

Fusion UV[®] LightHammer[®] Mark III System

Advanced Sensor Technology
in Microwave-powered
Lamp Heads

Fusion UV[®]



Introduction

Advanced Sensor Technology in Microwave-powered Lamp Heads



With intelligence added to the Irradiator, the irradiator operating parameters can be measured and monitored remotely. The data obtained from the sensors is sent to the associated LightHammer® Mark III power supply via a CAN communication. The entirety of this data can be viewed using the optional Fusion UV monitoring software, Advanced Intelligent Monitoring System (AIMS®), available for the LightHammer® Mark III Systems.

This software application provides real-time system performance monitoring, enhanced system diagnostics, and preventative maintenance capability. Through the use of a proprietary communication network, many of the Smart UV Curing System's critical performance metrics can be measured and monitored by a PC connected to the unit's network.

KEY FEATURES

Sensors added to measure relative UV intensity, irradiator air pressure, inlet air temperature, bulb temperature, magnetron temperatures, ambient temperature, air humidity, and irradiator orientation

System parameters can be monitored via the optional Advanced Intelligent Monitoring System (AIMS®)

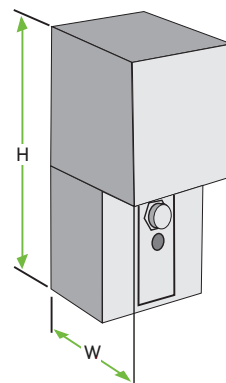
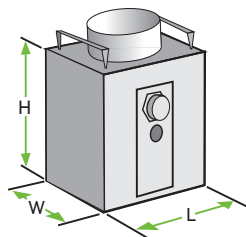
Provides accurate, real-time data to improve total cost of ownership, increase equipment and production up-times, increase operational intelligence, and improve system efficiency and reliability

Data can be used for system performance monitoring, system diagnostics and predictive maintenance, and much, much more

Intelligent Irradiator has same form and fit of existing LHI10 Mark II irradiators and can be a direct replacement for an existing Mark II irradiator

