

CP EDFA Datasheet-draft

Features

- Super C Band, DWDM application
- Input/Output power monitoring
- VGA, AGC control

Version History

Date	Version	Description
2024/06/20	1.0	Initialize

Order Information

Taalink Part Number	Description	Code
WZEDFA-MW-BVC602522-LC/UPC	Gain Range: 15~25dB, Max output:22dBm	-
WZEDFA-MW-BVC602524-LC/UPC	Gain Range: 15~25dB, Max output:24dBm	-
WZEDFA-MW-BVC603222-LC/UPC	Gain Range: 22~32dB, Max output:22dBm	-
WZEDFA-MW-BVC603224-LC/UPC	Gain Range: 22~32dB, Max output:24dBm	-
WZEDFA-MW-BVC603822-LC/UPC	Gain Range: 28~38dB, Max output:22dBm	-
WZEDFA-MW-BVC603824-LC/UPC	Gain Range: 28~38dB, Max output:24dBm	-

Operation/Storage Temperature and Humidity

Parameter	Specification	Unit	Note
Operating temperature	20 ~ 40	°C	Lab application
Operation Humidity	5~90	%RH	
Storage Temperature	-25 ~ +75	°C	
Storage Humidity	5~95	%RH	

Optical Characteristics

Common part					
Parameter	Min	Typ	Max	unit	Note
Optical wavelength range (c-spread)	1524		1572.3	nm	
Nominal output signal optical power (POUT)	22, 24			dBm	
Nominal gain error range	-0.5		+0.5	dB	
Saturated output signal optical power	Pout-0.5		Pout +0.5	dB	
Gain flatness		1.0	1.5	dB	
Gain slope	-2	-1	0	dB	
PDG			0.3	dB	
PDL			0.3	dB	
PMD			0.5	ps	
Output pump leakage			-30	dBm	
Input pump leakage			-30	dBm	

Optical input return loss (when EDFA is turned off)	40			dB	
Light output return loss (when EDFA is turned off)	40			dB	

VGFA6015/2524					
Total input power range	-27		+9	dBm	
Input power monitoring range	-45		+11	dBm	
Total output power range	-2		24	dBm	
LOS threshold		-30		dBm	
Gain Range	15		25	dB	
NF(tilt=-1dB, Pout=24dBm)	G=15		9.7	dB	
	G=16		8.8	dB	
	G=17		8.0	dB	
	G=18		7.1	dB	
	G=19		6.7	dB	
	20≤G≤22		6.4	dB	
	23≤G≤25		5.5	dB	
VGFA6022/3224					
Total input power range	-34		+2	dBm	
Input power monitoring range	-45		+4	dBm	[4]
Total output power range	-2		24	dBm	
LOS threshold		-37		dBm	
Gain Range	22		32	dB	
NF(tilt=-1dB, Pout=24dBm)	G=22		7.0	dB	
	G=23		6.4	dB	
	G=24		6.0	dB	
	G=25		5.7	dB	
	26≤G≤29		5.4	dB	
	30≤G≤32		5.0	dB	
VGFA6028/3824					
Total input power range	-34		-4	dBm	
Input power monitoring range	-45		-2	dBm	[4]
Total output power range	four		24	dBm	
LOS threshold		-37		dBm	
Gain Range	28		38	dB	
NF(tilt=-1dB, Pout=24dBm)	G=28		5.8	dB	
	29≤G≤31		5.6	dB	
	32≤G≤35		5.2	dB	
	36≤G≤38		5.0	dB	
VGFA6015/2522					
Total input power range	-29		+7	dBm	
Input power monitoring range	-45		+9	dBm	[4]
Total output power range	-4		22	dBm	
LOS threshold		-32		dBm	

Gain Range		15		25	dB	
<i>NF(tilt=-1dB, Pout=22dBm)</i>	G=15			9.7	dB	
	G=16			8.8	dB	
	G=17			8.0	dB	
	G=18			7.1	dB	
	G=19			6.7	dB	
	20≤G≤22			6.4	dB	
	23≤G≤25			5.5	dB	

VGFA6022/3222						
Total input power range		-36		+0	dBm	
Input power monitoring range		-45		+2	dBm	[4]
Total output power range		-4		22	dBm	
LOS threshold			-39		dBm	
Gain Range		22		32	dB	
<i>NF(tilt=-1dB, Pout=22dBm)</i>	G=22			7.0	dB	
	G=23			6.4	dB	
	G=24			6.0	dB	
	G=25			5.7	dB	
	26≤G≤29			5.4	dB	
	30≤G≤32			5.0	dB	
VGFA6028/3822						
Total input power range		-36		-6	dBm	
Input power monitoring range		-45		-4	dBm	[4]
Total output power range		2		22	dBm	
LOS threshold			-39		dBm	
Gain Range		28		38	dB	
<i>NF(tilt=-1dB, Pout=22dBm)</i>	G=28			5.8	dB	
	29≤G≤31			5.6	dB	
	32≤G≤35			5.2	dB	
	36≤G≤38			5.0	dB	
Integrated independent VOA						
VIN-VOUT insertion loss				1.5	dB	
VOA power-down state		Dark				
VOA attenuation range		0		20	dB	
VOA attenuation accuracy				0.1	dB	
VOA response time				20	ms	

Electrical interface

Pin	Name	Attribute	Level	Description
1	+5V	P		+5V power supply
2	+5V	P		+5V power supply
3	+5V	P		+5V power supply

4	GND	P		Power supply ground
5	GND	P		Power supply ground
6	GND	P		Power supply ground
7	Reserved			
8	Reset Input	I	LVTTL	EDFA reset input, low level reset.
9	SDA	I/O	LVTTL	IIC sends and receives data
10	SCL	I	LVTTL	IIC clock, maximum 400K .
11	Pump Current Alarm Output (OA)	O	LVTTL	OA pump laser current alarm, high level indicates that the current exceeds the alarm threshold.
12	Input LOS Alarm Output (OA)	O	LVTTL	OA input optical power alarm, high level indicates that the input optical power is less than the set threshold.
13	Module_AD0	I		I2C address line bit0
14	Module_AD1	I		I2C address line bit1
15	GND	P		Power supply ground
16	Module Temperature Alarm Output	O	LVTTL	Module temperature is too high alarm, high level alarm
17	Pump Temperature Alarm Output (OA)	O	LVTTL	OA pump laser temperature alarm, high level alarm
18	GND	P		Power supply ground
19	Amplifier Disable Input (OA)	I	LVTTL	OA enable input. Turn off EDFA pump at high level
20	Output Mute or Eye-Safe Mode Input (OA)	I	LVTTL	OA "eye protection" enables the input, and high level indicates entering the eye protection mode.
21	GND	P		Power supply ground
22	GND	P		Power supply ground
23	GND	P		Power supply ground
24	GND	P		Power supply ground
25	GND	P		Power supply ground
26	+5V	P		+5V power supply
27	+5V	P		+5V power supply
28	+5V	P		+5V power supply
29	+5V	P		+5V power supply
30	+5V	P		+5V power supply

Mechanical Dimension Part

