Dymax BlueWave® MX-250™ LED UV Flood Curing System, High-Intensity Flood Curing System

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Description

The Dymax BlueWave MX-250 LED UV flood curing system provides manufacturers with the curing flexibility of other Dymax systems but with new expansion capabilities. The unit comprises two main parts: a controller with an easy-to-use touchscreen interface and a uniquely designed, high-intensity LED emitter, offering better uniformity and more consistent curing-energy emissions than traditional flood-curing systems. Curing energy is created using a micro-processor-controlled LED chip set in the emitter. The emitter delivers a 50 mm x 50 mm active curing area, but the system's controller can be paired with multiple emitters, allowing them to be grouped together to create larger curing pattern matrices as needed.

With this new design, the LED UV flood curing system can be truly tailored to your curing needs – allowing you to choose from three different wavelength LED emitters (365, 385, or 405 nm) and providing additional flexibility with the size and pattern of the active curing area. This system can be set up as a bench-top unit, or for automated curing processes, the emitter can be easily mounted to robotic arms or further from the controller without fear of intensity losses.

Admin and Production Modes

Admin mode fully unlocks the device and allows for setting curing time and intensity cycles. Each individual curing cycle can be entered and saved as a program, and recalled when needed. The production mode is designed for simple operation by manufacturing personnel. Settings and access to admin mode can be password protected using the full QWERTY keyboard.

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Features & Benefits

- High intensity for quick curing of a variety of materials
- Very high uniformity across entire cure area for consistent dosage, minimising variation in bond line cure characteristics
- Ability to cure small batches of parts under cure area simultaneously and to group emitters together for large curing patterns
- Available in 365, 385, or 405 nm wavelengths for optimal cure results
- Production Mode for simple on/off operation
- Curing programs can be saved and easily recalled
- Units can be password protected so only Production Mode can be accessed by workers
- Touch screen with full keyboard
- MX Series controllers can be used to power any MX-Series emitters, providing greater flexibility to switch between LED Spot and Flood curing configurations
- Instant on-off – no warm-up period
- Comfortable hand-held operating temperature
- Temperature monitoring assuring maximum LED life
- Easily incorporated into automated systems

The Dymax BlueWave® MX-Series Multi-Channel Controller, when combined with up to four MX-Series LED UV curing emitters, provides manufacturers with curing flexibility in a smaller, more efficient design with an easy to use touchscreen interface.

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The Multi-Channel Controller is compatible with all of the BlueWave MX-Series emitters. The emitters are available in three cure pattern formats: Spot (MX-150), Mini-Flood (MX-250) and Line (MX-275), and different wavelengths including 365, 385, or 405 nm. Emitters of different cure patterns and/or wavelengths can be mixed and matched with a single Multi-Channel Controller. This flexibility helps to achieve optimal cures across a variety of bond-line geometries and fluid product offerings.

Users also have greater set up flexibility; for automated curing processes, the emitter can be mounted to robotic arms or further from the controller without fear of intensity variations. When used as a benchtop curing system, the unit can be paired with a stand and shielding for large area curing. It can also be used with multiple pathway lightguides for specialised applications when paired with MX spot emitters.

MX-Series Multi-Channel Controllers are available in two model variants: a two-channel that is capable

