10, avenue des Louvresses – Bat.G3
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	OCXO SPECIFICATION	**Reference**	**Page** 1/3
			Date
		STP 3157A LF	**2018 April 17th.**
			Visa
			Joseph Gouloumet & Claude Trialoup

ROHS SMD OCXO / ROX2522S4 @ 10 MHz _ 3.3V SUPPLY
(OPERATING FROM -20°C UP TO +85°C)

	2014 AUG. 12th *ARG NPE 2014-5759*
A	***Updates*** ***package height & Planarity*** ***Tape & Reel definition***

1- Nominal frequency (Fo) : 10 MHz
Initial tolerance after shipment (after frequency recovery - stabilization) : Fo ± 5E-7

2- Power Supply Voltage supply : + 3.3 V ± 5 %
2.1- Power consumption @ warm-up time : ≤ 2.5 W
2.2- Current in steady state +25°C : ≤ 1.0 W

3-Sinewave Output signal into 50Ω load
3.1-Output level : 7dBm ± 2
3.2-Harmonics / Non Harmonics : ≤ - 40dBc / ≤- 75dBc
3.3- Phase noise (in dBc/Hz) @ 1 Hz offset : - 90 typical
@ 10 Hz : - 120 typ.
@ 100 Hz : - 140typ.
@ 1 kHz : - 150 typ.
@ 10 kHz & over : - 152 typ.

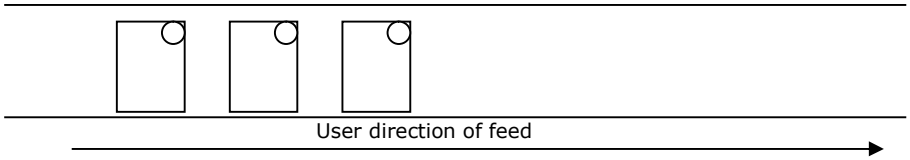
4- Frequency stability over operating conditions – all causes inclusive : ≤ ± 2E-6 over lifetime
4.1-ageing – stability versus time ≤ ± 3E-10/day / ≤ ± 5E-8/year
extrapolated over 10 years lifetime : ≤ ± 2E-7
4.2- Short term 1s integration time – 100 samples : 1E-11 typical
4.3- Stability over -20°C to + 85°C calm air : ≤ ± 1.5E-8
4.4- versus supply voltage (± 5%) : ≤ ± 3E-9
4.5- Warm-up time @ +25°C to within ± 1E-7 of frequency reference : ≤ 5 mn (2 mn typ.)
(with frequency reference = frequency reached by the device after 24h on)

5. Frequency adjustment (positive slope from 0V to Vref) : ≥ ± 0.6 ppm
Reference voltage : 2.8 V ± 5%
Linearity : 10%

6- Environmental conditions (not operating – qualification)
5.1- Vibration 10g; 10- 500 Hz IEC 68-2-6 test Fc severity 500/10
5.2- Shocks 50g – 11ms –1/2 sine IEC 68–2-27 test Ea severity 50A
5.3- Storage temperature range from - 50°C / + 90°C

7-Marking / Printed label on top of lid **RAKON**
Part Number ("LF" means "RoHS") **STP3157A LF**
Nominal Frequency 10 MHz
Serial Number (1 Letter + 5 Numeral) SN L Nnnnn
Manufacturing date code (4 Digits: Year & Week) DC Yy Ww

8- Packaging - Tape & Reel: compliant to standard EIA 481-3



P1	W	Quantity per reel	Diameter	Pin-1 Orientation
28mm	44mm	200pcs. max	380 mm	Quadrant-2

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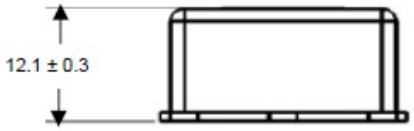
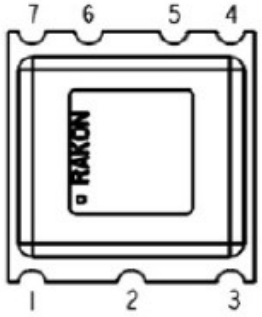
9- Outline Drawing

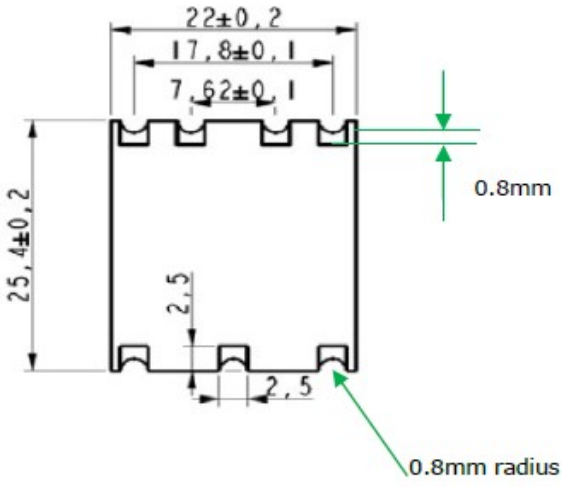
Package Typical Dimensions (L x W x H in mm) : 25.4 x 22.0 x 12.1



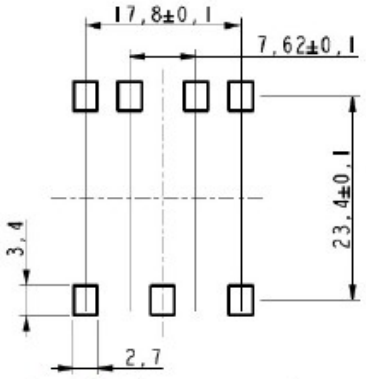


Top View

1-	EFC Input
2-	Reference Voltage (+2.8V)
3-	Power Supply Voltage Input (+3.3V)
4-	RF Output Signal (Sine)
5-	Not to be connected
6-	Not to be connected
7-	Ground (Mechanical & Electrical)



PAD LAY OUT



Planarity of the bottom PCB ≤ 0.15mm
PCB interfacing with Samsung's board

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Reflow-Soldering Profile

Prole Feature	Pb-Free Assembly
Average Ramp-Up Rate (Ts_{max} to Tp)	3° C/second max.
Preheat – Temperature Min (Ts_{min}) – Temperature Max (Ts_{max}) – Time (t_{smin} to t_{smax})	 150 °C 200 °C 60-1 80 seconds
Time maintained above: – Temperature (T_L) – Time (t_L)	 217 °C 60-1 50 seconds
Peak/Classification Temperature (Tp)	245°C
Time within 5 °C of actual Peak Temperature(tp)	20-40 seconds
Ramp-Down Rate	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

