

## MAIN FEATURES

- ❖ 6GHz fixed output frequency  
 (other models are available in the 300-6000MHz frequency range)
- ❖ Very low phase noise
- ❖ Very low spurious level
- ❖ Two equivalent RF outputs
- ❖ Internal reference
- ❖ Can be synchronized to external reference



## DESCRIPTION

The BOVI63 is a high performance phase locked oscillator with very low phase noise and spurious level, making them ideal for use as a stable frequency source in communications, navigation, surveillance, or test and measurement system. The BOVI63 has fixed 6GHz output frequency, but identical phase locked oscillators are also available with fixed output frequency anywhere between 300MHz and 6GHz. The BOVI63 contains a low phase noise reference, that can be synchronized to an external 10MHz signal in case higher frequency accuracy is required. The BOVI63 has two RF outputs with high isolation between them, that can be used as two equivalent ports or as one main and one monitor port. Both outputs can be muted within 1us with a TTL control signal.

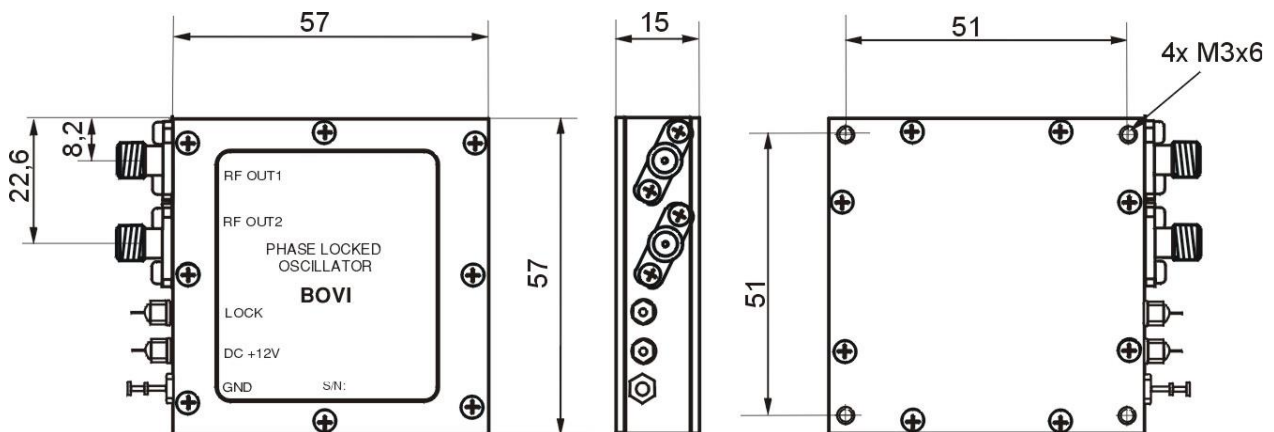
## SPECIFICATIONS

Operating frequency	Fixed 6GHz (other models are available in the 300-6000MHz frequency range)
Number of outputs	2
Output power (RFOUT1&RFOUT2)	+15dBm typ., ≥+14dBm in full operating temp. range
Load VSWR	≤1.5:1
Isolation between outputs	≥20dB
Internal reference stability	≤±0.5ppm over temperature
Aging	≤±1.5ppm in first year and ≤±5ppm for 10 years
Harmonics	-40dBc typ., ≤-30dBc
Spurious	-80dBc typ., ≤-70dBc
Phase noise @ F <sub>out</sub> =6GHz <sup>1</sup>	-83dBc/Hz typ., ≤-80@100Hz
	-100dBc/Hz typ., ≤-97@1kHz
	-110dBc/Hz typ., ≤-107@10kHz
	-110dBc/Hz typ., ≤-107@100kHz
	-120dBc/Hz typ., ≤-117@1MHz
Noise floor	≤-160dBc/Hz

Phase lock alarm	Logic signal on feedthrough capacitor TTL "H" in lock, TTL "L" in unlock
RF output switch	Logic signal on feedthrough capacitor TTL "H" is RF ON, TTL "L" is RF OFF
RF output switching time	≤10us
RF ON/OFF ratio	≥50dB
External reference frequency	10MHz±10ppm (automatic switchover)
External reference level	-6...+10dBm
Supply voltage	+12V nominal (+11V...+28V)
Current consumption	≤200mA@+12V
Operating temperature range	-40°C to +70°C
Storage temperature range:	-40°C to +85°C
RF connectors (RFOUT1&2, EXTREF)	SMA Female
Supply voltage connector (VCC)	Feedthrough capacitor
Phase lock alarm connector (LOCK)	Feedthrough capacitor
RF ON/OFF switch connector (ON/OFF)	Feedthrough capacitor
GND	Solder pin
Dimensions (excluding connectors)	57x57x15mm

Specifications are subject to change without notice.  
 1 Phase noise is better for lower frequency models (consult factory).

## OUTLINE DRAWING (mm)





## BOVI63 Low Phase Noise PLO With Internal Reference

### ORDERING OPTIONS

MODEL NUMBER	DESCRIPTION
BOVI63K11047	BOVI63 6GHz PLO; dual RF output; 15dBm output level; TTL lock; mute

### DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BOVI63-LM-01	V01	31/08/2021