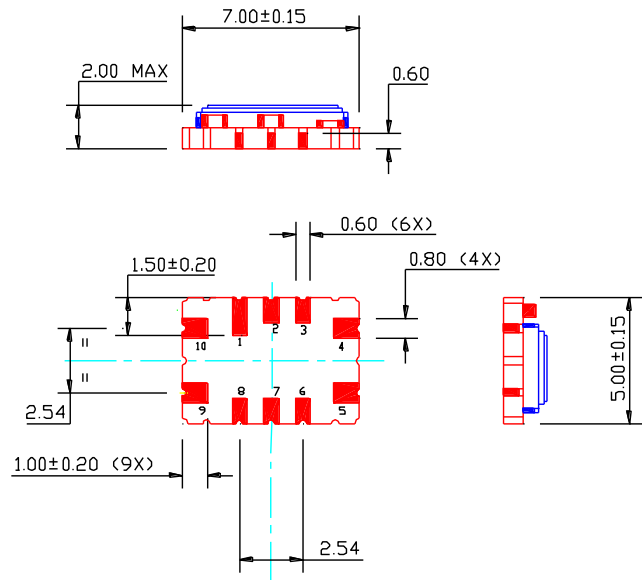
E2747/E2747LF STRATUM 3 TCXO (-20 to 70°C)

Issue 5, 11th June 2008

Outline in mm

Pad Connections

1. Do not connect
2. NC
3. Do not connect
4. GND
5. RF Output
6. NC
7. NC
8. Tri-State Control (Enable)
9. Supply, +Vs
10. Do not connect or connect to GND

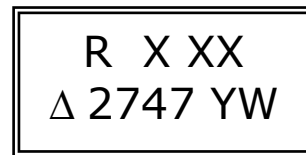


Marking

Manufacturers ID (R)
 Manufacturing identifier (X XX)
 Pad 1 / Static Sensitivity Identifier (Δ)
 Abbreviated Part Number (2747)
 Oscillator's Date of Manufacture (YW)

Notes: 1) Sample marking may vary.

2) Parts may be marked 'CMAC' (a trademark used under licence) instead of 'R' for a limited time.



Electrical

Nominal Frequency, F_0	12.8 MHz
Supply Voltage, V_s	3.3 V ± 5%
Input Current	≤ 4 mA
Output:	
Type	HCMOS
Load	15 pF max
V_{OL}	≤ 0.1 V_s
V_{OH}	≥ 0.9 V_s
Duty cycle @ 50%	45% to 55%
Rise time, 10% to 90%	≤ 9 ns
Fall time, 90% to 10%	≤ 9 ns

Holdover Stability [$\pm(F_{max}-F_{min})/2$]

Temperature, -20°C to +70°C	≤ ± 0.28 ppm
Temperature, -20°C to +70°C, inclusive of Supply	
Voltage, 3.3V ± 5% and Ageing, 24 hours	≤ ± 0.32 ppm

Free-Run Accuracy

Calibration @25°C, Temperature -20 to 70°C, Supply	
Voltage 3.3V ± 5%, Load 15pF ± 5%, Reflow Soldering	
and Ageing 20 years	≤ ± 4.6 ppm ref. to Nominal Frequency

Rakon Limited

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Phase Noise

10Hz	≤ - 90 dBc/Hz
100Hz	≤ - 115 dBc/Hz
1kHz	≤ - 127 dBc/Hz
10kHz	≤ - 137 dBc/Hz
≥100kHz	≤ - 143 dBc/Hz

Tri-State

Pad 8 open circuit or ≥ 0.6 Vs	Output Enabled
Pad 8 ≤ 0.2 Vs	Output in Tri-State Mode
In Tri-state mode, the output stage is disabled but the oscillator and compensation circuit are still active (current consumption ≤ 1mA)	

Environmental

Storage Temperature Range	-55 to +125°C
Vibration	IEC 60068-2-6 Test Fc Procedure B4, 10-60Hz 1.5mm displacement, at 10gn, 30 minutes in each of three mutually perpendicular axes at 1 octave per minute
Shock	IEC 60068-2-27 Test Ea, 100gn acceleration for 6ms duration, three shocks in each direction along three mutually perpendicular axes
Solderability	MIL-STD-202, Method 208, Category 3
Resistance to Soldering Heat:	260°C / 10s exposure
Marking	Laser Marked
RoHS	Parts with the suffix 'LF' on the part number are fully compliant with the European Union directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment. Note the RoHS compliant parts are suitable for assembly using both Lead-free solders (see Lead-free Reflow soldering profile) and Tin / Lead solders (see Tin / Lead Reflow soldering profile).

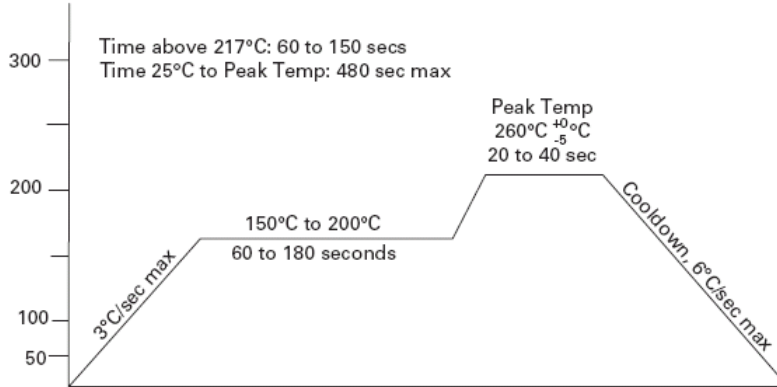
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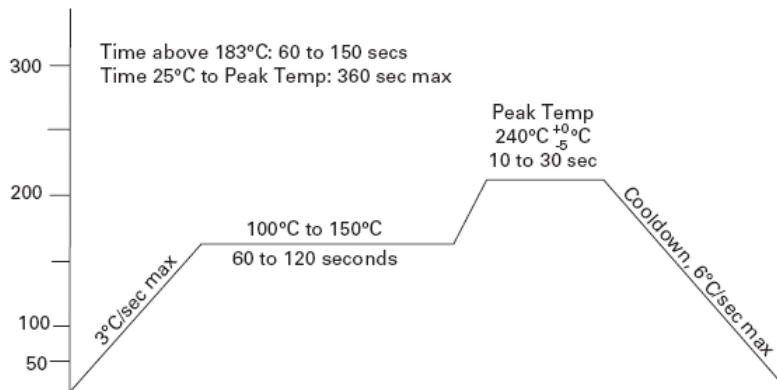
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Lead Free Reflow Soldering Profile *



Tin / Lead Reflow Soldering Profile *



*Note: These profiles were used during the qualification testing of the product and therefore represents worst case conditions. It is not recommended for use by the customer in the actual assembly of these parts.

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