KVANT®

ABOUT US

Dr. P. Kubosek, CEO and founder, has headed KVANT s.r.o. since it was established in 1995 by merging two former companies to cope with a surge in global demand for laser technology. He has steered KVANT to become one of the leading European developers and manufacturers of high quality laser systems.

"We attribute the expansion of KVANT to our intensive R&D with those technological improvements going straight downstairs to our production line. Such products as our 20 to 35 Watt, full-colour laser entertainment systems are currently experiencing a high volume of sales in the USA.

Our global laser system hire operation is ready to ship your choice from over one hundred and fifty high quality laser systems; with the option of having our fully trained operatives setting up and directing the show. We also offer multimedia show planning for your project with our multilingual designers efficiently adapting our laser systems and 3D mapping to fit in with any of your structural and safety requirements and any special effects, pyrotechnics, etc.

We offer constant monitoring of your project with immediate backup from our highly trained technical support team. Every customer has full-time access to our experts who have many years of collective experience in the end-user delivery of effective, safe and reliable laser displays.

We have more then sixty distributors worldwide with a comprehensive list in this catalogue."

"We know the way forward and that is key to our success"

RNDr. PAVOL KUBOŠEK, CSc.

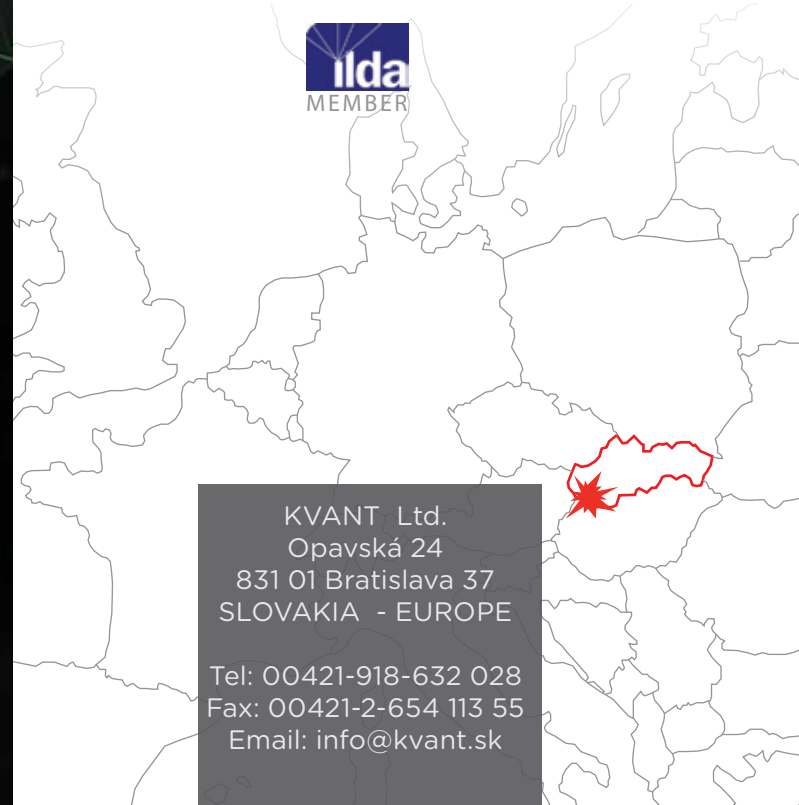
www.lasershow.sk

www.facebook.com/kvantsk

www.youtube.com/shopkvant

OUR EXHIBITION TEAM

CERTIFICATIONS



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SLOVAKIA - EUROPE

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THIS IS US

we build lasers for you

Research & Development

Our R&D department has contributed to a **number of patents** and patents pending in a variety of laser related fields including in laser beam shaping and the modification of laser light parameters. Ongoing research and product development is carried out under the same roof as our production line in our 1,800 sq.M floor buildings in the capital city of Bratislava with over one hundred staff creating our **high quality laser products**.

We only use components from reputable American, Japanese and German manufacturers and all of our products meet international and EU safety requirements. KVANT is at the cutting edge of research into laser technology with our researchers in cooperation with Slovakian and German institutions and other academic institutions worldwide

New DPSS modules

Our patent-pending DPSS technology is based on innovative laser light sources and optics which allows us to offer improved linearity, stability, life-span and durability in our laser modules of between 100-500mW. We are currently developing this new technology to fit in our laser modules above 500mW and with the ability to cover a wider range of colours.

Electronics R&D

Our PCB prototyping machine offers us immediate turnaround and new electronic circuits can then be tested the same day.
We have developed a driver board that allows analog modulation up to 100kHz with linear response between the modulation signal and laser output power.

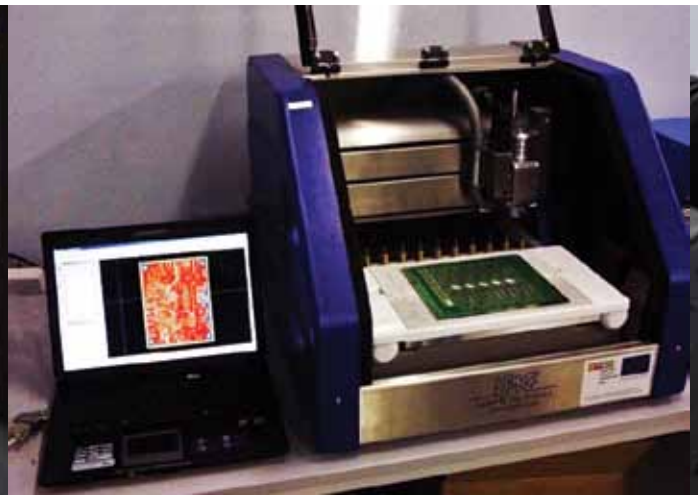
Optimization of the optics

We use lens molding machines to manufacture optically optimized lenses in-house for most of our current laser systems.

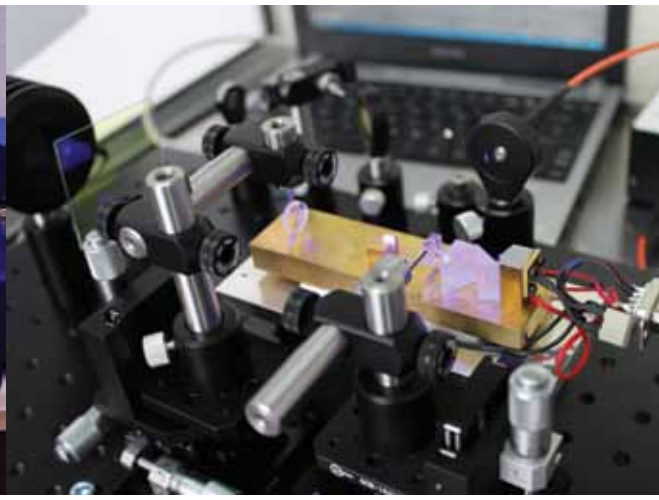
Custom design

Our expertise allows us to offer any laser system custom built to your exact specifications and requirements.

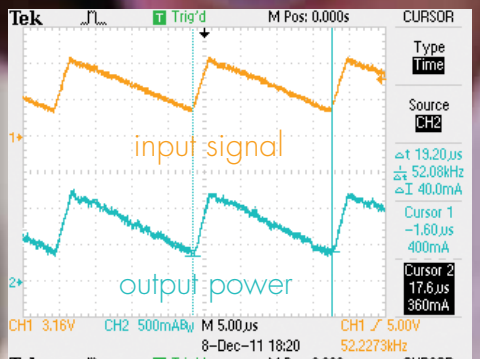
Lens molding



Development of electronics



DPSS laser development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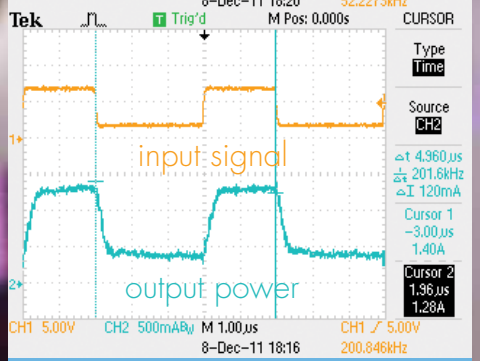
Trig'd
M Pos: 0.000s
CURSOR
Type
Time
Source
CH2
Δt 19.20µs
1/Δt 52.08kHz
ΔI 40.0mA
Cursor 1
−1.60µs
400mA
Cursor 2
17.6µs
360mA
input signal
output power
CH1 3.16V
CH2 500mA
M 5.00µs
CH1 5.00V
8-Dec-11 18:20
52.2273kHz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Trig'd
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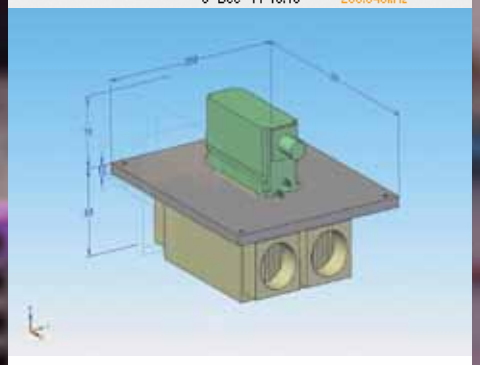
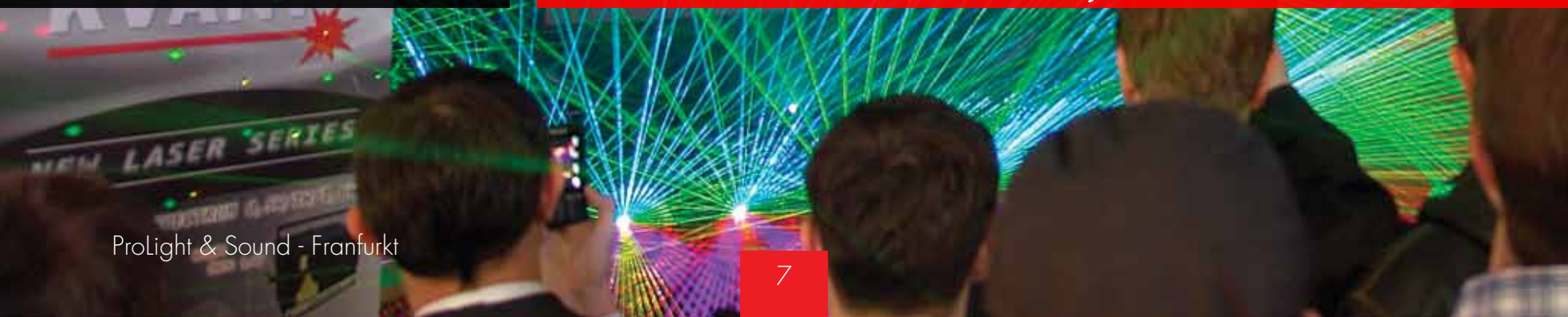
CURSOR
Type
Time
Source
CH2
Δt 4.960µs
1/Δt 201.6kHz
ΔI 120mA
Cursor 1
−3.00µs
1.40A
Cursor 2
1.96µs
1.28A
input signal
output power
CH1 5.00V
CH2 500mA
M 1.00µs
CH1 5.00V
8-Dec-11 18:16
200.846kHz



