EATV5400x-FM05S （115×145×33mm）

High Power Multi-ports Output CATV FTTP EYDFA Module

PRODUCT DESCRIPTION

EATV5400x-FM05S series is a low noise, high performance, high power multi-ports EYDFA module, which is specially designed for CATV system. It offers a flexible and low-cost FTTx solution for CATV large area coverage of metropolises and medium-sized cities.

GM is Gain Block Module, without electronic control circuit.

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

EATV5400D series adopts with Pre-amplifier , and the pre-amplifier adopts low noise EDFA, output cascade adopts high power EYDFA. When input optical power Pin=0dBm, the noise figure of unit is: Typ ≤4.5dB, Max ≤5.0dB.

EATV5400S series adopts without Pre-amplifier high power EYDFA. In order to make sure the good noise figure, the input optical power should be >15dBm. distance.

EATV5400x-FM05S is a full function module, adopts small size package 115×145×33mm. Total output power≤36dBm, and output optical ports ≥4 .

When use this module, customers should add heat sink and forced air –cooling, to ensure high reliability and long life of the module.
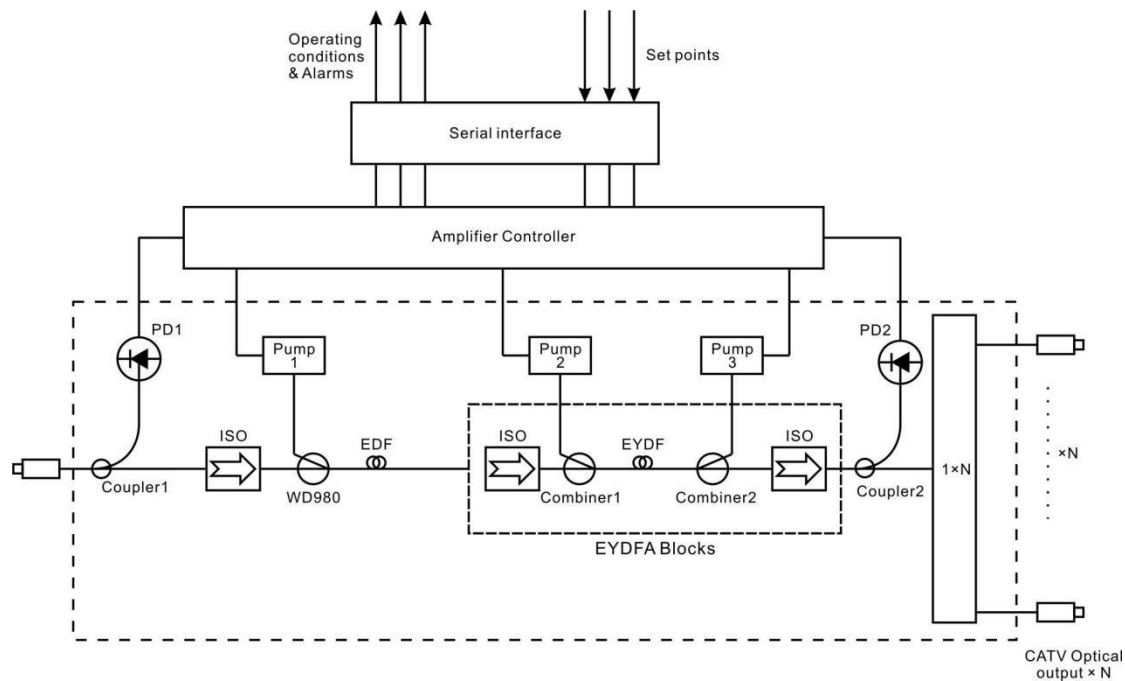
PRODUCT FEATURES

▶Small size package (115×145×33mm)

▶Advanced electronic control circuit

▶Perfect optic feature

▶The integrated low-power design

▶APC, ACC work mode

▶The standard RS232 communication interface

▶Low noise figure (Typ≤4.5dB, Max≤5.0dB Pin=0dBm, EATV5400D)