Specifications: LH10 Mark III System

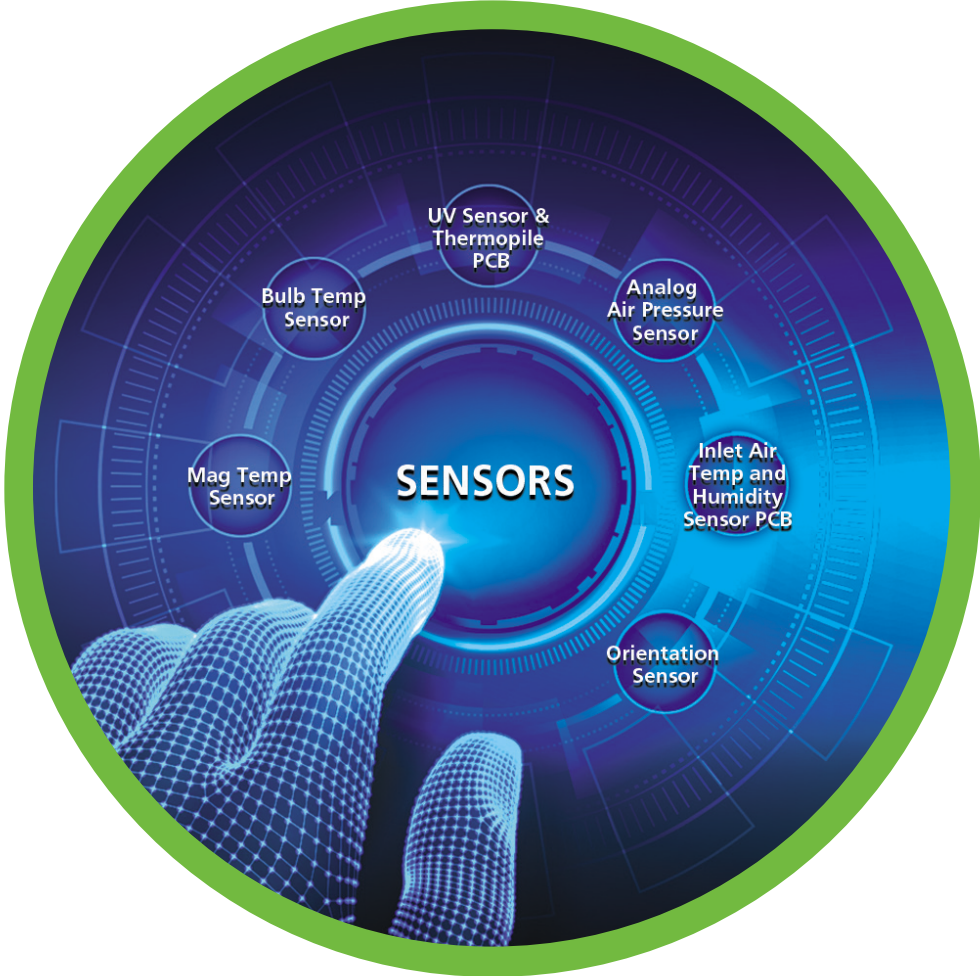
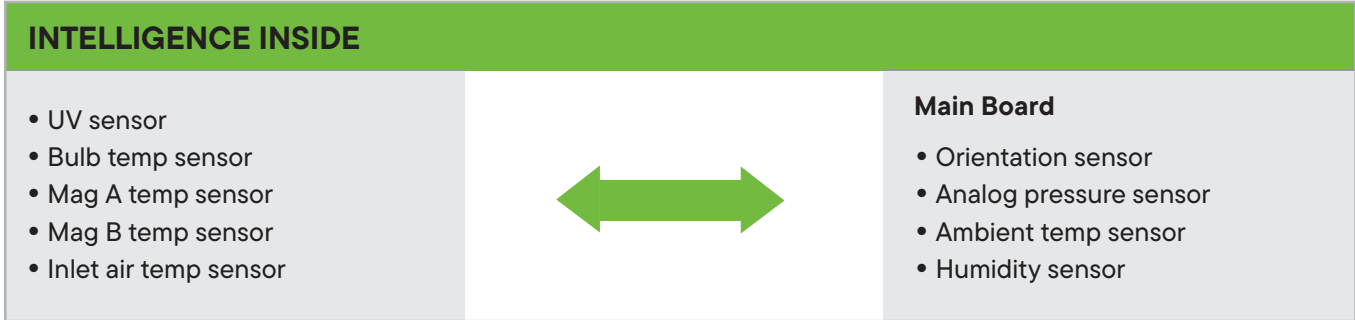
LH10 MARK III INTELLIGENT IRRADIATOR



	LH10 Mark III	LH10B Mark III
Weight	19 kg (42 lbs.)	28 kg (61 lbs.)
Dimensions	267 mm (10.5 in.) long x 208 mm (8.2 in.) wide at base x 384 mm (15.13 in.) high	267 mm (10.5 in.) long x 313 mm (12.32 in.) wide at blower top x 662 mm (26.07 in.) high
Cooling	7.7 m ³ /min. @ 2,500 Pa (270 scfm @ 10.0 in. H ₂ O) to 8.9 m ³ /min. @ 3,125 Pa (315 scfm @ 12.5 in. H ₂ O)	
Mounting position	Any orientation	
Operating voltage	Powered through LH10 Mark III power supply	
Substrate location	53 mm (2.1 in.) from face of lamp for maximum irradiance	
Footprint	266.7 mm x 200 mm (10.5 in. x 7.87 in.)	
Bulb fills	D, H, H+, and V	
Magnetron output @100% power	240 W/cm (600 W/in.)	
Sensors	Relative UV output, bulb temperature, analog air pressure, and others	

Lamps contain mercury. Manage in accordance with local, state or federal disposal laws.

Specifications: LH10 Mark III System



LH MARK III POWER SUPPLY

- Improved/lower total cost of ownership
- Up to 20+% energy savings
- >99% power factor correction
- ~90% high efficiency
- Minimum total harmonic distortion (THD)
- DC output w/essentially no ripple
- Universal industrial input power, auto ranging
- 4 optional world leading industrial open communication protocols
- IoT-enabled
- Up to 75% lighter than ferro-resonant PS
- Meets and exceeds worldwide standards & directives
- Backwards compatible