FULL COLOUR LASER SYSTEMS

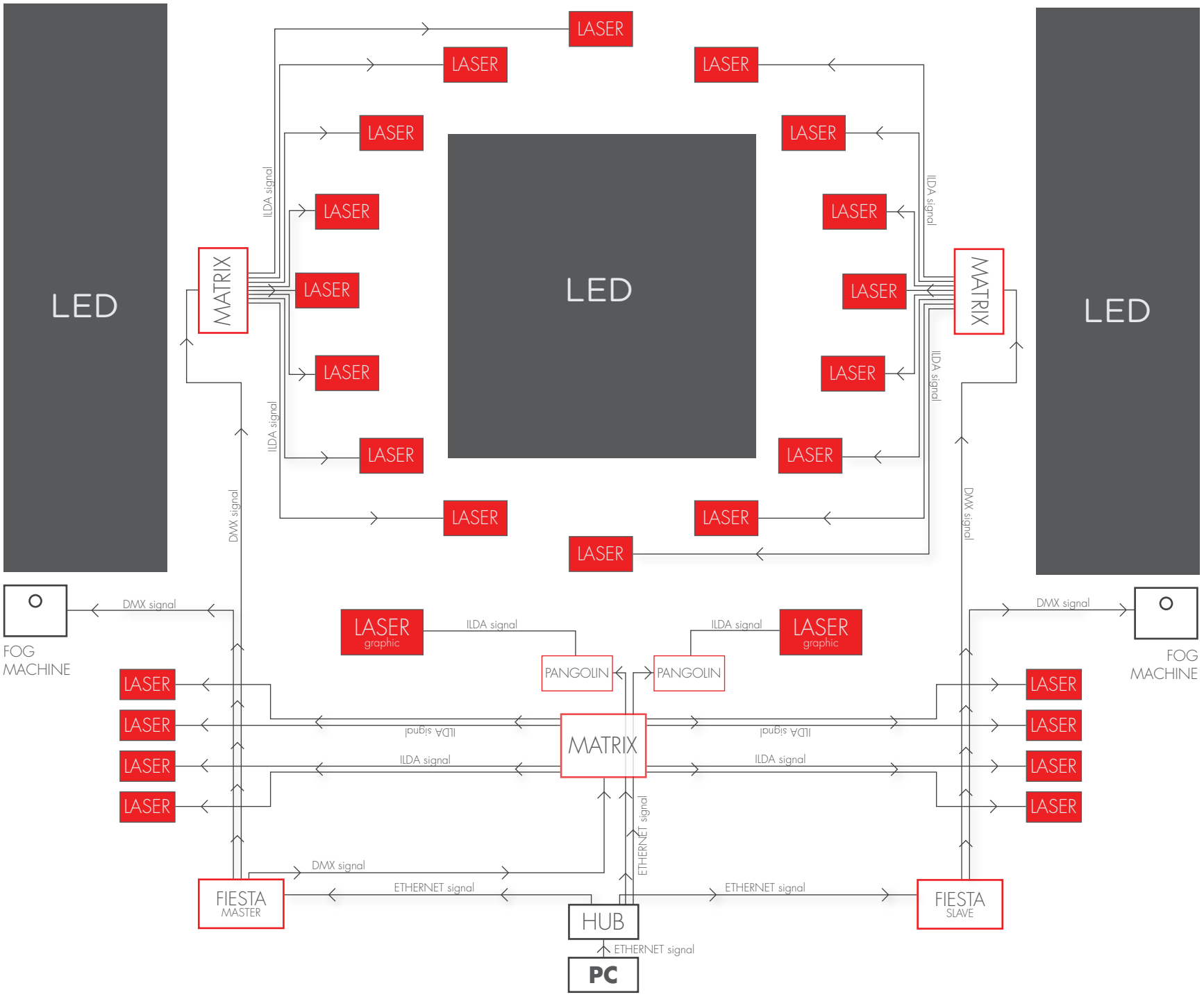
POWER RANGE 1,6W - 3W



ProLight & Sound - Franfurkt

ADVANCED EXAMPLE OF INDOOR MULTIMEDIA SHOW SETUP

UTILIZING 26 LASERS, LED DISPLAYS & VARIOUS CONTROL SYSTEMS



SPECTRUM

1,6W - 3W

	RED 637nm	GREEN 532nm	BLUE 445nm	GUARANTEED POWER
SPECTRUM 1,6W	340mW	300mW	1000mW	1,6W
SPECTRUM 2W	640mW	500mW	1000mW	2W
SPECTRUM 2,5W	1000mW	500mW	1000mW	2,5W
SPECTRUM 3W	1000mW	1000mW	1000mW	3W

Our low power, full colour white-light systems were designed with **maximum effectiveness** in mind. Their small size, good colour balance and fast scanning speeds make these little units ideal for indoor laser shows and laser graphics applications. While our budget machine 'eLite' is **great for more permanent installations**, the more robust 'Spectrum' models are unbeatable for touring and hire purposes.

All these models are certified to CE, ISO 9001:2000 and fully comply with the latest Laser Safety Product Standard EN 60825-1:2007.

- Sturdy construction - CNC machined aluminium housing
- Reversible attachment bracket
- Rated to IP44 as standard (up to IP66 if required)
- Cooling fans speed control for silent operation
- Sealed but easily accessible optical sector

X,Y axes switches, ILDA In/Out, separate brightness control for each colour, safety interlock with key

- Scan-Fail Safety Card
- Compatible with all external laser control systems (i.e. Pangolin BEYOND or Fiesta.NET)
- Horizontal limiter of the laser output aperture
- Attachment bracket for Pangolin safety lenses available

Inbuilt laser control system (Moncha.NET software included):

3 ways of control:

- Ethernet(PC), DMX, Stand-alone
- Wireless operation over standard WiFi network
- LCD display with easy control over these basic parameters: size, position, rotation, colour, IP and DMX addresses
- SD slot for cards with up to 32GB
- DMX Out - 512 channels

Low budget, **full colour laser** projector KVANT Spectrum eLite 1.6W RGB (637nm, 532nm, 445nm, LM scanners). Ideal solution for smaller in-door venues.

theaters and concerts

discotheques and clubs

presentations

corporate events

exhibitions

advertising

smaller size indoor venues

Armin Van Buuren - Bratislava

FULL COLOUR LASER SYSTEMS

POWER RANGE 6W - 15W

Czechoslovakia got talent 2011

SPECTRUM 6W - 15W

These medium power, full colour white light systems are truly exceptional. Their well balanced output, matching beam diameters and divergences and **clever internal and external designs** make these your first choice when it comes to large indoor arenas or smaller outdoor events. They have excellent beam properties and are the **perfect compact power** horse for large laser graphic shows.

All these models are certified to CE, ISO 9001:2000 and fully comply with the latest Laser Safety Product Standard EN 60825-1:2007.

	RED 637nm	GREEN 532nm	BLUE 445nm	GUARANTEED POWER
SPECTRUM 6W	2000mW	2000mW	2000mW	6W
SPECTRUM 8W	2000mW	3000mW	3000mW	8W
SPECTRUM 10W ULTRA	3000mW	4000mW	3000mW	10W
SPECTRUM 14W	3000mW	8000mW	3000mW	14W
SPECTRUM 15W	4000mW	8000mW	4000mW	15W

large graphic shows

- Sturdy construction - CNC machined aluminium housing
- Reversible attachment bracket
- Rated to IP44 as standard (up to IP66 if required)
- Cooling fans speed control for silent operation
- Sealed but easily accessible optical sector

X,Y axes switches, ILDA In/Out, separate brightness control for each colour, safety interlock with key

- Scan-Fail Safety Card
- Compatible with all external laser control systems (i.e. Pangolin BEYOND or Fiesta.NET)
- Horizontal limiter of the laser output aperture
- Attachment bracket for Pangolin safety lenses available

Inbuilt laser control system (Moncha.NET software included):

3 ways of control:

- Ethernet(PC), DMX, Stand-alone
- Wireless operation over standard WiFi network
- LCD display with easy control over these basic parameters:

