

Features

- * Micro (40x64x12mm) or MSA (70x90x15mm) compact CGB size
- * MSA (70x90x12mm) compact AGB size
- * Wide operating wavelength range
- * Connectorized single-mode fiber pigtail
- * Exceptionally low noise figure
- * Optically isolated input and output ports to maintain stable operation of both amplifier module and transmitter laser.
- * +5.0 or +3.3 Vdc operating voltage
- * Low power consumption

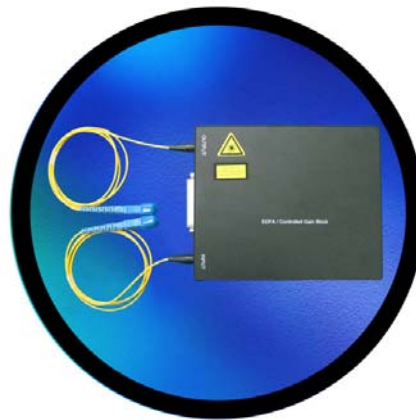
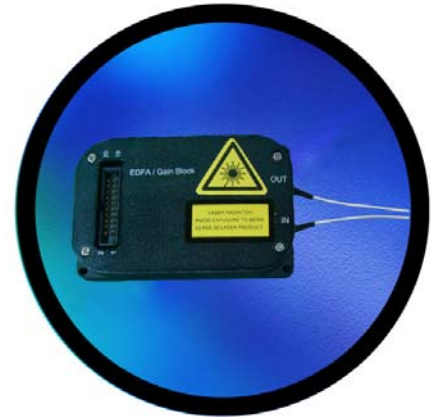
Applications

- * Access, metro, and long-haul networks
- * Single-channel and narrow-band networks
- * Power compensation of OADM and OXC systems
- * Booster and pre-amplifier amplification

Description

GIP Technology C-series Compact Controlled Gain Blocks and Active Gain Blocks (Compact CGBs and AGBs) are mainly designed for use in the rapidly growing metro market. Using simple optical configuration, this series exhibits extremely small size and low power dissipation over a wide operating temperature and wavelength range. This makes them especially suitable for systems requiring moderate gain (or power) in a restricted-space environment.

The low-profile package provides solutions for multiple applications and serving area sizes.



This model is offered as C-band (optional L-band) version in the booster or pre-amplifier configurations.

The Compact AGB is only included the optical components and excluded the control circuit board.

The CGBs provide standard compact onboard mountable package, which can be easily driven by 30-pin female or specified electric interface.

Micro Controlled Gain Block CGB-C Series, Single Channel C-Band EDFA

Specifications

Optical Information		Unit	Description	
			<i>Booster</i>	<i>Pre</i>
Operating wavelength range		nm	1530 ~ 1560	
Input power range		dBm	-10 ~ +5	-30 ~ -10
Saturated output power* ¹	Max.	dBm	17	13
Signal gain	Typ.	dB	-	30
Noise figure	Max.	dB	5	5
Polarization dependent gain	Max.	dB	0.5	
Polarization mode dispersion	Max.	ps	0.5	
Return loss	Min.	dB	45	
Fiber type			SMF-28, 900 μ m loose tube	
Fiber length* ²		m	1.0	
Connector			SC or FC	
Electrical Information				
Operating voltage* ³		Vdc	+3.3	
Power consumption	Typ.	W	1	
Control interface			RS232	
Connector type			Female with 2 x 3 pins	
Environmental Information				
Operating case temperature		°C	0 ~ 65	
Storage temperature		°C	-20 ~ 80	
Relative humidity (non-condense)		%	5 ~ 85	
Outline Information				
Dimension (W x L x H)		mm	40 x 64 x 12	

*1: Saturated power is composed of optical signal and ASE power.

*2: Other fiber length also available by request.

*3: +5.0 Vdc also available by request.



MSA Active Gain Block AGB-C Series, Single-Channel C-Band EDFA

Specification

Optical Information		Unit	Description	
			Booster	Pre
Operating wavelength range		nm	1528 ~ 1562	
Input power range		dBm	-10 ~ +10	-30 ~ -10
Saturated output power*1	Max.	dBm	21	13
Signal gain	Typ.	dB	25	30
Noise figure	Max.	dB	6	5.5
Input/Output monitor responsivity range		mA/W	5 ~ 20	
Polarization dependent gain	Max.	dB	0.5	
Polarization mode dispersion	Max.	ps	0.5	
Return loss	Min.	dB	45	
Fiber type			SMF-28, 900 μ m loose tube	
Fiber length*2		m	1.0	
Connector			SC or FC	
Electrical Information				
Operating laser forward current (@Pout=+13 dBm)	Max.	mA	320	
Operating laser forward voltage (@Pout=+13 dBm)	Max.	V	2.5	
Connector type			Male 20 pins	
Environmental Information				
Operating case temperature		°C	-5 ~ 70	
Storage temperature		°C	-20 ~ 80	
Relative humidity (non-condense)		%	5 ~ 85	
Outline Information				
Dimension (W x L x H)		mm	70 x 90 x 12	

*1: Saturated power is composed of optical signal and ASE power.

