**2012.07.17(Tuesday) PM#2 Session at Elizabeth D (Manchester Grand Hyatt in San Diego)**

* Chaired by David Xun Yang (Huawei) & minutes taken by Minho Cheong (ETRI)
* PHY ad-hoc session started at 16:00
* (FYI, during San Diego meeting in July 2012, there was only one PHY ad-hoc session)
* **12/818r0 “padding” presented by Hongyuan Zhang (Marvell)**

Discussion:

Discussion on major difference between 11ac and 11ad (BCC padding flow)

Clarification request on Length : symbols or bytes option (by Juho from Renesas)

Pre-motion:

Do you agree with the 11ah single user BCC padding flow as described in slides 6~7, and the LDPC encoding flow as described in slides 9~10, and insert the description text into the TGah Spec Framework in appropriate sections?

Passes by (23/0/4)

* **12/819r1 “preamble discussions” presented by Hongyuan Zhang (Marvell)**

Discussion:

Why AP has more strict mandatory requirements on short/long (by Juho from Renesas)

Pre-motion:

Do you agree with the text change as described in slide 5 and slide 7?

Passes by (23/0/3)

* **12/815r0 “Q Matrix Requirement for 1MHz/2MHz detection” presented by Ron Porat (Broadcom)**

Discussion:

Whether it is recommendation or mandatory (by Ron from InterDigital)

Pre-motion:

Do you support the proposal in slides 5 and 6?

Passes by (22/0/2)

* **12/825r2 “Smoothing bit and beam\_change indication bit” by James Wang (MediaTek)**

Discussion:

Nothing special

Pre-motion #1:

**Do you agree to have a smoothing bit in short preamble SIG field and a beam-change indication bit in long SU preamble SIGA field?**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Short preamble | Long preamble | |
| **SU** | **SU** | **MU** |
| Length / Duration | 9 | 9 | 9 |
| MCS | 4 | 4 | - |
| BW | 2 | 2 | 2 |
| Aggregation | 1 | 1 | - |
| STBC | 1 | 1 | 1 |
| Coding | 2 | 2 | 5 |
| SGI | 1 | 1 | 1 |
| GID | - | - | 6 |
| Nsts | 2 | 2 | 8 |
| PAID | 9 | 9 | - |
| Ack Indication | 2 | 2 | 2 |
| Smoothing | 1 | - | - |
| Beam-change Indication | - | 1 | - |
| Reserved | 4 | 4 | 4 |
| CRC | 4 | 4 | 4 |
| Tail | 6 | 6 | 6 |
| **Total** | **48** | **48** | **48** |

* + **Beam-change indication bit:** 
    - A value of 1 indicates that Q matrix is changed;
    - A value of 0 indicates that Q matrix is un-changed

Passes by (20/0/2)

Pre-motion #2:

**Do you agree to add the following paragraph in the Specification Framework for Tgah in section R.3.2.1.1.E?**

Note: If the beam-change indication bit in long preamble is set to 0, the receiver may do channel smoothing. Otherwise, smoothing is not recommended.

Passes by (20/0/3)

* **11-12/832r2 “SIG Fields Design of Long Preamble” by Yongho Seok (LGE)**

Discussion:

In which case D-LTF1 substitutes SIG-B (by Ron from InterDigital)

Pre-motion #1:

**Do you support the following SIGA fields design for >= 2MHz PHY?**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Short preamble | Long preamble | |
| **SU** | **SU** | **MU** |
| SU/MU Indication | - | 1 | 1 |
| Length / Duration | 9 | 9 | 9 |
| MCS | 4 | 4 | - |
| BW | 2 | 2 | 2 |
| Aggregation | 1 | 1 | - |
| STBC | 1 | 1 | 1 |
| Coding | 2 | 2 | 5 |
| SGI | 1 | 1 | 1 |
| GID | - | - | 6 |
| Nsts | 2 | 2 | 8 |
| PAID | 9 | 9 | - |
| Ack Indication | 2 | 2 | 2 |
| Smoothing | 1 | - | - |
| Beam-change Indication | - | 1 | - |
| Reserved | 4 | 3 | 3 |
| CRC | 4 | 4 | 4 |
| Tail | 6 | 6 | 6 |
| **Total** | **48** | **48** | **48** |

Passes by (17/0/4)

Pre-motion #2:

**Do you support the following modification of SIGB fields for >= 2MHz PHY?**

* + - **R.3.2.1.1.E bullet 2: replace “2MHz SIGB (long preamble)” with “For MU-MIMO transmission the 2MHz SIGB content is as shown in the following table. For SU-MIMO transmission the SIGB symbol is identical to D-LTF1.”**
    - **R.3.2.A bullet 4: replace the sentence starting with “n=0,1,2,…is the symbol index” with “n=0,1,2,…is the symbol index, continuously counted from the 1st Data symbol for short preamble and long preamble when in SU mode, and from SIGB for long preamble when in MU mode”**
    - **R.3.2.1.D: The draft specification shall use the 4 LSB of the 11n HTSIG field 8-bit CRC for the 4-bit CRC in 11ah 2MHz and 1MHz SIG(A) fields, and use the same 11n HTSIG field 8-bit CRC in SIGB field of the >=2MHz long preamble when in MU mode**

Passes by (17/0/3)

PHY Ad-hoc session adjourned at 17:15