Past PHY naming some thoughts

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2BASE-TL-O	Voice grade CO UTP PHY as specified in Clause 61 and 63
2BASE-TL-R	Voice grade subscriber UTP PHY as specified in Clause 61 and 63
10BASE5	Thick coax MAU as specified in Clause 8 (deprecated)
FOIRL	FOIRL MAU as specified in 9.9 (deprecated)
10BASE2	Thin coax MAU as specified in Clause 10
10BROAD36	Broadband DTE MAU as specified in Clause 11 (deprecated)
10BASE-T	UTP MAU as specified in Clause 14, duplex mode unknown
10PASS-TS-O	Voice grade CO UTP PHY as specified in Clause 61 and 62
10PASS-TS-R	Voice grade subscriber UTP PHY as specified in Clause 61 and 62
10BASE-FP	Passive fiber MAU as specified in Clause 16
10BASE-FB	Synchronous fiber MAU as specified in Clause 17
10BASE-FL	Asynchronous fiber MAU as specified in Clause 18
100BASE-T4	Four-pair Category 3 UTP as specified in Clause 23
100BASE-TX	Two-pair Category 5 UTP as specified in Clause 25
100BASE-BX10-D	One-fiber OLT PHY as specified in Clause 58
100BASE-BX10-U	One-fiber ONU PHY as specified in Clause 58
100BASE-FX	X fiber over PMD as specified in Clause 26
100BASE-LX10	Two-fiber PHY as specified in Clause 58
100BASE-T2	Two-pair Category 3 UTP as specified in Clause 32
1000BASE-BX10-D	One-fiber OLT PHY as specified in Clause 59
1000BASE-BX10-U	One-fiber ONU PHY as specified in Clause 59

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1000BASE-LX	X fiber over long-wavelength laser PMD as specified in Clause 38
1000BASE-LX10	Two-fiber 10 km PHY as specified in Clause 59
1000BASE-LX10	Two-fiber 10 km PHY as specified in Clause 59
1000BASE-PX10-D	One-fiber OMP OLT 10 km PHY as specified in Clause 60
1000BASE-PX10-U	One-fiber OMP ONU 10 km PHY as specified in Clause 60
1000BASE-PX20-D	One-fiber OMP OLT 20 km PHY as specified in Clause 60
1000BASE-PX20-U	One-fiber OMP ONU 20 km PHY as specified in Clause 60
1000BASE-SX	X fiber over short-wavelength laser PMD as specified in Clause 38
1000BASE-CX	X copper over 150-Ohm balanced cable PMD as specified in Clause 39
1000BASE-KX	X PCS/PMA over an electrical backplane PMD as specified in Clause 70
1000BASE-T	Four-pair Category 5 UTP PHY as specified in Clause 40
10GBASE-LX4	X fiber over WWDM optics as specified in Clause 53
10GBASE-CX4	X copper over 8 pair 100-Ohm balanced cable as specified in Clause 54
10GBASE-KX4	X PCS/PMA over an electrical backplane PMD as specified in Clause 71
10GBASE-ER	R fiber over 1550 nm optics as specified in Clause 52
10GBASE-LR	R fiber over 1310 nm optics as specified in Clause 52
10GBASE-SR	R fiber over 850 nm optics as specified in Clause 52
10GBASE-LRM	R fiber over 1310 nm optics as specified in Clause 68
10GBASE-KR	R PCS/PMA over an electrical backplane PMD as specified in Clause 72
10GBASE-EW	W fiber over 1550 nm optics as specified in Clause 52
10GBASE-LW	W fiber over 1310 nm optics as specified in Clause 52

