



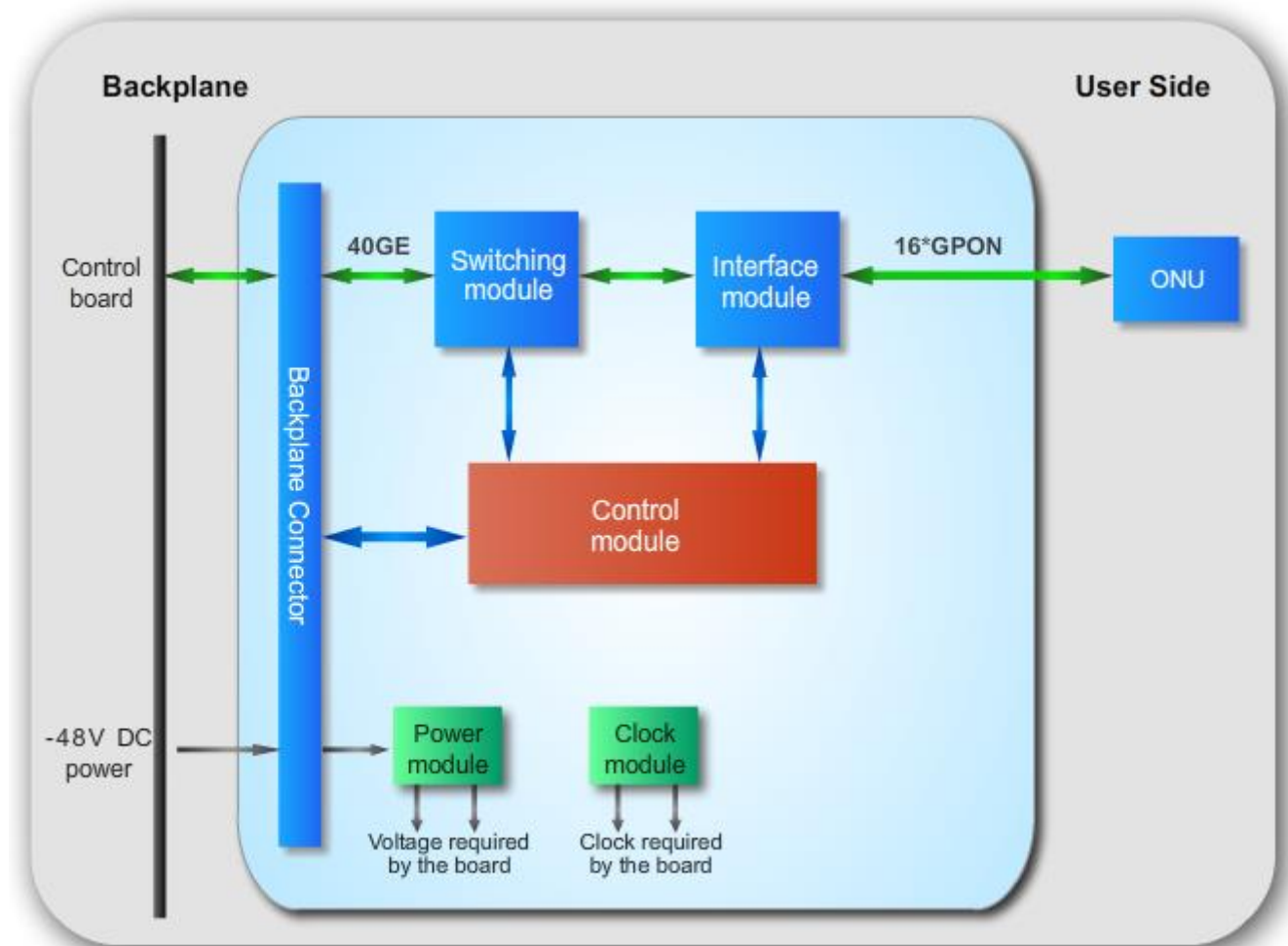
GPFD Board Description

GPFD is a 16-port GPON OLT interface board. It works with the optical network unit (ONU) to provide GPON access service.

