



ULS101

Features

- PLL LOOP Bandwidth as low as $\leq 50\text{mHz}$
- Better additional short-term stability, up to $1.0E-13/1s$
- Ultra low phase noise $\leq -110\text{dBc/Hz}@1\text{Hz}$

Applications

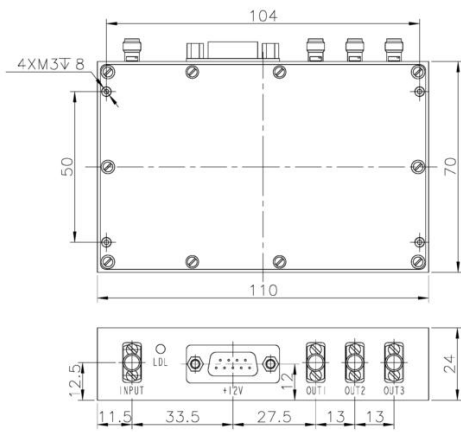
- Frequency standards and sources
- Measuring and calibration equipment
- Navigation

Technical Specifications

Standard Frequency	10.23 MHz			
Additional short-term stability	$\leq 1 \times 10^{-13}/1s$			
Phase Noise (dBc/Hz, free-running)	Option: S	Option: H	Option: L	Option: U
1 Hz	-100	-103	-106	-110
10 Hz	-130	-133	-136	-140
100 Hz	-150	-155	-158	-162
1 KHz	-160	-165	-170	-173
10 KHz	-175	-175	-178	-178
Aging (after 30 days of continuous operation)	$\leq 1 \times 10^{-7}$ / year			
Input voltage range	12 VDC \pm 5%			
Power consumption (at 25°C)	7W / 4W			
Warm up time (at 25°C to 2×10^{-7})	≤ 5 min			
Input External Reference				
Frequency range	10MHz \pm 2Hz (Option: 5 MHz)			
Power	10 \pm 3 dBm			
PLL LOOP Bandwidth	50mHz ~100Hz			
Output specifications				
Wave form	Sine wave			
Number of outputs	3			
Port to port isolation	≥ 50 dB			
Power	10 \pm 3 dBm			
Harmonics	≤ -30 dBc			
Spurious	≤ -80 dBc			
Frequency stability vs Temperature (-40°C to 70°C)	$\leq 2 \times 10^{-8}$			
Load	50 Ω \pm 5%			
g sensitivity	$\leq 5 \times 10^{-10}$ / g			
Vibration	MIL-STD-202G			
Size (L×W×H)	110×70×24mm ³			



Outline drawing and Electrical connections (mm)



- INPUT: 10MHz (SMA-F)
- OUT1: 10.23MHz (SMA-F)
- OUT2: 10.23MHz (SMA-F)
- OUT3: 10.23MHz (SMA-F)
- LDL: Lock Lamp
- J3/1. LD (TTL Level:L- lock,H-unlock)
- J3/2. Ground
- J3/3. Ground
- J3/4. NC
- J3/5. Vc
- J3/6. NC
- J3/7. +12V Power supply
- J3/8. NC
- J3/9. Vref