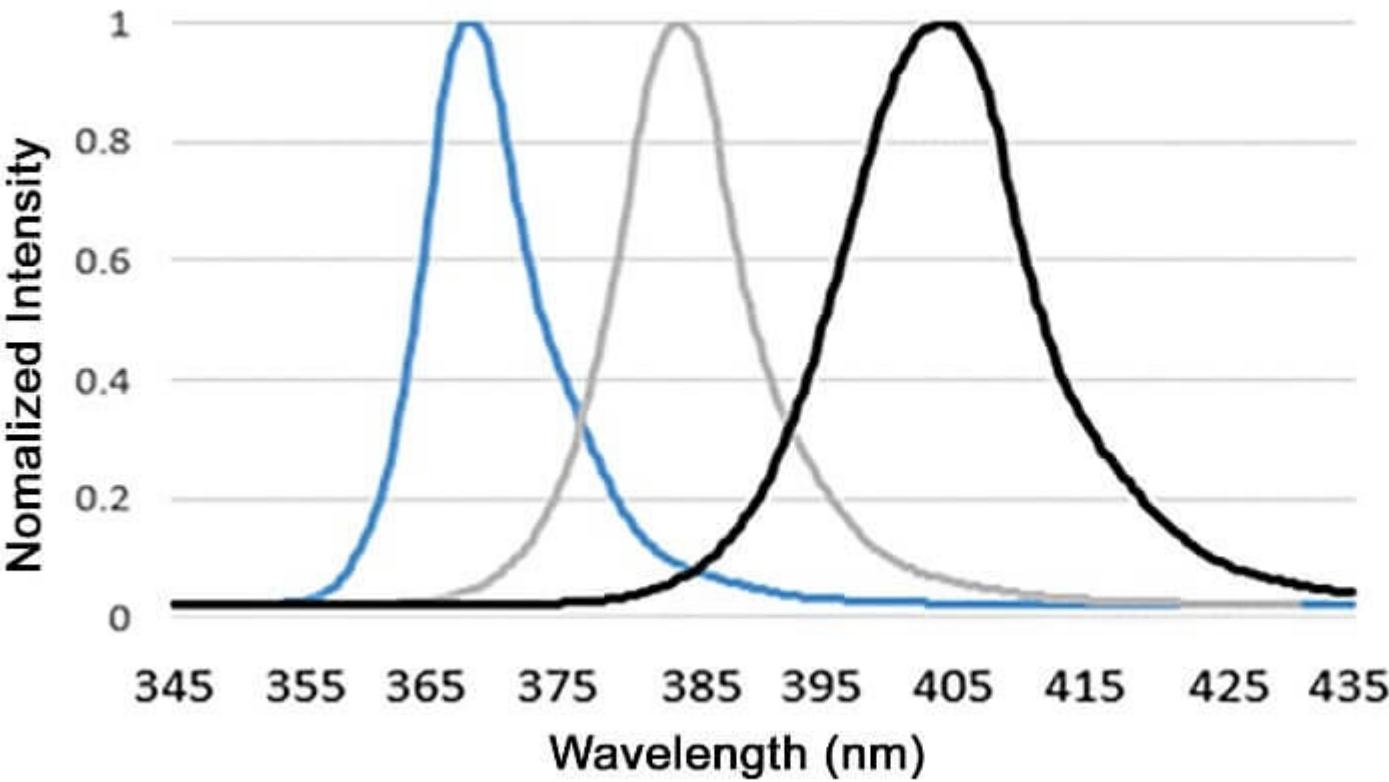# Dymax BlueWave® MX-250™ LED UV Flood Curing System, High-Intensity Flood Curing System

of independently controlling up to two emitters and a four channel for up to four emitters.

Multi-Channel Controller Features and Benefits

- Reduces equipment footprint and cost by reducing the number of controllers required
- Compatible with all MX-Series LED UV curing emitters; users can easily switch between spot, flood and line curing configurations
- All Bluewave® MX-series emitters available in 365, 385 and 405nm versions
- Simple on/off operation with no warm-up period
- Application specific curing profiles/programs can be easily entered, stored, and recalled when needed
- Units can be password protected so only production mode can be accessed by workers
- LED temperature management and system monitoring for maximised continuous operation without overheating
- Easily incorporated into automated systems with remote I/O interface

Specifications

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BlueWave MX-250 Emitter Spectral Output Chart

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Specification	RediCure™	PrimeCure™	VisiCure™
Output Frequency	365 nm	385 nm	405 nm
Intensity Output* At Array Surface: Intensity Output* At 25 mm Working Distance:	684 mW/cm^2 255 mW/cm^2	955 mW/cm^2 355 mW/cm^2	1,090 mW/cm^2 375 mW/cm^2
Curing area	50 mm x 50 mm		
Power Supply Input	100-240 VAC 2.5A, 50-60 Hz		
LED Timer	0 to 999 seconds		
Timer Resolution	0.1 seconds		
LED Activation	Foot pedal, LCD touch screen, or PLC		
Cooling	Air Cooled		
Dimensions (H x W X D)	Controller: 14.6 cm x 9.5 cm x 15.9 cm Emitter: 20.06 cm x 5 cm x 5 cm		

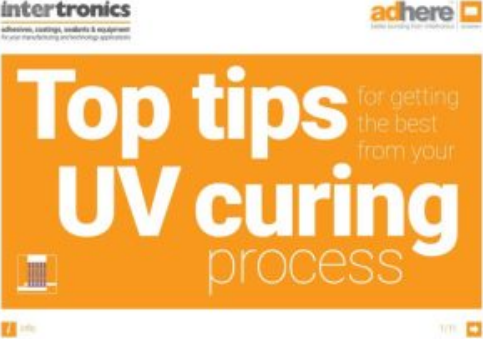# Dymax BlueWave® MX-250™ LED UV Flood Curing System, High-Intensity Flood Curing System

Specification	RediCure™	PrimeCure™	VisiCure™
Weight	Controller: 1.18 kg Emitter: 0.74 kg		
Operating Environment	10-40°C		
*Measured using a Dymax ACCU-CAL™ 50-LED Radiometer.			
Dymax BlueWave® MX-Series Controllers			
Power Supply Input	100-240 VAC ⎓ 2.5A, 50-60 Hz		
LED Timer	0 to 999 seconds		
Timer Resolution	0.1 seconds		
LED Activation	Foot pedal, LCD touch screen, or PLC		
Cooling	Air Cooled		
Dimensions (H x W X D)	Standard Controller: 14.6 cm x 9.5 cm x 15.9 cm Multi-Channel Controller: 18.7 cm x 13.1 cm x 16.9 cm		
Weight	Controller: 1.18 kg		
Operating Environment	10-40°C		

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Other Information

Top Tips for getting the best from your UV curing process
Read through our easy-to-follow guide on UV curing to maximise your processes productivity.

