

## MAIN FEATURES

- ❖ High stability internal 10 MHz OCXO
- ❖ 8 outputs with very high isolation
- ❖ 2 1PPS outputs
- ❖ 1 external 10 MHz input for external synch
- ❖ Very low phase noise
- ❖ Very low spurious level
- ❖ Housed in 1U 19" rack
- ❖ Can be synchronized to external reference



## DESCRIPTION

The BSLI10 is a high performance indoor reference source for professional applications. It contains a high stability OCXO that can be operated in internal mode or can be synchronized to an external 10 MHz when an even higher frequency stability is required. The external reference signal is detected automatically. The output of the OCXO is distributed to 8 sinewave outputs. The output amplifiers ensure very high isolation between the outputs, thus the connected load on one port cannot disturb the operation of another load. The BSLI10 contains a front panel with LCD and control keys, and a power supply. It is housed in a 1U 19" rack.

## SPECIFICATIONS

RF PARAMETERS	
Operating frequency	Fixed 10 MHz
Number of outputs	8 x 10 MHz and 2 x 1 PPS
10 MHz output signal waveform	Sine
10 MHz output signal level	≥ +10 dBm in full operating temp. range (+13 dBm typ.)
10 MHz output VSWR	≤ 1.4:1
10 MHz output connector type	SMA-female
Harmonics	< -60 dBc
Spurious	< -100 dBc
Isolation between outputs	≥ 80 dB @ 10 MHz
Internal reference initial accuracy	≤ ±0.01 ppm at +25 °C
Internal reference stability	≤ ±0.005 ppm over temperature
Aging	≤ ± 0.05 ppm / year
Allan variance	≤ 5*10 <sup>-12</sup> per 1 sec.
SSB phase noise	≤ -95 dBc / Hz @ 1 Hz
	≤ -125 dBc / Hz @ 10 Hz
	≤ -145 dBc / Hz @ 100 Hz
	≤ -150 dBc / Hz @ 1 kHz
	≤ -155 dBc / Hz @ 10 kHz

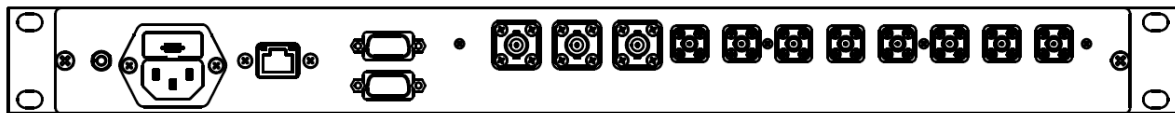
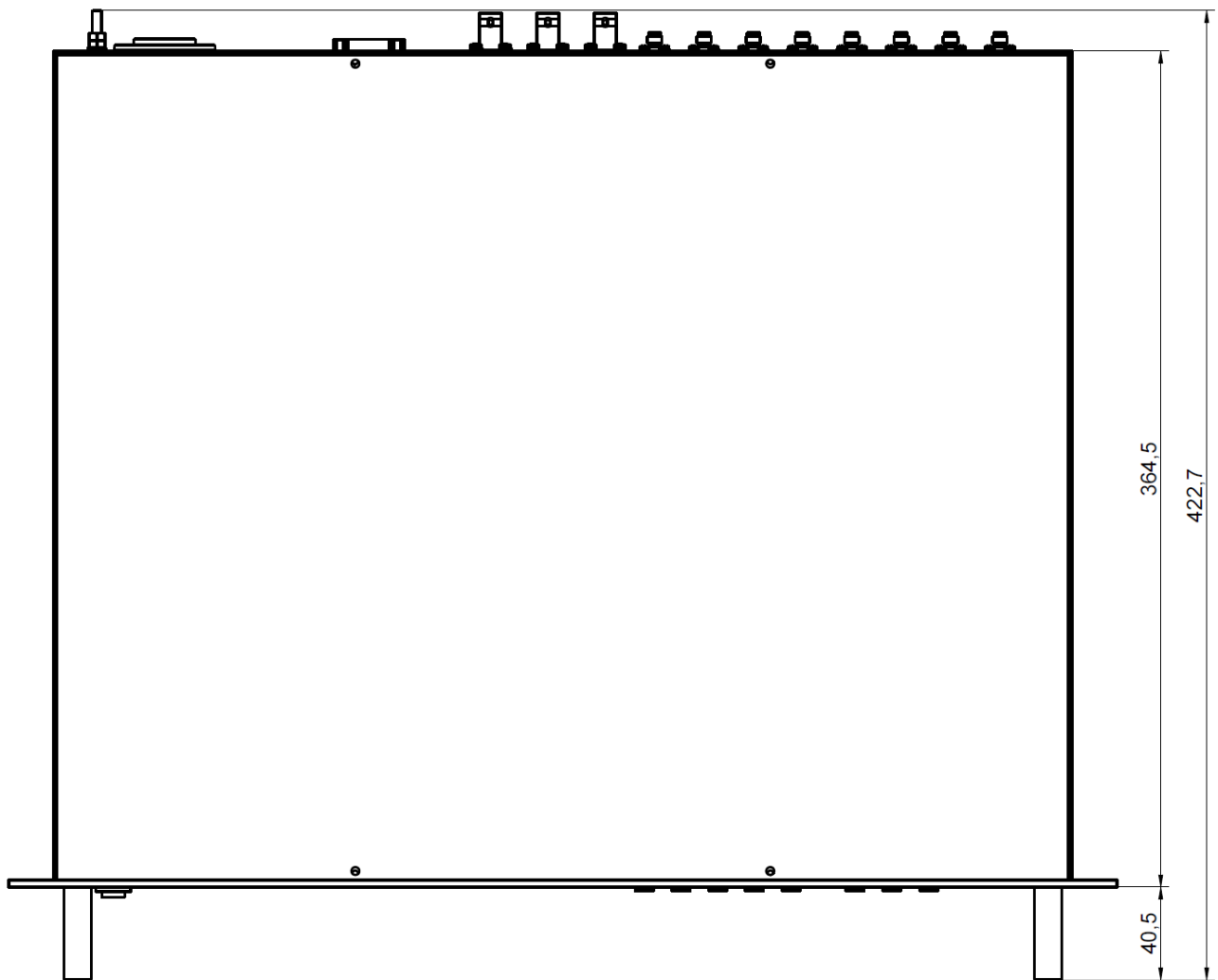
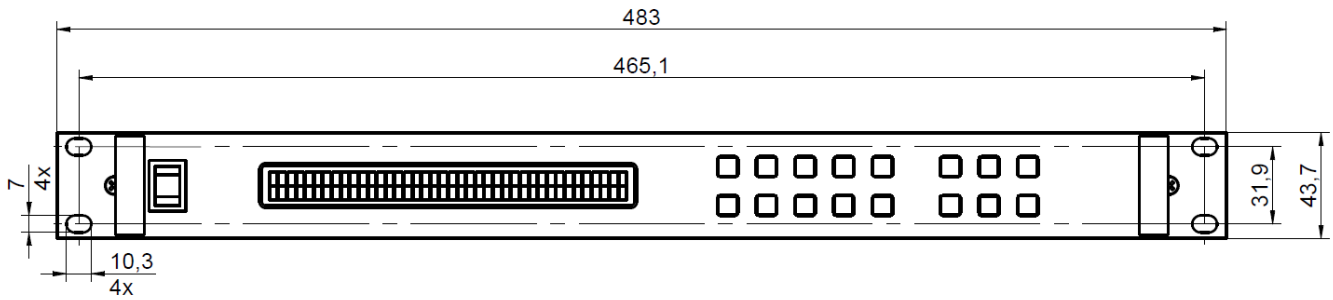


