

# Truscan



PATTERN SCANNING MULTI-WAVELENGTH  
LASER PHOTOCOAGULATOR



Unmatched Versatility,  
Unmatched Value



**LIGHTMED**

Enlightening Vision

# TruScan

## Ultimate Multiwavelength Pattern Scanning Laser

TruScan™ initiates the next gen of LightMed's most ambitious Ophthalmic Laser Family. The intelligent design features **Single & Dual Wavelength** system (577nm, 532nm, 670nm, 810nm) for ultimate clinical versatility supported with Pattern Scanning technology for enhanced treatment outcomes and controls. LightMed's customary model of 'industry's best value for money' is again reinforced with the TruScan making it the most versatile and price competitive laser Photocoagulator in its market segment.



### Ergonomic, Reliable, Integrated and Portable

The LightMed TruScan was designed to serve as highly versatile and high duty cycle laser, yet with finesse of hi tech features and convenient controls.

- Superb slit lamp integrated laser workstation, yet uniquely portable system for use O.R. with Endo and LIO adaptability.
- Dual fiber port detachable laser console with Remote Control.
- The only Pattern Scanning system in its class with Micro Pulse modality (micro pulse with 577nm or 810nm wavelengths).
- The only system with customizable wavelength options in its class (secondary wavelength can be added on in future).
- Ultra efficient, reliable and powerful laser cavity technology produces 2.0W (577nm or 532nm or 810nm) on corneal surface at all spot sizes.

### Advanced LCD Touch Screen Interface

The large 11.6" backlit color LCD touch screen has intuitive menus with easy selection of patterns and treatment settings.

The LCD interface screen has also a Windows™ embedded PC to allow greater personalization of the system with the ability to store and retrieve personal data.

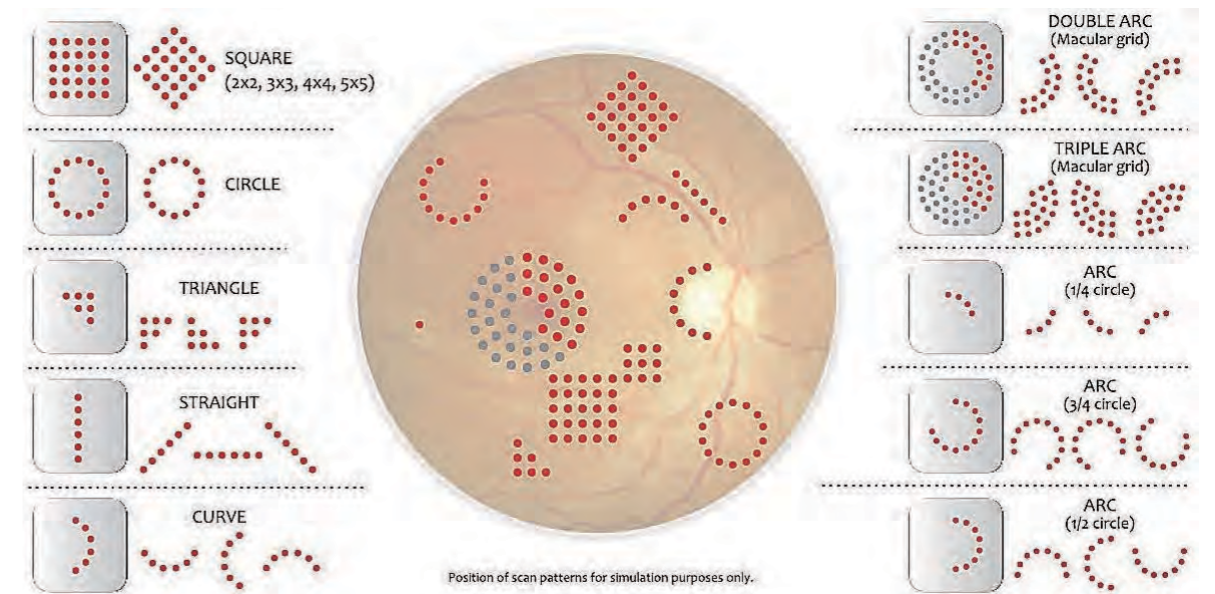
- Customizable Treat parameters and interface languages.
- Built in patient database and library.
- Preferred Treatment Settings Storage.
- Unlimited User Selections.
- Build in help and system manuals.



### Largest Selection of Customizable Patterns and Spot Sizes

The LightMed TruScan has the largest selection of scanning laser patterns designed to aid the treatment of various pathologies enhancing treatment speed, safety and convenience.

- Superb parfocal continuously variable and clinically guided spot size controls with 100 - 500µm for Pattern Scanning Mode and 50 - 1000µm for Single Spot Mode.
- Convenient adjustment of treatment patterns for shape spacing, rotation and separation.



