*B*eam*On WSR*

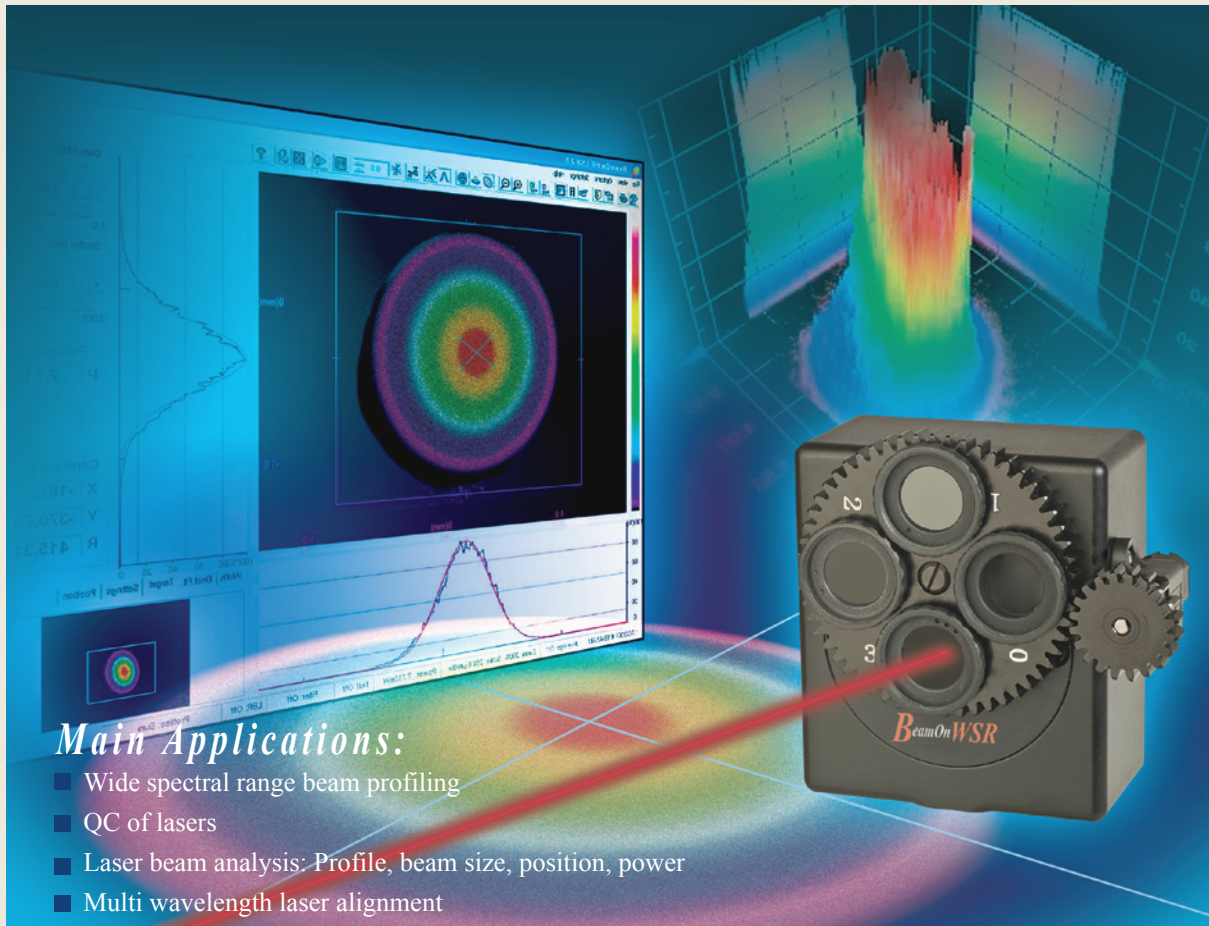## *Wide Spectral range 190nm to 1600nm CCD Beam Profiler*

Main Applications:
- Wide spectral range beam profiling
- QC of lasers
- Laser beam analysis: Profile, beam size, position, power
- Multi wavelength laser alignment

New Technology, one sensor without distorting coatings

- **Unique:** Wide spectral range 190nm to 1600nm
- **Versatile:** A complete test station measuring Beam Profile, Beam centroid and Position, both for CW and pulsed beams
- **Portable:** Based on a USB 2.0 interface for notebooks (or desktops)
- **Easy to use:** user-friendly software, on-line help routine
- **Accessories:** Complete set for larger beams and high power attenuation

