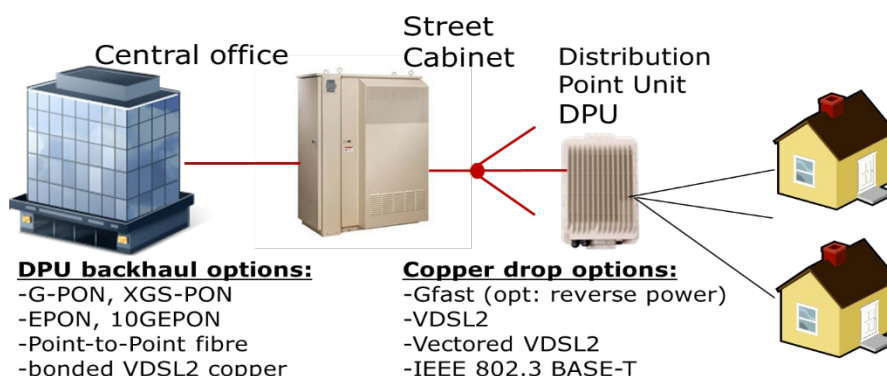
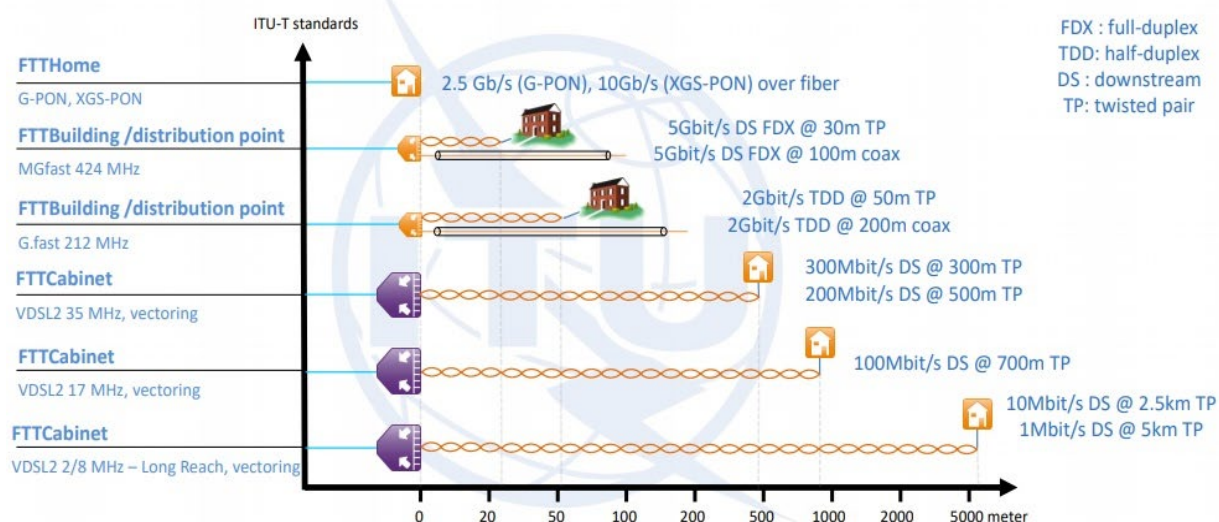


G.9711 MGfast: Multi-Gigabit fast access to subscriber terminals – Physical layer specification

- Up to 4-8 Gbit/s aggregate bit rates over traditional telephone wiring and coaxial cable.
- Combining the best aspects of fibre and DSL to enable cost-savings and improved customer experience.
- No rewiring with Fibre to the Distribution Point (FTTdp) architecture and customer self-install.
- Ultra-low latency for interactive applications.
- Point-to-Multipoint operation for better coverage within premises.
- Support of up to four simultaneous Quality of Service (QoS) classes.



MGfast key application features:

- Customer self-install. No rewiring. No truck-rolls to customer premises.
- Coexistence with ADSL2, VDSL2 and G.fast on adjacent wire-pairs.
- Control of the upstream vs downstream transmission scheme to adapt net data rate, especially in the Time Division Duplex (TDD) mode.
- Vectoring (self-crosstalk cancellation) for increased net data rates on wire-pairs that experience FEXT from other wire-pairs.
- Echo-cancellation and near-end crosstalk cancellation/mitigation for increased net data rates on wire-pairs which are operated in Full Duplex (FDX) mode using the same frequency spectrum in both directions concurrently.
- Support of ultra-low latency services with improved retransmission and FDX transmission.
- Network timing reference (NTR) and time-of-day (ToD) transport for network frequency and time synchronization
- between network and customer premises equipment.
- Configuration of spectrum use, including configuration of the transmit power spectral density (PSD) limitations and notches to meet electromagnetic compatibility (EMC) requirements.
- Point-to-multipoint (P2MP) operation for multiple units of customer premises equipment to be connected to the same physical wire and port of network equipment.
- Support of up to four Quality of Service (QoS) classes in upstream and downstream direction by the transceivers.
- Showtime reconfiguration (SREC) to reconfigure a line with a specified set of configuration parameters, applied during showtime without requiring a fast retrain or full re-initialization.
- Power saving by dynamic control of the time and frequency band available for data transmission depending on user traffic (using DTFO functionality).