▶EATV5400D (with Pre-amplifier), EATV5400S (without Pre-amplifier) optional

▶Output power adjustable

▶Total output power 27~36dBm optional

▶Output optical ports:4~64 optional
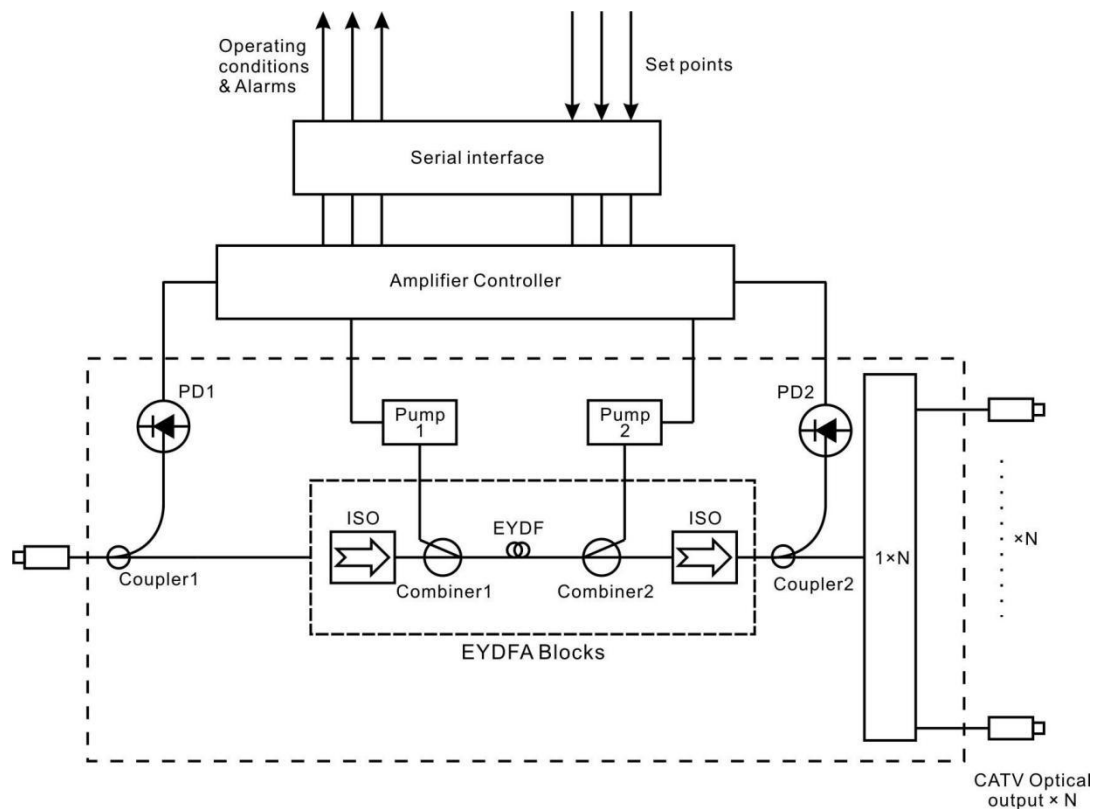
▶Excellent P/P ratio

MAIN APPLICATION

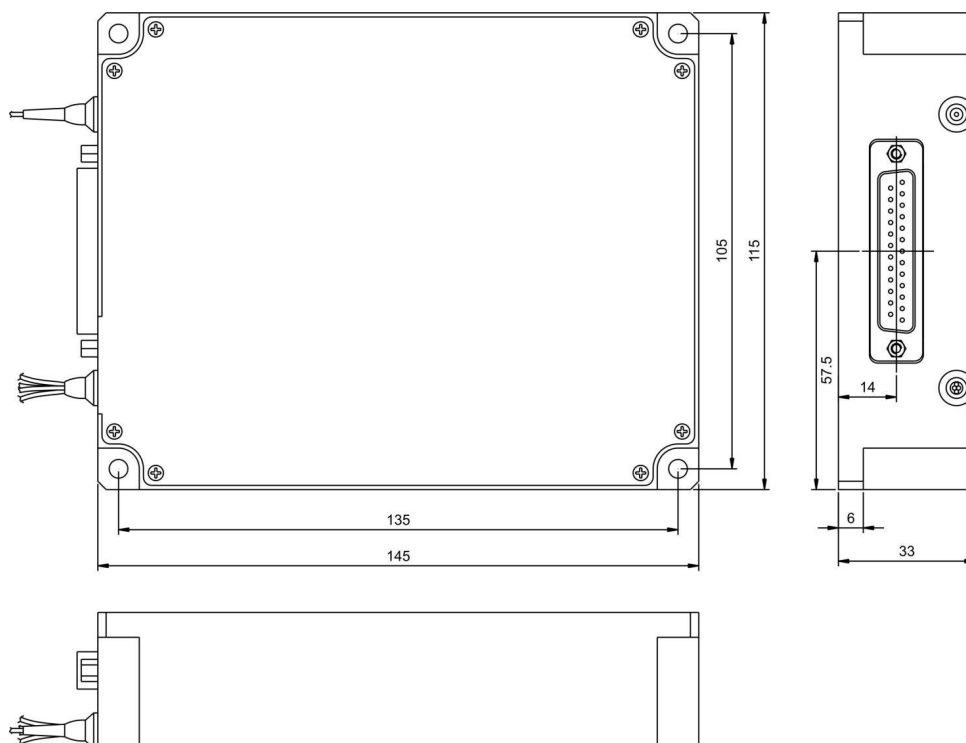▶AM CATV

▶Digital CATV

▶DBS

▶FTTx PON

FUNCTIONAL DIAGRAM

EATV5400D-FM05S

EATV5400S-FM05S

DIMENSIONS

PIN DEFINITION

Pin	Definition	Pin	Definition
1	VCC +5V	14	GND
2	VCC +5V	15	GND
3	VCC +5V	16	GND
4	VCC +5V	17	GND
5	NC	18	RS232 out (TTL) TXD
6	NC	19	Input power alarm*
7	EDFA temp. alarm*(TTL)	20	NC
8	Output power alarm*(TTL)	21	Amplifier expiration input
9	Pump bias current alarm*(TTL)	22	RS232 in (TTL) RXD
10	Pump temp. alarm*(TTL)	23	NC
11	NC	24	VCC +5V
12	VCC +5V	25	GND
13	GND		

* All warning set at the TTL high level.

