PMD naming

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PMD names

The individual letters in the PMD names used to have meaning (See IEEE Std 802.3 Clause 1.2.3)

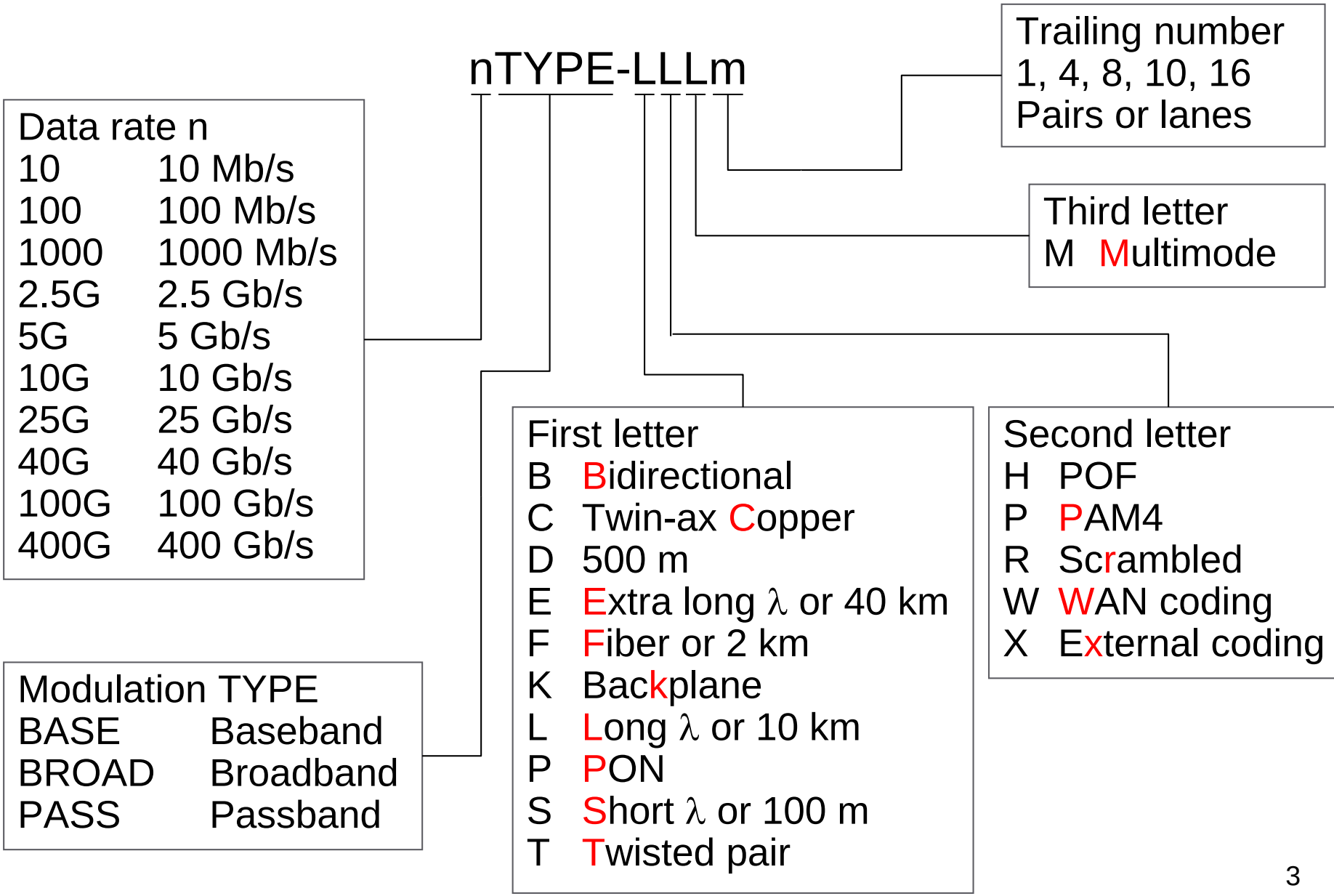
The P802.3ba project recognised that general industry understanding did not always coincide with original 802.3 meaning:

10GBASE-LR “long reach” – 10,000 search engine hits

10GBASE-LR “long wavelength” – 3,000 search engine hits

So, for 40 Gb/s and 100 Gb/s PMD names the individual letters don’t have strict meaning.

Non comprehensive PHY name decoder



Remaining PMDs

The P802.3cn project has five PMD objectives:

- Provide a physical layer specification which supports 50 Gb/s operation over at least 40 km of SMF
- Provide a physical layer specification supporting 200 Gb/s operation over four wavelengths capable of at least 40 km of SMF
- Provide a physical layer specification supporting 400 Gb/s operation over eight wavelengths capable of at least 40 km of SMF
- Provide a physical layer specification supporting 100 Gb/s operation on a single wavelength capable of at least 80 km over a DWDM system
- Provide a physical layer specification supporting 400 Gb/s operation on a single wavelength capable of at least 80 km over a DWDM system

For the 40 km objectives, the obvious PHY names would be:

50GBASE-ER, 200GBASE-ER4, and 400GBASE-ER8

DWDM PHY names

For the “80 km over a DWDM system” PHYs, there is no IEEE precedent for a letter to designate this.

While “10GBASE-ZR” has been used outside IEEE to designate a PHY similar to 10GBASE-ER but with 80 km reach, this is very different from the two coherent PHYs running over a DWDM channel which may include optical amplifiers.

Of the letters not already used in this position, I, O and Z should be avoided as they are easily mistaken for numbers.

Also, H, R, W and X should be avoided as they are all used in the next character position and terms such as 100GBASE-R are often used.

This leaves: A, G, J, M, N, Q, U, V, Y

Of these, the best candidate seems to be:

A for Amplified

Proposal: Adopt the names “100GBASE-AR” and “400GBASE-AR”

Thanks!