

MAIN FEATURES

- ❖ Fixed output frequency specified by the customer in the 7-15GHz range
- ❖ Very low phase noise
- ❖ Very low spurious level
- ❖ Two equivalent RF outputs
- ❖ Internal reference
- ❖ Can be synchronized to external reference



DESCRIPTION

The BOVI64 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 BOVI64 has fixed output frequency. The BOVI64 contains a low phase noise reference, that can be synchronized to an external 10MHz signal in case higher frequency accuracy is required. The BOVI64 has two RF outputs, that can be used as two equivalent ports or as one main and one monitor port. Both outputs can be muted within 10us with a TTL control signal.

SPECIFICATIONS

Operating frequency		Fixed (specified by the customer in the 7-15GHz range)			
Number of outputs		2			
Output power (RFOUT1&RFOUT2) ¹		+16dBm typ., ≥+14dBm in full operating temp. range			
Output VSWR		≤1.5:1			
Isolation between outputs		≥15dB			
Internal reference accuracy		≤±0.5ppm @ +25°C			
Internal reference stability		≤±0.5ppm over temperature			
Aging		≤±1.5ppm in first year and ≤±5ppm for 10 years			
Harmonics		-50dBc typ., ≤-40dBc			
Subharmonics (NxF _{out} /2)		≤-60dBc			
Spurious		-80dBc typ., ≤-70dBc			
SSB phase noise [dBc/Hz] ²	F _{out}	7GHz	10GHz	13GHz	15GHz
	@100Hz	≤-76	≤-73	≤-71	≤-70
	@1kHz	≤-94	≤-91	≤-89	≤-88
	@10kHz	≤-106	≤-103	≤-101	≤-100
	@100kHz	≤-106	≤-103	≤-101	≤-100
	@1MHz	≤-119	≤-116	≤-114	≤-113
Noise floor		≤-150dBc/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	$\leq 10\mu s$
RF ON/OFF ratio	$\geq 50\text{dB}$
External reference frequency	10MHz \pm 10ppm (automatic switchover)
External reference level	-6...+10dBm
Supply voltage	+12V nominal (+11V...+28V)
Current consumption ³	300mA typ., @+12V
Operating temperature range	-40°C to +70°C
Storage temperature range:	-40°C to +85°C
RF connectors (RFOUT1, RFOUT2, EXTREF)	SMA Female
Supply voltage connector (VCC)	Feedthrough capacitor
Phase lock alarm connector (LOCK)	Feedthrough capacitor
RF ON/OFF switch connector (ON/ $\overline{\text{OFF}}$)	Feedthrough capacitor
GND	Solder pin
Dimensions (excluding connectors)	57x57x15mm

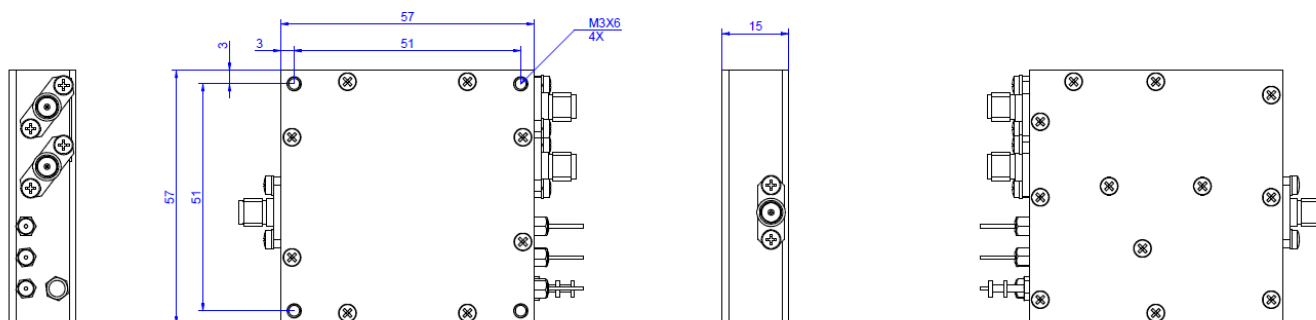
Specifications are subject to change without notice.

¹Output power can be lower in certain models (consult factory).

²For more information on exact SSB phase noise consult factory.

³Current consumption can be slightly higher in certain models (consult factory).

OUTLINE DRAWING (mm)





BOVI64

Low Phase Noise PLO With Internal Reference

ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
BOVI64K11xxx	BOVI64 xGHz PLO; single RF output; 16dBm output level; TTL lock; mute

DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BOVI64-LM-01	V01	30/03/2023

