FEATURES:

- Three Frequency Outputs: 10 MHz, 100 MHz, 1000 MHz
- Ultra Low Phase Noise
  -115 dBc/Hz at 1Hz Offset, -140 dBc/Hz at 10Hz Offset for 10 MHz
  -125 dBc/Hz at 10Hz Offset, -180 dBc/Hz >100 kHz Offset for 100 MHz
  -105 dBc/Hz at 10 Hz Offset, -157 dBc/Hz >100 kHz Offset for 1000 MHz
- +5V Supply Voltage

ELECTRICAL SPECIFICATIONS:

Parameter	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency (F)		10.00 100.00 1000.00		MHz	
Frequency Stability (ΔF/F)	-50		+50	ppb	vs. temp
RF Output Power	+12	+14		dBm	10 MHz Output
	+15	+17		dBm	100 MHz Output
	+10	+14			1000 MHz Output
Output Load		50		ohms	+/-10%
Input Voltage, Vs	+4.75	+5	+5.25	Volts	
Power Consumption, start up			8	Watts	
Power Consumption, steady state			4	Watts	
Reference Voltage, Vref		+4.5		Volts	Pin #2
Control Voltage, Vc	0		Vref	Volts	
Tuning Range		± 0.6		ppm	from nominal F
Tuning Slope	Positive				
Input Impedance	10			kohms	At Vc pin
External Reference	+7			dBm	Sine Wave
Reference Select	Floating, Internal Reference Logic “0”, External Reference				Pin #6
Phase Noise for 10 MHz Output (Under Static Conditions)			-110	dBc/Hz	1 Hz Offset
			-140	dBc/Hz	10 Hz Offset
			-155	dBc/Hz	100 Hz Offset
			-160	dBc/Hz	1 kHz Offset
			-168	dBc/Hz	10 kHz Offset
			-170	dBc/Hz	>100 kHz Offset
Phase Noise for 100 MHz Output (Under Static Conditions)			-123	dBc/Hz	10 Hz Offset
			-130	dBc/Hz	100 Hz Offset
			-160	dBc/Hz	1 kHz Offset
			-173	dBc/Hz	10 kHz Offset
			-178	dBc/Hz	>100 kHz Offset
Phase Noise for 1000 MHz Output (Under Static Conditions)			-102	dBc/Hz	10 Hz Offset
			-110	dBc/Hz	100 Hz Offset
			-140	dBc/Hz	1 kHz Offset
			-155	dBc/Hz	10 kHz Offset
			-155	dBc/Hz	>100 kHz Offset
Sub-Harmonics			-40	dBc	1000 MHz Output
Harmonics			-30	dBc	

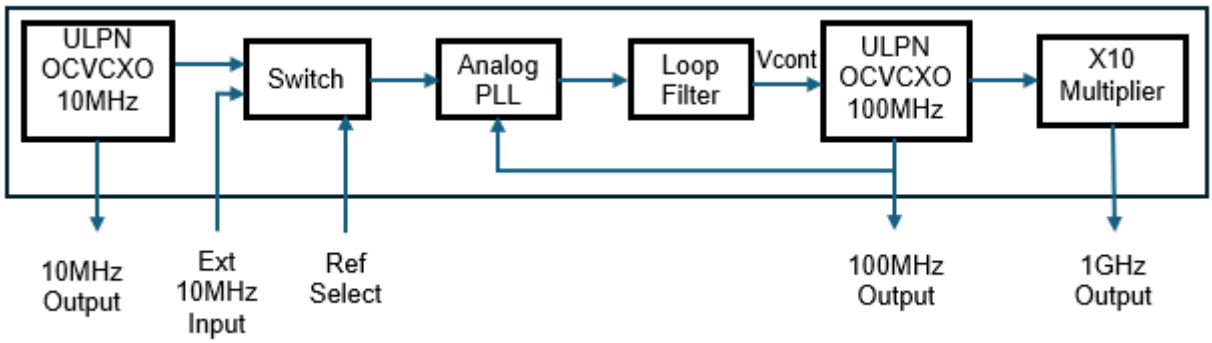
Parameter	Min.	Typ.	Max.	Units	Conditions
Spurious			-80	dBc	
Warm-Up Time			5	minutes	for 0.1ppm accuracy
Modulation Bandwitdh	DC		1	Hz	

*Electrical specifications are given for Vs=+5V, Vc=+4.5V, T_A= +25 ± 3 °C unless otherwise specified.

