EATV5100-FM02 Series

MSA Compact (70×90×15mm)

CATV EDFA Module (Full function)

Technical Specification

CONTENT

1.0   PRODUCT DESCRIPTION

Huatai EATV5100 series is a low noise, high performance, high cost-effective EDFA module, which is specially designed for CATV system.

GM is Gain Block Module, without electronic control circuit.

FM is Full function Module which is with electronic control circuit.

EATV5100-FM02 is a full function module, using $70 \times 90 \times 15$mm MSA Compact package, with single channel and narrow bandwidth standard version. A standard 6-pin electric connector provides simple electrical connection. The module adopts a high performance cooling pump laser, the output optical power up to 24dBm.

Huatai is a famous manufacture of EDFA. Products with high-performance, high reliability and excellent cost performance, as well as our good service make it to be an ideal choice for OEM system integrators.
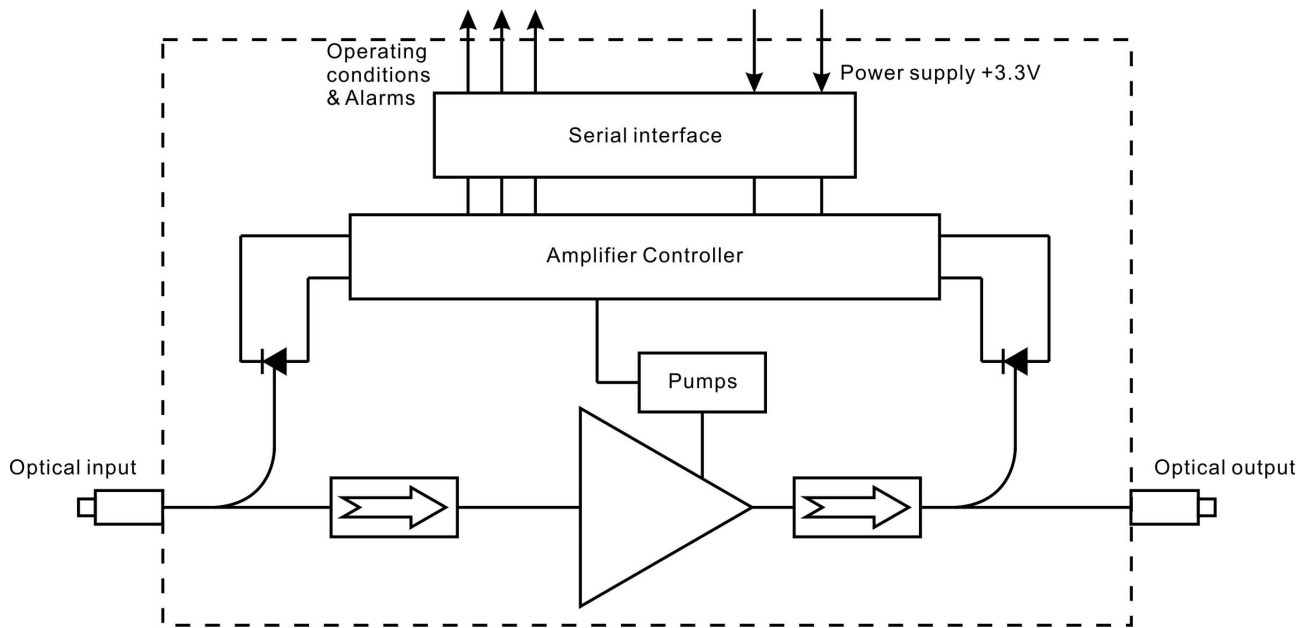
2.0   PRODUCT FEATURE

- With Digital Control Electronics (Full Function)

- MSA compact package (70×90×15mm)

