

## Newsletter - June 2009

By Messa Febriadi

Dear Optics Colleague,

Thank you for your continuous support to our products. We are expanding our business and improving our product quality to match current market demand of laser optics.

In this issue, we will discuss the following items:

1. Single Piece Laser Optics (ZnSe cylindrical lens, CaF2 lens, Silicon mirror, beam combiner, cavity mirror, etc.)
2. Motorized IR Zoom Lens
3. Digital Beam Expander
4. F-Theta Scan Lens (10.6um, 1064nm, 532nm and 355nm)
5. Beam Shaper

We are participating in two exhibitions this month:

	<p>11-13 June, 2009 Taipei World Trade Center, Taiwan Booth: A019</p>
	<p>15-19 June, 2009 New Munich Trade Fair Centre, Germany Hall: B2, Booth: 546C</p>

As always, should you have any question, please contact us at [info@wavelength-tech.com](mailto:info@wavelength-tech.com). For more details, please check out our website: [www.wavelength-tech.com](http://www.wavelength-tech.com).

**Wavelength Technology**

## 1. Laser Optics

This is the basic of the rest of our products. We have been producing these items for more than 10 years. Some examples include ZnSe cylindrical lens, CaF2 lens, Silicon mirror, beam combiner, cavity mirror, etc. Off-shelf optics are available.

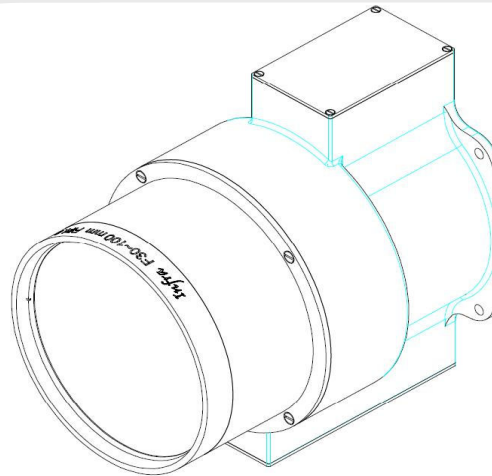


ZnSe Cylindrical Lens



Scanning Mirror

## 2. Motorized IR Zoom Lens



IR10010320Z-MOT

A picture shown above is IR10010320Z-MOT, 33mm-100mm EFL, 8um-12um working wavelength, 30.5° – 10.3° FOV, F# 1.0, 3X magnification and 320x240 pixels (45um) detector.

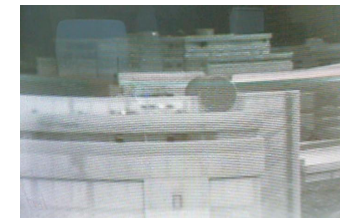
We are now ready to supply you with our newly developed Motorized IR ZOOM Lens. With embedded motor and supplied driver software, you can now simply adjust the focus using your PC. Connectivity provided is 9-pin serial port (RS-232). In case you don't have it in your PC, a USB to RS-232 converter is all you need to prepare. The power supply compulsory for this item is 24V DC. Below are sample of images taken using our IR ZOOM Lens.



Normal Camera



IR Image



Increasing magnification requires longer EFL, results in smaller FOV

### 3. Digital Beam Expander

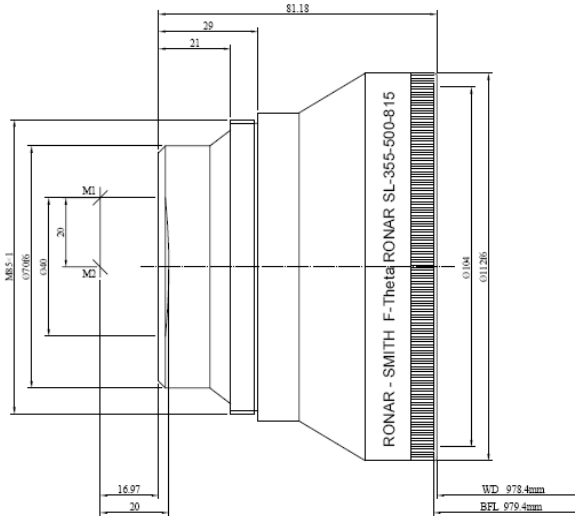
We made a big step by developing this product. Equipped with Digitalized Scale, our Beam Expander will lead a new trend in the market. Why should you observe the small prints of the scale while you can make beam adjustment easier with digital display?



Digital Beam Expander

### 4. F-Theta Scan Lens

We have made our customers satisfied with our series of F-Theta Scan Lens. This time we are showing a list of UV (355nm) lenses which are made of high quality optical material.

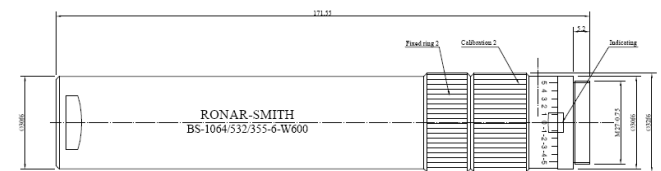
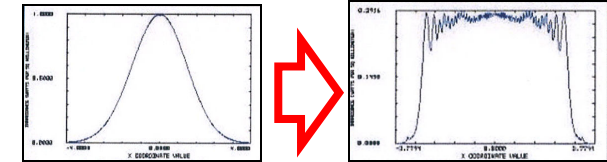


355nm

Part No.	EFL (mm)	Scan Length (mm)	Scan Field (mm)	Ent. pupil (mm)	Average spot Size (um)	Working Distance (mm)
SL-355-60-100Q	100.0	87.0	60x60	6.0	10.0	133.4
SL-355-112-160Q	160.0	160.0	112x112	6.0	18	205.8
SL-355-155-250	250.0	220.0	155x155	10.0	14.0	299.8
SL-355-F290-20	290.0	255.0	180x180	20.0	40.0	332.5
SL-355-180-295	295.0	254.0	180x180	10.0	20.3	362.8
SL-355-250-410	407.5	354.0	250x250	10.0	27.5	488.2
SL-355-350-580	580.0	496.0	350x350	10.0	28.5	684.8
SL-355-500-815	815.0	711.0	500x500	10.0	45.5	978.4

Beside 355nm, we also have wide range of F-Theta Scan Lens for 10.6um, 1064nm, and 532nm laser application. Please check our website for full listing of our standard products.

### 5. Beam Shaper



Model No.	Wavelength (nm)	Input Beam	Output Beam	Applicable range
BS-XX-6-W600	1064/532	5.8-6mm	5-5.5mm	100-600mm from output

Beam Shaper converts Gaussian laser beam input to produce a collimated, flat-top beam that can propagate without change in power and intensity, or loss of uniformity. The new model of Beam Shaper offers flat top-hat with long working distance. The beam shaper has several benefits over diffractive optics including: wavelength insensitivity, collimated output, and simpler mounting and alignment.

While we have Beam Shaper for 50-200mm application range, our new Beam Shaper has longer application range of 100-600mm from output.