

Laser Module Delivery Specification

Customer

Model No.

APCD-650-61-C3-TA-01

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	Sales Dept.	QA Dept.	Engineering Dept.
Customer	Arima Lasers Corp.		

1 Scope:

APCD-650-61-C3-TA-01 is a general purpose, reliable visible laser module. It features in low operating current.

2 General Specifications:

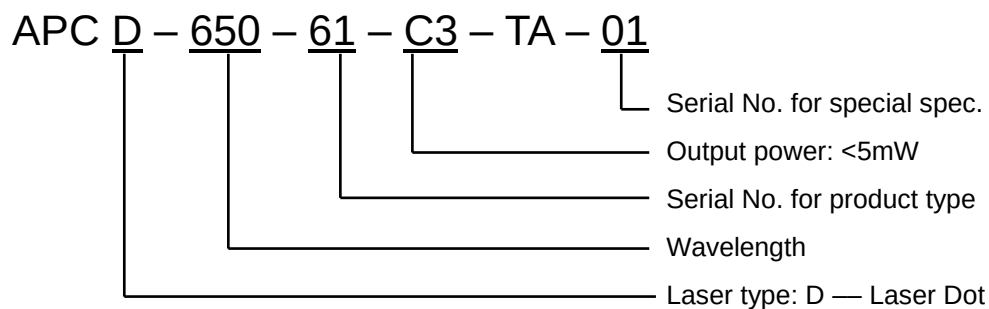
2.1 Absolute maximum rating

Item	Symbol	Rating	Unit
Power supply voltage	V_{cc}	5	V
Laser Module optical output power	P_o	<5.0	mW
Operation Case temperature	T_c	-40 ~ 85	°C
Storage temperature	T_{stg}	-40 ~ 90	°C

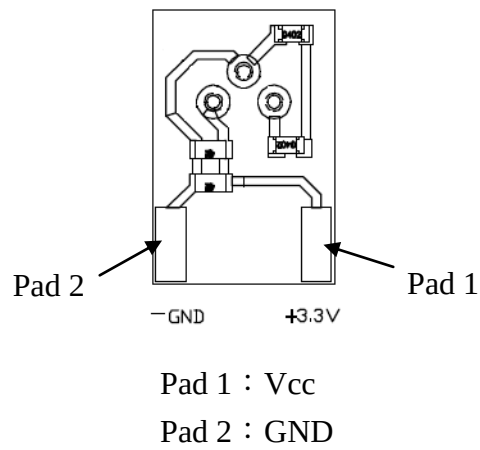
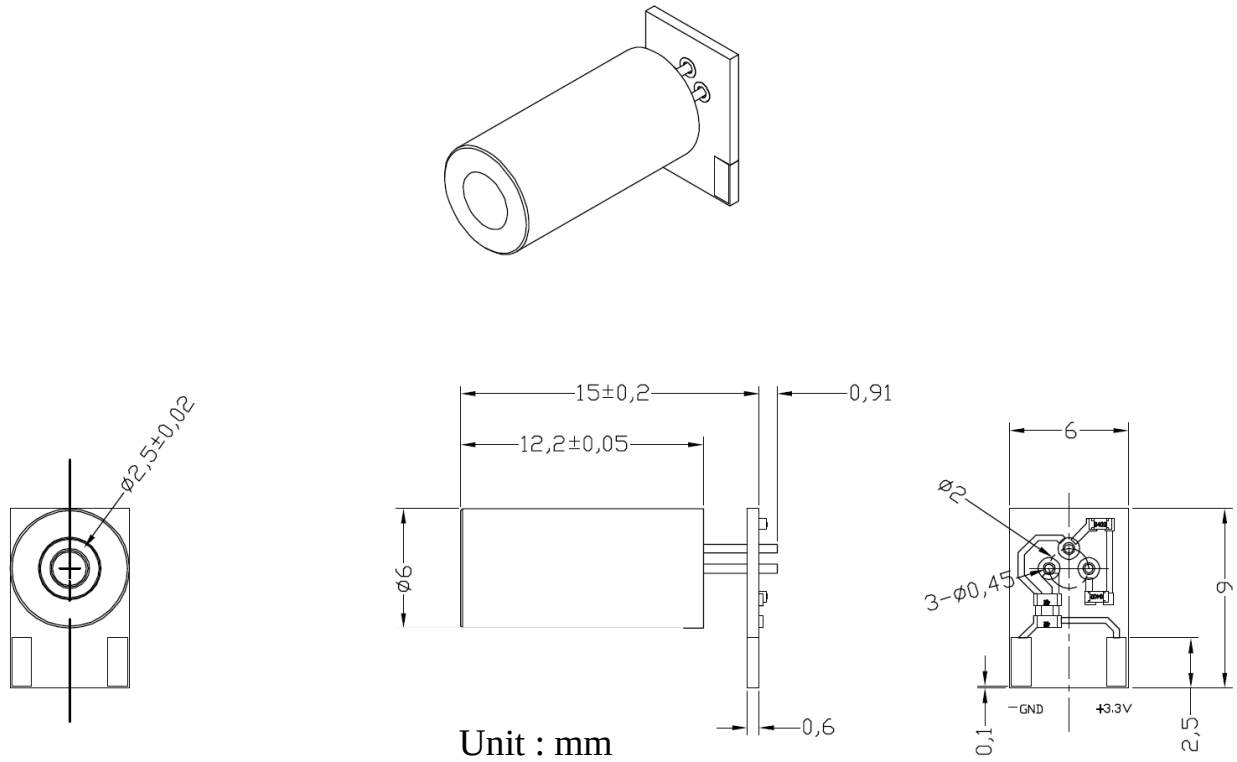
2.2 Electrical and optical characteristics ($T_c=25^\circ\text{C}$)

