

1.4μm FBG LD MODULE

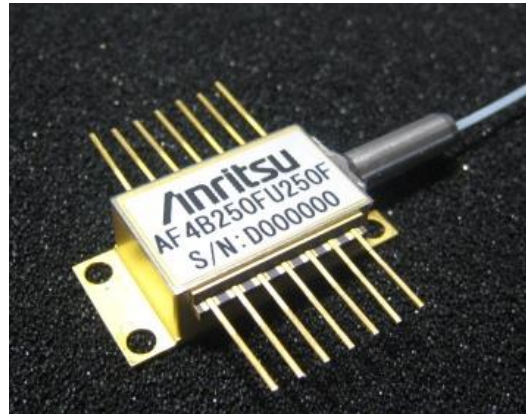
AF4B246FUxxxF / AF4B250FUxxxF

Optical fiber output power 460 and 500mW

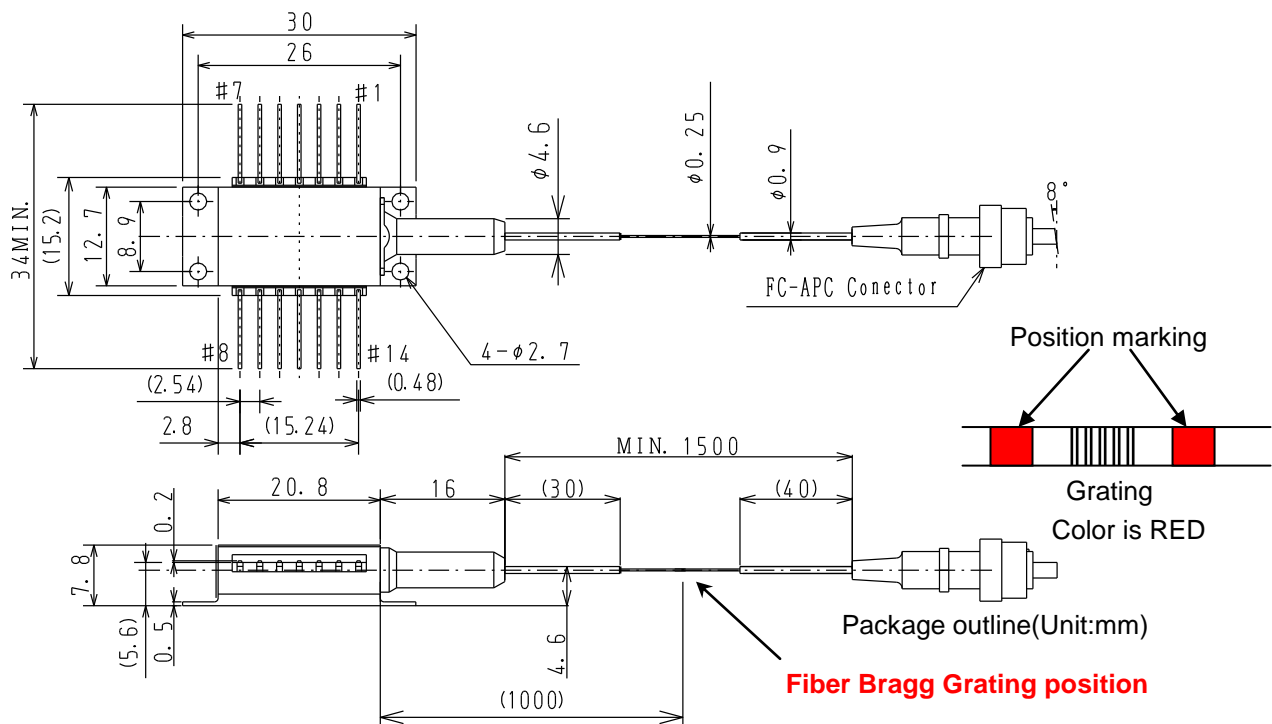
The AF4B246FUxxxF and AF4B250FUxxxF are designed for Raman amplifier. The wavelength is stabilized with FBG. The laser is installed in a new 14-pin butterfly package with monitor photodiode (PD) and thermo-electric cooler (TEC).

■ FEATURES

- ◆ Optical output:
 - Range of Wavelength : $1420\text{nm} \leq \lambda < 1485\text{nm}$
 - AF4B246FUxxxF : 460mW ($I_F \leq 1700\text{mA}$)
 - AF4B250FUxxxF : 500mW ($I_F \leq 1800\text{mA}$)
 - eg. xxx = 750 $\lambda = 1475.0\text{ nm}$
(0.5nm spacing is available)
- ◆ Fiber: PMF output (UV coating fiber: $\phi 0.25\text{mm}$)
- ◆ 14pin butterfly package
- ◆ Internal monitor PD and TEC



■ DIMENSIONS



(Note) Polarization state of LD is aligned parallel to the slow axis.

(Note) Slow axis of PMF is not fixed in parallel to the connector key.

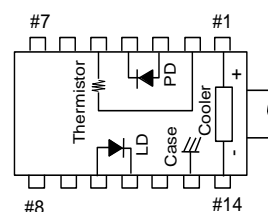
(Note) Please consult with our sales offices when slow axis of PMF is to be fixed in parallel to the connector key.

■ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Rating	Unit
LD Forward Current	I _F	2200	mA
LD Reverse Voltage	V _R	2	V
PD Forward Current	I _{FD}	10	mA
PD Reverse Voltage	V _{RD}	20	V
Operating Case temperature	T _C	-20 to +70	°C
Storage Temperature	T _{stg}	-40 to +85	°C
Cooler Current	I _c	5.8	A

* Excess over the absolute maximum ratings may lead to damage.

