selling by OKABE

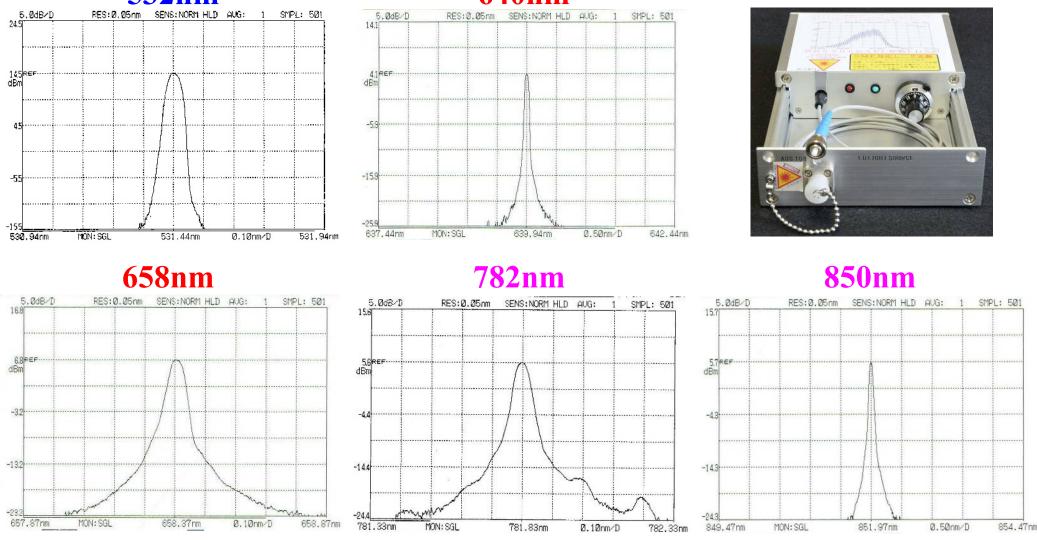
### You will find Very New From Now On!

- 1. Spectrum Single of Visible LD/Fiber!
- 2. Super Stabilized Power LD/Fiber Unit !
- 3. High Power Blue from <u>7 μm core</u> !
   4. Super Low Speckles of Orange Laser!
   5. Color (Wavelength) Exchangeable !

Crafted by ORSA ORSA comes from Latin "From Now On" and also short for Optical Research & System Architect We have been manufacturing unique Laser & Fiber Assemblies since 1987. Please contact " kenichi\_okabe@okabe-ss.co.jp " by e-mail.



### Spectrum Single-Mode beam from LD/PMF Unit AOS108EX 532nm 640nm



Connector's edge is an angled pherrule.

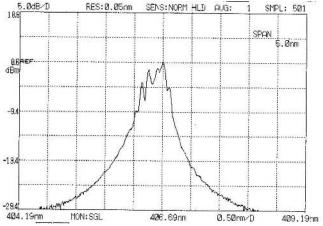
These are assembled without isolators with long years experiences.

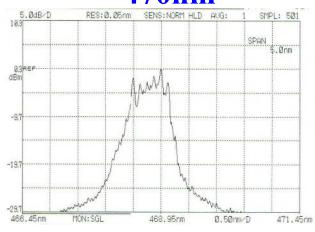
ORSA is always challenging original technique with craftmanship.

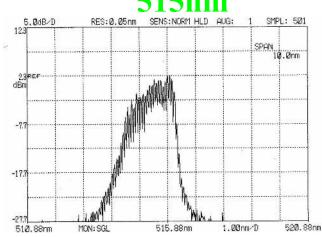
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**Other Wavelengths Available!** 

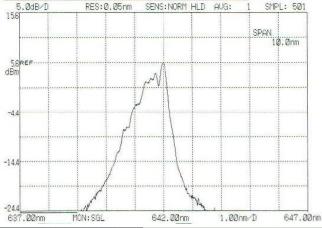
## High Stabilized Power from LD/PMF Unit AOS108 407nm 470nm 5.0dB/D FES: 0.05rm SENS: NORM HLD AUG: 1 STPL: 501 5.0dB/D RES: 0.05rm SENS: NORM HLD AUG: 1 STPL: 501 SENS: NORM HLD AUG: 1 STPL: 501 SENS: NORM HLD AUG: 1 STPL: 501

