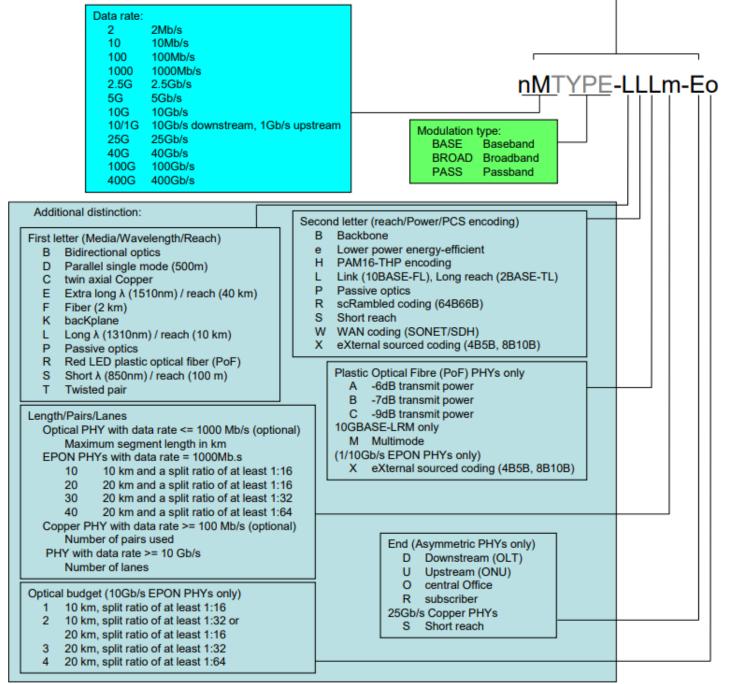
P802.3dm PHY names discussion

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Naming Convention – Data rate

Name format **nM**TYPE-LLLm-Eo

nM is for the data rate.

When there are two speeds, there are separated by "/"

2.5G/100M

5G/100M

10G/100M

Abbreviate as

MultiG/100M

```
Data rate:
         2Mb/s
  10
         10Mb/s
         100Mb/s
  100
         1000Mb/s
  1000
  2.5G
         2.5Gb/s
  5G
         5Gb/s
  10G
         10Gb/s
  10/1G
        10Gb/s downstream, 1Gb/s upstream
  25G
         25Gb/s
  40G
         40Gb/s
  100G
         100Gb/s
  400G
         400Gb/s
```

https://www.ieee802.org/3/cb/public/jan16/PHY_names_1115.pdf

Naming Convention – Link Segment

Name format nMTYPE-LLLm-Eo

LLLm is for the link segment type

1st letter

- T for Twisted pair
- V for coax (new)

No 2nd or 3rd letter

m is for the number of pairs/cables

1 (1 pair or coax)

Additional distinction: Second letter (reach/Power/PCS encoding) Backbone First letter (Media/Wavelength/Reach) Lower power energy-efficient Bidirectional optics PAM16-THP encoding Parallel single mode (500m) Link (10BASE-FL), Long reach (2BASE-TL) twin axial Copper Passive optics Extra long λ (1510nm) / reach (40 km) scRambled coding (64B66B) Fiber (2 km) Short reach bacKplane WAN coding (SONET/SDH) Long λ (1310nm) / reach (10 km) eXternal sourced coding (4B5B, 8B10B) Passive optics Red LED plastic optical fiber (PoF) Plastic Optical Fibre (PoF) PHYs only Short λ (850nm) / reach (100 m) -6dB transmit power Twisted pair -7dB transmit power -9dB transmit power Length/Pairs/Lanes 10GBASE-LRM only Optical PHY with data rate <= 1000 Mb/s (optional) M Multimode Maximum segment length in km (1/10Gb/s EPON PHYs only) EPON PHYs with data rate = 1000Mb.s X eXternal sourced coding (4B5B, 8B10B) 10 km and a split ratio of at least 1:16 20 km and a split ratio of at least 1:16 20 km and a split ratio of at least 1:32 20 km and a split ratio of at least 1:64 Copper PHY with data rate >= 100 Mb/s (optional) Number of pairs used End (Asymmetric PHYs only) PHY with data rate >= 10 Gb/s Downstream (OLT) Number of lanes Upstream (ONU)

https://www.ieee802.org/3/cb/public/jan16/PHY_names_1115.pdf

Naming Convention - End

Name format nMTYPE-LLLm-**Eo**

Eo is for the End for Assymetric PHYs

- D/U is currently used, but is prone to confusion
- F/S (Fast/Slow) is not possible as "S" is used
- H/L (High/Low) "speed" is the current proposal

End (Asymmetric PHYs only)

- D Downstream (OLT)
- U Upstream (ONU)
- O central Office
- R subscriber

25Gb/s Copper PHYs

S Short reach

>

* https://www.ieee802.org/3/cb/public/jan16/PHY_names_1115.pdf

Alternatives for End Names Brainstorming

High Speed transmitter	Low Speed transmitter
High (H)	Low (L)
High Speed (HS)	Low Speed (LS)
Put H before T or V, only one -	Put L before T or V, only one -
2.5G+100MBASE-T1	
2.5G/100MBASE-H-T1	2.5G/100MBASE-L-T1
2.5G_100MBASE-H-T1	2.5G_100MBASE-L-T1
2.5G/100MBASE-T1	100M/2.5GBASE-T1

Options for Indicating Transmit speed

Options for how to designate the "fast" vs. the "slow" transmitter. Not all speeds or cable types are shown. A single example is given for each option.

Option	High Speed transmitter	Low Speed transmitter	example name	example name
	1 High (H)	Low (L)	2.5G/100MBASE-T1-H	2.5G/100MBASE-T1-L
	2 High Speed (HS)	Low Speed (LS)	2.5G/100MBASE-T1-HS	2.5G/100MBASE-T1-LS
	Put H before T or V, only	Put L before T or V, only		
	3 one -	one -	2.5G/100MBASE-HT1	2.5G/100MBASE-LT1
	4 Put H before T or V, two -	Put L before T or V, two -	2.5G/100MBASE-H-T1	2.5G/100MBASE-L-T1
Put the transmit speed first and the receive speed				
5 second		2.5G/100MBASE-T1	100M/2.5GBASE-T1	

Straw Poll #4
I prefer Option #:

1. 10

2. 13

3. 8

4. 10

5. 25

Straw Poll #5

I prefer Option #:

1. 11

2. 14

3. 13

4. 17

Straw Poll #6

I prefer Option #:

4. 25

5. 42

Options for Symbol Between Speeds

Options for the symbol between the speeds.

The name after the speeds is not shown and was discussed on the previous slide.

Option	High Speed transmitter	Low Speed transmitter	example name
	1Continue to use "/" betw	een speeds	2.5G/100MBASE-
	2Use "+" instead of "/" be	2.5G+100MBASE-	
	3 Use "_" instead of "/" be	2.5G_100MBASE-	
	4Use "-" instead of "/" bet	ween speeds	2.5G-100MBASE-

Straw Poll #7

Straw Poll #8

I prefer Option:

I prefer Option: 2. 32

1. 9

2. 37

4. 22

3. 13