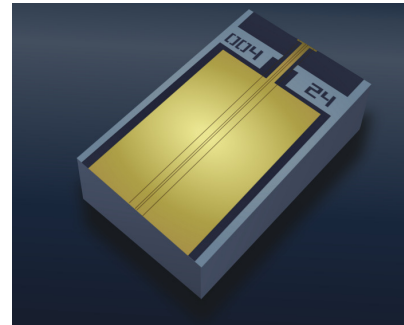


# ML1954

1490 nm high-performance FP chip for pulsed applications

## Overview

Modulight's ML1954 is a high-performance single transverse mode Fabry-Perot laser chip product. The laser emits  $\geq 180$  mW pulsed peak power (10  $\mu$ s PW, 1% DC) at 1490 nm wavelength. This bare die laser chip is designed to be used as light source in fiber optic test and measurement equipment.



## Applications

Defense	Industrial	Communications
Test & Measurement	Test & Measurement	Test & Measurement

## Electro-optical Characteristics

Parameter	Symbol	Min.	Typical	Max.	Unit
Central Wavelength ( $I_{OP} = 750$ mA)	$\lambda$	1470	1490	1510	nm
Optical Output Power (Peak Power)	$P_{OPT}$	180	200	-	mW
Operating Current ( $P_{OPT} = 200$ mW)	$I_{OP}$	-	550	750	mA
Operating Voltage ( $P_{OPT} = 40$ mW, CW)	$V_{OP}$	-	1.2	2.0	V
Slope Efficiency	$\eta$	-	0.40	-	W/A
Threshold Current	$I_{TH}$	-	45	-	mA
Spectral Width	$\Delta\lambda$	-	5	7	nm

All above values are for operation @ 25°C. If not otherwise stated, the characteristics are for operation under pulse current (pulse width = 10  $\mu$ s and duty cycle 1 %).

## Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
LD Forward Current	$I_{FLD}$	1000	mA
Operating Temperature Range	$T_{OP}$	0...60 <sup>1</sup>	°C
Operating Temperature Range	$T_{ST}$	-40...85	°C

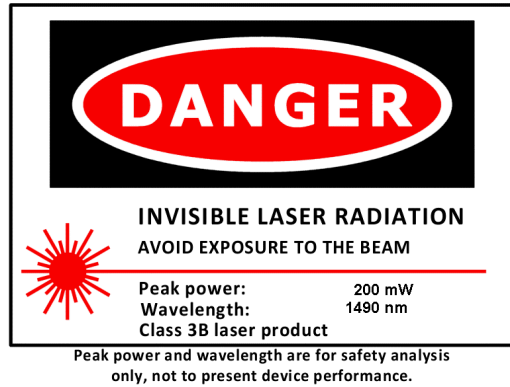
<sup>1</sup> A non-condensing environment should be ensured over the useful temperature range.

### Mechanical Specifications

Parameter	Symbol	Value	Unit
Cavity Length	L	700	µm
Chip Width	W	300	µm
Chip Thickness	H	100	µm

### Safety Information

- The laser light emitted from this laser diode is invisible and potentially harmful to the human eye. Avoid eye and skin exposure to the beam, both direct and reflected.
- Products are subject to the risks normally associated with sensitive electronic devices including static discharge, transients, and overload. Please ensure ESD protection prior to handling the products.
- These Modulight products are not intended for use in systems where product malfunction can reasonably be expected to result in personal injury.



### Liability note

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