**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) |
| Title | **TG4q ULP July 2013 Meeting Minutes** |
| Date Submitted | 05 September 2013 |
| Source | [Kiran Bynam] [Samsung.] | E-mail:[Kiran.bynam@samsung.com] |
| Re: | Ultra Low Power amendment to IEEE 802.15.4 |
| Abstract | TG4q ULP Meeting minutes  |
| Purpose | Meeting minutes |
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**Task Group ULP Meeting**

16th July, Tuesday AM1 Session:

Chair presented opening report for IEEE 802.15.4q task group with DCN “15-13-0430-00-004q”

Ed Callaway moved the motion to approve previous meeting minutes

Frederick Beer seconded the motion

Motion approved anonymously.

Jinesh presented the "System Considerations for ULP communications".(DCN-15-13-0426-00-004q)

Comments from ED Callaway:

1. Startup time issue is very specific to implementation

2. SNR can vary quite a lot with an additional dimension of spreading

3. Receiver Power is more important than transmitter. Typical Tx time/Rx Time ratio is 1/100.

Frederick Beer: Did you consider the data rates of rx for a fair comparison

Jinesh : No, we didn’t normalized data rates at present

Frederick : Sensitivity values of receiver depends on data rate. It is good to normalize data rates for fair comparison

Frederick presented his “Benefits from using FEC “with DCN “15-13-0432-00-004q “

Ed: what’s the use of FEC in a channel limited by interference? There is not much impact of channel on PER compared with interference

Kiran (Samsung): Is the coding gain is un-coded bit/coded bit

Frederick: Not sure of this

Kiran: Coding gain of 9.3 dB looks too high . it comes around 5 dB

Frederick: This is what we see in the paper given in reference

Kiran: I will go thru reference

Kiran: it makes sense only if Rx decoding complexity is very less.

Fred: I agree. We need to show the complexity if we want to have some codes in place

Huang Lee: we are limited by synchronization. Having powerful coding will not help if synchronization is the bottleneck for low power systems

Frederick: Agreed and that can be worked out.

Brief Discussion and editing of TGD by chair

**16th July,Tuesday AM2 Session**

Dong-wook Seo (ETRI) presented “Medical Implant applications, Medical frequency band of 401-405 MHz” with DCN “15-13-0433-01-004q”

Kiran: Data rate looks to be too low

Steve (Semtech): I think 802.15.6 is more suitable for this type of applications

Allan (Samsung): why this type of implant application should be considered for this group.

Kiran: why 1 kbps? Is it application data rate or Link data rate?

Chair announced that AM1 session on Thursday (18th July) is cancelled

**18th July, Thursday, AM2 session**

Call for intent is discussed and uploaded

Discussion on applications document raised. Ed Callaway insisted that we need a formal applications document before approving technical guidance document.

Chair conducted the straw poll and group decided to write formal applications document. Applications document needs to be written by September meeting. Allan (Samsung) took the responsibility of writing the document.

Two conference calls are scheduled on August 7th and 28th, 7PM PDT

Steve raised motion to adjourn

Kiran seconded

Meeting adjourned