

CP VGA EDFA Datasheet

Features

- APC/AGC operation
- LOS function
- Transient control
- Power limiting function to prevent receiver overload
- Two power monitoring points (input/output)
- 1M Laser Safety Specification compliance

Version History

Date	Version	Description
2024/12/30	1.0	Initialize

Order Information

Part Number	Description	Code
WZEDFA-RM-BCP13242024	-	-
WZEDFA-RM-BCP20242824		
WZEDFA-RM-LCP20242824		

Functional Diagram

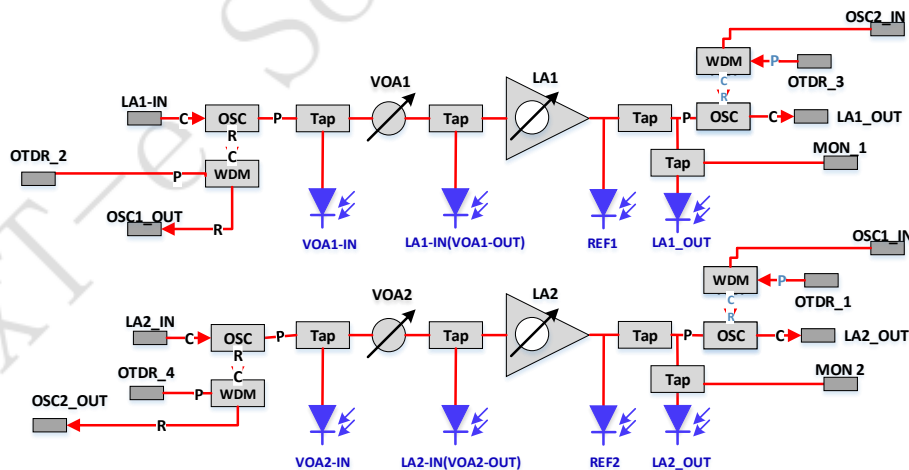


Figure 1 LA1(EDFA1) & LA2 (EDFA2) block diagram

Operation/Storage Temperature and Humidity

Parameter	Specification	Unit	Note
Operating case temperature	-5 ~ 55	°C	
Operation Humidity	5~85	%RH	
Storage Temperature	-40 ~ +85	°C	
Storage Humidity	5~95	%RH	

Optical Characteristics

Parameter	Min	Typ	Max	Units	Comments
Wavelength range	1524.5		1572.3	nm	
Operation mode	APC/AGC/ACC				
Number of channels	1		120	chs	
Settable tilt	-3	-1	0	dB	
Average Gain accuracy	-0.5		0.5	dB	
Input/ Output power monitoring accuracy	-0.5		0.5	dB	
PMD			0.4	Ps	
PDG			0.4	dB	

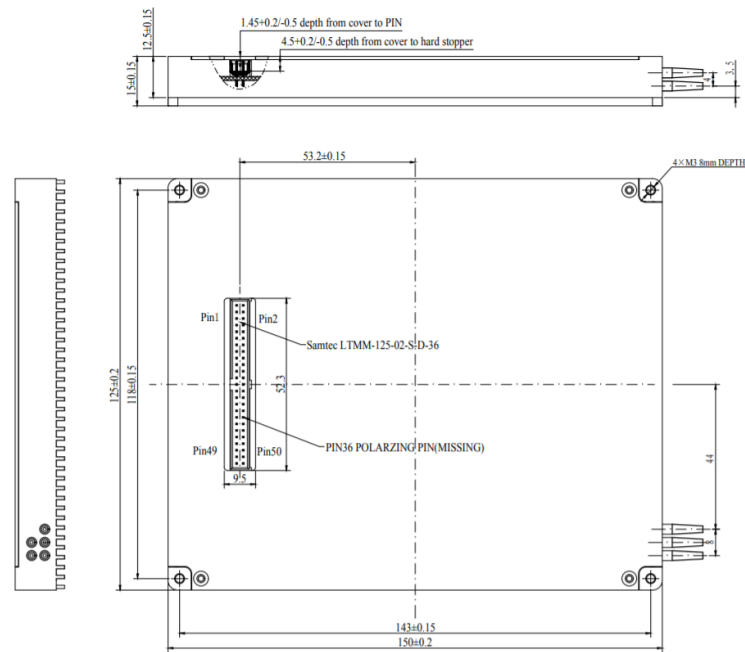
PA1/LA1

Parameter	Min	Typical	Max	Unit	Note
Input power monitoring range	-37		11	dBm	
Input power operating range	-27		9	dBm	
Output power monitoring range	-2		25	dBm	
Output power operating range	-2		24	dBm	
Gain	15		25	dB	
Gain Flatness		1.0	1.5	dB	@tilt=0, room temperature
Saturated Output Power	24			dBm	
NoiseFigure@Tilt=-1dB, Out=24dbm			11.4	dB	G=15
			7.9		G=20
			6.7		G=25

PA2/LA2

Parameter	Min	Typical	Max	Unit	Note
Input power monitoring range	-37		4	dBm	
Input power operating range	-34		2	dBm	
Output power monitoring range	-2		25	dBm	
Output power operating range	1		24	dBm	
Gain	22		35	dB	
Gain Flatness		1.0	1.5	dB	@tilt=0, room temperature
Saturated Output Power	24			dBm	
NoiseFigure@Tilt=-1dB, Out=24dbm			9.2	dB	G=22
			7.0		G=28
			6.1		G=35

Mechanical Dimension Part



Electrical requirement

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

Power Supply Characteristics and Operating Rating

Supply	Min	Typ	Max	Unit
Digital Supply Voltage	4.5		5.5	V
Power Dissipation			35	W