Project: IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)

Submission Title: Thoughts towards a baseline for a proposal
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Re: In response to preliminary proposals (15-15-0482-01-003d and 15-16-0481-01-003d)

Abstract: Provides some thoughts on channelization and modulation schemes as combination from the two preliminary proposals.

Purpose: To be considered in TG3d for a baseline document

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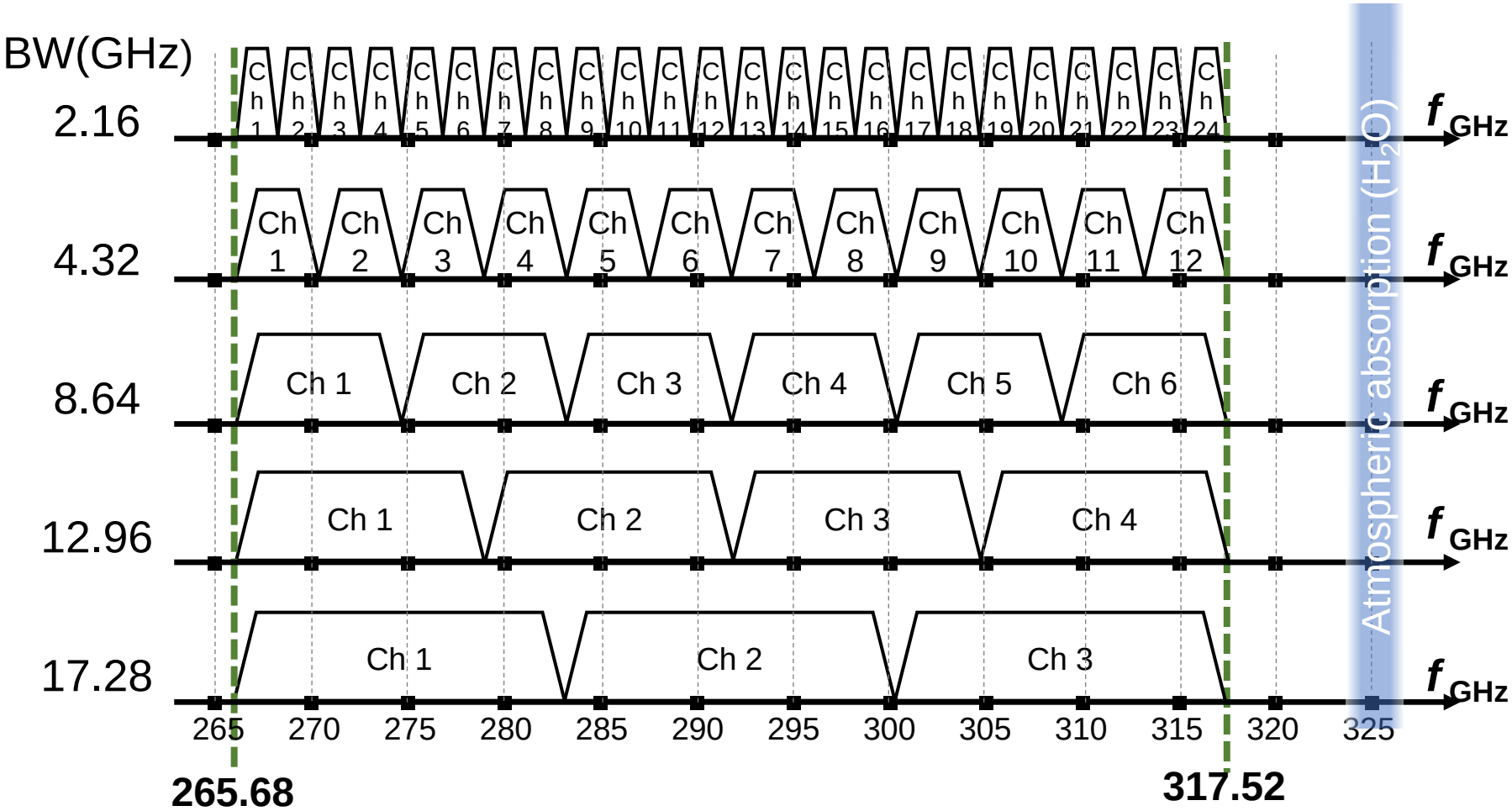
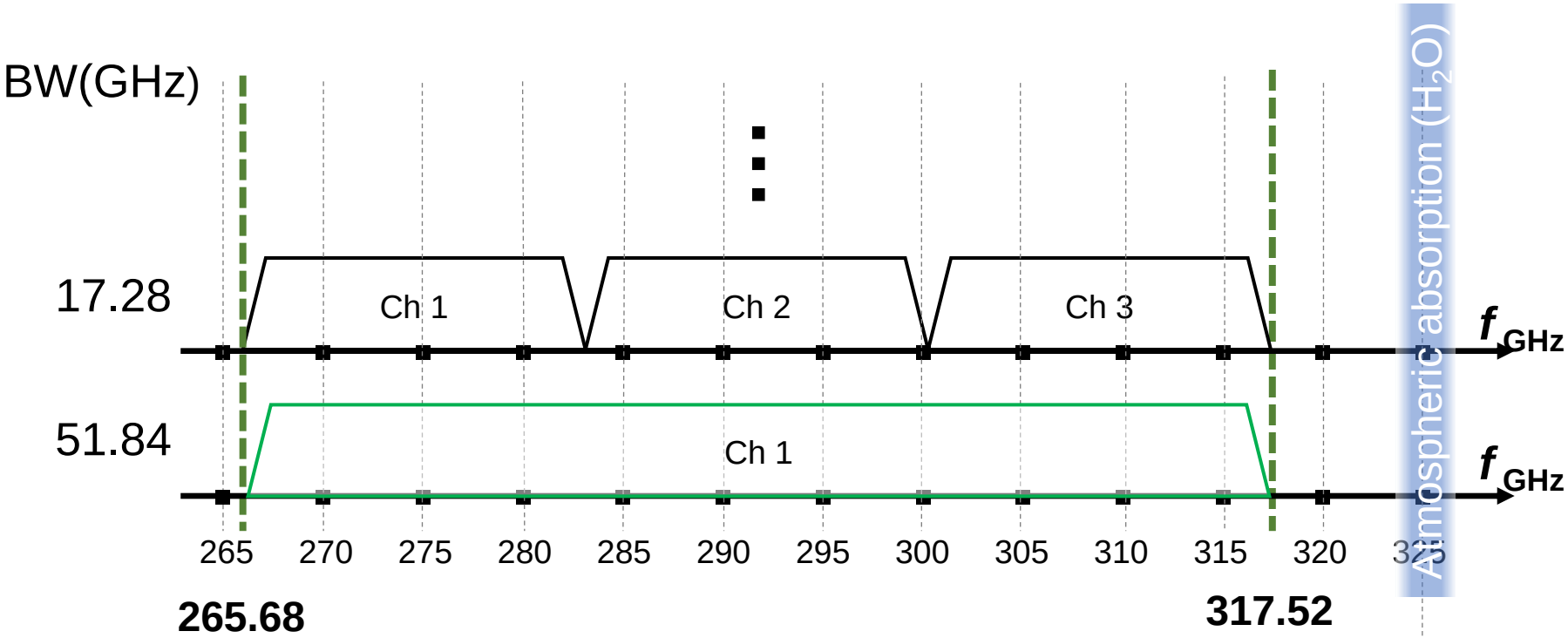
Outlook