### Smart Joystick Guided Micromanipulator

The slit lamp integrated Micro-Joystick control provides superb fingertip controls and precision of all treatment spots and patterns.

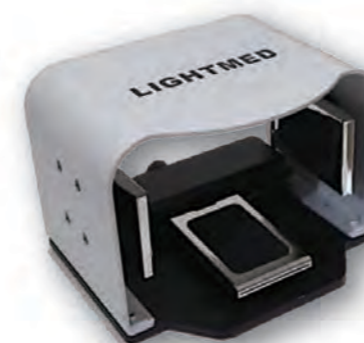
- Achieves unique sense of control.
- Allows better visualization of the treatment surface.
- Augments the treatment speed and precision.



### Wireless, Power Control Foot Pedal

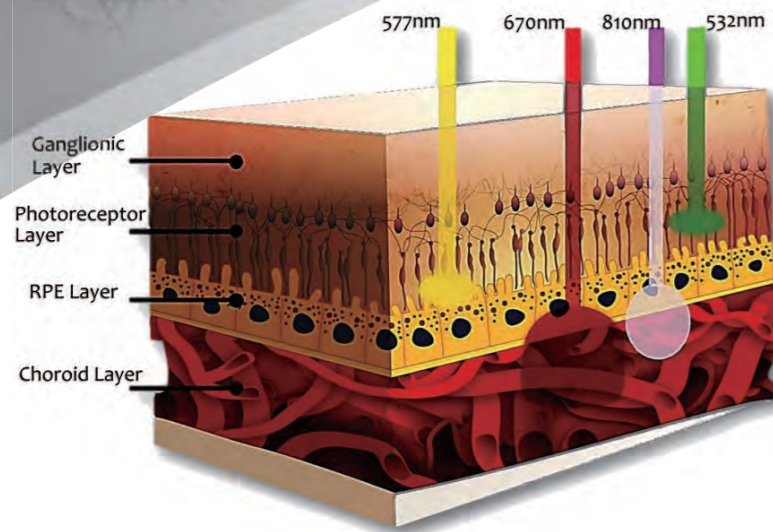
Treatment speed, consistency and focus are enhanced further due to a wireless, foot power control pedal.

- Convenience of hands free power adjustment.
- Assures better attention span.
- Reduces cable clutter.



# TruScan

## Ultimate Multiwavelength Pattern Scanning Laser



### 4 Customizable Wavelength Options

The TruScan can be supplied as a Single wavelength system or customized to Dual wavelength of preferred choice.

Any Single wavelength system can be easily upgraded to a Dual wavelength at later stage, maximizing the device versatility and investment potential.

Standard system configurations include:

- Green - 532nm
- Green / Red - 532/670nm
- Green / Infrared - 532/810nm
- Red - 670nm
- Infrared - 810nm
- True-Yellow - 577nm
- Yellow / Red - 577/670nm
- Yellow / Infrared - 577/810nm

The Yellow 577nm and 810nm wavelengths are also available with Micro Pulse configuration, whereas the Green 532nm with an optional 4.0W Cavity for ENT applications.

### True-Yellow 577nm the new Gold Standard

- The true yellow laser is becoming the gold standard, due to superior absorption properties.
- Yellow light results in less thermal spread, functional damage and scar enlargement with no absorption in macular xanthophyl (unmatched safety for treatment near macular).
- Easily penetrating through nuclear sclerotic cataracts and easily penetrates fluids, hence ideal for retinal detachments or tears.
- Exceptional oxyhaemoglobin absorption, produces significantly less scatter requiring lower energy levels to achieve optimum results with no pain and reduced post op implications.

### Green 532nm the proven standard in Pan Retinal Photocoagulation

- Clinically proved standard of care wavelength well suited for large variety of retinal conditions with melanin as the target chromophore.
- Excellent at targeting melanin rich cells of RPE in clear ocular media.
- Immediately visible tissue response permits precise administration of the laser power.

### Red 670nm the ideal solution for Choroidal Photocoagulation

- Nominal hemoglobin absorption makes 670nm ideal in penetration of moderate vitreous hemorrhage.
- Ideal for selective treatment of Choroidal vessels without coagulation of retinal vessel.

### Infrared 810nm the standard for ROP and Transscleral Cyclophotocoagulation

- Good alternative to deep choroid penetration.
- Great scleral penetration making wavelength ideal for Transscleral Cyclophotocoagulation (with Dio Pexy Probe) and Refractory Glaucoma Treatment with G-Probe).

