

Erbium-Doped Fiber Amplifier

Producer:X	Check:	Approver:
Sales Order Number:	PN: RZ-M-C-23-20-FA-1.5	DOCUMENT NO:

1. Document version :

Date	Ver	Author	Remarks

Customer model: RZ-M-C-23-20-FA-1.5

Internal model: RZ-M-C-23-20-FA-1.5

Usage phase:

2. Special process requirements: NA

3. Abbreviation:

Abbreviation	Description
EDFA	Erbium Doped Fiber Amplifier
ACC	Automatic current control
APC	Automatic power control
AGC	Automatic gain control

4. Working Environmental indicators:

NO.	Parameters	Min	Typical	Max	Unit	Remarks
1.	Operating temperature	-5	-	55	°C	Necessary heat dissipation treatment
2.	Storage temperature	-40	-	85	°C	
3.	Operating relative humidity	5	-	85	%	
4.	Store relative humidity	5	-	95	%	
5.	Mechanical environment	/				
6.	Quality level	/				

5. Optical Index:

No.	index	Min	Typical	Max	Unit	Remarks
1.	Wavelength Range	1529.55	1550.12	1563.86	nm	ITU: C17~C60
2.	Number of wavelengths	-	1	-	CH	
3.	Input optical power range	-30	3	+10	dBm	
4.	Output total optical power range	0	23	23	dBm	
5.	Gain	18.5	20	21.5	dB	Non-adjustable gain
6.	Gain flatness	-	1.5	2	dB	@ gain 20 ± 1.5 dB
7.	Noise	-	5.5	6	dB	
8.	Return loss	45	-	-	dB	
9.	No light reporting	-60			dBm	
10.	Output power stability	-	-	± 0.2	dB	
11.	Power reporting accuracy	-	-	± 0.5	dB	
12.	Output power control accuracy	-	-	± 0.5	dB	
13.	Input and output isolation	30	-	-	dB	
14.	Polarization-dependent gain	-	-	0.3	dB	
15.	Polarization Mode Dispersion(PMD)	-	-	0.5	ps	
16.	Input the low light signal alarm Threshold (Input Alarm Simultaneous Pump Off)	-	-31	-	dBm	The scope can be set -31~+9dBm, 1dB upward hysteresis, less than -31dBm reports no light
17.	Output light alarm threshold	-	-10	-	dBm	The scope can be set -10~22, 1dB upward hysteresis, less than -11 reported no light
18.	Settable Range of the APC output power	0	-	23	dBm	
19.	Input and output fiber length	95	100	105	cm	Contains the connector length
20.	Input and output fiber type	900um white loose tube SMF-28e				
21.	Fiber optic connector type	FC/APC				
22.	Working mode	APC(default)/ACC				
23.	Ports	-				2 (INPUT&OUTPUT)

5. Optical path structure:

6. Hardware index

6.1 Electrical Index

NO	Index	Min	Typical	Max	Remarks
1	Operating voltage	4.75V	5V	5.25V	
2	Module power consumption	-	-	20W	Due to the high power consumption, it is necessary to add a heat sink and other methods

6.2 Hardware and communication interfaces:

NO	Item	Material specifications	QTY	Length
1	+5V	Silver-plated copper wire conductor multi-stranded 2.0 square red	1	50±5cm (with connector)
2	GND	Silver-plated copper wire conductor strands 2.0 square black	1	50±5cm (with connector)
3	RS232	Silver-plated three-pair high temperature line AFS250 3*0.15 square	1	50±5cm (with connector)

