



ULS110

Features

- PLL LOOP Bandwidth as low as $\leq 1\text{Hz}$
- Better additional short-term stability, up to $1.0E-13/1s$
- Ultra low phase noise $\leq -175\text{dBc}/\text{Hz}@10\text{kHz}$

Applications

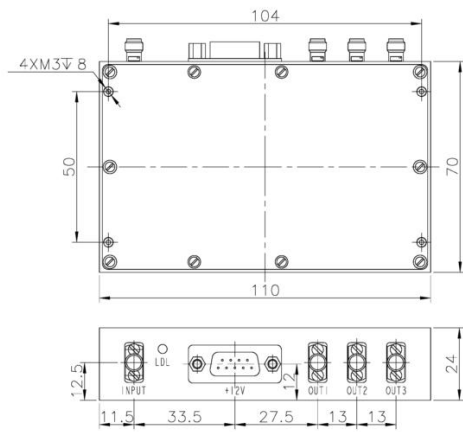
- Frequency standards and sources
- Measuring and calibration equipment
- Navigation

Technical Specifications

Standard Frequency	100 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
10 Hz	-100	-103	-105	-108
100 Hz	-130	-133	-135	-138
1 KHz	-160	-163	-165	-168
10 KHz	-171	-172	-173	-175
100 KHz	-173	-173	-175	-175
Aging (after 30 days of continuous operation)	$\leq 5 \times 10^{-7}$ / 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	1Hz ~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)	$\leq 2 \times 10^{-7}$			
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: 100MHz (SMA-F)
- OUT2: 100MHz (SMA-F)
- OUT3: 100MHz (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

