802.3ca Terms & Definitions

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25G-ONU Definitions

25/10G-ONU: An EPON ONU supporting the maximum sustained throughput of 25 Gb/s in downstream direction and 10 Gb/s in upstream direction (asymmetric rate).

25/25G-ONU: An EPON ONU supporting the maximum sustained throughput of 25 Gb/s in downstream and upstream directions (symmetric rate).

25G-ONU: An EPON ONU supporting the maximum sustained throughput of 25 Gb/s in either downstream or both downstream and upstream directions. This term collectively refers to 25/10G-ONU and 25/25G-ONU devices.

50G-ONU Definitions

50/25G-ONU: An EPON ONU supporting the maximum sustained throughput of 50 Gb/s in downstream direction and 25 Gb/s in upstream direction (asymmetric rate).

50/50G-ONU: An EPON ONU supporting the maximum sustained throughput of 50 Gb/s in downstream and upstream directions (symmetric rate).

50G-ONU: An EPON ONU supporting the maximum sustained throughput of 50 Gb/s in either downstream or both downstream and upstream directions. This term collectively refers to 50/25G-ONU and 50/50G-ONU devices.

100G-ONU Definitions

100/25G-ONU: An EPON ONU supporting the maximum sustained throughput of 100 Gb/s in downstream direction and 25 Gb/s in upstream direction (asymmetric rate).

100/50G-ONU: An EPON ONU supporting the maximum sustained throughput of 100 Gb/s in downstream direction and 50 Gb/s in upstream direction (asymmetric rate).

100/100G-ONU: An EPON ONU supporting the maximum sustained throughput of 100 Gb/s in downstream and upstream directions (symmetric rate).

100G-ONU: An EPON ONU supporting the maximum sustained throughput of 100 Gb/s in either downstream or both downstream and upstream directions. This term collectively refers to 100/25G-ONU, 100/50G-ONU, and 100/100G-ONU devices.

PHY Definitions

[DU]25GBASE-PR: A collection of IEEE 802.3 Physical Layer specifications for a 25 Gb/s point-to-multipoint link over one single-mode optical fiber. The placeholders D and U denote the number of downstream and upstream lanes supported by the given PHY, as follows:

	Downstream Lanes	Upstream Lanes
25GBASE_PR	1	1
DS25GBASE_PR	2	1
D25GBASE_PR	2	2
QS25GBASE_PR	4	1
QD25GBASE_PR	4	2
Q25GBASE_PR	4	4

S = single, D = double, Q = quadruple

PHY Definitions, take 2

[DU]25GBASE-PR: A collection of IEEE 802.3 Physical Layer specifications for a 25 Gb/s point-to-multipoint link over one single-mode optical fiber. The placeholders D and U denote the number of downstream and upstream lanes supported by the given PHY, as follows:

	Downstream Lanes	Upstream Lanes
SS25GBASE_PR	1	1
DS25GBASE_PR	2	1
DD25GBASE_PR	2	2
QS25GBASE_PR	4	1
QD25GBASE_PR	4	2
QQ25GBASE_PR	4	4

S = single, D = double, Q = quadruple

PHY Definitions, take 3

	Downstream Lanes	Upstream Lanes
25/10GBASE-PR	1	1 (10Gb/s)
25GBASE-PR	1	1
50/25GBASE-PR	2	1
50GBASE-PR	2	2
100/25GBASE-PR	4	1
100/50GBASE-PR	4	2
100GBASE-PR	4	4

Other terms

- What do we call multiple parallel data paths that originate at channel bonding distributor's function and terminate at channel bonding combiner function and traverse at least 25GMII, PCS, PMA, at PMD at both ends?
- The term ***Lane*** is used to describe XGMII/25GMII interface
  - *802.3, sc. 46.1.6: The 32 TXD and four TXC signals shall be organized into four data **lanes**, as shall the 32 RXD and four RXC signals (see Table 46–2). The four **lanes** in each direction share a common clock—TX_CLK for transmit and RX_CLK for receive. The four **lanes** are used in round-robin sequence to carry an octet stream.*
- The term ***Channel*** is typically used for separate frequencies carrying parallel signals in the media (e.g., channel insertion loss)
- The term ***Link*** is typically used to denote MAC-to-MAC data path (e.g., logical links in EPON, Data Link Layer.)
- Any suggestions?
  - Redefine existing terms?
  - New term: Path, track, arc, tunnel, pipe, circuit?
  - Compound words

Motion #10

- Accept names for the PHYs as shown in kramer_3ca_4a_0716.pdf, slide #7

- (Technical, >= 75%)

- Moved: Glen Kramer
- Seconded: Duane Remein

- Y:24 N:0 A:0

Thank You