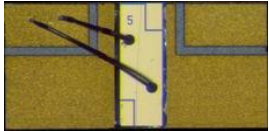
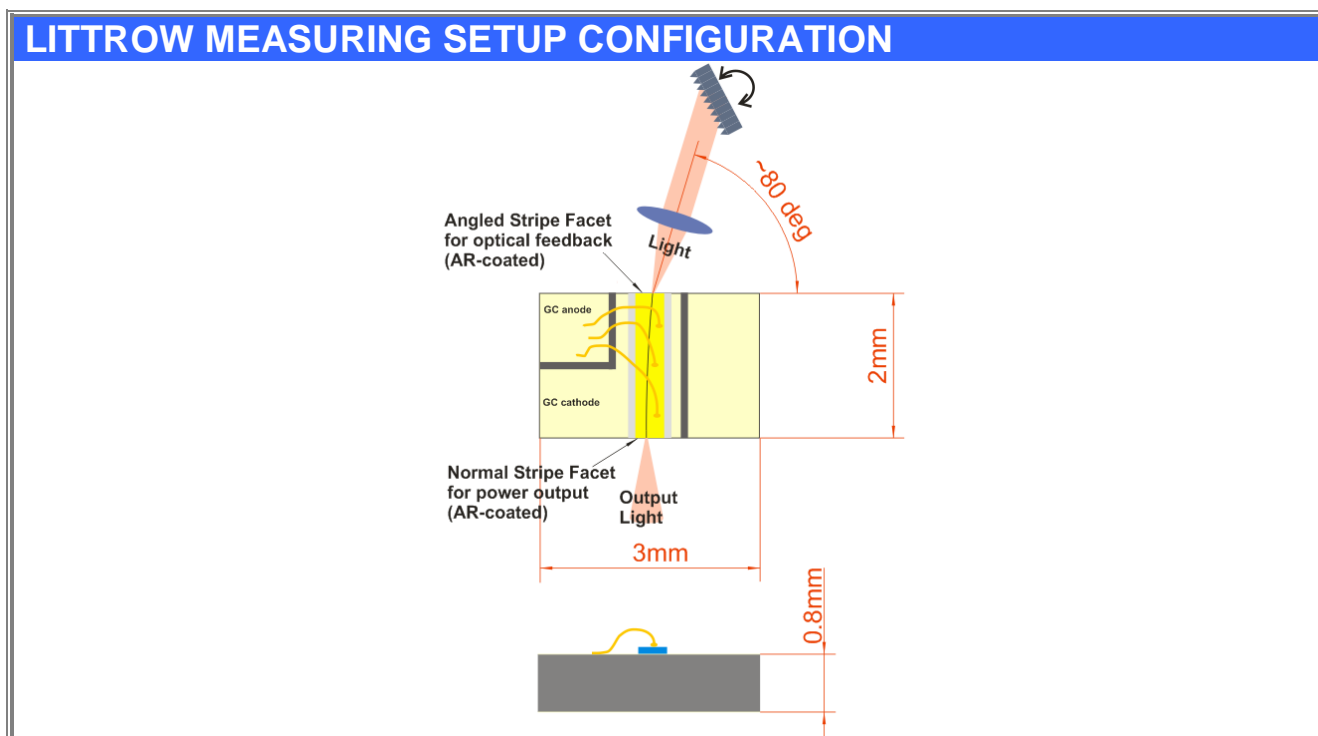


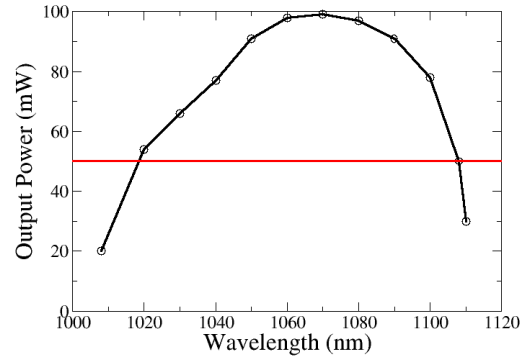
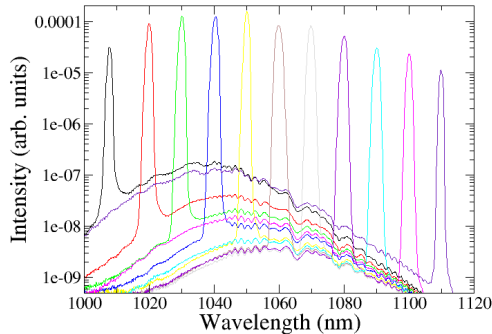
GC-1060-90-50mW Quantum Dot based Gain Chip on submount	
	Features: <ul style="list-style-type: none"> • InAs/GaAs Quantum Dot based gain chip • Tuning range of 90nm at CW output power of minimum 50mW • Single lateral mode • Low reflectivity of angled stripe facet • AlN high thermal conductive carrier • Optional: integrated thermistor for temperature control
	Applications: <ul style="list-style-type: none"> • Tunable laser • Swept laser source
Specification for engineering samples	DATE: 8 th Feb. 2009

SPECIFICATIONS				
Test conditions: CW cooled operation at temperature 25°C, Littrow setup configuration with ~30% feedback efficiency				
Parameters	Min.	Typ.	Max.	Unit
Central Wavelength	1050	1060	1070	nm
Wavelength tuning range (output power >50 mW)	90			nm
Reflectivity of angled stripe facet		10 ⁻⁶	10 ⁻⁴	
Reflectivity of normal stripe facet			10 ⁻²	
Operating current	100		550	mA
Forward voltage			1.9	V
Divergence parallel to p-n junction (FWHM)	6	8	10	Deg.
Divergence perpendicular to p-n junction (FWHM)		40		Deg.



Typical performance

Spectrum and output power measured in Littrow setup configuration (CW, T=25°C)



Amplified Spontaneous Emission (ASE) measured ex Facet without external cavity



SAFETY AND OPERATING CONSIDERATIONS

The laser light emitted from this module is invisible and will be harmful to the human eye. Avoid looking directly into the fiber output or into the collimated beam along its optical axis when the device is in operation. Proper laser safety eyewear must be worn during operation.

Operating the laser diode outside of its maximum ratings may cause device failure or a safety hazard. Power supplies used with the component must be employed such that the maximum peak optical power cannot be exceeded. A proper heatsink for the laser diode module on thermal radiator is required.

ESD PROTECTION – Electrostatic discharge is the primary cause of unexpected laser diode failure. Take extreme precaution to prevent ESD. Use wrist straps, grounded work surfaces and rigorous antistatic techniques when handling laser diodes.