- RS-232 standard communication interface

- The output optical power up to 24dBm

- Excellent optical performance

- Low noise figure, suitable for all kinds of CATV application

- Low consumption

- Wide range of working temperature
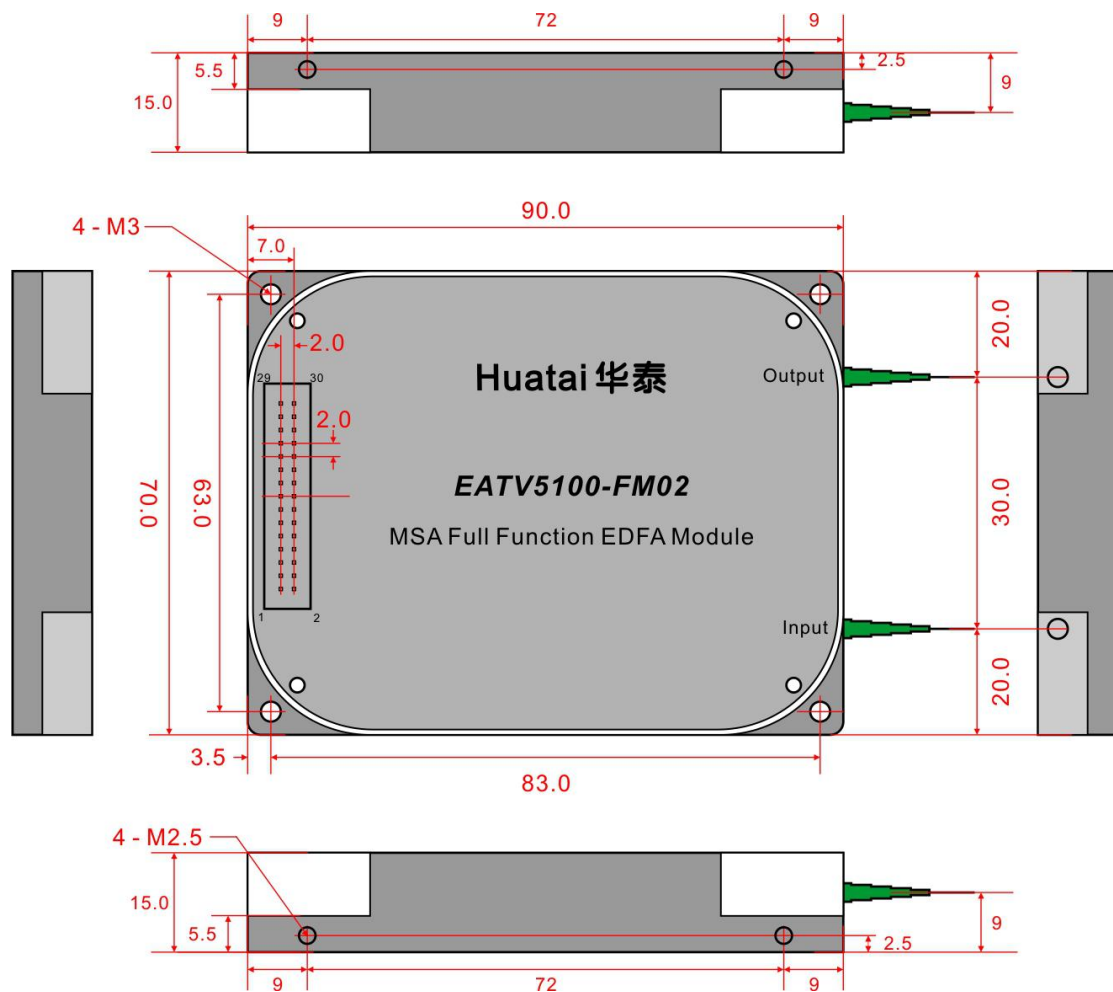
- Excellent cost performance