Specifications: LH10 Mark III System

LHP10 MARK III POWER SUPPLY	
Weight	25 kg (55 lbs.); 27 kg (60 lbs.) w/ blower control module
Dimensions (W x H x L)	419 mm (16.5 in.) x 217 mm (8.54 in.) x 777 mm (30.6 in.) with connector
Cooling	Internal fans
Input voltages	200 V–480 V (auto-ranging), 3-phase, 50/60 Hz
Max line current	At 380–480 V: 11.3–15 A, at 200–240 V: 23.5–28.6 A
Mounting position	Horizontal – unit can be free standing, stacked, or rack mounted
Line power at 100%	10 kVA
Clearance	Allow 305 mm (12 in.) clearance front and rear of the power supply for cooling air flow and cable connections
Safety interlocks	E-stop, external interlocks (customer I/O), RF fault
Mag current @ 100% power	890 mA/magnetron
Mag current output accuracy	±1%
Power factor @ 100% power	99%
I/O communications	⁽¹⁾ Primary/Secondary (dry contact)(S), DeviceNet™ (O), Profibus® (O), EtherNet/IP™ (O), Profinet® (O)
⁽¹⁾ Power level control	4–20 mA, 0–10 vdc, 4-bit binary, front panel
Front panel indicators/controls	Power On/Off switch, USB port, display unit with ON/Standby/OFF buttons and Power Level control buttons

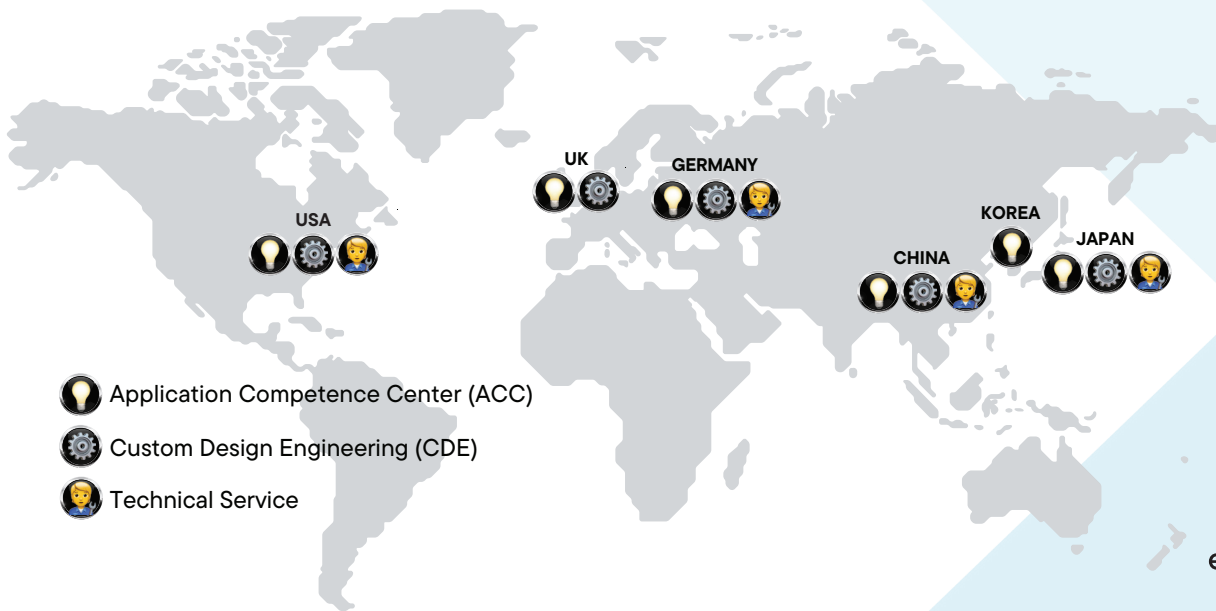
Specifications subject to change without notice.

(1) LH10 MARK III POWER SUPPLY POWER LEVEL CONTROL OPTIONS

Method	Control
4–20 mA input	1% steps, via primary/secondary operation
0–10 Vdc input	1% steps, via primary/secondary operation
4-bit binary input	5% steps, via primary/secondary operation
Front panel switches	1% steps, via primary/secondary operation

Contact your local Excelitas Fusion UV office for an engineered solution for your specific requirements.

Success Factor: Regional teams close to our customers



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ISO 9001 Certified QMS

