



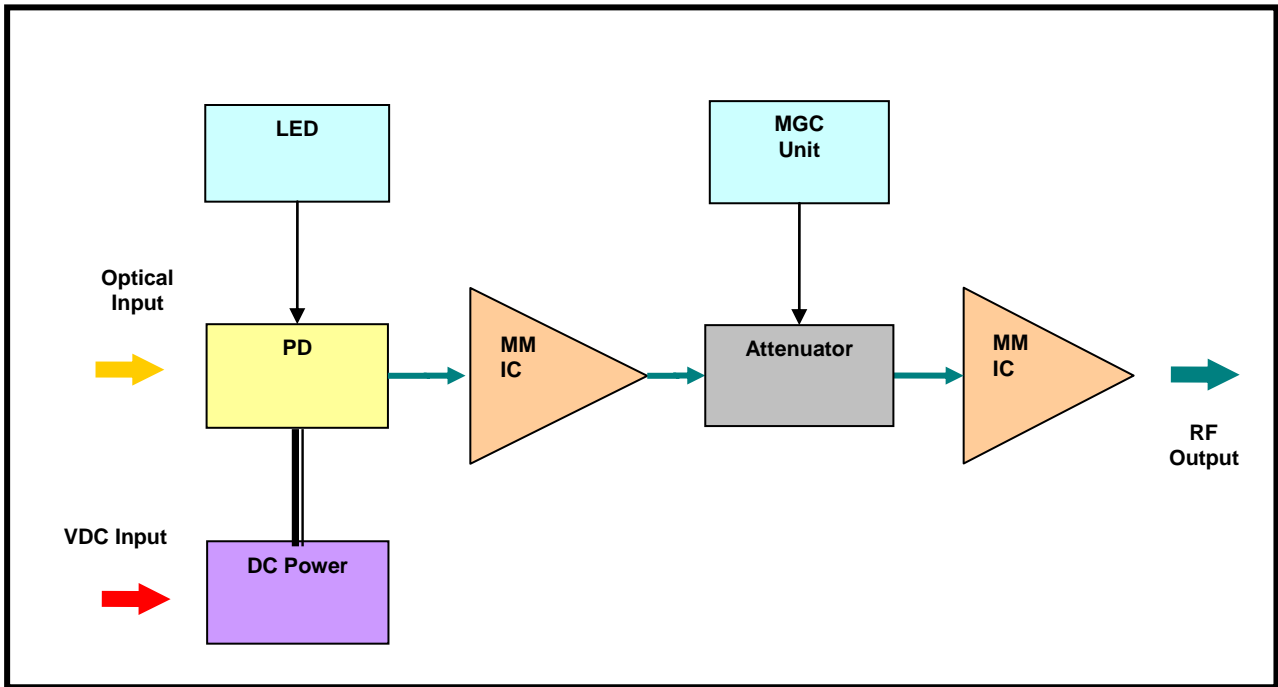
## ACION 187D V-ONU 1 GHz with WDM Video Optical Network Unit

The ACION187D V-ONU is a high performance 1GHz CATV optical receiver for converting TV signals from an optical fiber network into RF signals over coax cabling in residential homes. This product features compact size, high CNR, low distortion, low power consumption, easy installation and cost effectiveness. It supports conventional analog TV RF as well as Digital Video Broadcasting signals. The RF output level can be adjusted with manual gain control. The ACION187D is the best choice to be used in combination with a managed Ethernet gateway to deliver FTTH triple play services.

### Features

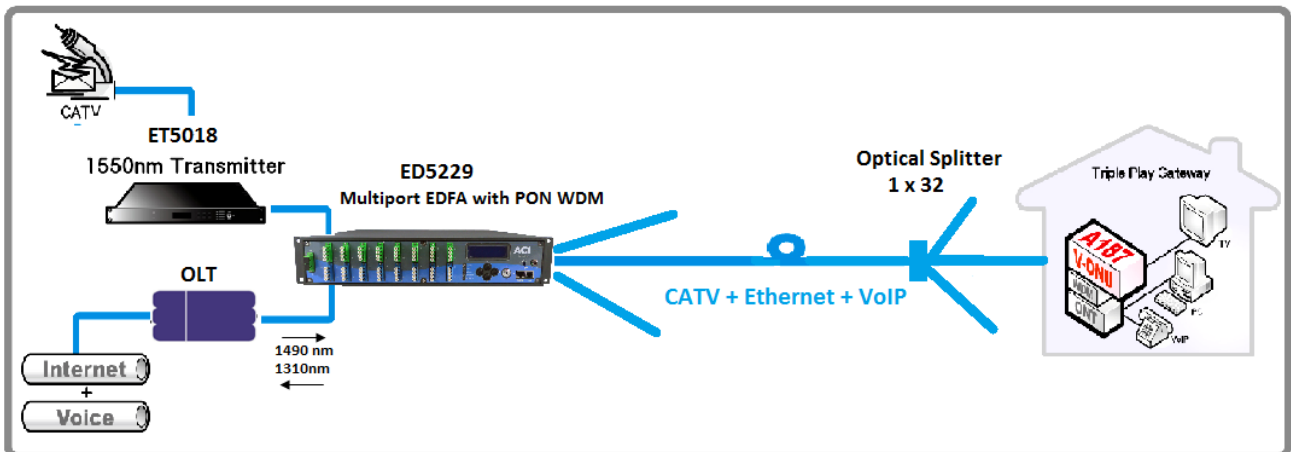
- CATV 1GHz RF frequency bandwidth
- Integrated WDM or filter for GPON OLT wavelength bypass (1490 nm, 1310 nm) or filtering (optional)
- Manual gain control (MGC) of RF output level (Standard)
- Compact integrated mechanical housing
- Module design and Plug & Play function
- Three color LED for optical level indication and alarm.
- AC/DC 12V power adaptor (optional)
- Built in power inserting circuit (for RF port)
- External power inserter (optional)