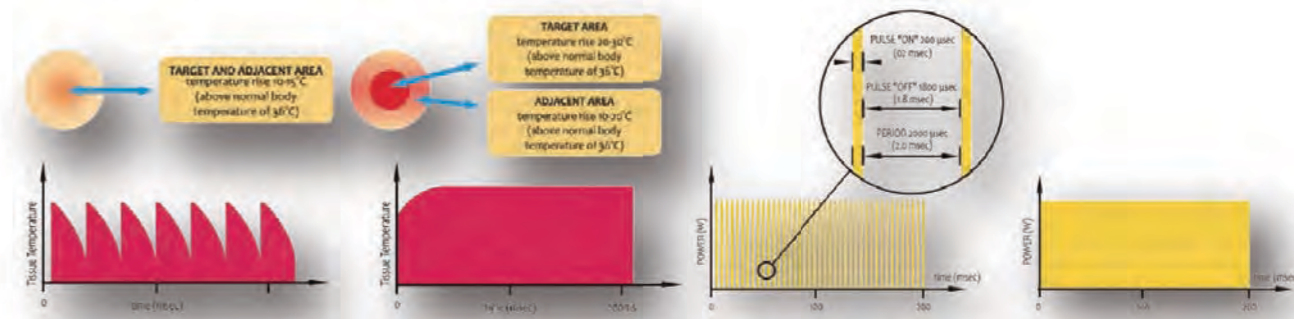
### Micro Pulse Photocoagulation

Micro Pulse also known as Sub - Threshold photocoagulation offers significant clinical advantages compared to conventional continuous wave approach, preventing laser induced thermal retinal damage and related treatment side effects.

This photocoagulation technology offers novel approach to treatment of numerous retinal disorders with greater safety margins and no known side effects.

Micro Pulse Highlights :

- Treatments in the Macular region Possibility to approach up to 500µm of the fovea.
- Completely Painless.
- More efficient.
- Less destruction of healthy tissue.
- Treatments can be repeated.
- Can be used in very early stages of the disease.
- Does not coagulate but stimulates the RPE to function better, releases the cytokines that modify the genetic expression and the production of VEGFs.



Example of a typical zooms exposure enveloping 10% micro pulse duty cycle in comparison with 200ms conventional continuous wavelength mode, their accumulative tissue temperature increase

### Micro Pulse Trabeculoplasty (MLT)

Micro Pulse technology also permits the MLT treatment which is used to reduce intraocular pressure in open angle glaucoma with significant advantages over ALT treatment with less energy and inflammation.

Unmatched Characteristics:

- SAFE: MLT is not associated with systemic side effects.
- SELECTIVE: MLT utilizes selective photothermolysis to target onllyspecific cells leaving the surrounding tissue intact.
- SMART: MLT stimulates the body's natural mechanisms to enhance outflow of the fluid in the eye.
- PAINLESS: MLT is painless and better tolerated than ALT.
- Repeatable: MLT treatment can be repeated without causing harm or further complications.

## ACCESSORIES



LIO



Mobile Cart



Endoprobes & G-Probe



Remote Control

TECHNICAL SPECIFICATIONS	Yellow 577nm	Infrared 810nm	Red 670nm	Green 532 nm
Power Output	2 W (on Cornea)	3W (on Cornea)	700mW (on Cornea)	3W (on Cornea)
Wavelength	577nm	810nm	670nm	532nm
Mode of Operation	Continuous Wave			
Laser Type	Optically Pumped Dual Diode Solid State			
Exposure Duration	0.01s - 3.0s, continuously variable			
Repeat Interval	0.01 to 3.0s, and single			
Micro Pulse Setting (disengaged in 670nm and 532nm mode)	Micro Pulse Duration: 200µs Micro Pulse Duty Cycle: 10% Micro Pulse Period: 1800µs			
Pattern Scanning (disengaged in 670nm mode)	Single, Line, Square (2x2, 3x3, 4x4, 5x5), Macular Arc (single, double, triple ¼, ½, ¾), Circle and Triangle - Spot width, density and 360 rotation available for each pattern.			
Spot Size	Single spot: Continuously variable 50µm to 500µm Scanning Patterns: Continuously variable 100µm to 500µm			
Safety Class	Class 4			
Aiming Laser	Red laser diode (650nm,) 0.1- 1.0mW continuously variable			
Cooling System	Fan cooled and TEC's for Laser Diode and Crystal			
Dimensions	TruScan Console : 12 cm (H) x 38 cm (W) x 40 cm (D) Complete System on table : 75 cm (H) x 120 cm (W) x 42 cm (D) TruScan on Trolley : 90 cm (H) x 45 cm (W) x 46 cm (D)			
Weight	Laser Console : 10 kg Complete system on table : 92 kg System on Trolley: 72 kg			

Notes: Specifications are subject to change without notice. ©2013, LightMed, LightLas, TruScan are the registered trademark of LightMed Corporation. LightMed device are made in strict accordance with international laser safety regulations and standards: EN 60601-1, EN 60601-1-2, EN60601-2-22, IEC 60852-1, NBR

