

LD 20 Spectrum

PRODUCT SPECIFICATION SHEET



DESCRIPTION

Our good old Spectrum went through vast number of changes and improvements throughout the years of its existence.

The current 2020 version of Spectrum lasers is all that success-focused laser display professional needs for large scale outdoor shows, and for whom failure is not an option.

The Spectrum range (including LD Spectrum, Spectrum RGBY and LD Spectrum RGBY product lines) represents power, precision, robustness, cutting edge technology and top of the range features, which are often unique and make the Spectrums what they are! Bright, reliable, fast-scanning and a pleasure to work with.

The whole Spectrum family is based on identical and field-tested construction, making it suitable for intense touring, permanent installs, and daily hire business.

LD 20 Spectrum (Low Divergence version of Spectrum 20) comes fitted with a special optics that keep the beam divergence at incredibly low **0.44 mrad** (measured at a full angle), resulting in a powerful and unusually bright beam over distance. And although the initial beam size is a bit bigger than on standard systems, with Saturn9 scanners the 30 Kpps speeds and drawing precision are easily maintained.

LD 20 Spectrum lasers are suitable for long-range outdoor projections.

Highlights of the Spectrum:

- a lot brighter than a standard non-LD system
- low divergence of only 0.44 mrad at a full angle
- 30 Kpps Saturn9 scanning
- Colour Balance display mode
- robust construction
- *optional* Motorised Dichroic Filters for quick and easy beam alignment
- integrated Pangolin FB4 control interface as standard with Pangolin QuickShow 4.0 laser control and creation software included
- direct control from most lighting consoles over the ArtNet

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.

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SPECIFICATIONS

Source Type:	semiconductor diode & OPSL full-colour RGB laser projector
Suitability:	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]:	36
Size [WxHxD, mm]:	510 x 273 x 396
Guaranteed opt. output [mW]:	20000
R G B [mW]:	6000 8000 6000 [*see note A below]
Wavelengths [nm, ±5nm]:	637 532 OPSL 445
Beam size [mm]:	10 x 10
Beam divergence [mrad]:	0.44 [full angle, averaged value, *see note B below]
Modulation [kHz] type:	100 analogue
X-Y scanners:	Saturn9 30kpps @ 8°, max. 40°
Power requirements [V] Input:	100-230/50-60Hz Neutrik powerCON TRUE1
Max. power consumption [VA]:	1200
Operation temperature [°C]:	10-40
Included in the set:	Heavy-duty flight case, 1.5M power lead, 25M Ethernet rj45 signal cable, E-STOP remote with 30M 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. Scanning system overload protection.
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: 1. FWHM of the beam cross-section for round beams, or 2. The arithmetic average of the beam's horizontal and vertical divergence for all rectangular beams.