## BSLI10

### 10 MHz Low Phase Noise Multiple Output Reference Source

RF CHARACTERISTICS	
1PPS output signal waveform	Pulse wave
1PPS output signal level	5 V TTL (when terminated with 1 k $\Omega$ )
1PPS output pulse width	100ms
1PPS output impedance	50 $\Omega$ (output is designed for $\geq 1$ k $\Omega$ load, but it is capable to drive 50 $\Omega$ load with reduced signal level)
1PPS output connector type	BNC-female
10 MHz external reference	5 / 10 MHz automatic selection and changeover level range: -5 to +15 dBm
10 MHz external reference input impedance	50 $\Omega$
10 MHz external reference input VSWR	$\leq 1.4:1$
10 MHz external reference frequency pulling range	$\pm 0.1$ ppm
10 MHz external reference input connector	BNC-female
CONTROL AND MONITORING	
Monitor functions	Warmup indication External / internal reference indication Lock indication
POWER SUPPLY	
Voltage	90 – 264 VAC
Frequency	47 – 63 Hz
Power consumption	$\leq 20$ VA
Fuse value	T4A (4 A, Slow blow)
MECHANICAL CHARACTERISTICS	
Dimensions	1U 19" rack cabinet (360 mm depth)
Weight	< 8 kg
Front and rear panel finish	Powder painted (RAL7035)
10MHz output connector	SMA-female, rear panel
1PPS output connector	BNC-female, rear panel
10MHz external reference connector	BNC-female, rear panel
AC mains input connector	IEC C14 inlet
ENVIRONMENT	
Operating temperature range	0 $^{\circ}$ C ... +50 $^{\circ}$ C
Storage temperature range	-30 $^{\circ}$ C ... +70 $^{\circ}$ C
Humidity	up to 95 % (non-condensing)

Specifications are subject to change without notice.  
Better stability or phase noise specification is available upon request.

**OUTLINE DRAWING (mm)**



## BSLI10 10 MHz Low Phase Noise Multiple Output Reference Source

### ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
BSLI10K11330	BSLI10 10 MHz Low Phase Noise Multiple Output Reference Source

### DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BSLI10-LM-K11330	V02	2023/07/12