

General Description

The MCS-LTX-1550/100 is a 1550 nm laser source, designed for use in optical measurement systems and transmission of reference radio signals. As a radiation generator, a high-power semiconductor laser with distributed feedback (DFB) is used, which provides a low phase noise power level. The module has an output optical isolator and an interface connector for monitoring its state and control.



Key Features

- Ultra-low phase noise power level
- Does not require programming
- Optimized for transmission of narrow-band reference signals
- Interface connector for monitoring and control

Specification (at 25°C)

Parameter	Sym.	Min.	Typ.	Max.	Unit
Voltage Supply	V_{CC}	4.5	5	6	V
Current Supply	I_{CC}	0.8	1.5	25	A
Output Optical Power	P_{OUT}	70		100	mW
Center Wavelength	λ_C		1550		nm
Modulation Bandwidth (*) @ -3dB	Δf	50		450	MHz
Side Mode Supp. Ratio @P=100mW	SMSR	40		50	dB
Spectral Width @1550nm	Δf		1		MHz
Extinction Ratio @P=100mW	X_E	17			dB
Operating Temperature (type)	- A - C - D	T	0 -20 -40	+40 +55 +65	°C

(*) Specification of frequency bandwidth allow to improve RF transmitting parameters.

Absolute maximum parameters

Parameter	Sym.	Value	Unit
Voltage Supply	V_{CC}	6.5	V
Storage Temperature	T_s	-60 to +85	°C

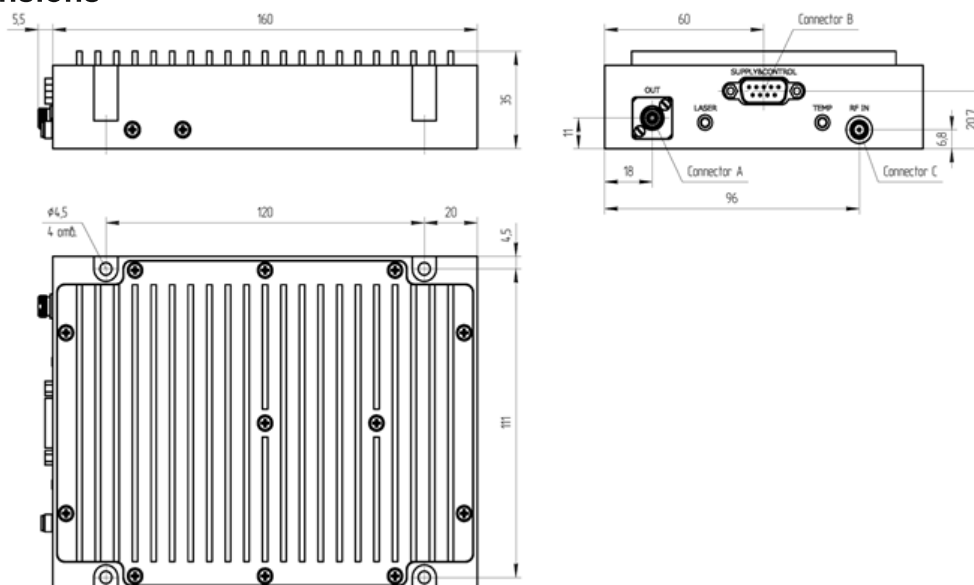
Connectors

#	Description
A	FC/APC (female) – Optical output
B	DB9 (female) – Interface connector
C	SMA (female) – Input RF connector

Connector B

Function	I / O	Pin Number	Note
LAS_OK	O	1	Laser is ready, TTL: Low – error High – normal operation
TEMP_OK	O	2	Temperature stabilization, TTL: Low – normal High – error
OPT_SD	I	3	Optical control, TTL: Low – off High – on
GND	-	6, 7	Ground
OPT_OK	O	4	Optical out detector, TTL: Low – optical power off High – normal operation
DEV_SD	I	5	Power supply control: Low – off High – on
Vcc	-	8, 9	Power supply input

Physical dimensions



NOTE: All dimensions are given in mm and are maximum unless otherwise specified.