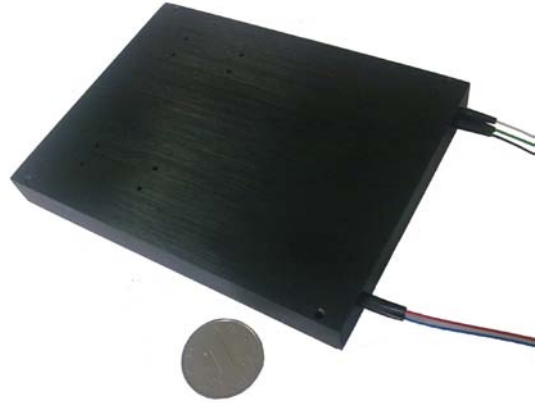



***WZEDFA-EM-2500 series:
One-Stage Erbium Doped Fiber
Amplifier***



WuXi ZhongXing One-stage Erbium Doped Fiber Amplifier products (WZEDFA-EM-2500 series EDFA) provide smart optical amplification and more convenient system design. Excellent transient control is achieved, and accurate ASE compensation is included. Three work modes, including AGC, APC and ACC are selectable.

Perfect network interface is provided. The operating information is provided to the user by RS232.

Features

- Fixed gain, BA, LA or PA;
- Dual Fixed gain amplifier can be in one module
- Excellent gain flatness;
- Low Noise Figure;
- Excellent transient response control;
- ASE automatic compensation;
- 3 work modes, AGC, APC and ACC, for constant gain, output power or pump current are selectable;
- Perfect network interface.
- RoHS compliant 

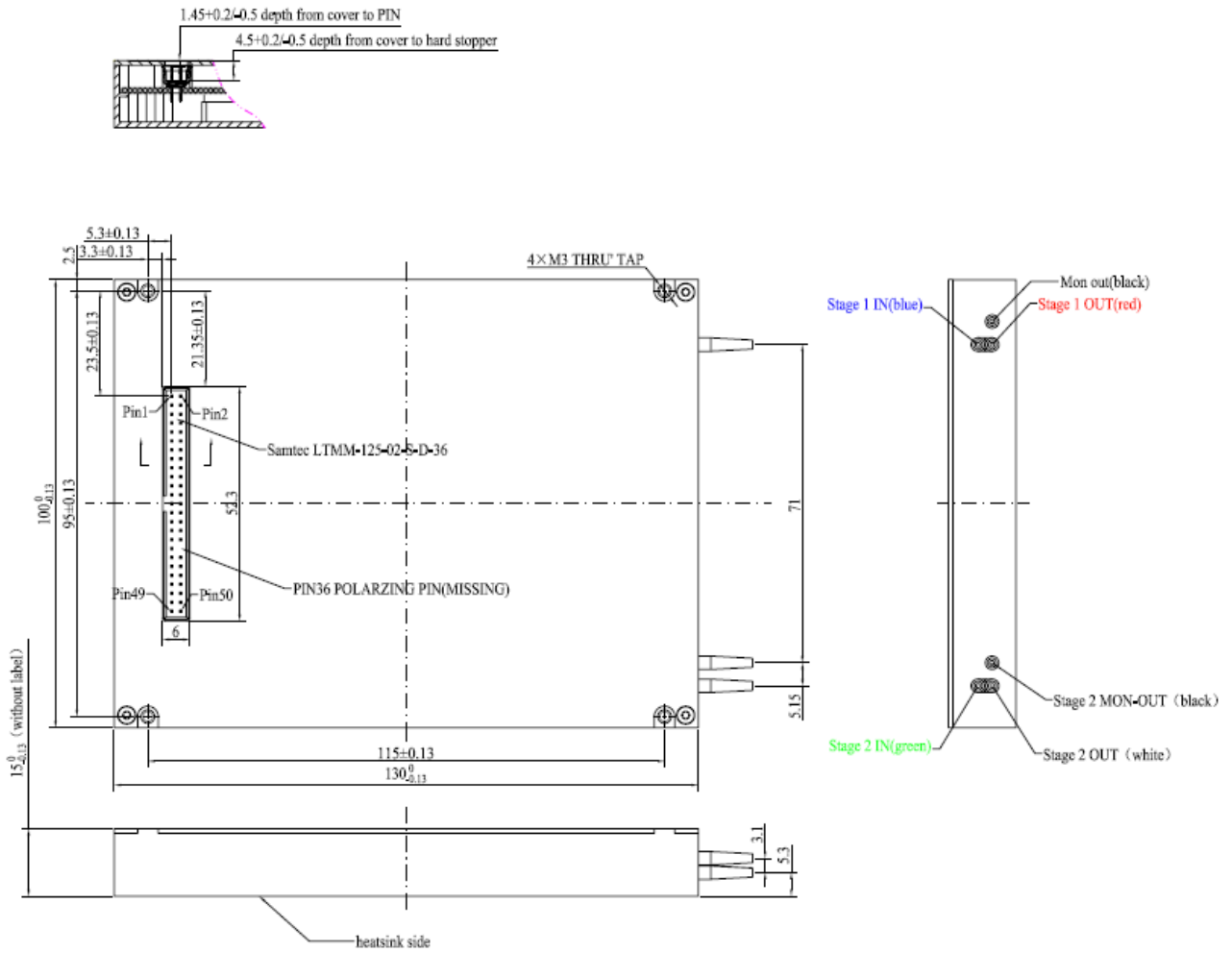
Applications

- Digital communication network;
- DWDM system.

