

1133 – 1168MHz VCO

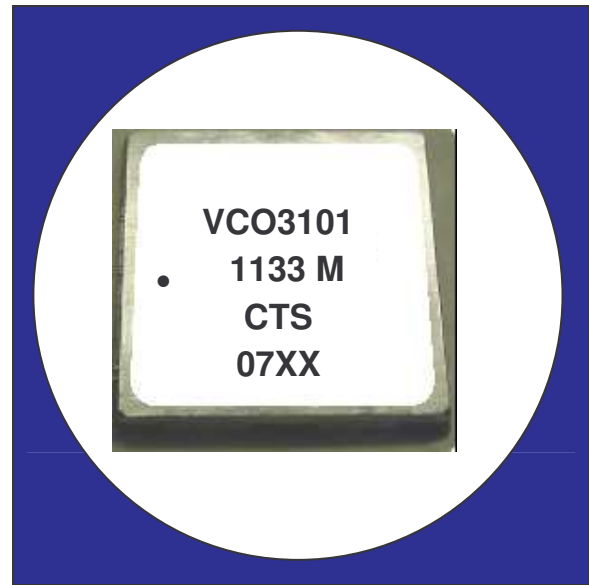
FEATURES

- Industry Standard 12.7x12.7mm SMT Footprint
- +5Vdc Supply Voltage
- -10°C to +85°C Temp. Range
- Low Phase Noise
- Tape & Reel Packaging
- Fully compliant to RoHS Directive 2002/95/EC

DESCRIPTION

The CTS VCO3101 is a single band high performance SMT VCO. Its low phase noise makes it the ideal choice for any wireless telecommunications system.

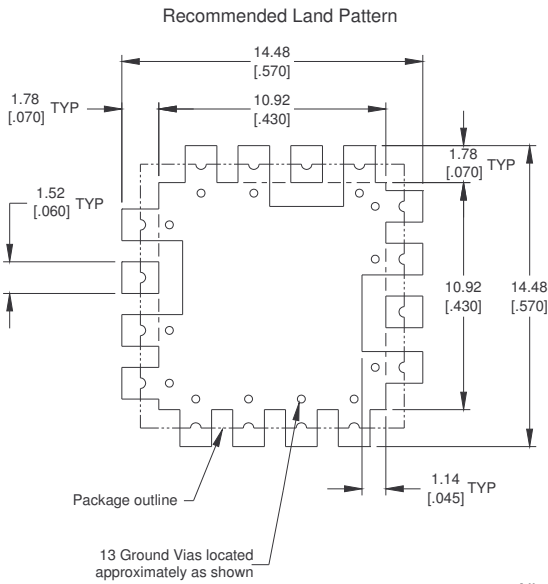
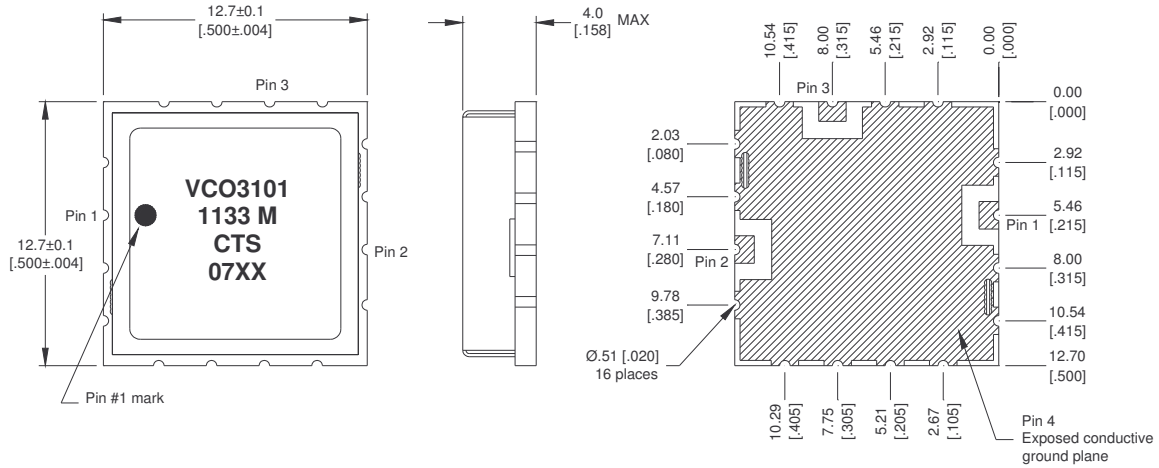
- See WWW.CTSCORP.COM for product patent status.