6.3 Pin definition: NA

7 Software Metrics:

7.1 Software commands

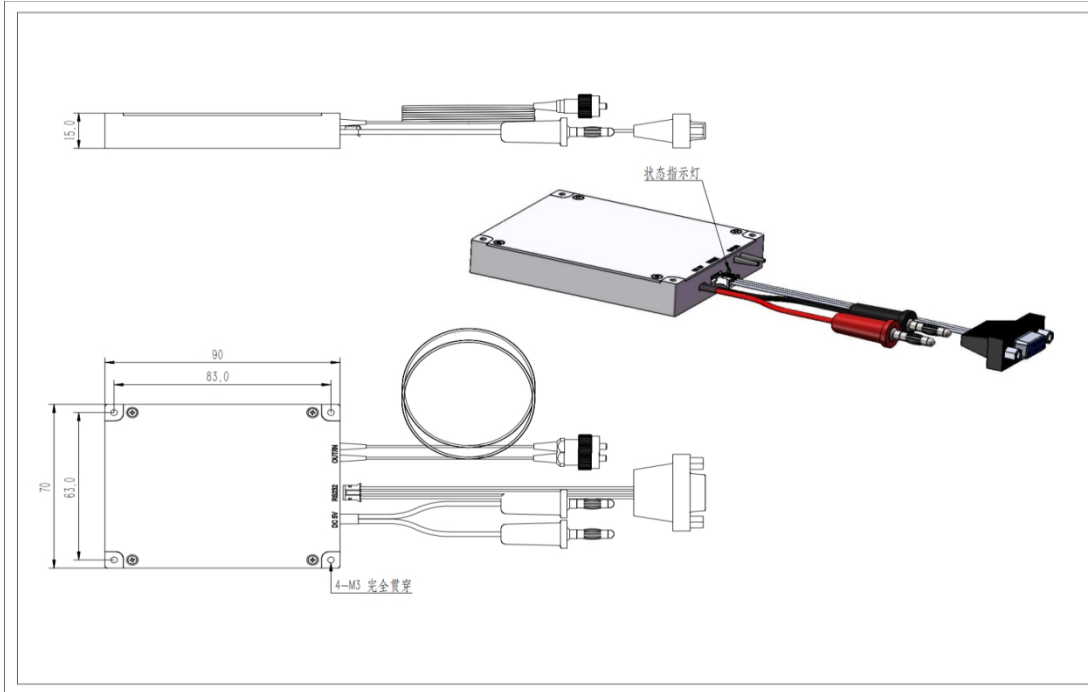
The software supports the functions of "power down saving, power-on loading" and "setting and saving in APC and ACC mode".

Please refer to the user manual, for detailed instructions and usage of the host computer software.

NO	Item	Value	Unit
1	baud rate	9600	Bit/s
2	Data bits	8	Bit
3	Stop bit	1	Bit
4	Check bits	None	

7.2 Serial port communication protocol: to be specified

8. Structural appearance: (unannotated position tolerance according to GB/T1184-K; Unmarked dimensional tolerance $X \pm 0.15$, $. X \pm 0.1$ 、 $. XX \pm 0.05$, special tolerances are shown in figure)