size, position, rotation, colour, IP and DMX addresses

- SD slot for cards with up to 32GB
- DMX Out - 512 channels

medium & large size indoor venues

smaller outdoor events

national festivals and celebrati

dvertising displays

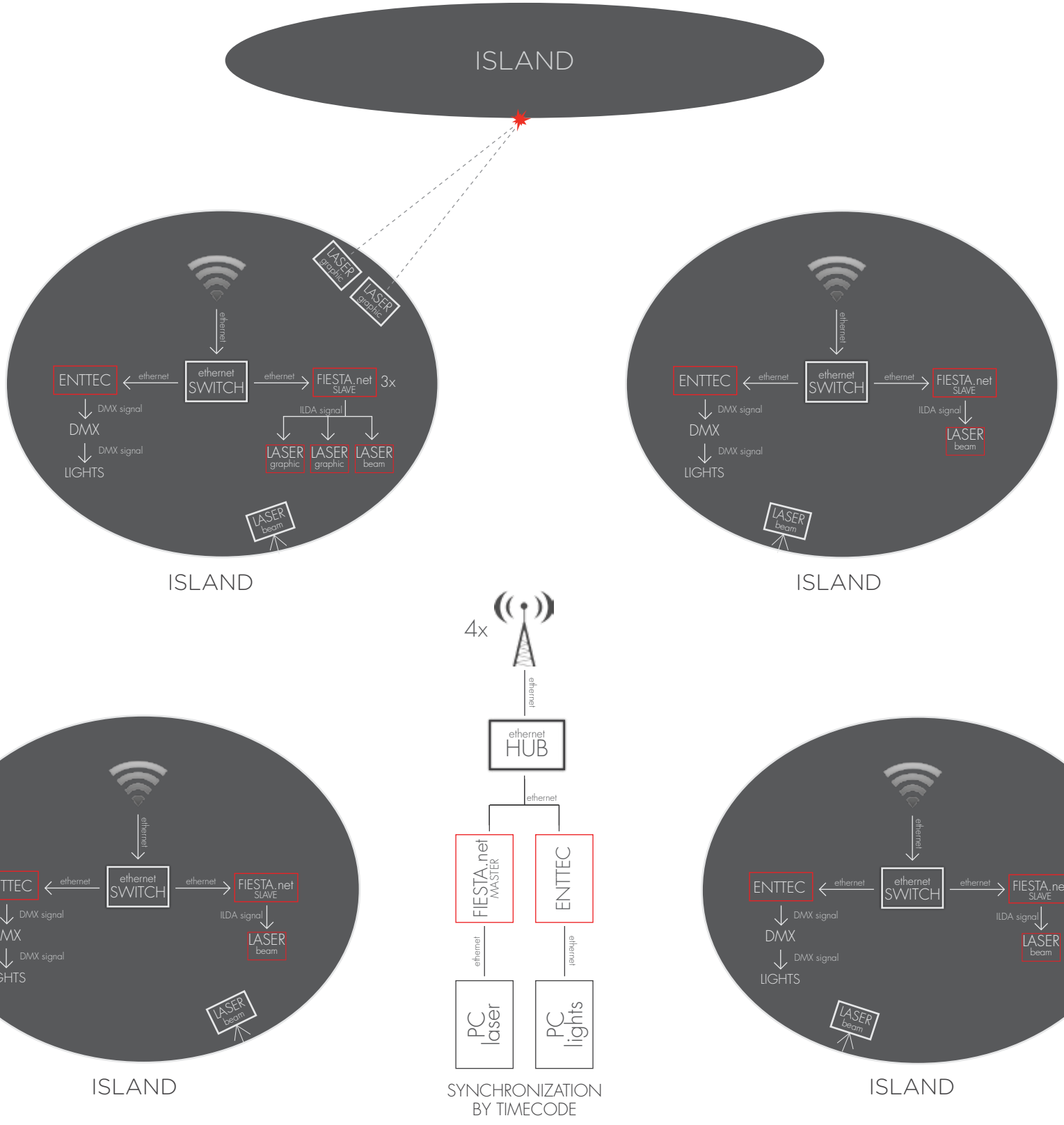
FULL COLOUR LASER SYSTEMS

POWER RANGE 20W - 35W

Ha Long Bay - Vietnam

PRACTICAL EXAMPLE OF OUTDOOR SHOW SETUP

UTILIZING 6 LASERS, WIFI CONTROL & ARTNET ENTTEC SYSTEM

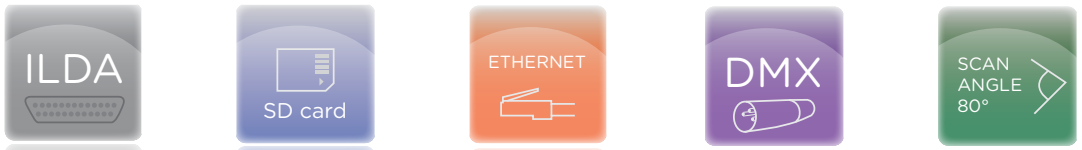


SPECTRUM
20W - 35W

	RED 637nm	RED 660 nm	GREEN 532nm	BLUE 445nm	YELLOW 577nm	GUARANTEED POWER
SPECTRUM 20W	5800mW		8000mW	6000mW		19W
SPECTRUM 25W	5800mW		8000mW	6000mW	5000mW	24W
SPECTRUM 30W	6800mW	4300mW	8000mW	12000mW		28W
SPECTRUM 35W	6800mW	4300mW	16000mW	12000mW		34W

When **the ultimate power and performance** is required, our high-power systems are at your service. Their sturdy construction and weather resistance means that you can use them safely in almost any environment. These laser systems are suitable for **large outside events** and for long distance advertising.

All these models are certified to CE, ISO 9001:2000 and fully comply with the latest Laser Safety Product Standard EN 60825-1:2007.



- Sturdy construction - CNC machined aluminium housing
- Reversible attachment bracket
- Rated to IP44 as standard (up to IP66 if required)
- Cooling fans speed control for silent operation
- Sealed but easily accessible optical sector

X,Y axes switches, ILDA In/Out, separate brightness control for each colour, safety interlock with key

- Scan-Fail Safety Card
- Compatible with all external laser control systems (i.e. Pangolin BEYOND or Fiesta.NET)
- Horizontal limiter of the laser output aperture
- Attachment bracket for Pangolin safety lenses available

Inbuilt laser control system (Moncha.NET software included):

3 ways of control:

- Ethernet(PC), DMX, Stand-alone
- Wireless operation over standard WiFi network
- LCD display with easy control over these basic parameters: size, position, rotation, colour, IP and DMX addresses
- SD slot for cards with up to 32GB
- DMX Out - 512 channels

long distance advertis

opening ceremonies

Ha Long Bay - Vietnam

SINGLE COLOUR LASER SYSTEMS

GREEN 0.5W - 20W

BLUE 1W - 20W

Ha Long Bay - Vietnam

MAXIM LASER SYSTEM

We call our pure green & blue lasers MAXIM. These single colour beasts are **extremely compact**, but deliver outstanding performance. High power models can be visible from over 20km away - enough distance to draw someones attention. New internal electronics allows us to minimize the sizes and weights and MAXIMize efficiency.

All these models are certified to CE, ISO 9001:2000 and fully comply with the latest Laser Safety Product Standard EN 60825-1:2007.

	LASER TYPE	OUTPUT POWER
MAXIM GREEN 0.5W	BDPSS KVANT	450mW
MAXIM GREEN 2W	JENLAS D2.mini	2W
MAXIM GREEN 3W	JENLAS / COHERENT	3W
MAXIM GREEN 4W	JENLAS	4W
MAXIM GREEN 5W	JENLAS / COHERENT	5W
MAXIM GREEN 8W	JENLAS / COHERENT	8W
MAXIM GREEN 10W	COHERENT	10W
MAXIM GREEN 16W	JENLAS / COHERENT	15W
MAXIM GREEN 20W	JENLAS / COHERENT	20W
MAXIM BLUE 1W	KVANT 445nm	1W
MAXIM BLUE 3W	KVANT 445nm	3W
MAXIM BLUE 6W	KVANT 445nm	6W
MAXIM BLUE 20W	KVANT 445nm	20W
MAXIM HYBRID 8W	JENLAS/ RBLM KVANT	9W

- Sturdy construction - CNC machined aluminium housing
- Reversible attachment bracket
- Rated to IP44 as standard (up to IP66 if required)
- Cooling fans speed control for silent operation
- Sealed but easily accessible optical sector

X,Y axes switches, ILDA In/Out, brightness control, safety interlock with key

- Scan-Fail Safety Card
- Compatible with all external laser control systems (i.e. Pangolin BEYOND or Fiesta.NET)
- Horizontal limiter of the laser output aperture
- Attachment bracket for Pangolin safety lenses available

Inbuilt laser control system (Moncha.NET software included):

3 ways of control:

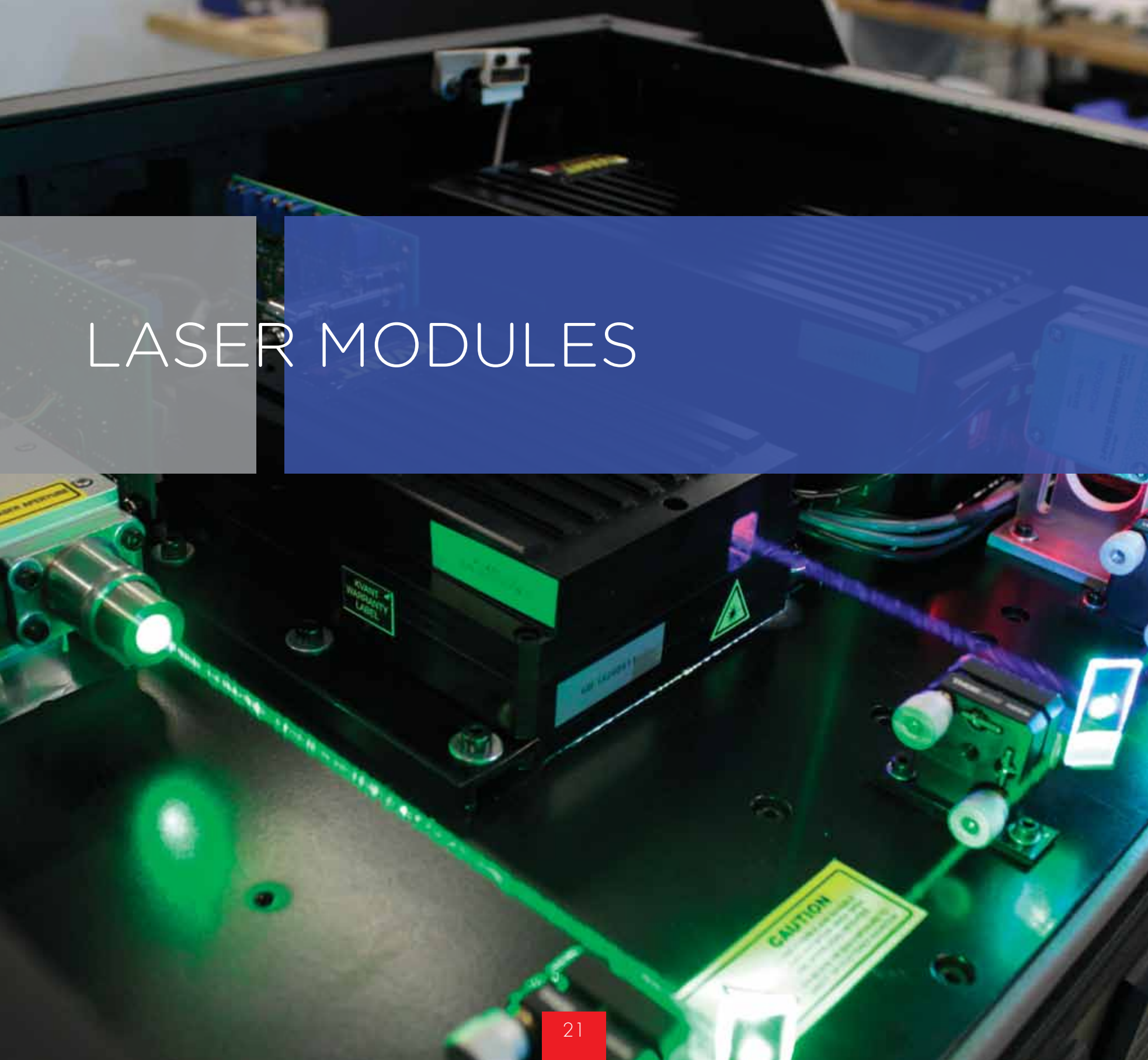
- Ethernet(PC), DMX, Stand-alone
- Wireless operation over standard WiFi network
- LCD display with easy control over these basic parameters:

size, position, rotation, color, IP and DMX addresses

- SD slot for cards with up to 32GB
- DMX Out - 512 channels

Park of Prince - Bahrain 2011

LASER MODULES



SCIENTIFIC USE

IP 67

LASERSHOW

MEDICAL & MILITARY USE

CUSTOM DESIGN

CUSTOM POWER

Laser diode modules

KVANT's blue, red and red-blue laser modules are equipped with top-quality laser diodes designed by **prestigious laser diode** manufacturers. All modules are temperature controlled (TEC) to yield maximum lifetime and optimal performance. Ongoing improvements to the mechanical components have greatly increased stability and limited the divergence close to the difraction limit. Recently developed new driving electronics allows analog modulation up to **100kHz** with **linear response** between the modulation signal and laser output power.

DIODE	RED 637nm BLUE 445nm
DPSS	GREEN 532nm GREEN 523nm RED 639nm ORANGE 607nm
DIODE SCIENTIFIC	375nm, 395nm, 405nm, 415nm, 420nm, 457nm, 473nm, 488nm, 515nm

JENOPTIK DPSS	532nm
COHERENT OPSL	460nm, 480nm, 488nm, 532nm, 572nm, 607nm, 639nm

100kHz IP67 DIODE DPSS OPSL

- New blue module series
- Modulation speed > 100kHz
- Linear modulation response
- New design class IP67
- Internal driver is shielded against electro-magnetic induction
- TEC thermal stabilisation
- New Kvant`s DPSS modules (orange, red)
- New Kvant`s DPSS technology (patent pending)
- Improved design

DPSS modules

The newly developed DPSS laser modules are based on a completely new optical technique that has never been seen in any laser display show to date. Our laser modules then have a longer life and have greatly improved reliability and beam performance. Higher output powers are currently under development.

