

# DOWNSTREAM ELECTRICAL UPDATES



Authors: Tom Kolze, Rich Prodan, Leo Montreuil,  
Victor Hou, Mark Laubach

- **Draft text changes laubach\_3bn\_05\_0315.pdf**
- **We've had an action item to review and update the downstream electrical requirements.**
  - Originally based on DOCSIS PHY 3.1 I01
    - Several things have changed as I05 is about to become current
    - Single Channel QAM (SC-QAM) channels and CEA were still part of some of the nuances
    - Definitions were scattered around CL 100.2.8
    - There were references based on assumption of CEA channel grid/spacing.
- **This draft text update covers CL 100.2.8 only**
  - Will need to get to CL 100.2.12 CNU receiver requirements for May
    - Ran out of time
    - Some issues in flux regarding D3.1 and MOCA coexistence that will settle and will impact some performance specifications in this subclause.

- **Most / all definitions have been moved to the front of 100.2.8**
  - Old Neq, Neq' variable names updated and aligned
- **SC-QAM and CEA nuances have been removed**
- **5 OFDM channels downstream**
  - Only one PHY Link for all channels, needed to treat appropriately
- **RF spectrum alignment changes:**
  - Downstream from 54 MHz to 1218 MHz to 258 MHz to 1218 MHz
  - Harmonize analog front end implementations and differences
  - Also need to change upstream 5 MHz to 234 MHz to 5 MHz to 204 MHz.
- **Created 100.3.3 “Guidelines for verifying compliance with downstream phase noise requirements” and moved test requirements and text.**
- **Also pulled in subcarrier clocking requirements into new clause 101.4.2.3 that should have come over with original “copy and paste”.**
- **Also updated 101.4.2.2 Time and Frequency descriptions**

# PROPOSED MOTION



**Move to:**

**Adopt laubach\_3bn\_05\_0315.pdf draft text changes.**

# PROPOSED MOTION

**Move to:**

**Change upstream RF Frequency band to 5 MHz to 204 MHz.**



Thank you