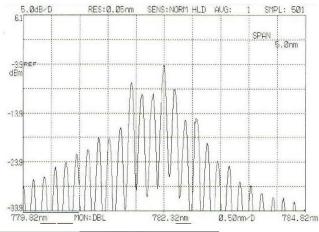






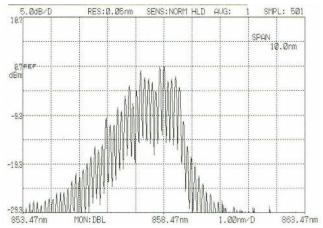
### 640nm











Fiber	PMF ( Polarizing Maintaining Fiber )
Efficinacy	40~50% around
Extinction ratio	20dB aro. or more
LD	405nm,445nm,470nm,515nm,530nm,635nm,640nm,
	658nm,782nm,830nm,850nm, 1300nm, 1550nm
LD Drive	APC (Auto Power Control)
Size	W:112 x L:200 x H:33 ( mm )
Supply Power	9V AC-Adapor





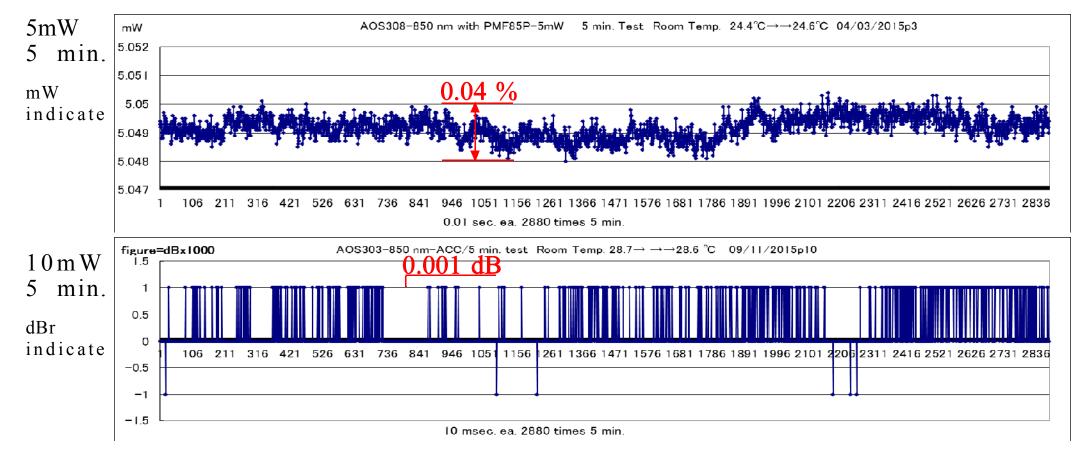
### Super Stabilized Power LD/Fiber Unit Temp. Controlled model:AOS308



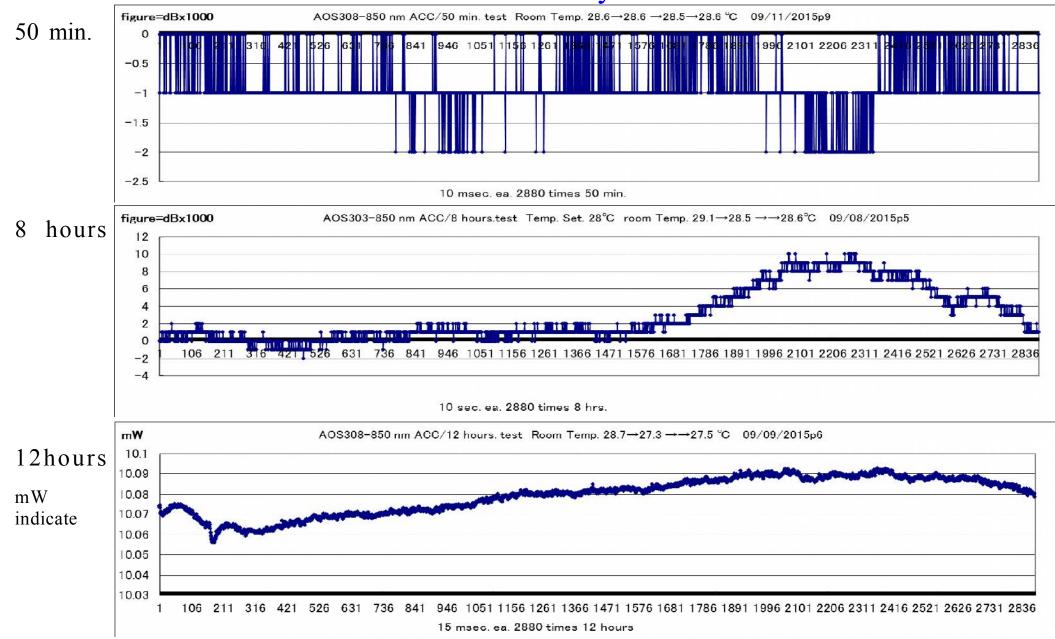
# Model Example: AOS308-850nm-10nm-PMFTemperature Controlled by Pertier deviceStandard FiberPMF 1.5m (SM&MM are also possible.Supply Power12V 4A or 5A AC-AdaptorSize230 x230 x 70 (mm)Efficiency40%~50% (70% in case of GI)Stability± 0.003dBr/5min. or longer

AOS408=Double LD modules in one Unit

Ours are not of Catalog Spec. We always show measured Data.



