IEEE P802.11  
Wireless LANs

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| CR Duplicate MU MIMO | | | | |
| Date: 2016-09-12 | | | | |
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Abstract

This submission proposes resolutions for the following comments related to TGax D0.1:

* 506, 851, 1024, 1628, 1693, 1694, 1696, 2159, 2162, 2163, 2165, 2166

Revisions:

* Rev 0: Initial version of the document.

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGax Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGax Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGax Editor: Editing instructions preceded by “TGax Editor” are instructions to the TGax editor to modify existing material in the TGax draft. As a result of adopting the changes, the TGax editor will execute the instructions rather than copy them to the TGax Draft.***

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| **CID** | **Clause Number** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 506 | 26.3.12.4.4 | 157,5 | UL power control for UL MU-MIMO content is missing. Add content | as commented | Revised  Resolution already presented in IEEE 802.11-16/0775r2. |
| 851 | 26.3.12.3.2 | 155,29 | Some structure and contents (BW size, Ng, etc) for beamforming feedback have been decided. We can fill out this subsection. | Propose to update this subsection. | Revised  Resolution already presented in IEEE 802.11-16/0836r1 |
| 1024 | 26.3.12.4.4 | 157,7 | Power control rules for UL MU-MIMO is missing. | There are some language talking about the power control related requirements to non-AP STA in subclause 26.3.12.4.6 (Requirements for STAs transmitting HE trigger-based PPDUs). It might be a good idea to relocate some part of it to the subclause 26.3.12.4.4. Also, define a rule to determine absolute transmit power for UL MU-MIMO transmissions. | Revised  Resolution already presented in IEEE 802.11-16/0775r2 |
| 1628 | 26.3.10.4.4 | 138,46 | What is the argmax operator? | Define the operator | Rejected  Arg max is a standard mathematical operator, denoting the set of all points in the domain of a function at which the function takes on its maximum value. Not necessary to define it |
| 1693 | 26.3.12.4.3 | 138,46 | No details on Uplink Mulit-user power control | Update draft to reflect March agreements | Revised  Resolution already presented in IEEE 802.11-16/0775r2 |
| 1694 | 26.3.12.4.4 | 157,7 | No details on Uplink Mulit-user power control | No details on Uplink Mulit-user power control | Revised  Resolution already presented in IEEE 802.11-16/0775r2 |
| 1696 | 26.3.12.3.2 | 155,27 | The feedback report is TBD | Update draft to reflect March agreements | Revised  Resolution already presented in IEEE 802.11-16/0836r1 |
| 2159 | 26.3.12.3.2 | 173,29 | PHY Motion 145 was approved in Macau meeting, but no corresponding spec text is present in the draft | Add description for the following motion: The tones used for channel feedback shall be a subset of the sets given below:  NDP bandwidth 20 MHz: Ng = 4 -> [-120:4:-4, 4:4:120] + edge(+/-2,+/-122) Ng = 16 -> [-116:16:-4, 4:16:116] + edge(+/-2,+/-122)  NDP bandwidth 40 MHz: Ng = 4/16 -> [-244:Ng:-4, 4:Ng:244]  NDP bandwidth 80 MHz: Ng = 4/16 -> [-500:Ng:-4, 4:Ng:500] | Revised  Resolution already presented in IEEE 802.11-16/0836r1 and 802.11-16/1097r1 |
| 2162 | 26.3.12.3.2 | 173, 29 | PHY Motion 148 was approved in Macau meeting, but no corresponding spec text is present in the draft | Add description for the following: Move to add to the spec framework that AP can request beamforming feedback over partial BW which is less than the NDP BW. The indication of the feedback BW goes in NDPA | Revised  Resolution already presented in IEEE 802.11-16/0773r2 |
| 2163 | 26.3.12.3.2 | 173,29 | PHY Motion 149 was approved in Macau meeting, but no corresponding spec text is present in the draft | Add description for the following: Move to add to the spec framework that The granularity of channel feedback requested by the AP is a 26 tone RU. The AP signals start and end 26 tone RUs requested for feedback. | Revised  Resolution already presented in IEEE 802.11-16/0773r2 |
| 2165 | 26.3.12.3.2 | 173, 29 | PHY Motion 151 was approved in Macau meeting, but no corresponding spec text is present in the draft | Add description for the following: Move to add to the spec framework that AP shall control the Ng, quantization, and Nc of the sounding FB in NDPA except in the special case of a NDPA addressed to a single STA which requests SU type feedback. In the aforementioned special case, the STA controls these quantities. | Revised  Resolution already presented in IEEE 802.11-16/0773r2 |
| 2166 | 26.3.12.3.2 | 173,29 | PHY Motion 152 was approved in Macau meeting, but no corresponding spec text is present in the draft | Add description for the following: Move to add to the spec framework that A channel quality indicator only (CQI-only) feedback (exact metric TBD) will be supported by the sounding protocol in 11ax. The request for CQI-only feedback goes in NDPA. | Revised  Resolution already presented in IEEE 802.11-16/0773r2 |