■TOP VIEW



■ Pin Configuration

No	FUNCTION	No	FUNCTION
1	Cooler anode	8	NC
2	Thermistor	9	NC
3	PD anode	10	LD anode
4	PD cathode	11	LD cathode
5	thermistor	12	NC
6	NC	13	Case
7	NC	14	Cooler cathode

■OPTICAL AND ELECTRICAL CHARACTERISTICS

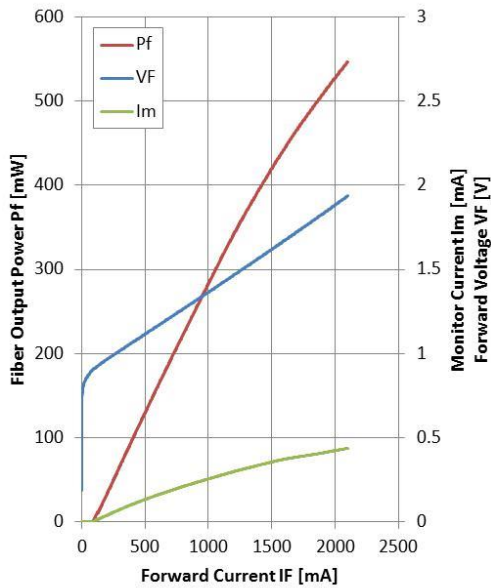
(T_{LD}=25°C, T_C=25°C, P_f rage=100mW to P_{max}, unless noted otherwise)

Item	Symbol	Test condition		AF4B246FUxxxF	AF4B250FUxxxF	Unit
Output power	P _f	-	Min.	460	500	mW
Forward Voltage	V _F	At Output Power	Max.	2.2		V
Threshold Current	I _{th}	-	Max.	180		mA
Forward Current (BOL)	I _F	At Output Power	Max.	1700	1800	mA
Center Wavelength	λ _C	At Output Power RMS (-20dB)	Min.	λ-1		nm
			Typ.	λ		
			Max.	λ+1		
Spectral width	Δλ	At Output Power -10dB	Max.	3.5		nm
Monitor Current	I _m	At Output Power	Min.	100		μA
			Typ.	—		
			Max.	2000		
PD Dark Current	I _d	V _{RD} =5V	Max.	0.1		μA
Tracking Error	ΔP _f	I _m =const., T _C =-20~70°C	Max.	0.5		dB
Cooler Voltage	V _C	I _F =*EOL, T _C =70°C	Typ.	3.0	3.3	V
			Max.	3.7	4.0	
Cooler Current	I _c	I _F =*EOL, T _C =70°C	Typ.	2.6	2.8	A
			Max.	3.2	3.5	
Thermistor Resistance	R _{th}	T _{LD} =25°C	Min.	9.5		KΩ
			Typ.	10		
			Max.	10.5		
Extinction Ratio	X _p	At Output Power	Min.	17		dB

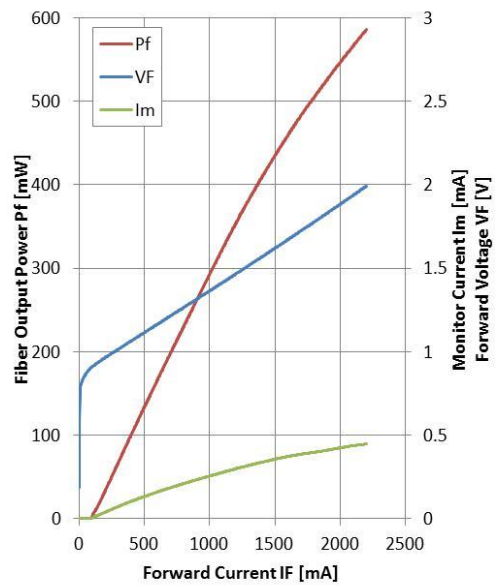
*EOL=BOLx1.2

■ TYPICAL CHARACTERISTICS

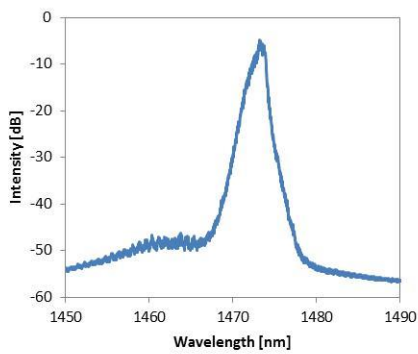
◆ Fiber Output Power / Monitor Current / Forward Voltage – Forward Current [AF4B246FU730F]



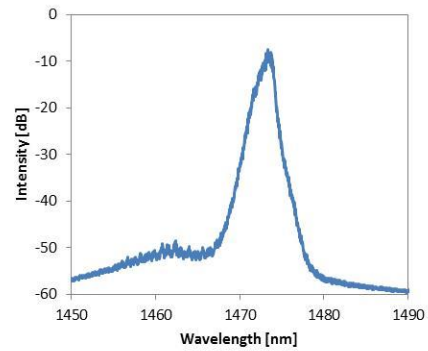
[AF4B250FU730F]



◆ Emission Spectrum [AF4B246FU730F]



[AF4B250FU730F]



SEMICONDUCTOR LASER

DANGER

INVISIBLE LASER RADIATION
 AVOID EYE OR SKIN EXPOSURE TO
 DIRECT OR SCATTERED RADIATION

OUTPUT POWER 600mW
 WAVELENGTH 1.40 to 1.50 μm
 CLASS IV LASER PRODUCT

AVOID EXPOSURE
 Invisible laser radiation is emitted from this aperture

Caution – use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
 This Product Complies with 21 CFR 1040.10 and 1040.11
 Manufactured Anritsu Corp. 5-1-1 Onna, Atsugi-shi, Kanagawa, Japan

Anritsu Corporation reserves the right to change the design or specification of the product at any time without notice.

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