



# DWM65854FA3 – 650nm/850nm Dual Wavelength Coaxial Laser Module, Ø15mm Housing, <5mW Output Power

Data Sheet



## Overview

The DWM65854FA3 is a compact dual wavelength coaxial laser module combining a 650nm red and 850nm near-infrared laser into one beam. Housed in a 15mm diameter casing, it delivers stable output power under 5mW with built-in Automatic Power Control (APC) IC. Ideal for OEM applications like alignment, sensing, and targeting requiring reliable dual-wavelength performance.

## Features

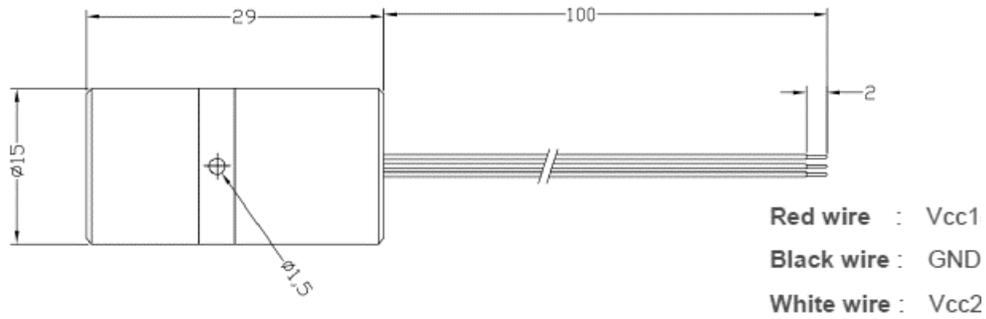
- Dual wavelength overlapping as single beam
- Red at 650nm, Infrared at 850nm
- Automatic Power Control (APC) IC inside
- Stable output power <5mW
- High quality laser beam
- Dimensions: Dia. 15mm x L. 29mm

## Specifications

Absolute Maximum Ratings			
Parameter	Symbol	Rating	Unit
Power supply voltage	$V_{CC}$	6	V
Optical output power	$P_o$	<5	mW
Operation temperature	$T_{opr}$	0 to 50	°C
Storage temperature	$T_{stg}$	0 to 85	°C

Electrical and Optical Characteristics ( $T_c=25^\circ\text{C}$ )						
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Wavelength-850nm	$\lambda_1$	830	845	855	nm	$P_o = 3\text{mW}$
Wavelength-650nm	$\lambda_2$	645	655	660	nm	$P_o = 3\text{mW}$
Output power-850nm	$P_{out1}$	2		4	mW	
Output power-650nm	$P_{out2}$	2		4	mW	
Operation current-850nm	$I_{op1}$	-	-	60	mA	$P_o = 3\text{mW}, V_{CC} = 3\text{V}$
Operation current-650nm	$I_{op2}$	-	-	45	mA	$P_o = 3\text{mW}, V_{CC} = 3\text{V}$
Operation voltage	$V_{op}$	-	3	6	Volt	
Laser beam spot size at 10m				<20mm		
Divergence angle				2mrad		

\*Sufficient heat dissipation is required for CW operation.

**Outline Dimensions (unit: mm)****Additional Notes**

- The laser modules are designated solely as OEM components for incorporation into the customer's end products. Therefore, it is the customer's responsibility to comply with the appropriate requirements of FDA 21CFR, section 1040.10 and 1040.11 for complete laser products. For the code of FDA regulations, please refer to [FDA Performance Standards for Light-Emitting Products](#) for detailed information.
- Specifications are subject to change without notice.