NEW green DPSS module

used in SPECTRUM 1.6W

LASER CONTROL SYSTEMS & ACCESSORIES

KIA new model presentation

ACCESSORIES

REFLECTION MIRROR

Reflection mirror STANDARD with mount dimensions 150x150mm

Reflection mirror ADJUSTABLE with mount, fine adjustment possible dimensions 150x150mm

Detail of fine adjustment screws

Example of REFLECTION mirror use

DIFFRACTION MIRROR

Diffraction mirror STANDARD with mount dimensions 150x150mm

Diffraction mirror ADJUSTABLE with mount, fine adjustment possible dimensions 150x150mm

Detail of fine adjustment screws

Example of DIFFRACTION mirror use

WATER SCREEN - CURTAIN

- Highly transparent water screen
- Great for graphic laser projections
- Lenght according to customer request
- Available with 1 or 3 nozzles lines
- Can be supplied with water pump

LASER HARP CONTROLLER

Prolight Laser Harp Controller is **the latest and greatest product** from Prolight that will turn your laser projector into a powerful frameless laser harp. It creates a one-of-a-kind, virtual light harp of impressive size that employs multi-colored laser beams **instead of strings.** Just like a real instrument, when you play it, by blocking laser beams, **it makes sounds.**

WATER SCREEN - SHIELD

- Half circle shaped water screen
- Dimensions approx. 10m high x 27m width
- B-Connector connection
- Water/pressure requirements
- 1500 l / minute @ 10 bar
- Suitable for exterior use
- Possibility of water floating version
- Easy manipulation

STANDARD SCANNER SETS
(CUSTOMIZATION ON REQUEST)

Equipment contains: X,Y scanner, scanner drivers, scanner aluminum mount, scanner power PCB, set of scanner cables, user manual.

LM
- for beam with diameter up to 4mm

CT 6215H
- for beam with diameter up to 3mm or 5mm

REMOTE SAFETY STOP BUTTON FOR KVANT LASER

ATTACHMENT BRACKET FOR PANGOLIN SAFETY LENSES

Compatible with KVANT laser projectors only.

LASER CONTROLLERS

PANGOLIN BEYOND

This software has been custom built from the ground up, and combines the power and functionality of LD2000, together with the ease of use and speed of QuickShow.
BEYOND will also include new features that no other laser software on this planet has, truly making it the future of laser show creation technology.

PANGOLIN QUICKSHOW

QuickShow is a complete laser system. It is capable of graphics as well as beam effects. It has everything you need for a modern laser light show. QuickShow includes the following capabilities: graphic, beams and atmospheric, show production methods.
QuickShow isn't just about a better user experience. It also has advanced technology such as the all-new Beyond calculation engine. Beyond automatically takes care of scanner optimization and colour mixing. In tests, QuickShow produced noticeably better image quality. One beta tester said: "It made my scanners look new again!"

PANGOLIN FLASHBACK 3

unique multifunction laser controller

The Flashback 3 is the smallest, easiest and most economical multi-functional laser controller. This can play laser up to 432 graphics, beams and even complete Pangolin-quality shows. No extra computer hardware is needed – the tiny Flashback 3 has everything you need to control your laser projector.

3 modes of operation in 1 device:
1 - Standard PC to USB & ILDA
2 - DMX
3 - Stand alone (shows stored on SD/XD card - no PC needed)

NOW also available with WIFI !

PANGOLIN QM2000.NET

Compact alloy enclosure with inbuilt PSU, QM2000 PCI interface board ant .NET board. The QM2000. NET provides for a very simple and truly plug-and-play operation of Pangolin QM2000 board. Just locate the QM2000.NET system close to (or installed within) your laser projector, connect it to a computer via Ethernet cable, and use any software within the LD2000 suite. If you want to expand the number of projectors controlled, or create large-scales shows using numerous laser projectors, this is no problem with the QM2000.NET, since you only need to connect them together with standard 10/100 Ethernet cables.

QM2000.NET is available as:
- OEM version (NET board only)
- Compact housing ready to use
  (include profi alu housing, power supply, LD 2000 board, Net board)

PHOENIX 4.0

PHOENIX4 LIVE - is the professional, easy-to-use software for ILDA capable laser projectors in discos, clubs and events of any size.
The user gets over 700 ready pre-programmed laser animations to perform directly and without prior knowledge an impressive live show. New effects can always be programmed by yourself and existing ones edited. By the easily to perform optimization settings you get a superior output quality even on low-cost laser systems.
All effects, runtext, SMS-4 laser and interactive intervention can be controlled in all axes of motion, via touch screen, by midi keyboard, PC keyboard and / or controlled by external DMX controller.

LASER CONTROLLERS

Main benefits of Fiesta.NET PRO

- 3 independent ILDA outputs (16 bit, 6 colour) allows you to create professional laser shows with up to 3 independent laser system units
- 3 independent DMX outputs (full 512) to control many DMX devices like fog machines, water screens, PAR lights, etc.
- works completely over Ethernet, so the installation is really easy
- you can use it wirelessly over Wi-Fi signal - especially when you'll use directional Wi-Fi antennas outside, Fiesta.NET PRO will save you hundreds of cables
- standard 19-inch 1U rack size makes it perfect for touring - store it in any rack box
- control display with all important settings
- works perfectly with Fiesta.NET software

FIESTA.NET PRO

Fiesta.Net Pro is not just another laser show controller. Fiesta.NET PRO has been developed together with a highly experienced laser show and laser Installation Company to develop the perfect industrial solution intended for fixed installations in such places as Theaters and fast installations for touring with the least amount of cables. The system has been designed to meet every possible requirement, designed by professionals for use by professionals...

FIESTA.NET

Fiesta.NET is reliable laser show controller working over Ethernet. The main advantages are perfectly smooth laser output, maximal scan rate up to 100 000 pps and integrated DMX control (out and in).
Thanks to Ethernet connection Fiesta.NET allows easier and faster installations.Do you hate wires?Especially for large laser show events you usually have to use a lot of wires. That's where the Wi-Fi connection can help. Yes, you can use Fiesta.NET even over Wi-Fi.

MONCHA.NET

Moncha.NET is a new Ethernet laser show controller with one ILDA output, one DMX output and one DMX input. Thanks to small size, it is a perfect OEM controller even for low-cost laser show systems. It's working completely over Ethernet in real time, or it is even possible to control it over DMX or in stand-alone mode.

LASER MATRIX

Laser projectors are becoming more available. And mostly professional users have to face the question how to control such a large number of lasers. It has always been a problem, because most of programs used nowadays are limited by number of output devices or because the way of creating laser shows for such a large number of lasers is very time-consuming.
LaserMatrix is a device that receives 4 ILDA signals in the input and in the output it has 8 ILDA outputs. But it is not only an ordinary splitter, because there is a great possibility to connect any output with any input and also it is possible to set output size, position and brightness in each output.
Controllability by the DMX signal makes it very flexible. LaserMatrix is not restricted only to our products´ use, it can be used with any software for creating laser shows.

LED SCREENS

Czechoslovakia got talent 2011

LED DotMatrix series - indoor Full-colour LED display

Characteristic

- High brightness
- Uniform colour, reliable, long life span
- Wide indoor applications
- Good consistency, excellent visual effect

Serial patent product

- Elliptical hole design to enhance the contrast grade
- Large visual angle and high brightness suitable for semi – outdoor and superbright environment

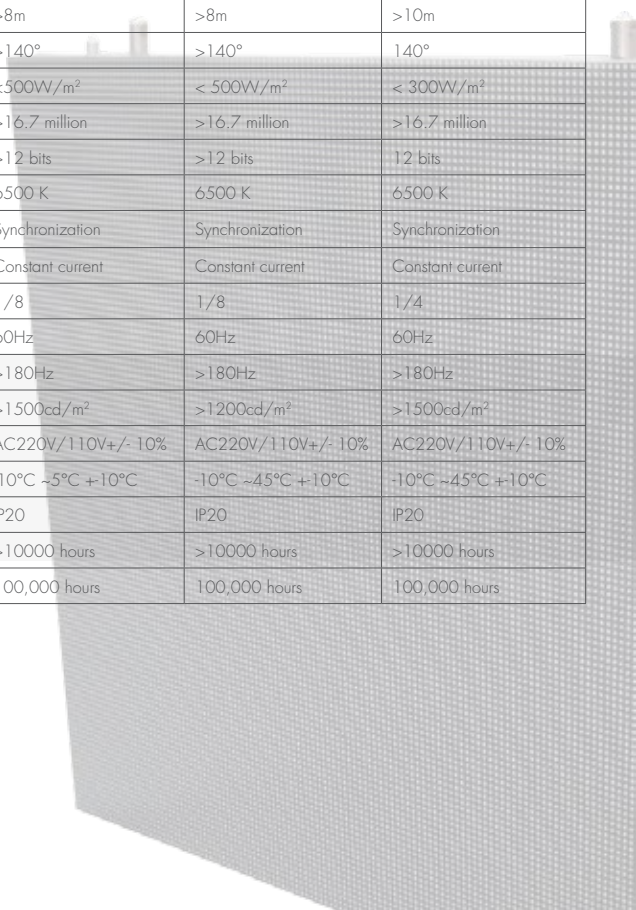
Classification

- Indoor dot matrix LED screen
- Outdoor dot matrix LED screen
- Colour: Single colour, dual colour, tri – colour, full colour

Indoor Integrated 3 in 1 full colour Series

	ITEM	PH4	PH5	PH6
Unit Module	Pixel Pitch	4mm	5mm	6mm
	Size of pixel	3,0mm (circle)	3,75mm (circle)	4,8mm (circle)
	Pixel configuration	1R1PG1B	1R1PG1B	1R1PG1B
	Size of block module	32mmx32mm	40mmx40mm	48mmx48mm
	Pixel of block module	8x8	8x8	8x8
	Size of module	256mmx128mm	320mmx160mm	192mmx192mm
	Resolution of module	64x32	64x32	32x32
	Density	62500dots/m^2	40000dots/m^2	27777dots/m^2
Main parameter	Best viewing distance	>4m	>5m	>6m
	Best viewing angle	>140°	>140°	>140°
	Max. power consumption	< 950W/m^2	< 600W/m^2	< 850W/m^2
	Colours	>16.7 million	>16.7 million	>16.7 million
	Grayscale	>12 bits	>12 bits	14 bits
	Colour temperature	6500 K	6500 K	6500 K
	control method	Synchronization	Synchronization	Synchronization
	Driving device	Constant current	Constant current	Constant current
	Driving method	1/16 scanning	1/16 scanning	1/8 scanning
	Frame frequence	60Hz	60Hz	60Hz
	Refresh frequence	>180Hz	>180Hz	>180Hz
	Brightness	>1800cd/m^2	>1500cd/m^2	>1800cd/m^2
	Working voltage	AC220V/110V+/- 10%	AC220V/110V+/- 10%	AC220V/110V+/- 10%
	Working temperature	-10°C ~5°C +-10%	-10°C ~45°C +-10°C	-10°C ~45°C +-10°C
	IP grade	IP20	IP20	IP20
	MTBF	>10000 hours	>10000 hours	>10000 hours
	Life span	100,000 hours	100,000 hours	100,000 hours