3.0   MAIN APPLICATION

- CATV

- FTTx PON

- Other single channel optical communication system

4.0   Functional diagram

5.0   Dimensions

Huatai 华泰

EATV5100-FM02

MSA Full Function EDFA Module

6.0   Electrical 30-Pin Assignments

Pin	Definition	Pin	Definition
1	+3.3V	2	+3.3V
3	NC	4	NC
5	GND	6	GND
7	RS-232 Rx	8	RS-232 Tx
9	GND	10	GND
11	NC	12	RESET input, (active Low)
13	Amplifier disable input, (active high)	14	Output power mute input, (active high)
15	Case temperature alarm, (active high)	16	Common alarm, (active Low)
17	Pump temperature alarm, (active high)	18	Pump bias alarm, (active high)
19	Loss of input alarm, (active high)	20	Loss of output alarm, (active high)
21	Input power monitor ground	22	Output power monitor ground
23	Input power monitor	24	Output power monitor
25	GND	26	GND
27	NC	28	NC
29	+3.3V	30	+3.3V

Note: 30-Pin type: HIROSE DF11-30DP-2DSA

7.0   Technique index

Performance			Min.	Typ.	Max.	
Optic feature	Wavelength range	(nm)	1528		1564	
	Typical applications	(nm)	1540		1564	
	Input optical power (Pin)	(dBm)	-10		+10	
	Total Output power	(dBm)	13		24	
	Noise figure	(dB)		4.0	5.0	
	Polarization dependent gain	(dB)			0.3	
	Polarization mode dispersion	(ps)			0.3	
	Polarization dependent loss(PDL)	(dB)			0.3	
	Pump power leakage	(dB)			-30	
	Output & input isolation	(dB)	30			
	Return loss	(dB)	45			UPC
			55			APC
	Fiber type		SMF-28, 900µm loose tube			
	Connector type		LC, SC, FC			
	Connector polish		UPC, APC			
General feature	Communication interface		RS232			
	Power supply voltage[1]	(V)	3.1	3.3	3.5	
	Power consumption	(W)		1.0	2.0	Uncooled
				2.0	10.0	Cooled
	Operating temp.	(°C)	-5		70	
	Store temp.	(°C)	-40		+85	
	Relative humidity	(%RH)	+5		+95	
	Size(W) × (L) × (H)	(mm)	70× 90 × 15			

Note: 1. Power supply voltage optional DC+5V

8.0 PRODUCT SERIES

Model	Input optical power (dBm)	Output power (dBm) (Pin=0dBm)	Noise figure (dB)
EATV5113-FM02	-10~+10	13	<4.0
EATV5114-FM02	-10~+10	14	<4.0
EATV5115-FM02	-10~+10	15	<4.0
EATV5116-FM02	-10~+10	16	<4.0
EATV5117-FM02	-10~+10	17	<4.0
EATV5118-FM02	-10~+10	18	<4.0
EATV5119-FM02	-10~+10	19	<4.5
EATV5120-FM02	-10~+10	20	<4.5
EATV5121-FM02	-10~+10	21	<4.5
EATV5122-FM02	-10~+10	22	<5.0
EATV5123-FM02	-10~+10	23	<5.0
EATV5124-FM02	-10~+10	24	<5.0

9.0 ORDER INFORMATION

EATV 5 1 ▢▢ – FM 02 / ▢▢ – ▢▢

Product series	Optical bandwidth		Product Type		Output power		Module Type		Exterior		Connector		Fiber length	
CATV EDFA Module	5	1540~1563nm CATV	1	BA	13	13dBm	FM	Full function module	01	40×70×12	LA	LC/APC	05	0.5M
					14	14dBm			02	70×90×15	LP	LC/UPC	08	0.8M
					15	15dBm	GM	Gain block module	05	125×150×22	SA	SC/APC	10	1.0M
					16	16dBm					SP	SC/UPC		
					17	17dBm					FA	FC/APC		
					18	18dBm					FP	FC/UPC		
					19	19dBm								
					20	20dBm								
					21	21dBm								
					22	22dBm								
					23	23dBm								
					24	24dBm								