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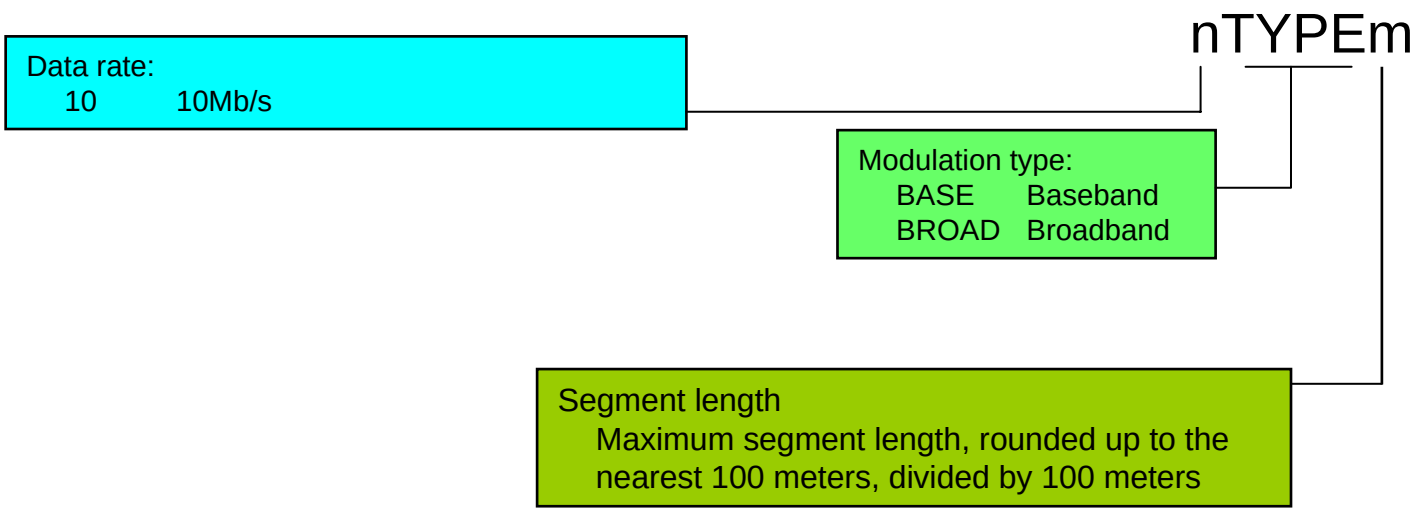
10GBASE-LW	W fiber over 1310 nm optics as specified in Clause 52
10GBASE-SW	W fiber over 850 nm optics as specified in Clause 52
10GBASE-T	Four-pair twisted-pair balanced copper cabling PHY as specified in Clause 55
10/1GBASE-PRX-D1	One single-mode fiber 10.3125 GBd continuous downstream / 1.25 GBd burst mode upstream OLT PHY as specified in Clause 75, 10 km and a split ratio of at least 1:16
10/1GBASE-PRX-D2	One single-mode fiber 10.3125 GBd continuous downstream / 1.25 GBd burst mode upstream OLT PHY as specified in Clause 75, 10 km and the split ratio of at least 1:32
10/1GBASE-PRX-D3	One single-mode fiber 10.3125 GBd continuous downstream / 1.25 GBd burst mode upstream OLT PHY as specified in Clause 75, 20 km and a split ratio of at least 1:32
10/1GBASE-PRX-U1	One single-mode fiber 10.3125 GBd continuous downstream / 1.25 GBd burst mode upstream ONU PHY as specified in Clause 75, 10 km and a split ratio of at least 1:16
10/1GBASE-PRX-U2	One single-mode fiber 10.3125 GBd continuous downstream / 1.25 GBd burst mode upstream ONU PHY as specified in Clause 75, 10 km and the split ratio of at least 1:32
10/1GBASE-PRX-U3	One single-mode fiber 10.3125 GBd continuous downstream / 1.25 GBd burst mode upstream ONU PHY as specified in Clause 75, 20 km and a split ratio of at least 1:32
10GBASE-PR-D1	One single-mode fiber 10.3125 GBd continuous downstream / burst mode upstream OLT PHY as specified in Clause 75, 10 km and a split ratio of at least 1:16
10GBASE-PR-D2	One single-mode fiber 10.3125 GBd continuous downstream / burst mode upstream OLT PHY as specified in Clause 75, 10 km and the split ratio of at least 1:32
10GBASE-PR-D3	One single-mode fiber 10.3125 GBd continuous downstream / burst mode upstream OLT PHY as specified in Clause 75, 20 km and a split ratio of at least 1:32
10GBASE-PR-U1	One single-mode fiber 10.3125 GBd continuous downstream / burst mode upstream ONU PHY as specified in Clause 75, 10 km and a split ratio of at least 1:16
10GBASE–PR–U3	One single–mode fiber 10.3125 GBd continuous downstream / burst mode upstream ONU PHY as specified in Clause 75, 20 km and a split ratio of at least 1:32