	ITEM	PH7.62	PH8	PH10
Unit Module	Pixel Pitch	7,62mm	8mm	10mm
	Size of pixel	4,0mm (circle)	3mmx4mm (elipse)	5mm (circle)
	Pixel configuration	1R1PG1B	1R1PG1B	1R1PG1B
	size of block module	60.96mmx60,96mm	32mmx32mm	40mmx40mm
	Pixel of block module	4x4	4x4	4x4
	Size of module	488mm x 244mm	512mmx256mm	320mmx160mm
	resolution of module	64x32	64x32	32x16
	density	17222dots/m^2	15625dots/m^2	10000dots/m^2
Main parameter	best viewing distance	>8m	>8m	>10m
	best viewing angle	>140°	>140°	140°
	Max. power consumption	<500W/m^2	< 500W/m^2	< 300W/m^2
	Colours	>16.7 million	>16.7 million	>16.7 million
	Grayscale	>12 bits	>12 bits	12 bits
	Colour temperature	6500 K	6500 K	6500 K
	control method	Synchronization	Synchronization	Synchronization
	Driving device	Constant current	Constant current	Constant current
	Driving method	1/8	1/8	1/4
	Frame frequence	60Hz	60Hz	60Hz
	Refresh frequence	>180Hz	>180Hz	>180Hz
	Brightness	>1500cd/m^2	>1200cd/m^2	>1500cd/m^2
	Working voltage	AC220V/110V+/- 10%	AC220V/110V+/- 10%	AC220V/110V+/- 10%
	Working temperature	-10°C ~5°C +-10°C	-10°C ~45°C +-10°C	-10°C ~45°C +-10°C
	IP grade	IP20	IP20	IP20
	MTBF	>10000 hours	>10000 hours	>10000 hours
	Life span	100,000 hours	100,000 hours	100,000 hours



LED DotMatrix series - outdoor full-colour LED display

Features and Advantages

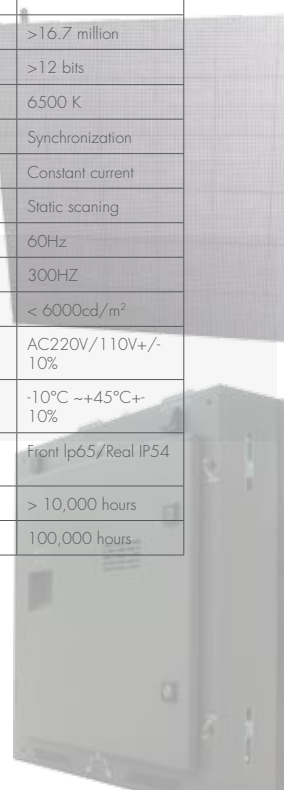
1. In order to ensure that images and texts are clear, vivid and consistent, all the chips for the entire RGB LED screens for outdoor screens within 100 square meters are at the same grade such as the same brightness (plus,minus 10%) and the same wavelength (plus,minus 2.5nm)
2. In order to ensure screen background can become matt, completely absorb LED refractive light and eliminate shadow and ghosting, we adopt imported glue to varnish module surface. The glue thickness for each module is not more than 0.1nm. So the colour is consistent and uniform.
3. To ensure product reliability, operability and long life, we select the best chips for all outdoor displays.
4. Modular design. Arbitrary combination of sizes, convenient to assembly, exquisite box.
5. Easy to maintain and achieve single-pixel and single-lamp maintenance.
6. High quality at competitive prices.
7. Wide applications including stadiums, advertisements, banks, securities exchange, stations, terminals, shopping malls, postal offices, telecommunications, schools, monitoring, restaurants, entertainment, enterprises and so on.

Outdoor Integrated 3 in 1 full colour Series

	ITEM	PH8	PH10	PH16
Unit Module	Pixel Pitch	8mm	10mm	16mm
	Size of pixel	4,0mm(circle)	4,0mm(circle)	4,5mm(circle)
	Pixel configuration	1R1PG1B	1R1PG1B	1R1PG1B
	Size of block module	28mmx28mm	35,5mmx35,5mm	23mmx23mm
	Pixel of block module	4x4	4x4	2x2
	Size of module	256mmx128mm	160mmx160mm	256mmx128mm
	Resolution of module	32x16	16x16	16x8
	Density	15256dots/m^2	10000dots/m^2	3906dots/m^2
Main parameter	best viewing distance	>8m	>10m	>16m
	best viewing angle	>140°	>140°	>140°
	Max. power consumption	<1200W/m^2	<1000W/m^2	<1000W/m^2
	Colours	>16.7 million	>16.7 million	>16.7 million
	Grayscale	>12 bits	>12bits	>12 bits
	Colour temperature	6500 K	6500 K	6500 K
	control method	Synchronization	Synchronization	Synchronization
	Driving device	Constant current	Constant current	Constant current
	Driving method	1/4 scaning	1/2 scaning	Static scaning
	Frame frequence	60Hz	60Hz	60Hz
	Refresh frequence	300HZ	300HZ	300HZ
	Brightness	< 5000cd/m^2	< 6000cd/m^2	< 6000cd/m^2
	Working voltage	AC220V/110V+/-10%	AC220V/110V+/-10%	AC220V/110V+/-10%
	Working temperature	-10°C ~+45°C+-10%	-10°C ~+45°C+-10%	-10°C ~+45°C+-10%
	IP grade	Front Ip65/Real IP54	Front Ip65/Real IP54	Front Ip65/Real IP54
	MTBF	> 10,000 hours	> 10,000 hours	> 10,000 hours
	Life span	100,000 hours	100,000 hours	100,000 hours

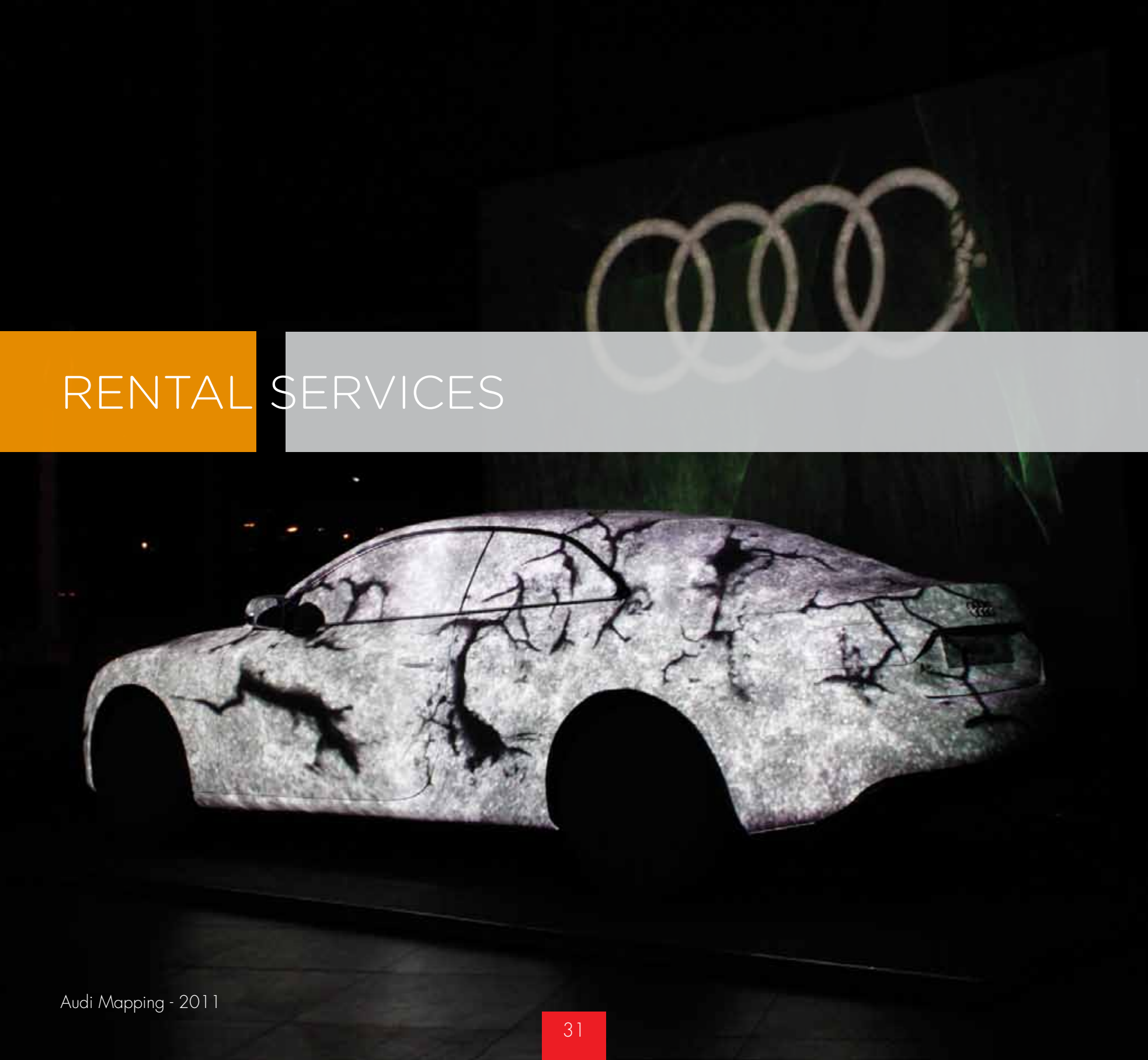
Outdoor LED lamp full colour display

	ITEM	PH10	PH12	PH16	PH20	PH25
Unit Module	Pixel Pitch	10mm	12mm	16mm	20mm	25mm
	Pixel configuration	1R1PG1B	1R1PG1B	1R1PG1B	1R1PG1B	2R1PG1B
	size of module	160mmx160mm	192mmx192mm	256mmx256mm	320mmx160mm	400mmx200mm
	Resolution of module	16x16	16x16	16x16	16x8	16x8
	Density	10000dots/m^2	6944dots/m^2	3906dots/m^2	2500dots/m^2	1600dots/m^2
Main parameter	best viewing distance	>10m	>12m	>15m	>20m	>25m
	best viewing angle	>110°	>110°	>110°	>110°	>110°
	Max. power consumption	<650W/m^2	<450W/m^2	<750W/m^2	<550W/m^2	<500W/m^2
	Colours	>16.7 million	>16.7 million	>16.7 million	>16.7 million	>16.7 million
	Grayscale	>12 bits	>12 bits	>12 bits	>12 bits	>12 bits
	Colour temperature	6500 K	6500 K	6500 K	6500 K	6500 K
	control method	Synchronization	Synchronization	Synchronization	Synchronization	Synchronization
	Driving device	Constant current	Constant current	Constant current	Constant current	Constant current
	Driving method	1/4 scaning	1/4 scaning	Static scaning	Static scaning	Static scaning
	Frame frequence	60Hz	60Hz	60Hz	60Hz	60Hz
	Refresh frequence	300HZ	300HZ	300HZ	300HZ	300HZ
	Brightness	< 6500cd/m^2	< 6000cd/m^2	< 7000cd/m^2	< 6000cd/m^2	< 6000cd/m^2
	Working voltage	AC220V/110V+/-10%	AC220V/110V+/-10%	AC220V/110V+/-10%	AC220V/110V+/-10%	AC220V/110V+/-10%
	Working temperature	-10°C ~+45°C+-10%	-10°C ~+45°C+-10%	-10°C ~+45°C+-10%	-10°C ~+45°C+-10%	-10°C ~+45°C+-10%
	IP grade	Front Ip65/Real IP54	Front Ip65/Real IP54	Front Ip65/Real IP54	Front Ip65/Real IP54	Front Ip65/Real IP54
	MTBF	> 10,000 hours	> 10,000 hours	> 10,000 hours	> 10,000 hours	> 10,000 hours
	Life span	100,000 hours	100,000 hours	100,000 hours	100,000 hours	100,000 hours