Find out more about the technology behind the **MX-250** by reading our technical bulletins and white papers**:**

- **Sustainability Benefits of LED UV Curing**
- **UV Curing and Tack-Free Cures**
- **Achieving Better Process Controls with Light Cure Technology**
- Advances in Light Curing Adhesives and Coatings Lead to Process and Quality Benefits in Electronics Manufacturing

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Ordering Information

A complete BlueWave MX-250 system features a controller/power supply, at least one LED emitter, and one interconnect cable per emitter. Emitters are available in 365, 385, and 405 nm wavelengths. Accessories noted below can be added for specific applications. Components are sold separately.

Units are warrantied against defects in material and workmanship for one year from date of purchase.

Specification	Description
Emitters	
DYM42806	Dymax BlueWave MX-250 RediCure™ LED Flood Emitter (365 nm)
DYM42807	Dymax BlueWave MX-250 PrimeCure™ LED Flood Emitter (385 nm)
DYM42808	Dymax BlueWave MX-250 VisiCure™ LED Flood Emitter (405 nm)
Controllers	

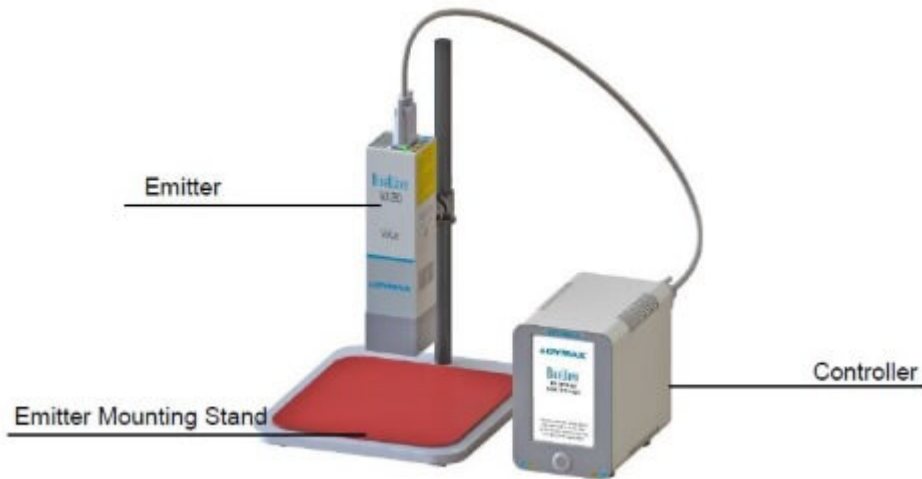# Dymax BlueWave® MX-250™ LED UV Flood Curing System, High-Intensity Flood Curing System

Specification	Description
DYM43184	MX-Series Multichannel Controller for 2 Emitters – interconnect cables to connect controller to emitters and foot pedals sold separately
DYM43181	MX-Series Multichannel Controller for 4 Emitters – interconnect cables to connect controller to emitters and foot pedals sold separately
Interconnect Cables	
DYM42287	2-Meter Interconnect Cable Assembly
DYM42889	5-Meter Interconnect Cable Assembly
Foot Pedal	
DYM43106	Foot Pedal
Accessories	
DYM42390	Mounting Stand for Emitter
DYM41268	BlueWave® LED Mounting Stand with Acrylic Back Shield

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Specification	Description
DYM41395	Three-Sided Acrylic Light Shield – 22 cm W x 22 cm D x 21 cm H. Works with DYM42390 and DYM41268 Mounting Stands. UV blocking
DYM42426	Emitter Holder Assembly Bracket
DYM43070	MX Emitter Stand – Includes LED Stand DYM 41268 and DYM 43019 Kit for up to 4 Emitters
DYM43019	MX Emitter Stand Kit – Attaches to Stand DYM 41268 and Holds up to 4 Emitters
DYM35285	Protective Goggles – UV blocking, grey tint, fit over prescription spectacles

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Let's start by talking about your application

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- Company*
- Phone*
- Email*
- Post code*

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- Tell us about your application

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