## Block Diagram



## Application

### FTTX Solution



## Specifications

ACION 187D 1GHz Video Optical Network Unit module					
Item	Description	Conditions	Units	Specifications	Note
1	<b>Optical feature</b>				
1.1	CATV Wavelength range			1550 nm	
1.1.2	Wavelength for CATV receiver with PON's signal pass through			Input wave length: 1490/1550 nm OLT Pass through wavelength: 1310/1490 nm The receiver must have the WDM built-in with optical loop port option	
1.2	Responsibility	@ 1550nm	A/W	≥ 0.9	
1.3	Receiving power cover range			-8 ~ 0 dBm	
1.4	Optical return loss		dB	≥ 50 dB	
1.5	Optical fiber connector			SC/APC	
1.6	Isolation		dB	≥ 40	
2	<b>RF features</b>				
2.1	RF bandwidth cover range		MHz	47 - 1000	
2.2	Flatness		dB	≤ ±1.0	
2.3	Output level cover range	manual gain control	dBμV	65 – 74, adjustable	
2.4	Return loss		dB	≥ 13	
2.5	Output impedance		Ω	75	
2.6	Output port number			1	
2.7	RF connector			F5 (female)	
3	<b>Link performance</b>				
3.1	Test condition Analog: Digital:	NTSC 78CH analog, OMI 3.5% or PAL-D 60 CH analog, OMI 3.5% NTSC 75CH /256QAM digital		Optical Pin @ -6dBm (for CNR, MER, BER test) Optical Pin @ 0 dBm (for distortion test)	
3.2	CNR	analog test condition	dB	≥ 47	@ -6dBm
3.3	CTB	analog test condition	-dBc	≤ 65	@ 0 dBm
3.4	CSO	analog test condition	-dBc	≤ 65	
3.5	HUM	analog test condition	-dB	≤ 60	
3.6	MER	Digital test condition	dB	≥ 35	@-6 dBm
3.7	BER	Digital test condition	dB	≤ 1 x 10 <sup>-8</sup> (FEC)	

**ACION 187D 1GHz  
Video Optical Network Unit module**

Item	Description	Conditions	Units	Specifications	Note
4	Other				
4.1	LED indicator	Optical power: > 0 dBm (overload) -6 ~ 0 dBm -8 ~ -6 dBm < -8 dBm (or loss of signal)		Flashing Green Green, Orange, Red	
4.2	Power supply		VDC	8.5	
4.3	Power Consumption		Watt.	≤ 5	
4.4	Working temperature			0 ~ 50	
4.5	Humidity	non-condensing		0 ~ 90%	
4.6	Housing dimensions (W)x(D)x(H)	Maximum, ( not including RF connector)	mm	127 x 121 x38	
4.7	Housing material			Painted Aluminum	
4.8	Weight		kg	1.0	
4.10	Water proof	15° / 30° / 60° Water spray		IP3	

# Ordering Matrix

## ACION 187D VONU Configuration Sheet

Customer: \_\_\_\_\_

Created By: \_\_\_\_\_ Order Date: \_\_\_\_\_

### ORDERING MATRIX

March 9, 2016

		1	2	3	4	5	6	7
A187D	—							

1  Integrated WDM or filter for GPON

- 0 = without WDM
- 1 = with WDM (for GPON wavelength Bypass)
- 2 = with 1550nm bandpass filter

2  Connector for Common port

- 0 = without connector
- 1 = SC/APC
- 2 = SC/UPC

3  GPON port connector

- 0 = without connector
- 1 = SC/APC
- 2 = SC/UPC

4  AC Power adaptor

- 0 = No Power
- 1 = 100 ~ 240 VAC

5  Power Cord and Plug

- 0 = None
- 1 = North America
- 2 = International/Europe
- 3 = Japan
- 4 = Australia
- 5 = Argentina
- x = Custom  
(Determined by product management)

6  Power Inserter

- 0 = None
- 1 = with power inserter

7  Gain Control

- 0 = Manual Gain Control (MGC)
- 1 = Auto Gain Control (AGC)



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