SLOVAK MUSIC AWARDS - 2012

RENTAL SERVICES



Audi Mapping - 2011

AVAILABLE FOR RENTAL

40 units of **RGB** and **GREEN** laser systems

400m² of indoor & outdoor **LED** display panels

Indoor LED display

Outdoor LED display

8 video projectors **15000** AINSI lumens

PROFESSIONAL LASER & MULTIMEDIA SHOW PRODUCTION

VIDEO mapping

Laser show programming

3D & 2D laser animations

Accessories

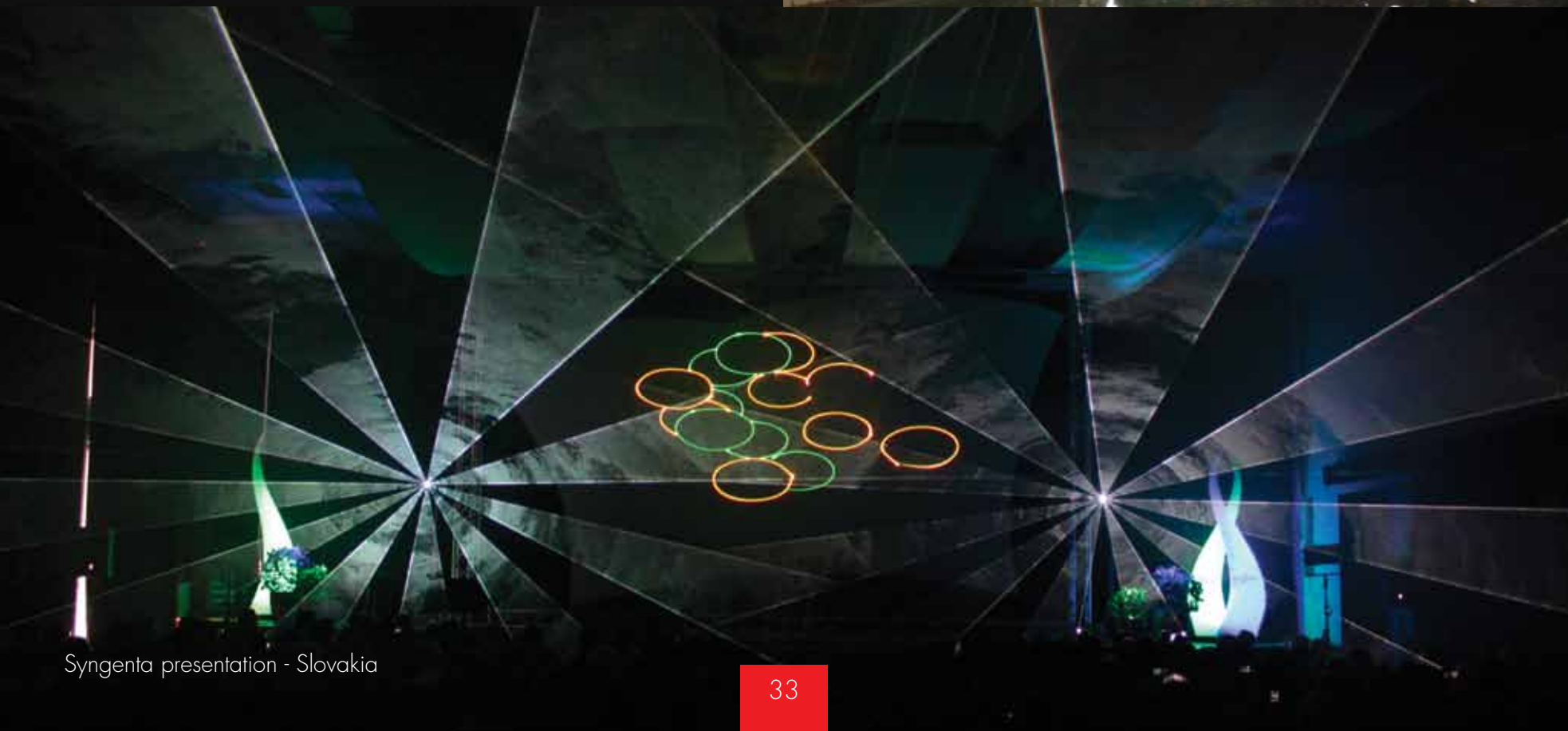
Fountains

Video animations

Water screens & curtains

Laser projection - Slovakia

Park of prince - Bahrain



Syngenta presentation - Slovakia

Full specification: Laser projectors KVANT eLite & Spectrum series

System SPECTRUM	RGB-1,6W-eLite	RGB-1,6W	RGB-2W	RGB-2,5W	RGB-3W	RGB-6W	RGB-8W
							
Output power	1,6W-eLite	1,6W	2W	2,5W	3W	6W	8W
Wavelength	300mW /532nm NEW KVANT DPSS laser 340mW /637nm diode laser 1W /445nm diode laser	300mW/532nm NEW KVANT DPSS laser 300mW/637nm red diode laser 1W /445nm blue diode laser	500mW /532nm NEW KVANT DPSS laser 640mW /637nm diode laser 1W /445nm diode laser	500mW /532nm NEW KVANT DPSS laser 1W /637nm diode laser 1W /445nm diode laser	1W /532nm DPSS laser 1W /637nm diode laser 1W /445nm diode laser	2W /532nm NEW Jenlas D2.mini DPSS laser 2.1W /637nm diode laser 2W /445nm diode laser	2W /532nm NEW Jenlas D2.mini DPSS laser 3W /637nm diode laser 3W /445nm diode laser
Input power voltage	230VAC/50Hz (+/-5%) 110VAC /50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz
Modulation/ blanking	0-5V analog, up to 50khz TTL	0-5V analog, up to 50 kHz TTL	0-5V analog, up to 50 kHz TTL	0-5V analog, up to 50 kHz TTL	0-5V analog, up to 50 kHz TTL	0-5V analog, up to 50 kHz TTL	0-5V analog, up to 50 kHz TTL
Beam divergence	<1 mRad	<1 mRad	<1 mRad	<1 mRad	<1 mRad	<1.1 mRad	<1.1 mRad
Beam diameter	3mm	3mm	3mm	3,5mm	3,5mm	4mm	4mm
Power consumption	max 250VA	max 250VA	max 250VA	max 250VA	max 250VA	max 400VA	max 400VA
Weight /dimensions	7kg/300x375x135mm	11kg/277x201x228mm	12kg/277x201x228mm	12kg/277x201x228mm	16kg/363x255x265mm	18kg/363x255x265mm	21kg/363x255x265mm
Input / output connection	1x in/out ILDA 1x DMX 1x Ethernet 1x SD card	1x in/out ILDA	1x in/out ILDA 1x DMX 1x Ethernet 1x SD card	1x in/out ILDA 1x DMX 1x Ethernet 1x SD card	1x in/out ILDA 1x DMX 1x Ethernet 1x SD card	1x in/out ILDA 1x DMX 1x Ethernet 1x SD card	1x in/out ILDA 1x DMX 1x Ethernet 1x SD card
Operating temperature	10 to 35°C	10 to 35°C	10 to 35°C	10 to 35°C	10 to 35°C	10 to 35°C / 0 to 50°C	10 to 35°C / 0 to 50°C

•**Safety features:** Key switch, Interlock loop, Scan fail safety •**Scanning system:** LM scanners; CT 6215H scanners; temperature stabilized; mirror reflectivity 90%, dielectric mirror coating •**Scanratet:** 40kpps/8° CT6215H; 28kpps/8° LM; 60kpps/8° CT6215 with HP drivers on request •**Maximal angle:** 80° for both axes (LM, CT 6215H)

System Spectrum	RGB-10W OPSL (outdoor)	RGB-10W ULTRA	RGB-14W	RGB-15W	RGB-20W	RGBY-25W	RGB-30W	RGB-35W
								
Output power	10w	10W	14W	15W	19w	25W	30W	35W
Wavelength	5W /530nm OPSL 2,5W /639nm OPSL 2W /460nm OPSL	4W JENLAS /532nm D2.mini 3W BLUE /445nm 3W RED /(637nm + 660nm)	8W JENLAS /532nm D2.mini 3W BLUE /445nm 3W RED /(637nm + 660nm)	8W /532nm OPSL/DPSS 4W /637nm diode laser 4W /445nm diode laser	8W /532nm OPSL/DPSS 5,8W /637nm diode laser 6W /445nm diode laser	8W/532nm OPSL/DPSS 6,8W/637nm diode laser 6W/445nm diode laser 5W /577nm OPSL	8W/532nm OPSL/DPSS 10W/637+660nm diode laser 10W/445nm diode laser	15W/532nm OPSL/DPSS 10W/637+660nm diode laser 10W/445nm diode laser
Input power voltage	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz
Modulation/ blanking	0-5V analog, up to 50 kHz TTL	0-5V analog, up to 50 kHz TTL	0-5V analog, up to 50 kHz TTL	0-5V analog, up to 50 kHz TTL	0-5V analog, up to 50 kHz TTL	0-5V analog, up to 50 kHz TTL	0-5V analog, up to 50 kHz TTL	0-5V analog, up to 50 kHz TTL
Beam divergence	<1.3 mRad	<0.6 mRad	<1.1 mRad	<1.1 mRad	<1.1 mRad	<1.1 mRad	<1.1 mRad	<1.1 mRad
Beam diameter	3mm	4mm	4mm	5mm	5mm	5mm	5.5mm	5.5mm
Power consumption	max 600VA	max 500VA	max 500VA	max 500VA	max 550VA	max 600VA	max 600VA	max 600VA
Weight / dimensions	30kg/ 421x244x353mm	21kg/363x255x265mm	35kg/ 421x244x353mm	35kg/ 421x244x353mm	35kg/ 421x244x353mm	48kg/ 670x370x300mm	48kg/ 670x370x300mm	48kg/ 670x370x300mm
Input / output connection	1x in/out ILDA 1x DMX 1x Ethernet 1x SD card	1x in/out ILDA 1x DMX 1x Ethernet 1x SD card	1x in/out ILDA 1x DMX 1x Ethernet 1x SD card	1x in/out ILDA 1x DMX 1x Ethernet 1x SD card	1x in/out ILDA 1x DMX 1x Ethernet 1x SD card	1x in/out ILDA 1x DMX 1x Ethernet 1x SD card	1x in/out ILDA 1x DMX 1x Ethernet 1x SD card	1x in/out ILDA 1x DMX 1x Ethernet 1x SD card
Operating / storage temperature	10 to 35°C / 0 to 50°C	10 to 35°C / 0 to 50°C	10 to 35°C / 0 to 50°C	10 to 35°C / 0 to 50°C	10 to 35°C / 0 to 50°C	10 to 35°C / 0 to 50°C	10 to 35°C / 0 to 50°C	10 to 35°C / 0 to 50°C

•**Safety features:** Key switch, Interlock loop, Scan fail safety, Mechanical shooter •**Scanning system:** CT 6215H scanners; temperature stabilized; mirror reflectivity 90%, dielectric mirror coating •**Scanratet:** 30kpps/8° CT6215H; 40kpps/8° CT6215 with HP drivers on request •**Maximal angle:** 80° for both axes (CT 6215H)

