

3 Test Protocol Amplifier

Type: neoVAN-4S-HP

Serial: 10-1610

Laser Electronic LAN-Settings: DHCP

Name: neoVAN_101610 *Magnitude en milliwatt, pas d'importance.*

MAC: 00:01:05:28:61:75

Laser diode characterization:

(Performed with AR coated fibers, please subtract 8-9% from diode power due to installation of 20m fibers.)

Diode Current [A]	Diode Power D1 [W]	Diode Power D2 [W]	Diode Power D3 [W]	Diode Power D4 [W]
3	27.4	27.8	28.8	28.1
4	40.6	41.1	42.8	41.9
5	54.0	54.9	56.4	55.3
6	67.6	69.0	70.2	68.5

Operation Settings:

	D1	D2	D3	D4
Temperature [°C]	predefined (between 25-30)	predefined (between 25-30)	predefined (between 25-30)	predefined (between 25-30)
DiodeCurrent [A]	4.7 A		4.7 A	

Amplifier Characteristics (CW Laser): @4.5A Diode Current

Input Power [W]	Input Beam Waist diameter [µm]	Beam Waist Position [mm]	Output Power [W]	Beam Quality (M ²)
2.0	260	-50	66.8	!! - 50 mm means OUTSIDE the head !!
5.0	260	-50	75.5	
8.6	260	-50	81.5	

Amplifier Characteristics measured at AEI Hanover (CW Laser): @4.7A Diode Current

Input Power [W]	Input Beam Waist diameter [µm]	Beam Waist Position [mm]	Output Power [W]	Beam Quality (M ²)
10.7	260	-50	88.6	
21.4	260	-50	102.4	
34.0	260	-50	116.5	

B. Schulz:
output beam
φ=240 µm @
30mm after the
output.

ASE	Forward	Backward		
ASE (W)	8	8	-	-

Comments:

The high power experiments are performed at AEI Hannover by using a 35W LIGO front-end. Some mode scans were measured and showed a TEM₀₀ mode content of about 90% (seed laser : 93%)

Controller:

AS

Date:

23.02.2017