Main Software Features
- Real time beam size and gausian fit (or top hat)
- 2D/3D plots of beam in real time
- Adjustable trigger laser
- Software controlled electronic shutter & gain
- Video with playback, snapshot files
- Data exporting to another computer via RS232 or TCP/IP
- Data logging with detailed statistics
- DLL package to control software from your application
- Automatic Pass/Fail analysis report
- Motorized filter wheel for wider dynamic range
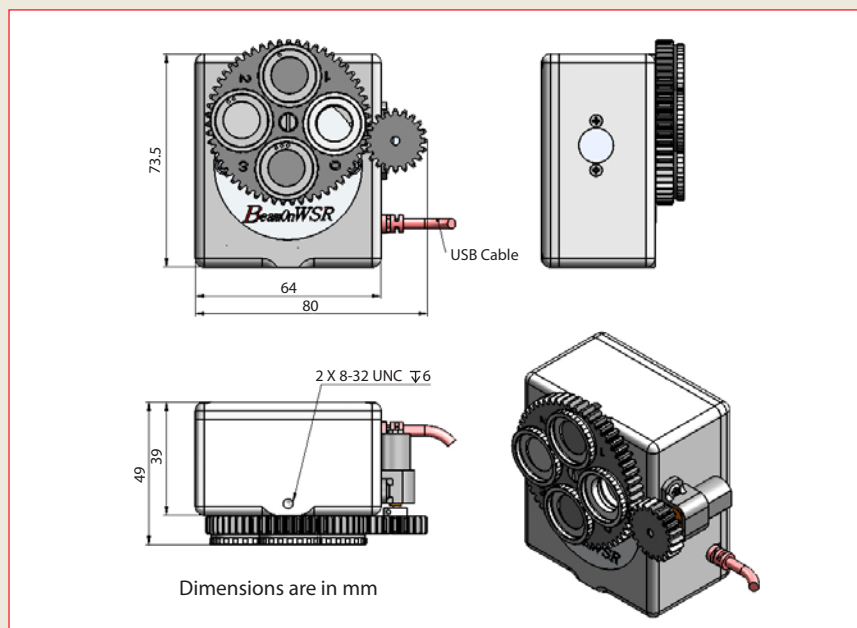- zooming
- Average

DUMA OPTRONICS LTD.

1st Hazait St., P.O.Box 3370 Nesher 3675018, Israel   Tel:972-4-8200577 Fax: 972-4-8204190
Website:http://www.duma.co.il   E-mail:sales@duma.co.il

Specifications

Head Drawing:

USB Cable

73.5

64
80

2 X 8-32 UNC ↧6

49
39

Dimensions are in mm

CCD Head Specifications

Camera type:	WSR Wide Spectral Range CCD, ½" format
Pixel size:	8.6µm(H)X8.3µm(V)
Sensor active area:	6.47mmX4.83mm
weight:	400 gr. with cable
Power consumption:	5V/0.6A through USB2.0 port
Accessories included:	Equipped with a built-in filter wheel, with 4xND 2mm thick filters, mounting post, one IR-Edge filter
Dimensions	80 mm x 78.5mm x 49 mm

General Specifications

PC interface:	USB2.0 Attachment, 1.8m long
RS232 / TCP-IP:	Data out
Operating temp:	-10ºc to 50ºc (without condensation)
Storage temp:	-40ºc - 60ºc
CE compliance	

Ordering Information

The system comes with a camera, a post, a built-in filter wheel with a set of 4xND filters (ND8, ND64, ND200, and ND1000), in housing one built-in (removable) IR-edge filter, software and user manual on CD disk / DiskOnKey, carrying case.

BeamOn WSR VIS-NIR:	350-1600nm
BeamOn WSR UV-NIR:	190-1600nm
ND Filter:	2mm thick ND filter in mount, select type:8/64/200/1000
IR Edge Filter:	2.5 thick, passing over 1100nm
SAM3-A	Attachment for high power lasers attenuation (up to 20W)
SAM3-A-HP	Attachment for high power lasers attenuation (up to1kW)
RDC	Attachment for beam reducer (ratio 2x1)

Host Computer Requirements

Pentium IV, Dual-Core, 2GHz, 512MB RAM, 64 MB 16 bit color VGA card, resolution 1024x768, CD ROM any type, High Speed USB2.0 port, OS Win / 2000 / XP / Vista / 7 32bit / 7 64 bit / 8.

System Performance with Software

System Response

VIS - NIR   350-1600nm
UV - NIR   190-1600nm(*)

(*) Windowless CCD

Max frame rate:	25Hz, excluding slow shutter operation
Image resolution:	720X576
Shutter speed:	1/50x256sec to 1/100,000sec, 17 steps manual or automatic
Gain control:	6dB to 41dB, 2dB steps manually or automatic
Null:	Null function is available to automatically subtract background
Optical dynamic range:	up to $1X10^{15}$ using all filters and software controlled electronic shutter and gain
Damage threshold:	50W/cm² or 1J/cm² with filters
Sensitivity:	160µW/cm² at 1500nm shutter x 256
Saturation:	1mW/cm² at 633nm with no filters installed
Operation with pulsed lasers:	Ability to capture and replay images from slowly pulsing lasers (1-100Hz) while filtering out frames with no laser pulse. Gain control and external filter make it easy to obtain optimal intensity
Triggering:	In pulsed mode set threshold by slide bar to display frames with captured pulses