# Clubmax 10 FB4

## PRODUCT SPECIFICATION SHEET



## DESCRIPTION

Over the years, thousands of Clubmax FB4 lasers found their customers all around the world. Clubmax FB4 systems have a great reputation and hold their price up well. What we offer today is the 3rd generation of our all-time bestseller that we crafted to perfection. Clubmax FB4 lasers are available in the range from 2 to 15W.

**Clubmax 10 FB4** offers a lot of power in a reasonably compact housing and beam properties that make it very efficient for all medium to large size indoor venues and smaller outdoor stages. It comes with a built-in FB4 control interface that allows you to control the laser in many ways, including from a PC or a lighting console.

**Highlights of the Clubmax 10 FB4 laser display system:**

- Optical bench integration slot.
- battlefield tested chassis, housing and internal design are all robust and sturdy, making Clubmax an ideal laser system also for permanent installations, touring and hire.
- ultra-low-divergence RGB laser source ensures high brightness at long projection distances. The premium quality laser source is manufactured by us and uses the latest semiconductor diode laser technology in conjunction with the most advanced beam shaping techniques.
- Colour Balance display mode - once this mode is enabled, the colours outputted by laser will correspond to those you see on your computer screen, without the need for colour palette calibration in your software. These colour settings are stored in the internal system memory of Clubmax FB4, meaning you always get the same colours from all Clubmax lasers, no matter what control interface you use.
- 40 Kpps scanning speed with default ScannerMax 506 scanner set; up to 50 Kpps with optional Saturn5 scanners.
- the built-in FB4 control interface allows for control from a PC or lighting console via Ethernet, DMX, ArtNet and ILDA.
- an easily accessible beam alignment mechanism - no need to take the lid off.
- direct compatibility with DiscoScan 2.0 bracket, SafetyScan lens bracket and 4-way masking plate.
- it can be factory fitted with a Single or Dual Optical Bench and PASS card.
- TÜV certification.

Every KVANT laser system is delivered with a Quality Control Certificate. The certificate includes the power output measurement of each laser wavelength within the system.

## SPECIFICATIONS

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|---|---|
| **Source | Type:** | semiconductor diode | full-colour RGB laser projector |
| **Suitability:** | indoor/outdoor laser displays [atmospheric, abstract, text, animations] |
| **System control:** | FB4-SK [Ethernet, ArtNet, DMX, ILDA | PC, Lighting Console or Autoplay] |
| **Compliant with:** | EN 60825-1 [tested by TÜV SÜD], FDA |
| **Weight [kg]:** | 13 |
| **Size [WxHxD, mm]:** | 339 x 168 x 353 |
| **Guaranteed opt. output [mW]:** | 9700 |
| **R | G | B [mW]:** | 2500 | 2800 | 4500 [*see note A below] |
| **Wavelengths [nm, ±5nm]:** | 637 | 520 | 445 |
| **Beam size [mm]:** | 5 x 4.5 |
| **Beam divergence [mrad]:** | 0.9 [full angle, averaged value, *see note B below] |
| **Modulation [kHz] | type:** | 100 | analogue |
| **X-Y scanners:** | ScannerMAX 506 Compact | 40 Kpps @ 8° [more Options below] |
| **Power requirements [V] | Input:** | 100-230/50-60Hz | Neutrik powerCON TRUE1 |
| **Max. power consumption [VA]:** | 340 |
| **Operation temperature [°C]:** | 10-40 |
| **Included in the set:** | Heavy-duty flight case, 1.5M power lead, 10M Ethernet rj45 signal cable, E-STOP remote with 10M 3-pin XLR cable, set of 4 safety keys, interlock connector [for the USA only], USB memory stick with the user manual. Pangolin QuickShow laser control and creation software is available for FREE download. |
| **HW features:** | All the basic system settings and adjustments such as power output adjustment for each colour, X & Y axes invert, X & Y size and position, etc. are managed via the built-in FB4 control interface.<br>Scanning system overload protection.<br>Optical bench integration slot. |
| **Laser safety features:** | Keyed interlock, emission delay, magnetic interlock, scan-fail safety, fast electromechanical shutter [reaction time <20ms], adjustable aperture masking plate, Emergency STOP system with keyed remote and manual RESTART button. |
| **note A** | Due to Advanced Optical Correction technology used in Kvant systems, the real power output of each laser module installed within the system may slightly differ from its specification. This doesn't affect the total guaranteed power output of the system. |
| **note B** | The beam divergence total is calculated as an average arithmetic value of all individual colours. The divergence of each colour is calculated as:<br>1. FWHM of the beam cross-section for round beams, or<br>2. The arithmetic average of the beam's horizontal and vertical divergence for all rectangular beams. |