User's manual Jun. 2016 Ver. 1.3

C-band ASE Light Source Specifications



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• Preparations before use

This machine is warranted from any failure in normal operation as the machine is fully inspected mechanically and electrically before shipment from the factory. As soon as you receive the cargo, unpack and make certain that the machine is not damaged in transit.

1. Included Items

If any missing items are found upon inspection, contact us immediately.

We recommend that the carton box and the inner corrugated boards should be kept with care to avoid damage in case of reuse for transfer to another location.

2. Acceptance Inspection

(1) Mechanical movement check

As to external appearance, movement of the switch, the pump on button, the adjust dial, and connectors, carry out inspection under the condition of being the power supply off to look for possible damage or trouble caused in transit.

(2) Operation check

When no trouble is found upon mechanical movement check, carry out operation test to check functions, followed by the instructions of Operation Manual.

(3) Upon finding damage or anomalies

If, during acceptance inspection, damage to the machine or anomalies in connection with the specifications is found, contact us immediately with details of the trouble.

• Specifications

Desktop type

Product No.	ASE-C-10S	ASE-1550-25	ASE-FL7010	ASE-FL7012	ASE-FL7013	ASE-FL7050	ASE-1560-G20
Total Output Power	≥+10 dBm (≥ 10 mW)	≥ +14 dBm (≥ 25 mW)	≥ +16 dBm (≥ 40 mW)	≥+16 dBm (≥ 40 mW)	≥ +16 dBm (≥ 40 mW)	≥ +22 dBm (≥ 155 mW)	≥ +13 dBm (≥ 20 mW)
Wavelength	C-band						
Spectral Power Density	≥ -16 dBm/nm @1530~1560 nm	≥ -10 dBm/nm @1530~1560 nm	≥ -8 dBm/nm @1530~1560 nm	≥ -7 dBm/nm @1530~1570 nm	≥ -3 dBm/nm @1531~1563 nm	≥ 0 dBm/nm @1530~1560 nm	Gaussian like shape
Output Power Stability (Typical) *1	≤± 0.05 dB	$\leq \pm 0.005 \text{ dB} (\leq \pm 0.001 \text{ dB})$				≤±0.01 dB	
Output Fiber	Corning SMF28						
Optical Connector	FC / PC						
Size *2	44 × 112 × 120 mm 88 × 260 × 350 mm						
Operation Temperature	0 ~ 40 °C						
Storage Temperature	-10 ~ 60 °C						
Weight	≤ 1kg	$\leq 1 \text{kg}$ $\leq 5 \text{kg}$					
Power Supply	DC 6V / 2A Attached AC adapter	AC 100 ~ 240V (50/60 Hz)					
Laser Class (Max Output Power)	Class 3R Laser product (≤ 20 mW)	Class 3R Laser product $(\le 50 \text{ mW})$ Class 3B Laser product $(\le 200 \text{ mW})$			Class 3R Laser product (≤ 50 mW)		

^{*1: 15}minute after 1hour warm-up *2: not including protrusions

Option

Option 012	FC / Angled PC optical connector
Option 013	SC / PC optical connector
Option 014	SC / Angled PC optical connector
Option 031	Spectral flattening
Option 041	Polarized output
Option 061	Output adjustable
Option 081	With attenuator

Standard attached items

Staridard attached items	
This instrument	1 unit
Power cord	1 pcs
Spare fuse	1 pcs (stored in the fuse box of the AC inlet)
Specifications (by these presents)	1 copy
Operation Manual	1 copy
Final Test Inspection Record	1 copy

Module type

Product No.	ASE-C-10S-Md	ASE-Md1550-25	ASE-FLMd7010	ASE-FLMd7012	ASE-FLMd7013	ASE-FLMd7050	ASE-Md1550-25 -MSA
Total Output Power	Optical properties conform to the desktop type					≥ +14 dBm (≥ 25 mW)	
Wavelength						C-band	
Spectral Power Density						≥ -8 dBm/nm @1530~1560 nm	
Output Power Stability (Typical) *1						$\leq \pm 0.005 \text{ dB}$ ($\leq \pm 0.001 \text{ dB}$)	
Output Fiber						SMF	
Optical Connector						FC/PC	
Monitor function	Output power	Output power / Pumping LD current / Pumping LD temperature				Output power	
Alarm function *3	Output power / Pumping LD current			Output power			
Control function	Pumping LD operation is shut down by TTL level L						
Size *2	18 × 120 × 90 mm		$35 \times 190 \times 132 \text{ mm}$			$12\times90\times70~\text{mm}$	
Operation Temperature	0 ~ 0 °C						
Storage Temperature	-20 ~ 70 °C						
Weight	$\leq 0.5 \text{ kg}$						
Power Supply	DC $5.1 \sim 5.4 \text{ V} \leq 10 \text{ VA}$						
Laser Class (Max Output Power)	Class 3R Laser product (≤ 20 mW)	Class 3R Laser product $(\le 50 \text{ mW})$ Class 3B Laser product $(\le 200 \text{ mW})$		product	Class 3R Laser product (≤ 50 mW)		

^{*1: 15}minute after 1hour warm-up

Pumping LD current alarm : Excess of the pump-LD current (normal:H \slash alarm:L)

Option

Option 012	FC / Angled PC optical connector
Option 013	SC / PC optical connector
Option 014	SC / Angled PC optical connector

Standard attached items

This instrument	1 unit (Attached flat cable)		
Specifications (by these presents)	1 copy		
Operation Manual	1 copy		
Final Test Inspection Record	1 copy		

^{*2:} not including protrusions

^{*3:} Output power alarm: Decline of the output power (normal:H / alarm:L)

^{*} Refer to attached "Final Test Inspection Records" for detail of pin assigns & threshold values of alarm