BOVI63
6 GHz Phase Locked Oscillator

MAIN FEATURES

- 6 GHz output frequency
- + 9 dBm typical output power
- Very low phase noise
- Very low spurious level
- Built-in high stability frequency reference
- Can by synchronized to external reference

DESCRIPTION

The BOVI63 is a high performance frequency synthesizer intended for use in professional applications, where excellent phase noise, low spurious level, compact size and wide operating temperature range are important factors. This signal source can be used in telecommunications, satellite communications, military applications and laboratory testing. The BOVI63 contains a low phase noise reference which can be synchronized to external 10 MHz reference for better frequency accuracy. The BOVI63 has low output level variation over temperature. The output can be muted within 10 µs by a TTL signal.

SPECIFICATIONS

RF PARAMETERS		
Output frequency		6000 MHz
Number of outputs		2
RF output power (RFOUT1&RFOUT2)		≥+9 dBm typically, ≥+7dBm in full operating temp. range
Isolation between outputs		≥20dB
RF output impedance		50 Ω
RF output VSWR		≤ 1.5:1
Frequency accuracy		≤±0.5 ppm @ +25 °C
Frequency stability		≤± 0.5 ppm within temperature range @ internal reference
Frequency drift / day		≤±0.05 ppm / day at constant temperature (int. reference)
Frequency aging		≤±1.5 ppm in first year and ≤±5 ppm for 10 years
RF ON/OFF ratio		≥ 35dB
RF ON/OFF switching time		≤ 10 µs
Spurious		-90 dBc typically, ≤- 80 dBc
Subharmonics		-50 dBc typically, ≤-40 dBc
Harmonics		-50dBc typically, ≤-40dBc
SSB phase noise	@ 100 Hz	-80 dBc/Hz typically, ≤-77@10kHz
	@ 1 kHz	-98 dBc/Hz typically, ≤-95@1kHz
	@ 10 kHz	-110 dBc/Hz typically, ≤-107@10kHz
	@ 100 kHz	-110dBc/Hz typically, ≤-107@100kHz
	@ 1 MHz	-120 dBc/Hz typically, ≤-117@1MHz
Noise floor		≤-160dBc/Hz

BHE
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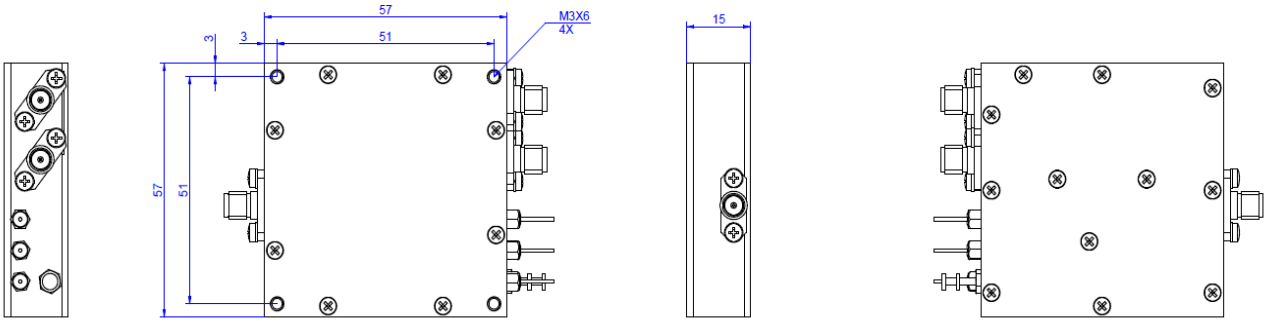
Reference input frequency	10MHz±10ppm (automatic switchover)
Reference input power level	-6…+10dBm
Alarm signal	TTL level, "High" in LOCK, "Low" in UNLOCK
RF ON/OFF control	TTL level, "High" = RF ON, "Low" = RF output OFF
Power supply voltage	+12V nominal (+11V…+28V)
Current consumption	200mA typically, @+12V
MECHANICAL PARAMETERS	
Dimensions	57 mm x 57 mm 15 mm (excluding connectors)
Surface finish	Nickel plating
RF output connectors	SMA-type female
Reference input connector	SMA-type female
Alarm connector	Feed through capacitor
ON/OFF connector	Feed through capacitor
Power connector	Feed through capacitor
GND	Solder pin
ENVIRONMENTAL PARAMETERS	
Operating temperature range	- 20 °C … + 60°C
Storage temperature range	-40 °C … + 80°C

Specifications are subject to change without notice.

OUTLINE DRAWING (mm)



ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
BOVI63K11047	BOVI63 6 GHz phase locked oscillator; 9 dBm output power

DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BOVI63-LM-K11047	V01	2023-03-30