Full specification: Laser projectors KVANT Maxim series

System Maxim	MX-0.5W	MX-1W	MX-2W	MX-3W	MX-4W
					
Output power	0.5W	1W	2W	3W	4W
Wavelength	KVANT 532nm green DPSS	KVANT 532nm green DPSS	JENLAS 532nm green DPSS	JENLAS 532nm green DPSS	JENLAS 532nm green DPSS COHERENT 532nm green OPSL
Input power voltage	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz
Modulation/ blanking	analog 0-5V up to 50kHz TTL	analog 0-5V up to 50kHz TTL	analog 0-5V up to 50kHz TTL	analog 0-5V up to 50kHz TTL	< analog 0-5V up to 50kHz 1.5 mrad
Beam divergence	<1 mrad	<1 mrad	<1 mrad	<1 mrad	<1.5 mrad
Beam diameter	2.5mm	2.5mm	2.5mm	2.5mm	JENLAS 3mm COHERENT 2.3mm
Power consumption	max 220VA	max 220VA	max 220VA	max 220VA	max 220VA
Weight / dimensions	12kg/ 277x210x228mm	12kg/ 277x210x228mm	12kg/ 277x210x228mm	12kg/ 277x210x228mm	12kg/ 277x210x228mm
Input / output connection	ILDA DB25 input male 1x ILDA DB25 input female 1x	ILDA DB25 input male 1x ILDA DB25 input female 1x	ILDA DB25 input male 1x ILDA DB25 input female 1x	ILDA DB25 input male 1x ILDA DB25 input female 1x	ILDA DB25 input male 1x ILDA DB25 input female 1x
Operating / storage temperature	10 to 35°C / 0 to 50°C	10 to 35°C / 0 to 50°C	10 to 35°C / 0 to 50°C	10 to 35°C / 0 to 50°C	10 to 35°C / 0 to 50°C

•**Safety features:** Key switch, Interlock loop, Scan fail safety, Mechanical shooter •**Scanning system:** CT 6215H scanners; temperature stabilized; mirror reflectivity 90%, dielectric mirror coating
•**Scanratet:** 30kpps/8° CT6215H; 40kpps/8° CT6215 with HP drivers on request •**Maximal angle:** 80° for both axes (CT 6215H)

System Maxim	MX-5W	MX-8W	MX-8W Hybrid	MX-10W	MX-15W	MX-20W
						
Output power	5W	8W	9W	10W	15W	20W
Wavelength	JENLAS 532nm green DPSS CO-HERENT 532nm green OPSL	JENLAS 532nm green DPSS COHERENT 532nm green OPSL	JENLAS 532nm green DPSS COHERENT 532nm green OPSL + 1,3W RB (637,445nm)) KVANT	JENLAS 532nm green DPSS COHERENT 532nm green OPSL	JENLAS 532nm green DPSS COHERENT 532nm green OPSL	JENLAS 532nm green DPSS COHERENT 532nm green OPSL
Input power voltage	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz	230VAC / 50Hz (+/- 5%) 110VAC / 50Hz
Modulation/ blanking	analog 0-5V up to 50kHz TTL	analog 0-5V up to 50kHz TTL	analog 0-5V up to 50kHz TTL	analog 0-5V up to 50kHz TTL	analog 0-5V up to 50kHz TTL	analog 0-5V up to 50kHz TTL
Beam divergence	JENLAS <1.1mrad COHERENT <1.3mrad	JENLAS <1.1 mrad COHERENT <1,3 mrad	JENLAS <1.1 mrad COHERENT <1,3 mrad	JENLAS <1.1 mrad COHERENT <1,3 mrad	JENLAS <1.1 mrad COHERENT <1,1 mrad	JENLAS <1.1 mrad COHERENT <1,1 mrad
Beam diameter	JENLAS 4mm COHERENT 2.3mm	JENLAS 5mm COHERENT 2.5mm	JENLAS 5mm COHERENT 2.5mm	JENLAS 5mm COHERENT 2.5mm	JENLAS <5mm COHERENT <5mm	JENLAS <5mm COHERENT <5mm
Power consumption	max 300VA	max 300VA	max 300VA	max 350VA	max 600VA	max 650VA
Weight / dimensions	12kg/ 277x210x228mm	12kg/ 277x210x228mm	12kg/ 277x210x228mm	12kg/ 277x210x228mm	21kg/363x255x265mm	21kg/363x255x265mm
Input / output connection	ILDA DB25 input male 1x ILDA DB25 input female 1x	ILDA DB25 input male 1x ILDA DB25 input female 1x	ILDA DB25 input male 1x ILDA DB25 input female 1x	ILDA DB25 input male 1x ILDA DB25 input female 1x	ILDA DB25 input male 1x ILDA DB25 input female 1x	ILDA DB25 input male 1x ILDA DB25 input female 1x
Operating / storage temperature	10 to 35°C / 10 to 50°C	10 to 35°C / 10 to 50°C	10 to 35°C / 10 to 50°C	10 to 35°C / 10 to 50°C	10 to 35°C / 10 to 50°C	10 to 35°C / 10 to 50°C

•**Safety features:** Key switch, Interlock loop, Scan fail safety, Mechanical shooter •**Scanning system:** CT 6215H scanners; temperature stabilized; mirror reflectivity 90%, dielectric mirror coating •**Scanratet:** 30kpps/8° CT6215H; 40kpps/8° CT6215 with HP drivers on request •**Maximal angle:** 80° for both axes (CT 6215H)

Full specification: Diode laser modules KVANT

RED series II

Model Nr.	RLM-170L	RLM-340L	RLM-680L	RLM-1000L	RLM-1300L	RLM-2000L	RLM-2400L	RLM-3000L	RLM-3900L	RLM-4800L	RLM-5800L	RLM-6800L
Optical power (mW)	170	340	680	1000	1300	2000	2400	3000	3900	4800	5800	6800
Center wavelength (nm)	637	637	637	637	637	637	637	637	637	637	637	637
Center wavelength tolerance (nm)	± 5	± 5	± 5	± 5	± 5	± 5	± 5	± 5	± 5	± 5	± 5	± 5
Beam size (FWHM, mm) (horizontal*vertical)	1.4x2.5	2.5x2.5	2.5x3.5	3.5x3.5	2.5x3.5	3.5x3.5	4x3.5	5x3.5	4x5	5x5	5.5x5	6x5
Beam divergence (half angle, mrad)	0.2	0.2	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Linear polarization	Y	N	Y	Y	N	N	N	N	N	N	N	N
M2 (horizontal/vertical)	1/2	2/2	5/7	5/7	5/7	7/7	8/7	9/7	8/10	10/10	11/10	11/10
Modulation freq. (kHz)	100	100	100	100	100	100	100	100	100	100	100	100
Power consumption (W)	< 40	< 40	< 40	< 40	< 40	< 50	< 80	< 150	< 150	< 160	< 170	< 170
Input voltage (V)	12 or 24	12 or 24	12 or 24	12 or 24	12 or 24	12 or 24	24	24	24	24	24	24
Dimensions (LxWxH,mm)	67x60x45	67x60x45	132x77x51	132x77x51	174x107x51	174x107x51	174x107x51	248x141x66	248x141x66	248x141x66	248x141x66	248x141x66
External driver part dimensions (LxWxH,mm)	100x65x75	100x65x75	105x75x22	105x75x22	105x75x22	105x75x22	105x75x22	105x75x22	105x75x22	105x75x22	105x75x22	105x75x22
Picture												

RED series III

Model Nr.	RLM-130D	RLM-250D	RLM-500D	RLM-750D	RLM-1000D	RLM-1500D	RLM-1800D	RLM-2000D	RLM-2800D	RLM-3500D	RLM-4300D
Optical power (mW)	130	250	500	750	1000	1500	1800	2000	2800	3500	4300
Center wavelength (nm)	660	660	660	660	660	660	660	660	660	660	660
Center wavelength tolerance (nm)	± 5	± 5	± 5	± 5	± 5	± 5	± 5	± 5	± 5	± 5	± 5
Beam size (FWHM, mm) (horizontal*vertical)	1.4x2.5	2.5x2.5	2.5x3.5	3.5x3.5	2.5x3.5	3.5x3.5	4x3.5	4x3.5	4x5	5x5	5.5x5
Beam divergence (half angle, mrad)	0.2	0.2	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Linear polarization	Y	N	Y	Y	N	N	N	N	N	N	N
M2 (horizontal/vertical)	1/2	2/2	5/7	5/7	5/7	7/7	8/7	8/7	8/10	10/10	11/10
Modulation freq. (kHz)	100	100	100	100	100	100	100	100	100	100	100
Power consumption (W)	< 40	< 40	< 40	< 40	< 40	< 50	< 80	< 150	< 150	< 160	< 170
Input voltage (V)	12 or 24	12 or 24	12 or 24	12 or 24	12 or 24	12 or 24	24	24	24	24	24
Dimensions (LxWxH,mm)	67x60x45	67x60x45	132x77x51	132x77x51	174x107x51	174x107x51	174x107x51	248x141x66	248x141x66	248x141x66	248x141x66
External driver part dimensions (LxWxH,mm)	100x65x75	100x65x75	105x75x22	105x75x22	105x75x22	105x75x22	105x75x22	105x75x22	105x75x22	105x75x22	105x75x22
Picture											

RED combined

Model Nr.	RLM-3000LD
Optical power (mW)	3000
Center wavelength (nm)	637 (1.7W) and 660 (1.3W)
Center wavelength tolerance (nm)	± 5
Beam size (FWHM,mm) (horizontal*vertical)	5 x 5
Beam divergence (half angle, horiz./vert., mrad)	0.2
Linear polarization	N
M2 (horizontal/vertical)	3/3
Modulation freq. (kHz)	100
Power consumption (W)	<150
Input Voltage (V)	24
Dimensions (LxWxH,mm)	248x141x66
External driver part dimensions (LxWxH,mm)	105x75x22
Picture	

RED-BLUE series

Model Nr.	RBLM-1300	RBLM-1700	RBLM-2500	RBLM-2800	RBLM-4300
Optical power (mW)	1300	1700	2500	2800	4300
Center wavelength (nm)	445 (1W) and 637 (340mW)	445 (1W) and 637 (680mW)	445 (1.5W) and 637 (1W)	445 (1.5W) and 637 (1.3W)	445 (3W) and 637 (1.3W)
Center wavelength tolerance (nm)	± 5	± 5	± 5	± 5	± 5
Beam size (mm) (horizontal*vertical)	2.5 x 4.5	2.5 x 4.5	3.5x4.5	3.5x4.5	3.5x4.5
Beam divergence (half angle, horiz./vert., mrad)	0.9 / 0.2	0.9 / 0.8	0.8	0.8	0.8
Linear polarization	N	Y	Y	N	N
Modulation freq. (kHz)	100	100	100	100	100
Power consumption (W)	<60	<60	<90	<100	<100
Input Voltage (V)	12 or 24	12 or 24	12 or 24	12 or 24	12 or 24
Dimensions (LxWxH,mm)	132x77x51	132x77x51	174x107x51	174x107x51	174x107x51
External driver part dimensions (LxWxH,mm)	105x75x22	105x75x22	105x75x22	105x75x22	105x75x22
Picture					

