TDD sub-Task Force – Minutes February 4, 2013

Provided the IEEE-SA Patent Policy link. Everyone on the call was familiar with the patent policy.

- https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.pdf

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Presentation on TDD Proposal (Peking University)

Request 128 MHz Bandwidth for low-complexity system.

2k FFT OFDM subcarriers is recommended for low-complexity and low-cost implementation.

Support both OFDMA and TDD.

TDMA is recommended for upstream, since it is less complex.

Does the upstream transmission always consist of 256 subcarriers? It is a multiple of 256. It could be 512 or 1024 subcarriers.

Is the subcarrier spacing 62.5 kHz? Yes.

Is the OFDMA also in upstream? Yes.

In the EPoC specification currently we have a bandwidth of 192 MHz with the ability to mute subcarriers to lower the bandwidth to 128 MHz. Is that not sufficient to meet your requirements?

We propose 128 MHz is proposed for cost considerations. The 192 MHz is too complex to implement, so we choose 128 MHz to meet the 1 Gb/s requirement.

So implementing 192 MHz is considered too expensive.

If we support 128 MHz in 50 kHz spacing will that meet the needs of China? If you choose that value it will not be a power of two.

There is a fast Fourier Transform that could be build that is non-power of two. We will consider this idea.

Is this OFDMA and TDMA only for downstream? What about the upstream? It is for both upstream and downstream.

Would you support both OFDMA and TDMA in the same device? Yes, they would both be supported.

Why support both? Why not just OFDMA? It is easier to implement to TDMA. OFDMA is more difficult for MAC scheduling.

Are you asking for TDMA because it is easier for the MAC layer, is that correct? Yes, that is correct.

Make sure when you say TDMA you are not talking about TDD. Yes, those are separate from TDD. The TDD means same frequencies for downstream and upstream. TDMA is for upstream scheduling.

You ask here for 128 MHz channel but we received a letter from Mr Yao a few weeks for 64 MHz, which one should we support? We think EPoC is aiming at 1 Gb/s, so we think 128 MHz is sufficient.

Did you consider the impact on delay and jitter when choosing TDD? We will present progress on this issue in the future.

For TDMA mode, a user gets all the subcarriers in the symbol.

What is being assumed for the modulation and coding? We will study this and provide update in the future.

Attendance

Person	**Affiliation**
Alan Brown	Aurora
Zhang Cheng	Peking University
Lixia Deng	Peking University
Hesham ElBakoury	Huawei
Andrea Garavaglia	Qualcomm
Marek Hajduczenia	ZTE
George Hart	Rogers
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Bill Keasler	Ikanos
Dylan Ko	Qualcomm
Mark Laubach	Broadcom
Lu Liuming	B-Star
Leo Montreuil	Broadcom
Satish Mudugere	Intel
Michael Peters	Sumitomo Electric
Bill Powell	Alcatel Lucent
Saif Rahman	Comcast
Duane Remein	Huawei
Jorge Salinger	Comcast
Steve Shellhammer	Qualcomm
Joe Solomon	Comcast
Tom Staniec	Cohere Communications
Patrick Stupar	Qualcomm
Scott Willy	M-Star
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