

Proposal to add a 96MHz upstream mode to EPoC

Avi Kliger, Richard Prodan
Broadcom

Supporters

- Saif Rahman, Comcast
- Eugene Dai, Cox

Current Status

- EPoC upstream bandwidth is 192 MHz
- Vast majority of current installations allow 42 MHz for FDD upstream EPoC in the US and 65 MHz in Europe and other countries
- Expected near or mid-term plant upgrades will allow upstream to go upto 85 MHz
- Long term upgrades may allow more than 200 MHz for FDD EPoC in the upstream

Discussion

- It seems that current bandwidth specifications exceed foreseen short and mid-term requirements
 - More than double
- With double the bandwidth analog power consumption and analog complexity is increased significantly, in particular with high transmission power as is expected for EPoC
- Digital designs become significantly larger and more power consuming when doubling the bandwidth at these rates
- Designing for double the bandwidth but running at half will only partially compensate the additional complexity and power consumption

Proposal

- Add a lower bandwidth mode of 96 MHz for FDD upstream
 - Enable vendors to design more power efficient and less complex devices that will meet a very large percentage of short-term and mid-term installations of EPoC
- Does not preclude vendors to provide a full rate devices when required
- Capability information exchange through the PLC
- Upstream bandwidth is fixed per OFDMA channel

Motion Proposal

Move that:

An EPoC FDD device must support an upstream OFDMA channel bandwidth of either 96 MHz or 192 MHz.

Moved:

Seconded: