# IEEE P802.15 Wireless Personal Area Networks

Project	IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)					
Title	Minutes of the conference call on the channel model					
Date Submitted	[4 August 2005]					
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Re:	[Minutes of the conference call – TG3c Channel Model Subgroup]					
Abstract	[]					
Purpose	[]					
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## August 2, 2005

### <u>Date</u>

The 25<sup>th</sup> conference call was held on August 2, 2005, at 8 PM EST.

#### Participants

- 1 Akira Akeyama
- 2 Gary Baldwin
- 3 Shahriar Emami
- 4 Nobuhiko Kuribayashi
- 5 Abbie Mathew
- 6 Tony Pollock
- 7 Alireza Seyedi

#### Issues Discussed

- (a) Gary gave an update of his meeting with the FCC last week.
- (b) Abbie gave an update on the IBM measurement data.
- (c) The project timeline (APPENDIX A) was discussed and there were no objections.
- (d) As NICTA and UMass will be making reflection measurements, it was decided not to pursue collecting measurements data/papers from other authors/researchers. However, if such information is available, they will be uploaded to the IBM server for future reference.
- (e) There was discussion on whether to cancel next week's conference call. It was decided that the cancellation will only occur if there are no issues/events for discussion. See below for more details.

#### Action Items

(a) Daniel Zitrick, Felix Gutierrez and Cheol Hee Park, students of Prof. Rappaport at University of Texas, will join us for a Q&A session next week. I have informed them that the subgroup members will question them on the paper titled "Design and Implementation of an Ultrabroadband Millimeter-Wavelength Vector Sliding Correlator Channel Sounder and In-Building Multipath Measurements at 2.5 GHz & 60 GHz" and their other work in 60 GHz. One of the students is working on a 60 GHz MAC. Although this subgroup has nothing to do with the MAC, members are encouraged to make use of this opportunity to talk to workers/researchers in this field. Owing to this development, the conference call next week will not be cancelled.

#### Next Conference Calls

The next meeting will be held at the times listed below. The dial-in number is (641) 985-8000 and the access code is 657719#.

US Eastern Standard Time	8.00 PM, August 9 - Tuesday
US Mountain Time	5.00 PM, August 9 – Tuesday
US Pacific Time	5.00 PM, August 9 – Tuesday
Japan/South Korea Time	9.00 AM, August 10 – Wednesday

South Australia Time 9.30 AM, August 10 – Wednesday

# IEEE P802.15-05-0365-05-003c

## <u>APPENDIX - A</u>

## Project Time Line

ID	Task Name	Start	Finish	Duration	Aug 2005 31/7 7/8 14/8 21/8 28/	Sef. 2005 /8 4/9 11/9 18/9 25/9	Oct 2005	Nov 2005 30/10 6/11 13/11 20/11 27	Dec 2005	Jari 2006
1	Review IBM Measurement	8/8/2005	8/26/2005	15d						
2	NICTA Measurement Data Availability	8/26/2005	8/26/2005	1d	I					
з	UMass Measurement Data Availability	8/26/2005	8/26/2005	1d	l					
4	Data Analysis	8/29/2005	9/30/2005	25d						
5	IEEE Meeting, Garden Grove	9/19/2005	9/23/2005	5d						
6	Develop Matlab Code	10/3/2005	10/28/2005	20d						
7	Preparation for Vancouver	10/31/2005	11/11/2005	10d			l			
8	IEEE Plenary, Vancouver (Submission)	11/14/2005	11/18/2005	5d						
9	Develop Channel Model Paper	11/21/2005	1/13/2006	40d						
10	IEEE Plenary, Big Island, HI	1/16/2006	1/20/2006	5d						

## IEEE P802.15-05-0365-05-003c

### **APPENDIX - B**

#	Paper Title	File	Contact Person	Status	
1	BROADWAY functional system parameter description	Broadway-wp1-d2	Bruce Bosco	Uploaded one paper to the IBM server <sup>1</sup> .	
2	BROADWAY study "the 60 GHz channel and its modeling"	Broadway-wp3-d7R3_annex1	Bruce Bosco	Similar to a paper	
3	BROADWAY simulation results for the 60 GHz indoor radio cannel	Broadway-wp3-d7R3_annex2	Bruce Bosco	titled 'MEDIAN 60 GHz Wideband Indoor Radio Channel Measurements and Model' – also on the server. Require clarification.	
4	MEDIAN 60 GHz wideband indoor radio channel measurements and model	Kunisch_Zollinger_Pamp_Winkelmann_IEEE1999	Chia-Chin Chong	The author (Kunisch) will provide information by mid-August.	
5	Analysis of 60 GHz band indoor wireless channels with channel configuration	Park_Kim_Hur_Lim_Kim_IEEE1998	Chia-Chin Chong	Similar to this paper on the server. [CLOSED]	
6	In-building wideband partition loss measurements at 2.5 GHz and 60 GHz	Anderson_Rappaport_IEEEMay2004	Brian Gaucher	On the IBM server <sup>2</sup> [CLOSED]	
7	Spatial and temporal characteristics of 60 GHz indoor channels	Xu_Kukshya_Rappaport_IEEEApr2002	Abbie Mathew	Awaiting to hear from Prof. Rapapport.	
8	Effects of antenna directivity and polarization on indoor multipath propagation characteristics at 60 GHz	Manabe_Miura_Ihara_IEEEApril1996	Alireza Seyedi		
9	Multipath measurement at 60 GHz for indoor wireless communication system	Manabe_Taira_Sato_Ihara_Kasashima_Yamaki_IEEE1994	Alireza Seyedi	Uploaded two Manabe's papers to	
10	Measurements of reflection and transmission characteristics of interior structures of office building in the 60 GHz band	Sato_Manabe_Ihara_Saito_Ito_Tanaka_IEEEDec1997	Alireza Seyedi	the IBM server <sup>3</sup> . [CLOSED]	
11	Measurement of the complex refractive index of concrete at 57.5 GHz	Sato_Manabe_Polivka_Ihara_Kasashima_Yamaki_IEEEJan1996	Alireza Seyedi		
12	Geometrical optics model for millimeter-wave indoor radio propagation	Smulders_ElectronicsLettersJune1993	Su-Khiong Yong	The author cannot provide the measured data in the timeframe we require. [CLOSED]	

<sup>&</sup>lt;sup>1</sup> 60 GHz Indoor Radio Channel Measurement, MEDIAN AC006

 <sup>&</sup>lt;sup>2</sup> Anderson's Master's thesis titled "Design and Implementation of an Ultrabroadband Millimeter-Wavelength Vector Sliding Correlator Channel Sounder and In-Building Multipath Measurements at 2.5 GHz & 60 GHz." (File 'Anderson\_MasterThesis\_UTexas' on the IBM server).
<sup>3</sup> Papers are (a) Measurement of complex refractive index of soda-lime glass at 60 GHz by vector network analyzer based scatterometer, and (b) Polarization dependence of multipath propagation and high speed transmission characteristics of indoor mmW channel at 60 GHz.