Working Principle

illustrates the working principle of the GPFD board.

Figure Working principle of the H802GPFD board



The basic working principle of the GPFD board is as follows:

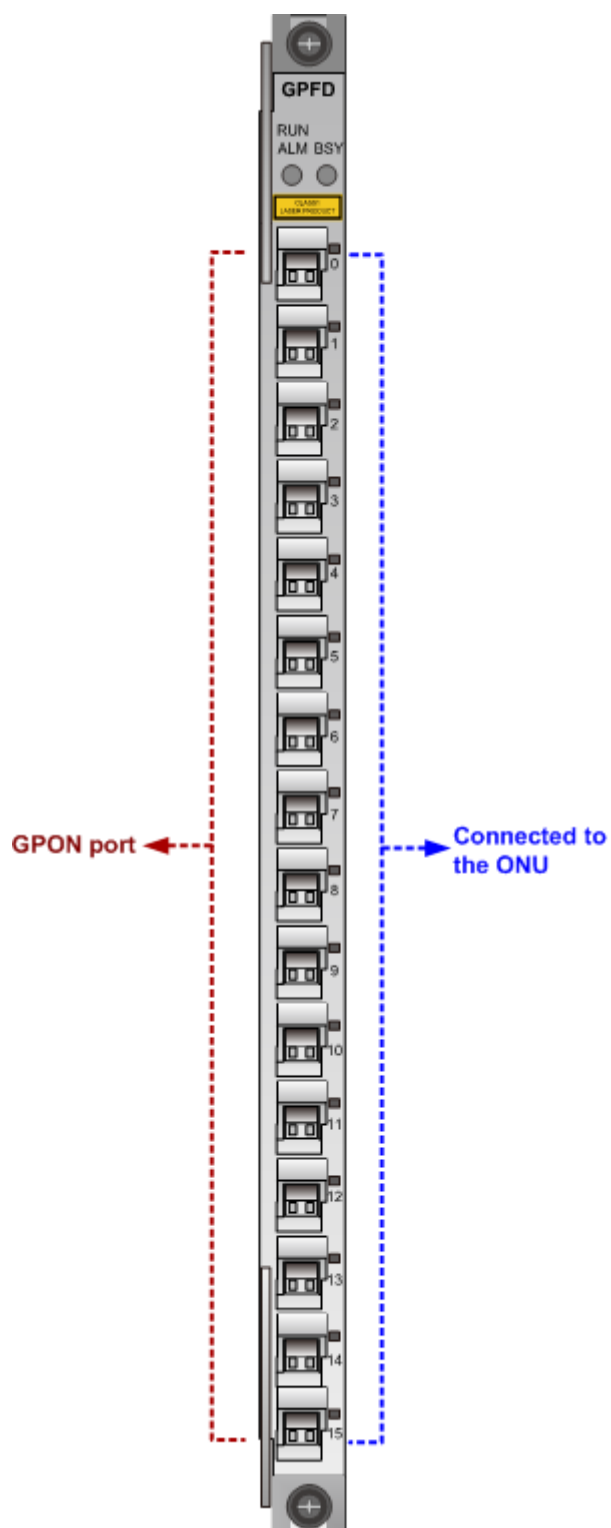
- The control module loads the board software, controls the running of the board, and manages the board.
- The switching module aggregates the signals from sixteen GPON ports.
- The interface module converts between GPON signals and Ethernet packets.
- The power module supplies power to other functional modules of the board.
- The clock module provides the working clock for other functional modules of the board.