TECHNICAL INDEX

Performance		Index			Supplement
		Min.	Typ.	Max.	
Optical feature	Operating wavelength range (nm)	1540		1563	EATV5400D
		1540		1575	EATV5400S
	CATV input power range (dBm)	-10	>0	+10	EATV5400D
		15			EATV5400S
	Total output power (dBm)	27		36	
	Number of output ports	4		64	
	Each of output power (dBm)			27	
	Difference each of output power (dB)	-0.5		+0.5	
	Output power adjustable range (dBm)	-6		0	
	Noise figure (dB)		4.5	5.0	EATV5400D：Pin=0dBm
			4.5	5.0	EATV5400S：Pin>15dBm
	Polarization dependence loss (dB)			0.3	
	Polarization dependence gain (dB)			0.4	
	Polarization mode dispersion (ps)			0.3	
	Input / output isolation (dB)	30			
	Pump power leakage (dBm)			-30	
	Echo loss (dB)	45			UPC
		55			APC
General feature	Communication interface		RS232		
	Fiber type		Coming SMF-28^{TM} or equivalent		
	Pigtail buffer diameter (mm)		0.9		Optional 1.2, 1.5, 2.0
	Pigtail length (mm)		1000		
	Power supply (V)	+4.75	+5	+5.25	
	Power consumption (W)			30	
	Work temp. (°C)	-5		70	
	Storage temp. (°C)	-40		85	
	Working relative humidity (%)	5		95	
	Size (mm)		115×145×33		(W)×(D)×(H)

PRODUCT SERIES

Module	Total output power	Number of output ports	Each of output power	Optical mode
EATV5427D-FM05S-08×16.5	27dBm(500mW)	8	16.5	双级放大[1]
EATV5428D-FM05S-08×17.5	28dBm(630mW)	8	17.5	
EATV5429D-FM05S-08×18.5	29dBm(800mW)	8	18.5	
EATV5429D-FM05S-16×15.0		16	15.0	
EATV5430D-FM05S-08×19.5	30dBm(1000mW)	8	19.5	
EATV5430D-FM05S-16×16.0		16	16.0	
EATV5431D-FM05S-08×20.5	31dBm(1260mW)	8	20.5	
EATV5431D-FM05S-16×17.0		16	17.0	
EATV5432D-FM05S-08×21.5	32dBm(1600mW)	8	21.5	
EATV5432D-FM05S-16×18.0		16	18.0	
EATV5433D-FM05S-16×19.0	33dBm(2000mW)	16	19.0	
EATV5433D-FM05S-32×15.5		32	15.5	
EATV5434D-FM05S-16×20.0	34dBm(2500mW)	16	20.0	
EATV5434D-FM05S-32×16.5		32	16.5	
EATV5435D-FM05S-16×21.0	35dBm(3200mW)	16	21.0	
EATV5435D-FM05S-32×17.5		32	17.5	
EATV5436D-FM05S-16×22.0	36dBm(4000mW)	16	22.0	
EATV5436D-FM05S-32×18.5		32	18.5	
EATV5436D-FM05S-64×15.0		64	15.0	

Remark: 1. EATV5400S-FM05S optional , without Pre-amplifier .

2. The number of output and each port output power can be optional by users.

MODEL EXPLANATION

EATV 5 4 □□ Ⅾ – FM 05S – □□ × □□ – □□ – φ□.□ / □□

Product series	Optical bandwidth	Product Type	Output power		Optical mode		Module Type		Exterior		Number of output ports		Each of output power	Connector		Pigtail length (mm)		Fiber length	
CATV EDFA Module	5	1540~1563nm CATV	1	EYDFA	27	27dBm	D	With Pre-amplifier	FM	Full function module	05	115×145×33	08	8ports	13~27dBm	LA	LC/APC	0.9	φ0.9	05	0.5M
					28	28dBm							16	16ports		LP	LC/UPC	1.2	φ1.2	08	0.8M
					29	29dBm	S	Without Pre-amplifier	GM	Gain block module			32	32ports		SA	SC/APC	1.5	φ1.5	10	1.0M
					30	30dBm							64	64ports		SP	SC/UPC	2.0	φ2.0		
					31	31dBm										FA	FC/APC				
					32	32dBm										FP	FC/UPC				
					33	33dBm															
					34	34dBm															
					35	35dBm															
					36	36dBm															