Item	Symbol	Min.	Typ.	Max	Unit	Condition
Wavelength	λ	645	655	660	nm	$P_o < 4.5\text{mW}$
Output power	P_{out}	4.0	4.5	5.0	mW	$V_{cc}=3.3\text{V}$
Operation current	I_{op}	10	30	45	mA	$P_o=4.5\text{mW}, V_{cc}=3.3\text{V}$
Operation voltage	V_{op}	2.8	3.0	3.3	Volt	-
Power-Temp stability (25~85°C)	ΔP_{oT}	-20	-10	0	%	$P_o=4.5\text{mW}, V_{cc}=3.3\text{V}$
Laser beam focus at 10mm (FWHM)		5	-	200	um	-

3 Indication:



4 Dimensions:



5 Quality Inspections:

5.1 Acceptance Criteria :

5.1.1 Appearances Inspection: General Inspection Standards II

5.1.1.1 Criteria Defective : AQL 0.065

5.1.1.2 Major Defective : AQL 0.65

Minor Defective : AQL 1

5.1.2 O/E Testing: General Inspection Standards I AQL 0.065

5.2 Specifications :

5.2.1 O/E Testing :

Based on Item 2.2

Visual Inspection, No microscope needed		
Items	Rejection Criteria	AQL
Laser beam spot size is <200um at 10mm	NG if spot size is >200um	0.65

6 Reliability Target / $T_c=25^{\circ}\text{C}$:

Estimated MTTF :10,000hr (QAT sample size ≥ 20)
(Extrapolated I_{op} increases 20%)

7 Labeling :

 華信光電科技股份有限公司	
Type	: APCD-650-61-C3-TA-01
P/N	:
Qty	:
P/O No	:
Date	: _____

8 Disposition of Defect

If any defect that listed on section 5.2 is found, the customer shall inform Arima Lasers. The replacement would be sent after mutual agreement.

9 Precautions:

- 9.1 Do not operate the device above the maximum rating condition, even momentarily. It may cause unexpected permanent damage to the device.
- 9.2 Do not look into the laser beam directly by bare eyes. The laser beam may cause severe damage to human eyes.
- 9.3 Optical Lens is made of plastic. Do not contaminate lens by dirt, oil or chemical.

10 Revision History:

Date	Rev.	Revision Items	Note
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