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Front Panel Port



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Indicator

Indicator	Name	Color	Status	Meaning
RUN ALM	Running status indicator	Red	Blinking	The board enters the APP start phase during the board startup
		Green	Blinking quickly (on for 0.25 s and off for 0.25 s repeatedly)	The board enters the phase of communication with the control board during its startup
		Green	Blinking slowly (on for 1 s and off for 1 s repeatedly)	The board works in the normal state
		Orange	Blinking	A high-temperature alarm is generated
		Red	On	The board is faulty
BSY	Port status indicator	Green	Blinking	The board carries services
		-	Off	The board carries no service
0, 1, 2 ...	PON port indicator	Green	On	The ONT of the related PON port is online
		Green	Blinking	The optical module does not take effect
		-	Off	The ONT of the related PON port is offline

Specifications lists of GPON service board

Specifica tion	H801GP BC	H802GP BD	H805GP BD	H802GPFD/H805 GPFD	H806GPBH/H807 GPBH	H801GP MD
Port quantity	4	8	8	16	8	8
MAX Split ratio (Class B+)	1: 64	1: 64	1: 64	1: 64	1: 64	1: 64
MAX Split ratio (Class	Not support	1: 128	1: 128	1: 128	1: 128	1: 128

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Specification	H801GP BC	H802GP BD	H805GP BD	H802GPFD/H805 GPFD	H806GPBH/H807 GPBH	H801GP MD
C+/Class C++)						
D-CMTS	No	No	No	No	No	Yes
ONU- based shaping	No	No	Yes	Yes	Yes	Yes
Optical performance monitor	Yes (querying Rx optical power is not supported)	Yes	Yes	Yes	Yes	Yes
Controlled optical signal transmission of the optical module	No	Yes	Yes	Yes	Yes	Yes
ONU- based rate limitation	×	√	√	√	√	√
CAR group	×	√	√	√	√	√
Temperature query and high temperature alarm	Yes	Yes	Yes	Yes	Yes	Yes
Automatic power shutdown in case of a high temperature	No	Yes	Yes	Yes	Yes	Yes
Maximum	20	20	20	40	40	40

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Specification	H801GP BC	H802GP BD	H805GP BD	H802GPFD/H805 GPFD	H806GPBH/H807 GPBH	H801GP MD
differenti al fiber distance (km)						
Maximum Number of Service Flows Supporte d by the Board	8184	8184	8184	16368	8184	6144
Maximum Number of MAC address Supporte d by the Board	4096	8192	8192	16384	16384	16384
Available DBA bandwidt h (based on single port) (kbit/s)	1238400	1238784	1238784	1238784	1238784	1238784
Number of T- CONT supporte d by each GPON port	256	1024	1024	1024	1024	1024
Board supportin g downstre am FEC	Yes	Yes	Yes	Yes	Yes	Yes
Board supportin g upstream FEC	No	Yes	Yes	Yes	Yes	Yes
Rogue	No	Yes	Yes	Yes	Yes	Yes

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Specification	H801GP BC	H802GP BD	H805GP BD	H802GPFD/H805 GPFD	H806GPBH/H807 GPBH	H801GP MD
ONT detection						
Number of ONUs supported by a GPON port	64	128	128	128	128	128
Number of GEM ports supported by each board	8192	8192	8192	16384	8192	8192
Number of GEM ports supported by each GPON port	3872	3872	3872	3872	3872	3872
Number of service ports supported by each GEM port	8	8	8184	8184	8184	7168
HQoS (four levels)	×	×	×	• H802GPF D: × • H805GPF D: ✓	• H806GPB H: × • H807GPB H: ✓	×
9216-byte Jumbo frames	×	×	×	• H802GPF D: × • H805GPF D: ✓	• H806GPB H: × • H807GPB H: ✓	×
1588v2	×	×	✓	✓	✓	×
Power budget supported by a GPON	Class B+ (28.5 dB, mostly	• Class B+ (28.5 dB, mostly used), • Class C+ (32 dB long reach transmission) • Class C++: 35 dB				



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Specification	H801GP BC	H802GP BD	H805GP BD	H802GPFD/H805 GPFD	H806GPBH/H807 GPBH	H801GP MD
port	used)					
Minimum bandwidth supported by a T-CONT	512kbps	1 Mbit/s (in the minimum delay mode) 128 kbit/s (in the maximum bandwidth usage mode)				

Power:

Static: 45 W

Maximum: 73 W