IEEE P802.15
Wireless Personal Area Networks

Project	IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)
Title	**IEEE802.15 TG3c meeting minutes, Waikoloa Village**
Date Submitted	September, 2008
Source	Tuncer Baykas Voice: Chin Sean Sum Fax: Reed Fisher E-mail: []
Re:	802.15.3c Meeting Waikoloa
Abstract	IEEE 802.15 Task Group TG3c Minutes
Purpose	Official minutes of the TG3c Session
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Monday, Sep 8, 1st slot, 10:30

Meeting called to order

10.30

Meeting called to order by R. Fisher.

Announcement and Introduction

08/0637r1, Opening introduction was presented. The summary is as below:
- PAR TG3c (http://standards.ieee.org/board/nes/projects/802-15-3c.pdf)
- Online attendance registration (http://murphy.events.ieee.org/imat)
- Disclosure of affiliation
- Highlights of the IEEE standard boards bylaws on patents in standards
- Meeting objectives, timeline.

Approval of the Denver Meeting Minutes

Motion to approve Denver meeting minutes (08/0544r1) by Tuncer Baykas, seconded by S. Kato
Motion was passed by acclamation and the Denver meeting minutes were approved.

Approval of agenda

08/0562r1. Agenda opened for discussion.

Agenda approved by acclamation.

08/635r0. J. Gilb, SiBeam.

Resolutions for CIDs 156,589,448,9,628,199,416 requires more discussion.

11.30

Recess called by R. Fisher

Monday, Sep 8th, 2nd slot, 13:30

Meeting called to order by Reed Fisher.

Motion to approve comment resolutions in 635r1,
by CW Pyo, seconded by T. Baykas

Motion was passed by acclamation.

Motion to accept resolutions in 08/436r6 for CIDs,
8,18,19,20,21,22,126,133,149,151,163,227,278,282,301,369,370,371,376,379,380,418,435,440,4
77,480,481,487,554,590,634,637,

Approved by acclamation.

Monday, Sep 8th, 3rd slot, 16:00
Meeting called to order by R. Fisher

Discussion new VHT par of 11-08/988r2, Eldad Perahia,"Proposed Modifications to the VHT60
PAR (11-08/806r4)".

Shuzo Kato, suggested to correct project date on the system. It is the former possible approval
rate. James Gilb agreed.

After some discussion TG3c agreed, by acclamation, that the VHT60 PAR modifications, that
addressed coexistence with 3c WPAN systems, were satisfactory to TG3c.

16:30 Recess called by R.Fisher.

Monday, Sep 8, 4rd slot, 19:30

Joint meeting with VHT group,

Bruce Kraemer and Bob Heile chaired the session.

11-08/988r3. Eldad Perahia. Proposed modifications to VHT60 PAR, 11-08/806r4.

James Gilb suggested correcting the project date of TG3c, Eldad Perahia agreed.

Straw poll by Bruce Kraemer. "Is the revised coexistence portion of the VHT60 scope (5.2)
acceptable toTG3c?".

Poll outcome was: Yes 85, No 0, Abstain2.

11-08/1044. Alexander Maltsev,"Experimental Investigations". 60 GHz WLAN System
Prototype shown.
Alexander Maltsev concludes, in slide 16, that WLAN channel models are not the same as
WPAN channel models.
Fisher questioned this conclusion.

Maltsev said that VHT60 WPANs could cover bigger space than 3C WPANs. Therefore, both horizontal and vertical beam steering is necessary.

15-08/651r1. K. Sato, et. al. Presented by S. Kato,"60 GHz Applications and Propagation Characteristics".
CM2.3 is a valid NLOS channel model for 60 GHz WPAN applications.

Meeting recessed.

Tuesday Sep 9, 5th slot, 8:00

Meeting called to order by R. Fisher

Comment resolution continued.

For CIDs 589,596,599,673,152,448,449

Ismail Lakkis argued that class 3 requires fats 4-5 bits for ADC
and it increases the complexity.

Motion to approve resolution for 589,596,599,673,152,448,449,
Motion approved.

08/432r7. J. Gilb. Continuation of LB43 comment resolution.

Resolutions in 08/432r7 for CIDs 9, 19, 20, 21, 22, 26, 149, 151, 163, 227, 278, 282, 301, 369, 371, 371, 376, 379, 380, 418, 435, 477, 480, 481, 487, 554, 590, 634, 637 were approved.

08/658r0. M. Noda, Sony
The resolution in 08/658r0 for CID614 was approved.

09:32. TG3c recess.

Tuesday Sep 9, 6th slot, 10:30

08/562r2. Agenda modification.

Beamforming contribution from Kim and Kwan, 08/522, added to PM3 slot.
Modified agenda approved by acclamation.