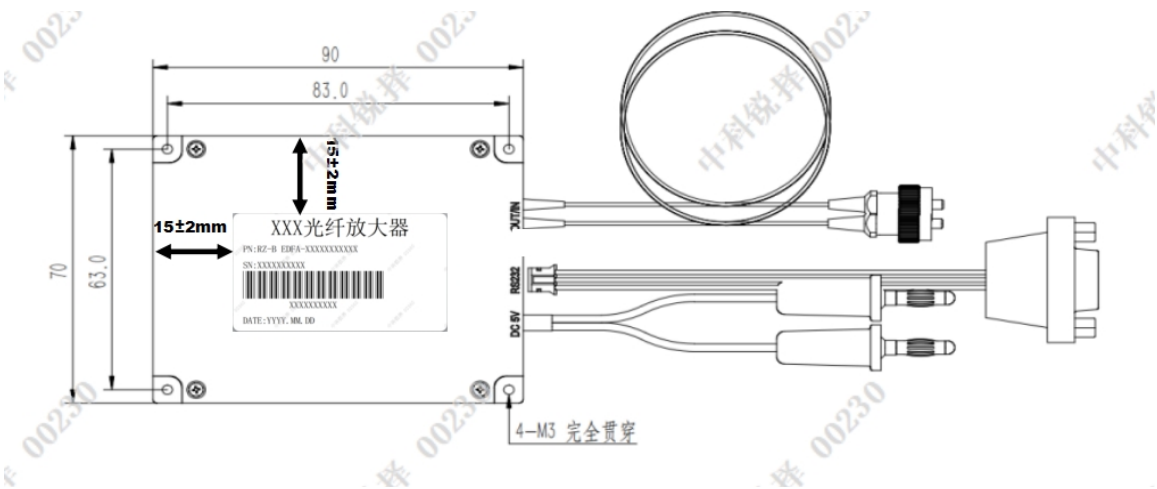
9 Product naming rules: omitted

10 Packaging Requirements:

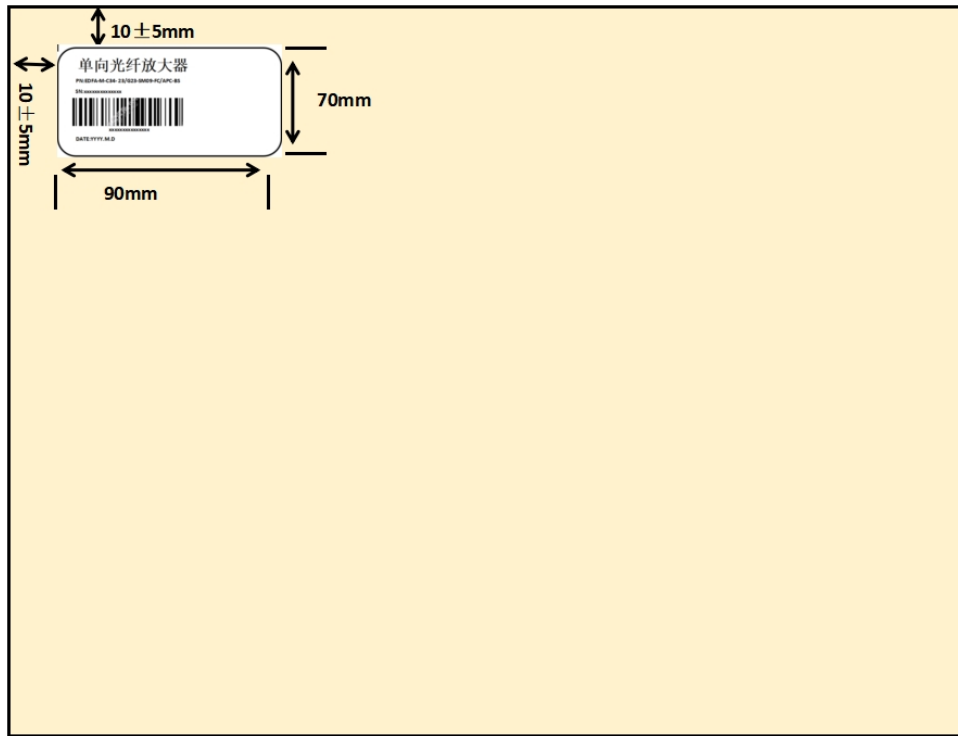
NO	Project	Material specifications	Dimension	QTY	Remark
1	Outer packaging label	Thermal label paper	70*90mm	1	The contents of the label shall be subject to the illustration
2	Product labels	Silver label paper (strong tack)	60*40mm	1	



The product label is labeled with silver label paper (60*40mm) and the label is centered on the upper cover of the module, and the specific position is shown in the figure below.



The outer packaging label is labeled in the upper left corner of the packaging box using thermal label paper (90*70mm), and the specific position is shown in the figure.



11. Attachments:

No	Project	content	Qty	comments
1	Packaging requirements	Neutral packaging	/	
2	Product text	English	/	
3	Product accessories	Test report	1	
		Serial port adapter cable	1	
		CD (with host computer software)	1	
		User manual	1	