Compliance

Telcordia GR-1312-CORE

Mechanical outline



**Specifications**

Part number: WZEDFA-EM-2501-001-R5, fixed gain amplifier

Parameter	Condition	Min	Typ	Max	Unit
Wavelength Range		1529		1564	nm
Number of channels		1		44	
Input power per channel		-24		-20.6	dBm/ch
Total Input power		-24		-4	dBm
Saturation Output Power		1		18	dBm
Gain set Range		22		23	dB
Optimal gain set			22.5		
Nominal tilt			0		dB
Gain ripple				+/-0.75	dB
Gain deviation				+/-1	dB
Noise Figure	G=22.5dB			5.2	dB
Average gain accuracy				+/-0.5	dB
Gain stability				+/-0.25	dB
PMD				0.5	ps
PDG				0.5	dB
Transient settling time				1000	μs
Transient overshoot/undershoot				+/-1.5	dB
Transient offset				+/-1.0	dB
Optical Isolation at the output of first stage				30	dB
Optical Isolation at the output port				30	dB
Return loss of the input port				40	dB
Operating Temperature		-5		65	°C
Operating Humidity		5		95	%
Storage Temperature		-40		85	°C
Power voltage		4.8	5	5.2	V
Current				5	A
Power Consumption				25	W
Dimension		130*100*15			mm
Connector		LC/UPC			
Fiber length/color		Custermerized			

Part number: WZEDFA-EM-2502-001-R5, Dual fixed gain amplifier

Parameter	Condition	Min	Typ	Max	Unit
Wavelength Range		1529		1564	nm
Number of channels		1		44	
1 st stage Input power per channel		-21.5		-19.9	dBm/ch
1 st stage Total Input power		-21.5		-3.5	dBm



1 st stage Saturation Output Power		1		18	dBm
1 st stage Gain set Range		21.5		22.5	dB
1 st stage Optimal gain set			22		
2 nd stage Input power per channel		-22		-20.4	dBm/ch
2 nd stage Total Input power		-22		-4	dBm
2 nd stage Saturation Output Power		1		18	dBm
2 nd stage Gain set Range		22		23	dB
2 nd stage Optimal gain set			23		
Nominal tilt			0		dB
Gain ripple				+/-0.75	dB
Gain deviation				+/-1	dB
Noise Figure				5.2	dB
Average gain accuracy				+/-0.5	dB
Gain stability				+/-0.25	dB
PMD				0.5	ps
PDG				0.5	dB
Transient settling time				1000	μs
Transient overshoot/undershoot				+/-1.5	dB
Transient offset				+/-1.0	dB
Optical Isolation at the output of first stage				30	dB
Optical Isolation at the output port				30	dB
Return loss of the input port				40	dB
Operating Temperature		-5		65	°C
Operating Humidity		5		95	%
Storage Temperature		-40		85	°C
Power voltage		4.8	5	5.2	V
Current				5	A
Power Consumption				25	W
Dimension		130*100*15			mm
Connector		LC/UPC			
Fiber length/color		Custermerized			

50 PIN assignments



WuXi ZhongXing Optoelectronics Technology Co., Ltd.

Pins	Description	Pins	Description
1	Power Supply	2	Power Supply
3	Power Supply	4	Power Supply
5	Power Supply	6	Power Supply
7	Ground	8	Ground
9	Ground	10	Ground
11	Reserved (do not connect)	12	Output Reflection Alarm
13	Ground	14	Reset Input
15	Serial Input	16	Serial Output
17	Pump Current Alarm	18	Stage 1 Input LOS Alarm
19	Ground	20	Ground
21	Reserved (do not connect)	22	Reserved (do not connect)
23	Reserved (do not connect)	24	Reserved (do not connect)
25	Ground	26	Reserved (do not connect)
27	Stage 2 Input LOS Alarm	28	Ground
29	Stage 2 Output/Gain Alarm	30	Ground
31	Ground	32	Ground
33	Case Temperature Alarm	34	Stage 1 Output/Gain Alarm
35	Pump Temperature Alarm	36	Pin is absent (Polarization Key)
37	Amplifier Disable Input	38	Output Power Mute Input
39	I ² C SCL (Optional)	40	I ² C SDA (Optional)
41	Ground	42	Ground
43	Ground	44	Ground
45	Power Supply	46	Power Supply
47	Power Supply	48	Power Supply
49	Power Supply	50	Power Supply



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