ENVIRONMENTAL SPECIFICATIONS:

Parameter	Min.	Typ.	Max.	Units
Operating Temperature Range	-40		+75	°C
Storage Temperature	-40		+85	°C
Mechanical Shock (Non-Operating)	MIL-STD-202H Method-213 Condition-J, 30g 11ms			
Vibration (Non-Operating)	MIL-STD-202H, Method-204 Condition-B, 5g, 10-2000 Hz			
Soldering	260 °C for 10s max. leads only, no reflow			

BLOCK DIAGRAM:

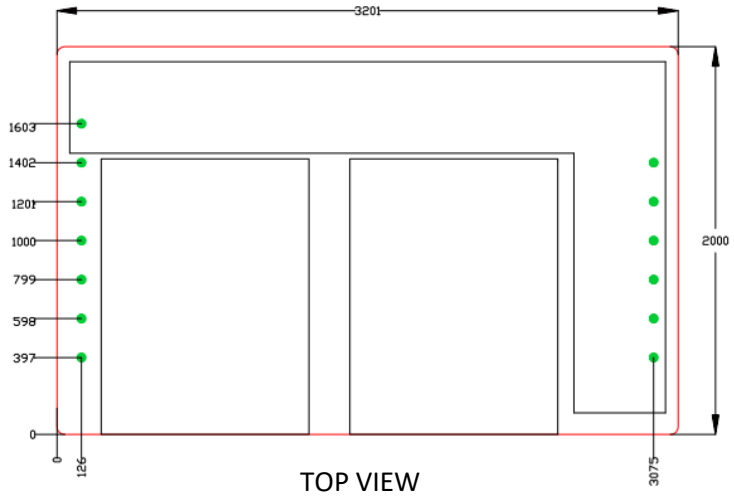


MECHANICAL SPECIFICATIONS:

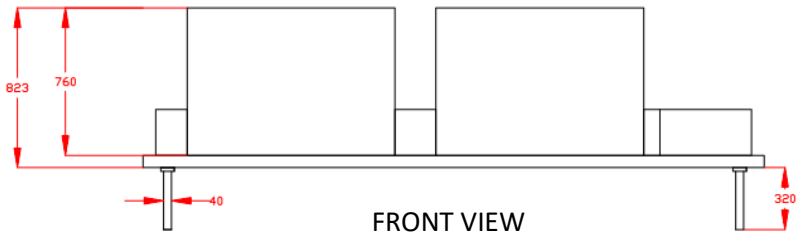
Parameter	Value	Units
Dimensions (L x W x H)	81.3 x 50.8 x 21.0	mm
Weight	TBD	gr
Seal	Solder	
Mechanical Housing	Nickel Plated CRS	

MECHANICAL OUTLINE:

- All dimensions are in mils



TOP VIEW



FRONT VIEW



BOTTOM VIEW

Pin #	Function
1	Vs
2	Vc
3	Vref
4	RF OUT, 10 MHz
5	GND
6	EXT REF IN
7	REF SELECT
8	RF OUT, 1000 MHz
9	GND
10	GND
11	GND
12	RF OUT, 100 MHz
13	Vs

REVISION HISTORY:

Rev. No.	Date	Description
P1	07-Jul-2026	Preliminary Release
P2	23-Oct-2026	Updated *Mechanical Outline*