- Channelization
- Modulation Schemes

Channel Assignments – 1 –

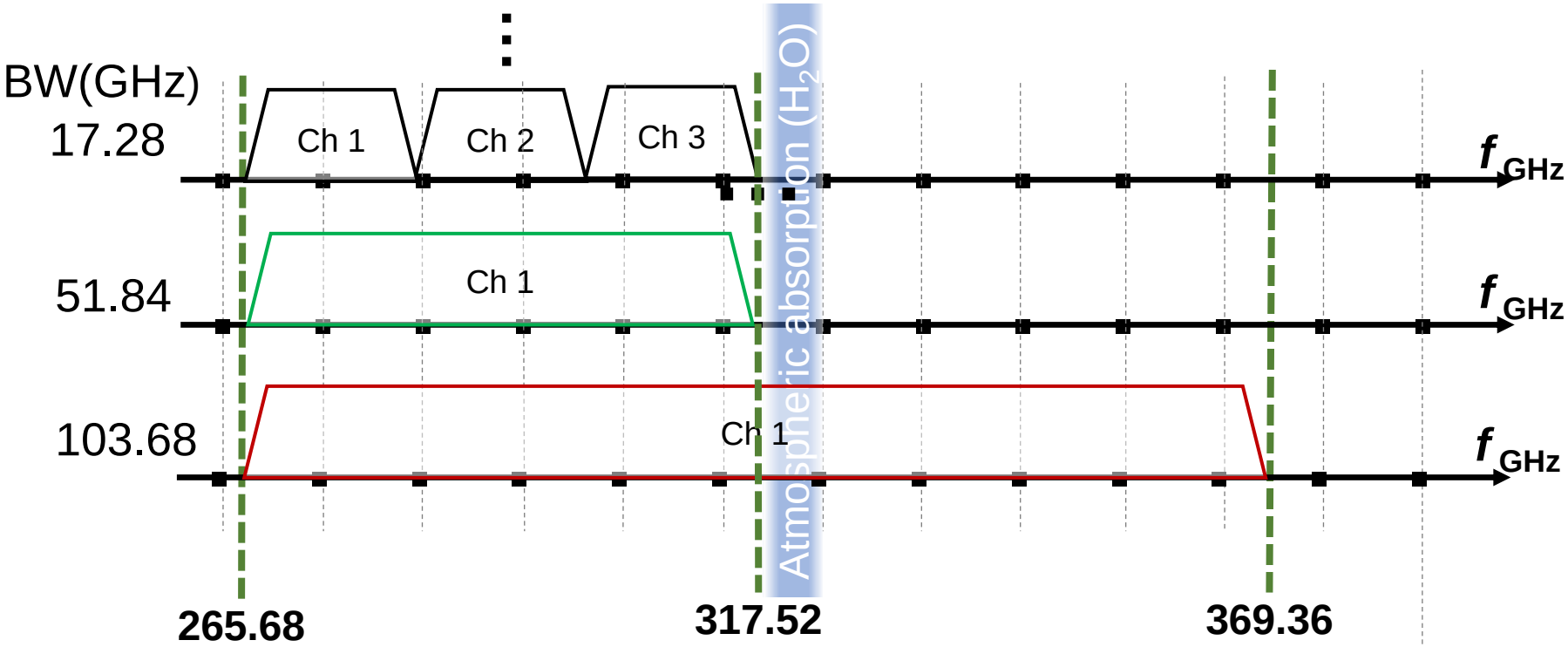


Channel Assignments – 2 –



- SC Phy Proposal from Doc. IEEE802.15-16-0482-01-003d extended by a channel of 51.84 GHz.
- OOK: **Option 1** use the same channelization; limits data rate to max. ~50 Gbit/s

Channel Assignments – 3 –



- OOK: **Option 2** extend the frequency range for a maximum bandwidth of 103.68 GHz.
- requires a PAR change
- all modes support a max. of ~100 Gbit/s

Modulation Schemes

- Clarification: OOK Phy and SC Phy (QAM, …) are two alternatives. A device has to support only one of these.

- SC
  - Candidates: BPSK, QPSK, 16 QAM, 64 QAM, 8 PSK, 8 APSK.
  - Can QPSK be the only mandatory modulation scheme?
  - If a higher order QAM (64 QAM) is supported than the 16 QAM (not 8-PSK or 8-APSK) has to be supported.

- OOK