

802.3av Naming Conventions

Alan Brown
Lowell Lamb
Bidyut Parruck

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Draft Introductory Text

For P2MP topologies, EFM introduces a family of Physical Layer signaling systems which are derived from 1000BASE-X and 10GBase-R, but which include extensions to the RS, PCS, and PMA, along with a forward error correction (FEC) capability, as defined in Clauses 65 and 92. The family of P2MP Physical Layer signaling systems are implemented on top of Passive Optical Networks (PONs) and includes the combinations of:

1. 1000BASE-PX10-D (PON Downstream 10 km) plus 1000BASE-PX10-U (PON Upstream 10 km), as defined in Clause 60;
2. 1000BASE-PX20-D (PON Downstream 20 km) plus 1000BASE-PX20-U (PON Upstream 20 km), as defined in Clause 60;
3. 10GBASE-PR10-D (PON Downstream with optical budget PR10) plus 10GBASE-PR10-U (PON Upstream with optical budget PR10), as defined in Clause 91;
4. 10GBASE-PR20-D (PON Downstream with optical budget PR20) plus 10GBASE-PR20-U (PON Upstream with optical budget PR20), as defined in Clause 91;
5. 10GBASE-PR30-D (PON Downstream with optical budget PR30) plus 10GBASE-PR30-U (PON Upstream with optical budget PR30), as defined in Clause 91;
6. 10GBASE-PR10-D (PON Downstream with optical budget PR10) plus 1000BASE-PX10-U (PON Upstream 10 km), as defined in Clauses 60 and 91. This combination is known as 10/1GBASE—PRX-D1/U1;
7. 10GBASE-PR20-D (PON Downstream with optical budget PR20) plus 1000BASE-PX20-U (PON Upstream 20 km), as defined in Clauses 60 and 91. This combination is known as 10/1GBASE—PRX-D2/U2;
8. 10GBASE-PR30-D (PON Downstream with optical budget PR30) plus 10/1GBASE-PRX-U3 (PON Upstream with optical budget PR30), as defined in Clause 91. This combination is known as 10/1GBASE—PRX-D3/U3;

Combinations 1 and 2, above, are referred to collectively as “EPON” systems throughout this document. Combinations 3 through 8, above, are referred to collectively as “**?PON**” systems throughout this document. When more precision is needed, combinations 3, 4, and 5, above, and combinations 6, 7, and 8, above, are collectively referred to as “symmetric **?PON**” systems and “asymmetric **?PON**” systems, respectively, throughout this document.

- **What should the emphasis be on in choosing a name?**
 - **IEEE-style PON ↔ EPON**
 - **Speed**
- **Think carefully about discarding a well-know, successful name (brand).**
 - **→ The name of our existing system, “EPON,” is valuable.**
- **Keep It Simple → Don't make customers ask questions about who you are.**

Flavors of PON

TPON	Telephony over PON (British Telecom)
Pi-PON	(NTT)
APON	ITU-T ATM PON
BPON	ITU-T Broadband PON
EPON*	100 Mb/s Ethernet PON (various)
GPON	ITU-T Gigabit Capable PON
EPON	IEEE 802.3ah Ethernet PON
GEPON	Gigabit Ethernet PON (NTT marketing name for EPON)
CPON	CTC standard for EPON
DPON	DOCSIS / PON
WDM PON	
RFoG	Radio Frequency over Glass
?PON	This Work

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