*2: Other fiber length also available by request.



MSA Active Gain Block AGB-C Series, DWDM C-Band EDFA

Specification

Optical Information		Unit	Description	
			Booster	Pre
Operating wavelength range		nm	1528 ~ 1563	
Input power range		dBm	-10 ~ +10	-30 ~ -10
Saturated output power*1	Max.	dBm	21	13
Signal gain	Typ.	dB	17	30
Noise figure	Max.	dB	6	5.5
Gain flatness	Typ.	dB	1.5	
Input/Output monitor responsivity range		mA/W	5~ 20	
Polarization dependent gain	Max.	dB	0.5	
Polarization mode dispersion	Max.	ps	0.5	
Return loss	Min.	dB	45	
Fiber type			SMF-28, 900 μ m loose tube	
Fiber length*2		m	1.0	
Connector			SC or FC	
Electrical Information				
Operating laser forward current (@Pout=+13 dBm)	Max.	mA	320	
Operating laser forward voltage (@Pout=+13 dBm)	Max.	V	2.5	
Connector type			Male 20 pins	
Environmental Information				
Operating case temperature		°C	-5 ~ 70	
Storage temperature		°C	-20 ~ 80	
Relative humidity (non-condense)		%	5 ~ 85	
Outline Information				
Dimension (W x L x H)		mm	70 x 90 x 12	

*1: Saturated power is composed of optical signal and ASE power.

*2: Other fiber length also available by request.



MSA Controlled Gain Block CGB-C Series, Single-Channel C-Band EDFA

Specification

Optical Information		Unit	Description	
			Booster	Pre
Operating wavelength range		nm	1528 ~ 1562	
Input power range		dBm	-10 ~ +10	-30 ~ -10
Saturated output power*1	Max.	dBm	21	13
Signal gain	Typ.	dB	25	30
Noise figure	Max.	dB	6	5.5
Polarization dependent gain	Max.	dB	0.5	
Polarization mode dispersion	Max.	ps	0.5	
Return loss	Min.	dB	45	
Fiber type			SMF-28, 900 μ m loose tube	
Fiber length*2		m	1.0	
Connector			SC or FC	
Electrical Information				
Operating voltage*3		Vdc	+3.3	
Power consumption	Typ.	W	6	
Analog monitor			Input/Output power	
Alarms			Loss of input/Output power, Pump bias, Temperature	
Control interface			RS232	
Connector type			Female 30 pins	
Environmental Information				
Operating case temperature		°C	-5 ~ 70	
Storage temperature		°C	-20 ~ 80	
Relative humidity (non-condense)		%	5 ~ 85	
Outline Information				
Dimension (W x L x H)		mm	70 x 90 x 15	

*1: Saturated power is composed of optical signal and ASE power.

*2: Other fiber length also available by request.

*3: +5.0 Vdc also available by request.



MSA Controlled Gain Block CGB-C Series, DWDM C-Band EDFA

Specification

Optical Information		Unit	Description	
			Booster	Pre
Operating wavelength range		nm	1528 ~ 1563	
Input power range		dBm	-10 ~ +10	-30 ~ -10
Saturated output power*1	Max.	dBm	21	13
Signal gain	Typ.	dB	17	30
Noise figure	Max.	dB	6	5.5
Gain flatness	Typ.	dB	1.5	
Polarization dependent gain	Max.	dB	0.5	
Polarization mode dispersion	Max.	ps	0.5	
Return loss	Min.	dB	45	
Fiber type			SMF-28, 900 μ m loose tube	
Fiber length*2		m	1.0	
Connector			SC or FC	
Electrical Information				
Operating voltage*3		Vdc	+3.3	
Power consumption	Max.	W	6	
Analog monitor			Input/Output power	
Alarms			Loss of input/Output power, Pump bias, Temperature	
Control interface			RS232	
Connector type			Female 30 pins	
Environmental Information				
Operating case temperature		°C	-5 ~ 70	
Storage temperature		°C	-20 ~ 80	
Relative humidity (non-condense)		%	5 ~ 85	
Outline Information				
Dimension (W x L x H)		mm	70 x 90 x 15	

*1: Saturated power is composed of optical signal and ASE power.

*2: Other fiber length also available by request.

*3: +5.0 Vdc also available by request.