### AOS308-850nm-10mW-GI Stability Test additional Data



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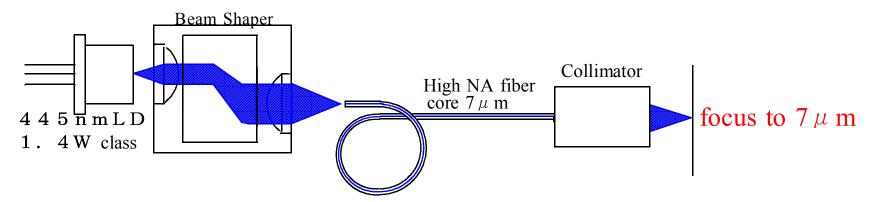
# 600mW Blue from $7 \mu m$ core fiber model:HPB500-01



High NA (0.30) Special fiber core 7  $\mu$  m has been developed for this purpose.

445nm Blue LD laser 1.4W type is combined with core  $7 \mu$ m high NA fiber.

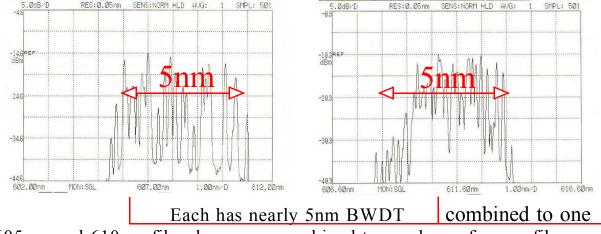
Input Efficiency	almost 60%
Fiber Length	1m with FC standard
	or longer as requested!
Size	220 x 320 x 90 ( mm )
Power supply	12V-5A AC Adaptor



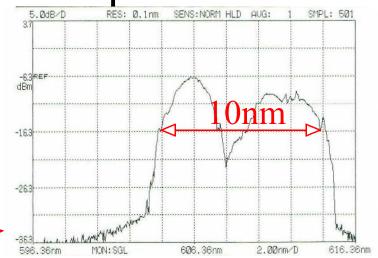
Application: Fine Processing, Stimulation Light source for fiber-lasers, and your special needs. Custom-make is our main work.

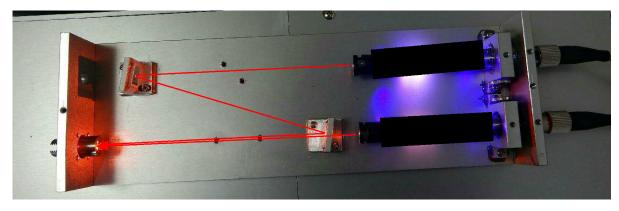
# SPECKLES-LOW ORANGE COLOR LASER UNIT model: SLLD-600-1

### 10nm Bandwidth makes Very Low-Speckles.



605nm and 610nm fiber lasers are combined to one beam for one fiber.





Two fiber lasers are stimulated by High Power Blue-Laser Unit. Speckle-less Laser has been needed in the measuring industry, ORSA Here Comes for your needs!

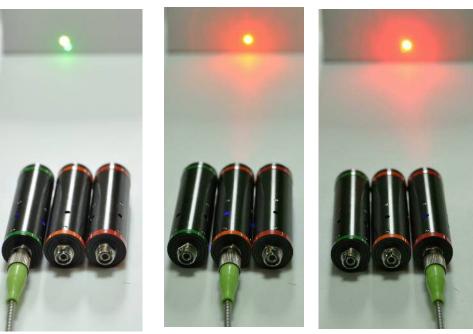


Proto-type as of Spring 2015 All in One Unit is developed in 2016.

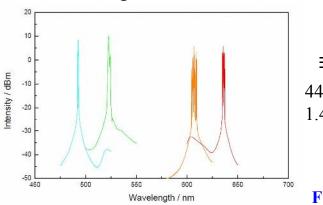
To observe submicron size particles or microbes, a speckleless or incoherent laser beam is a must.