ELECTRICAL SPECIFICATIONS

Parameter	Conditions & Remarks	Min	Typical	Max	Unit
Operating Frequency	F _{OUT}	1133	-	1168	MHz
Supply Voltage	V _{CC}	4.9	5.0	5.1	Vdc
Absolute Max Voltage		-	-	6	Vdc
Supply Current	I _{cc}	-	18	27	mA
Operating Temperature Range	T _{OP}	-10	-	+85	°C
Storage Temperature Range	T _{STG}	-40	-	+85	°C
Tuning Voltage Range	V _T	1	-	3.9	Vdc
Tuning Sensitivity		-	18	-	MHz/V
Power Output	50 Ohms	-3	0	3	dBm
Pushing	(5.0 V +/- 0.1V)	-1	-	1	MHz/V
Pulling	(VSWR =1.67:1)	-0.6	-	0.6	MHz/V
Harmonic Suppression	2 nd	-	-	-12	dBc
Harmonic Suppression	3 rd	-	-	-15	dBc
Spurious response		-	-	-90	dBc
Output Impedance		-	50	-	Ohms
Phase Noise	10kHz	-	-101	-98	dBc/Hz
	100kHz	-	-	-117	dBc/Hz
	1000Hz	-	-140	-137	dBc/Hz

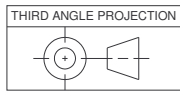
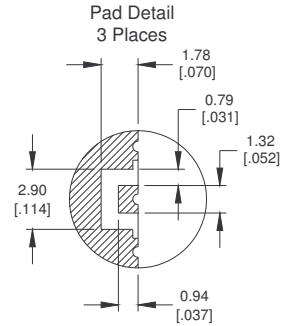
MECHANICAL SPECIFICATIONS:



Function table

Pin	Function
1	Vt
2	RF Output
3	Vcc
4	GND

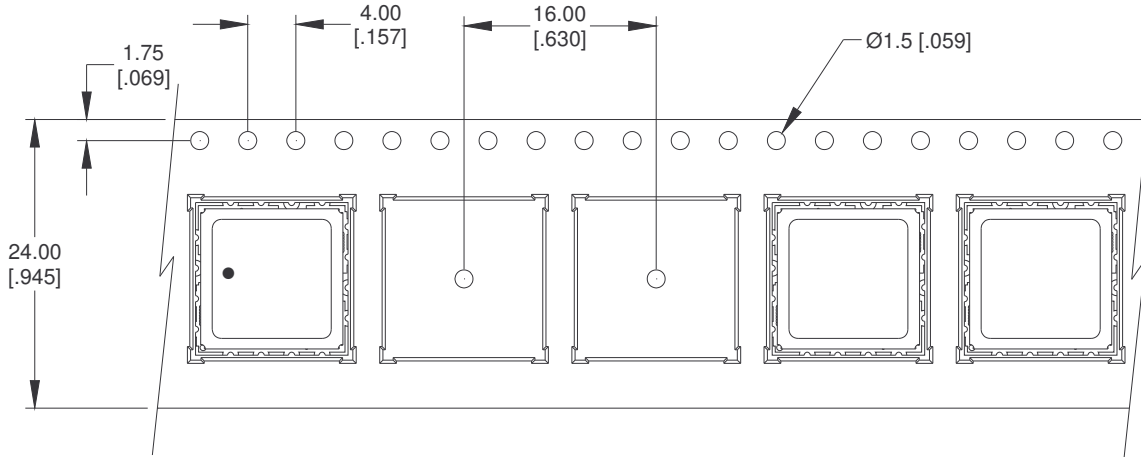
Note: The Lid/Sheild is grounded.



All dimensions are in MM [Inches].
All dimensions are nominal unless otherwise specified.
Lead Termination Finish: Gold Flash, <10 micro inch, over Ni plated Cu.

Tape & Reel Information:

Tape width 24 mm, pitch 16 mm, as per EIA 481-2, 1000 units max per 330 mm reel.



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All dimensions are Nominal

STANDARD ENVIRONMENTAL LIMITS:

This product is capable of operating within the following environmental conditions:

Operating Temperature: -10 to +85 °C.

Storage Temperature: -40 to +85 °C.

Humidity: 85% Relative humidity max @ 50°C.

Solder Reflow Conditions: Device is capable of withstanding reflow of 260 degrees C for 10 seconds maximum.

Atmospheric Pressure: 730 to 780 mm Hg.

Moisture Sensitivity: MSL 1

RoHS: This device is fully compliant to RoHS Directive 2002/95/EC