BLUE series

Model Nr.	BLM-100LD	BLM-500LD	BLM-1000B	BLM-1500B	BLM-2000B	BLM-3000B	BLM-4000B	BLM-5000B	BLM-6000B	BLM-8000B	BLM-10kb	BLM-12kB	BLM-20kB
Optical power (mW)	100	500	1000	1500	2000	3000	4000	5000	6000	8000	10 W	12 W	20 W
Center wavelength (nm)	445	445	445	445	445	445	445	445	445	445	445	445	445
Center wavelength tolerance (nm)	± 5	± 5	± 5	± 5	± 5	± 5	± 5	± 5	± 5	± 5	± 5	± 5	± 5
Beam size (FWHM, mm) (horizontal*vertical)	1x3	3x3	3x3	3x3	3x3	4.5x4.5	5x4.5/6.5x4.5	6.5x4.5	6x4.5	6x6	6x6	6x6/8x6	11x10
Beam divergence (half angle, horizontal/vertical, mrad)	0.4 / 0.3	0.4 / 0.3	0.7 / 0.3	0.8 / 0.3	0.7 / 0.3	0.6 / 0.2	0.9 / 0.2 0.6 / 0.2	0.9 / 0.2	0.8 / 0.2	0.7 / 0.4	0.8 / 0.4	0.8 / 0.4 0.6 / 0.4	0.9 / 0.3
Linear polarization	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N
M2 (horizontal/vertical)	1 / 3	3 / 3	7 / 3	8 / 3	7 / 3	9 / 3	16/3	21 / 3	17 / 3	15 / 8	17 / 8	17 / 8	35 / 11
Modulation freq. (kHz)	100	100	100	100	100	100	100	100	100	100	100	100	100
Power consumption (W)	< 40	< 40	< 45	< 50	< 50	< 65	< 90	< 160	< 160	< 190	< 250	< 250	< 450
Input Voltage	12 or 24	12 or 24	12 or 24	12 or 24	12 or 24	12 or 24	12 or 24	12 or 24	12 or 24	24	24	24	24
Dimensions (LxWxH,mm)	67x60x45	67x60x45	67x60x45	67x60x45	132x77x51	132x77x51	174x107x51	174x107x51	174x107x51	248x141x66	248x141x66	248x141x66	248x141x66
External driver part dimensions (LxWxH,mm)	100x65x75	100x65x75	100x65x75	100x65x75	105x75x22	105x75x22	105x75x22	105x75x22	105x75x22	105x75x22	105x75x22	105x75x22	105x75x22
Picture													

Scientific series

Model Nr.	375LM-20	375LM-200	395LM-120	405LM-100	405LM-200	405LM-500	415LM-120	420LM-120	445LM-100
Optical power (mW)	20	200	120	100	200	500	120	120	100
Center wavelength (nm)	375	375	395	405	405	405	415	420	445
Center wavelength tolerance (nm)	± 5	± 5	± 5	± 5	± 5	± 5	± 5	± 5	± 5
Beam mode structure	TEM00	MULTIMODE	TEM00	TEM00	TEM00	MULTIMODE	TEM00	TEM00	TEM00
Beam size (FWHM, mm) (horizontal*vertical)	1.5 x 4	<4 x 4	1.5 x 4	1.5 x 4	1.5 x 4	<4 x 4	1.5 x 4	1.5 x 4	1.5 x 4
Beam divergence (half angle, horizontal/vertical, mrad)	0.2 / 0.2	-	0.2 / 0.2	0.2 / 0.2	0.2 / 0.2	-	0.2 / 0.2	0.2 / 0.2	0.2 / 0.2
Linear polarization	Y	Y	Y	Y	Y	Y	Y	Y	Y
M2 (horizontal/vertical)	~1	-	~1	~1	~1	-	~1	~1	~1
Max. modulation freq.(kHz)	30	30	30	30	30	30	30	30	30
OEM driver peak power consumption	12V / 3A	12V / 3A	12V / 3A	12V / 3A	12V / 3A	12V / 3A	12V / 3A	12V / 3A	12V / 3A
Dimensions (LxWxH,mm)	67x60x45	67x60x45	67x60x45	67x60x45	67x60x45	67x60x45	67x60x45	67x60x45	67x60x45
Picture	Laser head 		Bench-top driver 				OEM driver 		

Scientific series

Model Nr.	445LM-500	445LM-1k	460LM-100	473LM-80	488LM-60	515LM-20	637LM-170	642LM-150	660LM-120
Optical power (mW)	500	1000	100	80	60	20	170	150	120
Center wavelength (nm)	445	445	460	473	488	515	637	642	660
Center wavelength tolerance (nm)	± 5	± 5	± 5	± 5	± 5	± 5	± 5	± 5	± 5
Beam mode structure	MULTIMODE	MULTIMODE	TEM00	TEM00	TEM00	TEM00	TEM00	TEM00	TEM00
Beam size (FWHM, mm) (horizontal*vertical)	4 x 4	4 x 4	1.5 x 4	1.5 x 4	1.5 x 4	1.5 x 4	2 x 3	2 x 3	2 x 3
Beam divergence (half angle, horizontal/vertical, mrad)	0.3 / 0.2	0.5 / 0.2	0.2 / 0.2	0.2 / 0.2	0.2 / 0.2	0.2 / 0.2	0.2 / 0.2	0.2 / 0.2	0.2 / 0.2
Linear polarization	Y	Y	Y	Y	Y	Y	Y	Y	Y
M2 (horizontal/vertical)	-	-	-	-	-	-	-	-	-
Max. modulation freq.(kHz)	30	30	30	30	30	30	30	30	30
OEM driver peak power consumption	12V / 4A	12V / 4A	12V / 3A	12V / 3A	12V / 3A	12V / 3A	12V / 3A	12V / 3A	12V / 3A
Dimensions (LxWxH,mm)	67x60x45	67x60x45	67x60x45	67x60x45	67x60x45	67x60x45	67x60x45	67x60x45	67x60x45
Picture	Laser head 		Bench-top driver 				OEM driver 		

Full specification: DPSS & BDPSS laser modules KVANT

KVANT

Model Nr.	GLM-300	GLM-600	GLM - 150	OLM - 200	RLM - 400
Optical power (mW)	270	550	150	200	400
Center wavelength (nm)	532	532	523	607	639
Center wavelength tolerance (nm)	± 5	± 5	± 1	± 1	± 1
Beam size (FWHM, mm) (horizontal*vertical)	Ø 2.7	Ø 2.7	Ø 2.5	Ø 2.5	Ø 2.5
Beam divergence (half angle, horizont./vertical, mrad)	0.4	0.4	0.3	0.3	0.3
Linear polarization	Y	N	Y	Y	Y
M2 (horizontal/vertical)	~3	~3	~2	~2	~2
Modulation freq.(kHz)	5	5	50	50	50
Peak power consumption	12V / 5A	12V / 8A	12V / 5A	12V / 5A	12V / 5A
Dimensions (LxWxH,mm)	87x60x45	107x77x51	94x59x37	94x59x37	94x59x37
Driver dimensions (LxWxH,mm)	100x65x75	100x65x75	100x65x75	100x65x75	100x65x75
Picture					

COHERENT

Series	Blue	Cyan II	Cyan I	Green	Yellow	Orange	Red
Optical power (mW)	1000 2000	1000 2000 4000	3000 5000	3000 5000 8000 10000	3000 5000 6000	1250	1000 1500 2000 2500
Center wavelength (nm)	460	480	488	530	577	607	639
Center wavelength tolerance (nm)	± 3	± 3	± 3	± 3	± 3	± 3	± 1
Spectral width (nm)	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Beam size (FWHM, mm)	∅ 2.3	∅ 2.3	∅ 2.3	∅ 2.3	∅ 2.3	∅ 2.3	∅ 1
Beam divergence (mrad)	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Linear polarization	100:1	100:1	100:1	100:1	100:1	100:1	100:1
M2 (horizontal/vertical)	6 / 4	6 / 4	6 / 4	6 / 4	6 / 4	6 / 4	1.5 / 1.5
Modulation freq.(kHz)	50	50	50	50	50	50	50
Diode power consumption	2.2V / 32A	2.2V / 32A	2.2V / 40A	2.2V / 40A	2.2V / 40A	2.2V / 32A	2.2V / 40A
Dimensions of head only (LxWxH,mm)	134x44x65	134x44x65	134x44x65	134x44x65	134x44x65	134x44x65	256x49x71
Picture							

JENOPTIK

Series	Green				
Optical power (mW)	2000	3000	5000	8000	10000
Center wavelength (nm)	532	532	532	532	532
Center wavelength tolerance (nm)	± 1	± 1	± 1	± 1	± 1
Beam size (FWHM, mm)	∅ 3	∅ 3	∅ 3	∅ 3	∅ 3
Beam divergence (mrad)	~1	~1	~1	~1	~1
Linear polarization	Y	Y	Y	Y	Y
M2	<5	<5	<5	<5	<5
Modulation freq.(kHz)	20	20	20	20	20
Diode power consumption	2V/20A	2V/20A	2V/40A	2V/40A	2V/40A
Dimensions of head only (LxWxH,mm)	106x62x24	106x62x24	106x67x34	106x67x34	106x67x34
Picture					

RECOMMENDED APPLICATIONS

DISCO, CLUBS & ENTERTAINMENT

LASER BILLBOARD

OUTDOOR EVENTS

SPECIAL APPLICATIONS

KVANT

DISTRIBUTORS

Australia - Lumina Visual Production
Austria - Technik design GmbH
Bahrain - Maestro music equipments co.
Brasil - Somtec
Bulgaria - Lux Laser System BG
Canada - FFP Laser Systems
Czech Republic - Prodance
Croatia - Prolight
Denmark - Laser Power APS
Egypt - Al.Mira
France - Laser concept event
France - Laser Movement
Germany - GT - Tech, Dirk Gantefort
Germany - Highlight-Showtechnik
Greece - Electron S.A.
Greece - LS Creation
Hungary - GT laser
Ireland - AVL Systems
India - Harness Overseas Pvt. Ltd
India -Thriller SFX
Iran - Pardazeshgaran Electronic Co.
Italy - Lightco
Italy - Scenes.Progetti per la
Japan - Lc-east co,.LTD.
Kazakhstan - KZSound Rental Co.
Kazakhstan - Samat Show Technics
Morocco - Zak´s events
New Zealand - Flying pictures
Norway - Sjappa Arild Instebø Enk
Poland - Mediam Ltd.
Romania - Laser Shows SRL
Russia - Alexander Kharchenko Yugdoka
Russia - Lux Laser Systems
Russia - Orion - Art Production Intl.
Saudi Arabia - Intro Events Creation
Senegal, Ivory Coast - Concept & Creation
Singapore - Master Light & Sound
Slovenia - ProTiRa Timotej Rakuša s.p.
Spain - Tecnoradio
South Africa - Digitech Industrial Systems
Sudan - MDH Engineering.Co.ltd
Sweden - GSL / Lasershow.se
Sweden - Laserboy
Taiwan - Sunlit System Corporation
Thailand - Dynamic Source Co., Ltd.
Tunisia - Mediacom
Turkey - Effect Ses Isik Lazer ve Goruntu
Turkey - Dinakord
Turkey - Asimetrik
U.A.E. - Techno pro l.l.c.
USA - CT. Lasers
USA - GK Photonics, Inc.
United Kingdom - Synchrovision Ltd. (KVANT-UK)
Vietnam - Tan Huu Tai Co.