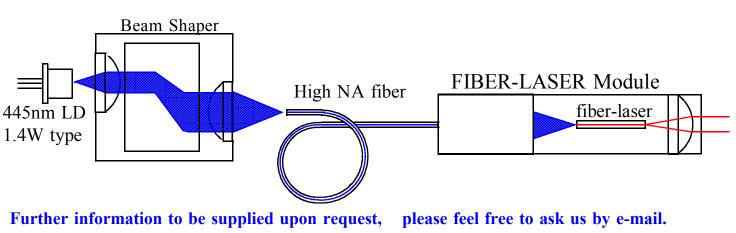
### 6 alternative Color Laser by exchanging the head of Fiber Laser Module **model:** MCFL-01 488nm $\Leftrightarrow$ 525nm $\Leftrightarrow$ 605nm $\Leftrightarrow$ 610nm $\Leftrightarrow$ 615nm $\Leftrightarrow$ 635nm





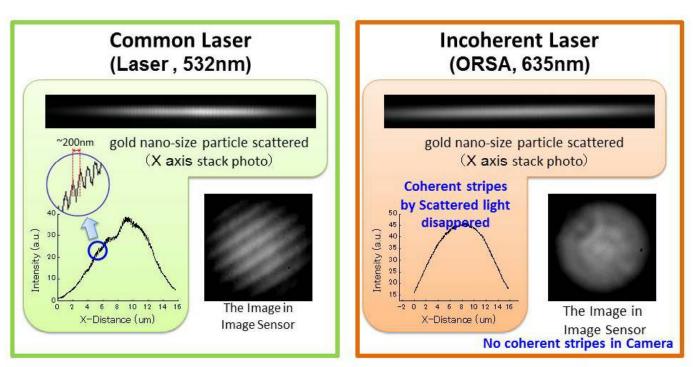
OUTPUT POWER: 20mW~100mW (Please ask us your requirements.) Spectrum





### The effect of In-Coherency of 635nm Fiber Laser single use

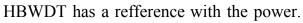
#### The Effect of Low-Coherent Laser



### Because of the low -coherent beam, Coherent Stripes are hardly occur.

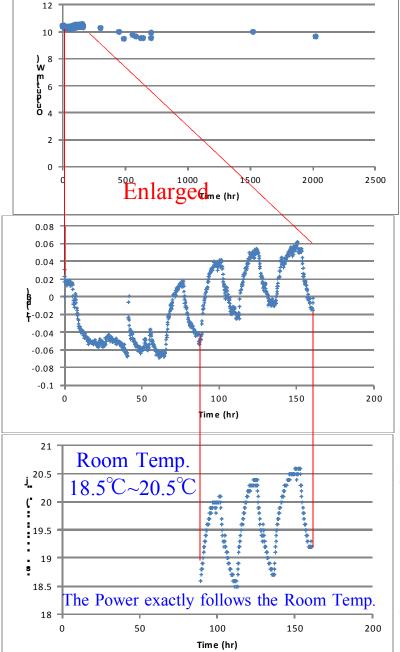
This is the Image taken by Image Sensor in a Microscope to observe a nano-size gold particle by using 3nm HBWDT Fiber Laser. Coherent Stripes disappered !! If it were 10nm HBWDT Laser Beam, how clear it would be !!





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### An endurance test data of AOS108-405nm-10mW-PMF

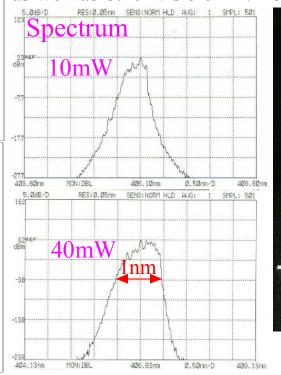


Maximum Output Power 20mW This type does not have a Pertier device. 1,000 hour running test passed ! 2,000 hour No Problem !

More power like 40mW or 50mW requires temperature controlle. We recommend AOS308 type.

It is common that a special fiber is needed to endure blue-violet laser power. Ours, however, cleared the problem without any special proceesing at the fiber edge.

Assembled fiber on this LD is a usual Polarizing Maintaining Single Mode Fiber you can buy easely. The cost is, therefore, not a factor, as well as other visible LD/Fiber unit like a red.

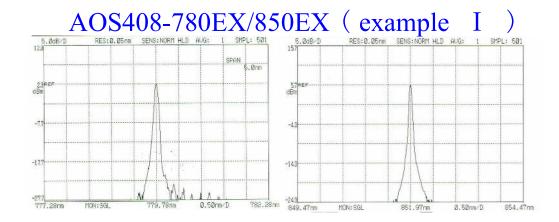


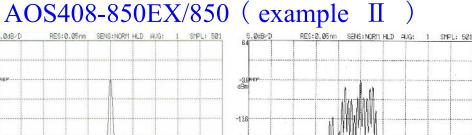


### Double LDs Light Source Unit model:AOS408-xx (wavelength) /xx (wavelength)



This is a brother Unit of model AOS308. You can choose two LD/Fiber modules. Please tell us which wavelength and spectrum type you want to make a pare. Size:W230xD230xH70 (mm) Drive:12V-5A AC Adaptor (Attached in the case)





Concerning Wavelength, please refer page 2 and 3. Others, please ask us by mail.

**ORSA** Optical Research & System Architect