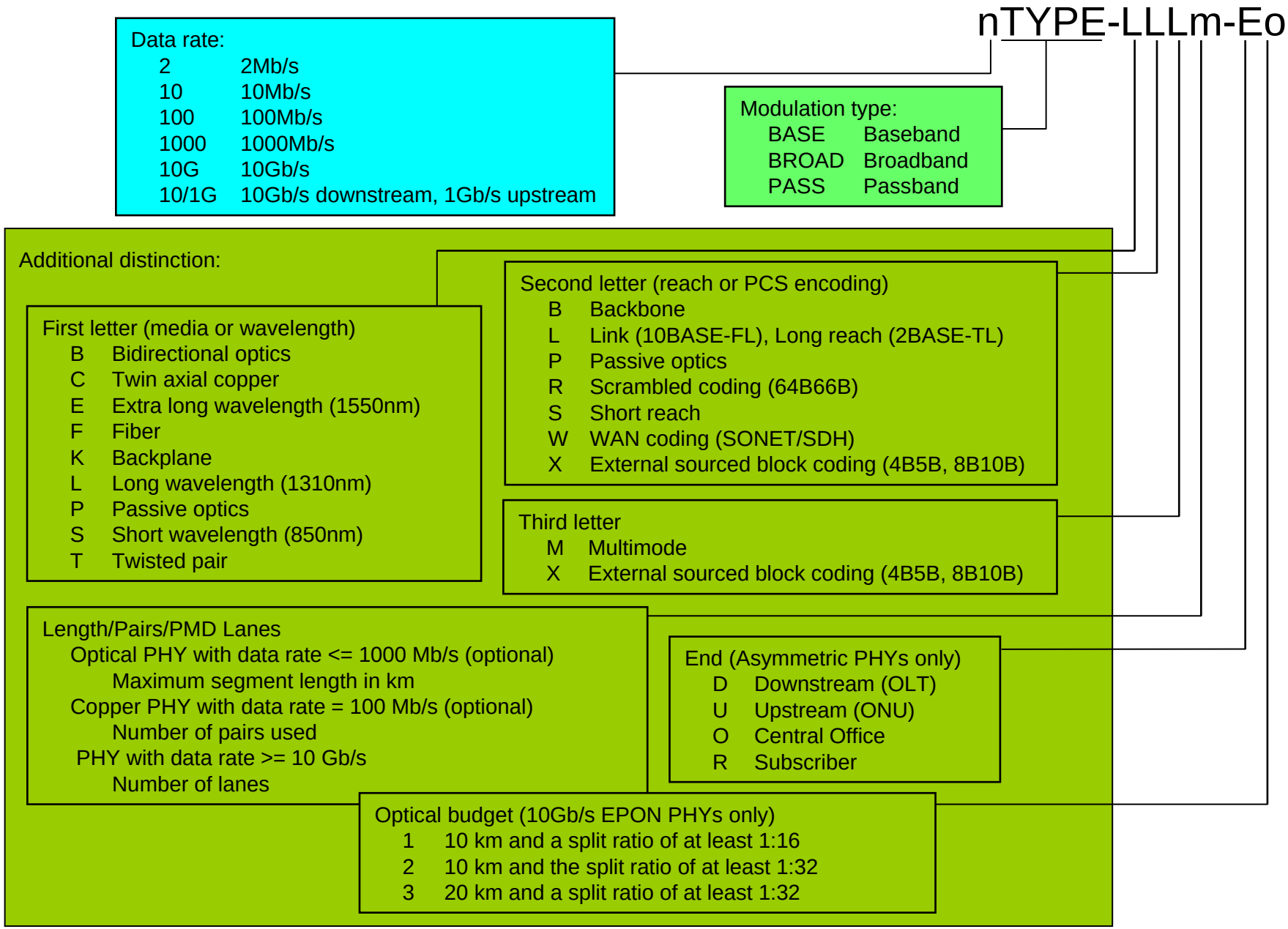
Note: PHY types added by IEEE P802.3av 10Gb/s EPON included as the last recirculation just closed with 100% approval and no comments.

My view of legacy naming for 10Mb/s Coax MAUs



Note: Naming convention for 10BASE5, 10BASE2 and 10BROAD36

My view of MAU/PHY naming



Note - The PCS and PMD family names based on use of either the first or second letter. Examples are 10GBASE-L for 10Gb/s long wavelength PMD family and 10GBASE-R for 10Gb/s scrambled encoding PCS family.

Thoughts

- Haven’t been particularly consistent
  - Evolved where required
    - For example we moved from just indicating media ('F' for fibre) in 100 Mb/s to wavelength ('S' and 'L' for short and long wavelength) in 1 Gb/s
- Haven’t had conflicting definition
  - Not had same letter in the same position meaning something different
- Haven’t really documented well
  - Only directly addressed by e.g. in subclause 1.2.3

    ‘e.g., “T” for twisted pair, “S” for short wavelength optics, “X” for a block PCS coding used for that speed of operation’

Propose for 100GBASE-ER4 PHY

- Remove text that states meanings are being changed in Clause 80
- Rename 100GBASE-ER4 to 100GBASE-LRE4
  - First letter after the dash based on either the Media or Wavelength
    - 'E' should be changed to an 'L‘
      - 1310 nm (long wavelength)
  - Second letter either indicates encoding or, if encoding is not indicated, reach
    - Should remain 'R'
  - Propose add a third letter
    - 'E' for extended reach.