08/606 and 08/607. C. S. Sum. Re: comments 206 and 626. Class 4 re-named to "Low Complexity Optional Modes (OOK and DAMI)".

Discussion about how these optional modes should start up in a piconet.
Motion to resolve, that They shall start as a SC piconet.

Motion approved.

11:10. TG3c recess.

Tuesday Sep 9, 7th slot, 19:30

08/522. H. Kwon, ETRI. Resolution of comment #483. "Anti-blocking Mechanism by Relay". Relaying capabilities and process discussed. Impasse here, discussion carried on offline.

08/552 and 08/553. C. S. Sum, NICT. "Proposed Text for Common Mode and MMC-PNC". Summary of 29 comments on common mode received at Denver.

08/669. J. Gilb. "LB43 Suggested Resolutions".
Covers comments 9, 93, 94, 314, 315, 316, 376, 544, 545, 547, 549, 559, and 564.

Motion to approve comment resolutions 9, 93, 94, 314, 315, 316, 376, 544, 545, 547, 549, 559, and 564.

Aprroved by acclamation.

21:30 Tg3c recess

Wednesday Sep 10, 8th slot, 8:00

08/669. J. Gilb. Continuation of comment resolution.

08/682. I. Lakkis, Tensorcom. "Resolution of Comments Submitted to I. Lakkis". HSI PHY comments, #56, 85, 86, 350, 354, 355, 388, 402, 404, 415, 416, 421, 451, 452, 471, 472, 501, 511, 536, 581, 583, 617, 620, 624, 625, 628, 633 and 634.
All 28 resolutions are approved.

08/680r1. S-K Yong, Samsung,"Resolution to Comment on LQI Mapping".

10:00. TG3c recess.

Wednesday Sep 10, 9th slot, 13:30

08/687. J. Wang, NICT. "Resolution on Beamforming", comment #150. Beamforming simulations shown.

Motion to approve resolution in 08/687, motion approved.

Gilb continued resolutions in 08/432r7.

Resolution of comments 347, 607, 608 are approved.

James Gilb recessed the session.

At this time Chris Hansen, Broadcom, requested that he be put on the TG3c Agenda to present 15-08/686.

Reed Fisher stated that group is in recess.

Wednesday Sep 10, 10th slot, 16:00

08/432r7. Gilb. Continuation of comment resolution.

08/552r3. C-S Sum. CP operation and CM signaling.

08/691. Gilb. Re-write of 12.1.9 in draft text, "mmWave PHY mode usage in CTA".
08/553r1. Sum. Resolution to comments on common mode and mmc-pnc.
Comment resolutions in 08/553r1 for 120, 123, 124, 135, 153, 441, 555, 585, 636, 637 are approved.

18:00.TG3c recess.

Thursday Sep 11, 11th slot, 8:00

08/562r3. Agenda modified to include the V. Bar contribution.
Agenda approved by acclamation.

Presentation of 08/693r0 by Vered Bar, Qualcomm.

08/612. R. Funada, NICT. Comments #402 and 610 on pi/2 and GMSK modulation. Comments closed.

Comment resolutions for #402 and 610 are approved.

08/432r10. J. Gilb.

09:20 TG3c recess.

Thursday Sep 11, 12th slot, 10:00

08/696r1. T. Baykas, NICT. CMS and Preamble. Comments 340, 346, 411, 413, 607, 608, 619, 621, 623.
S-K Yong commented that he had only 3 minutes to read this contribution. Discussion delayed to PM1.

08/685. By James Gilb for comment #318.
Resolution approved.

11:23 TG3c recess.

Thursday Sep 11, 13th slot, 13:30

08/701r0. I. Lakkis.
 Motion to approve comment resolution in 08/701r0 for #469. Motion approved.

08/700r0, 08/702r0. M. Rahman, NICT.
Motion to approve comments resolutions in 08/700r0, 08/702r0 for 338 and 615 closed.

08/696r3. T. Baykas. Resolutions for Comments #411, 447, 463, 619, 340, 346, 607, 608, 621.
Motion to approve resolutions for comments #411, 447, 463, 619, 340, 346, 607, 608, 621. in 08/696r3.

08/432r12. Gilb. Motion to approve all comment resolutions in 08/432r12 and go to re-circulation ballot, by S. Kato, 2nd by I. Lakkis.
Approved by acclamation.

08/703r0. Gilb presented Re-circulation ballot schedule, Sept. - Nov., 2008.

08/697r0. TG3c Closing Report by Reed Fisher.
Motion to approve by T. Baykas, 2nd by Z. Lau. Approved by acclamation.

Motion to adjourn TG3c by S. Kato, 2nd H. Harada. Approved by acclamation.

15:14. TG3c adjourned.