808 nm / 600 mW / SMA905 Packaged LPC laser power converter

Converts incident laser energy into DC electricity. Select the configuration against the optical interface, input conditions, load and heat sinking.



FULLSUNS

Photograph of the reference configuration

Reference designation	FS-LPC-808-600mW-SMA905
Input wavelength	800–840 nm
Typical operating points	0.8536 W @ 1.5 W optical input / 6.0819 V / 0.1404 A
Maximum optical input (adequate cooling required)	1.5 W
Operating case temperature	−40…+85 °C

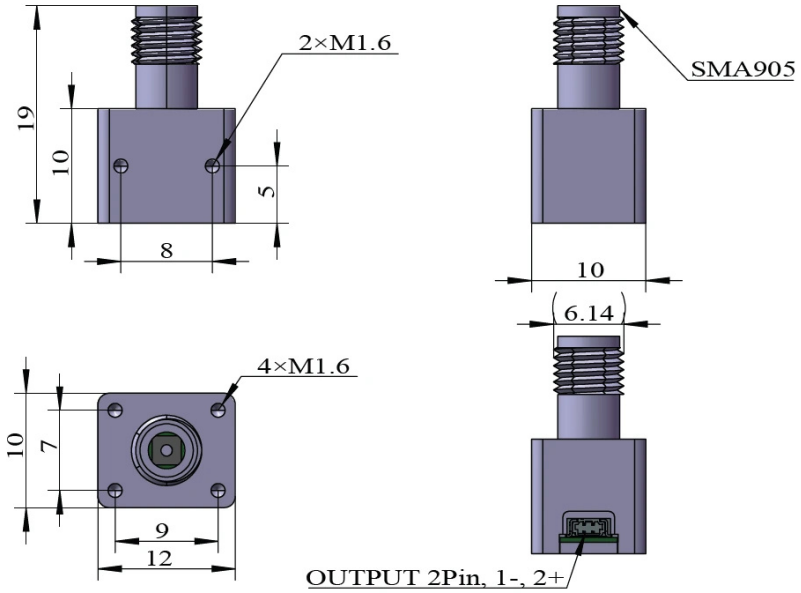
Applications & selection

Isolated power for industrial sensors; high-voltage equipment monitoring; remote electronics in high-EMI environments.

For enquiries: wavelength, optical power at the receiver, fiber connector or beam profile, target output, heat sinking and quantity.

Dimensions & mounting

Dimensions in mm; reference drawing. Confirm the latest engineering drawing before delivery.



FULLSUNS

Dimensions & mounting

1	–
2	+

Absolute maximum ratings

Parameter	Symbol	Min.	Typ.	Max.	Unit
Storage temperature	TS	−40	25	85	°C
Operating case temperature	TC	−40	—	85	°C
Relative humidity	RH	5	—	85	%
Optical input power limit	Popt IN	—	—	1.5	W

Images and pin assignments describe this reference configuration; other electrical interfaces or packages require separate confirmation.

Fiber specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit
Fiber core diameter	D	—	40–400 (reference range)	—	μm
Numerical aperture	NA	0.17	0.22	0.22	—
Fiber length	—	—	Application-specific	—	m

Typical operating points

Operating points and curves: nominal wavelength, 25°C case temperature. Optical input is power at the receiver, not transmitter output or end-to-end electrical output.

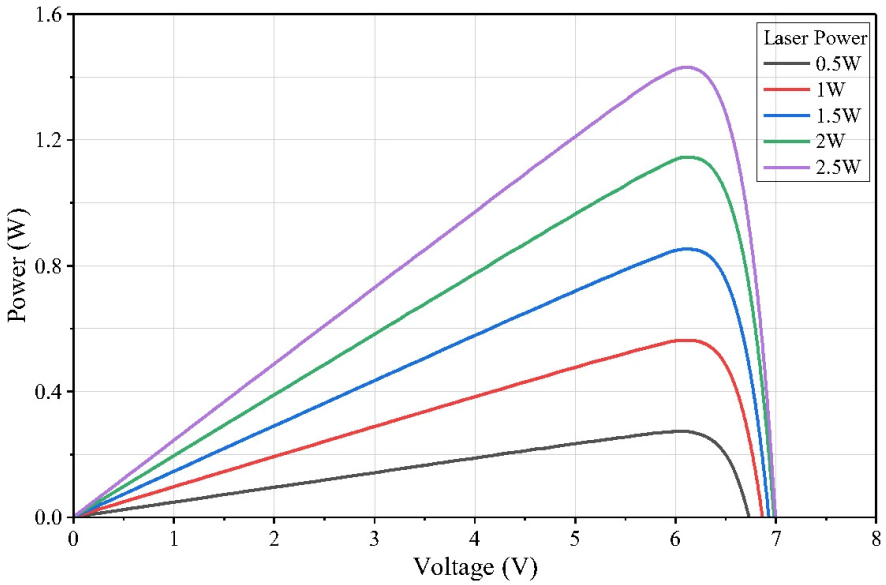
Optical input / W	Electrical Pmpp / W	Vmpp / V	Impp / A
0.5	0.2726	6.0819	0.0448
1.0	0.5634	6.0822	0.0926
1.5	0.8536	6.0819	0.1404
2.0	1.1463	6.0823	0.1885
2.5	1.4321	6.1526	0.2328

The 2.0 W and 2.5 W optical-input points exceed the 1.5 W absolute maximum listed in the same reference. They are retained as reference records, not an allowed operating range; confirm the rating before selection.

Reference values support selection. Confirm final configuration and acceptance conditions in the technical agreement. A power class is not guaranteed output under every operating condition.

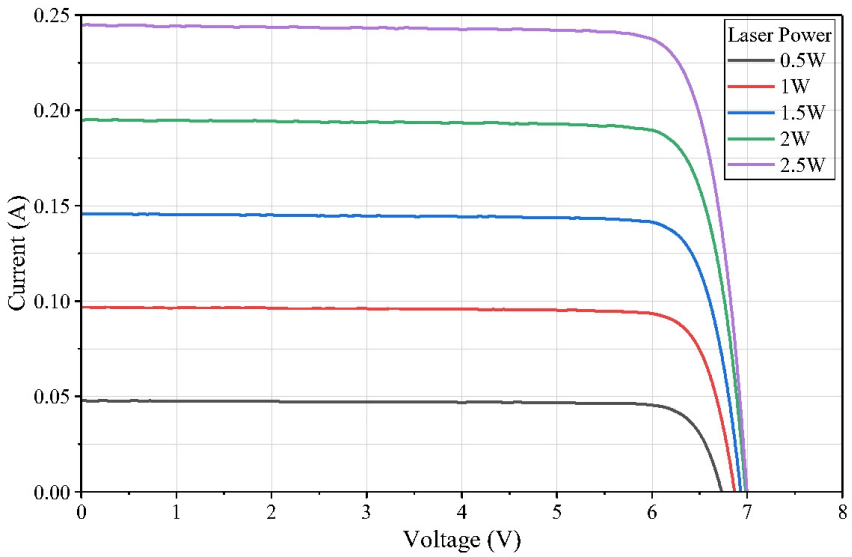
Typical characteristic curves

Operating points and curves: nominal wavelength, 25°C case temperature. Optical input is power at the receiver, not transmitter output or end-to-end electrical output.



FULLSUNS

Output power–voltage curve



FULLSUNS

Output current–voltage curve

Curves include reference test points above the absolute maximum; they do not define an allowed operating range.