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**IEEE P802.15**  
**Wireless Personal Area Networks**

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Project	IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)		
Title	<b>Minutes of the conference call on the channel model</b>		
Date Submitted	[28 July 2005]		
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Re:	[Minutes of the conference call – TG3c Channel Model Subgroup]		
Abstract	[]		
Purpose	[]		
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**Date**

The 24<sup>th</sup> conference call was held on July 26, 2005, at 8 PM EST.

**Participants**

- 1 Akira Akeyama
- 2 Vasanth Gaddam
- 3 Abbie Mathew
- 4 Stan Skaidas
- 5 Su-Khiong Yong

**Issues Discussed**

- (a) Stan gave an update on the NCITA's plan for reflection measurements.
- (b) Abbie gave an update of the University of Massachusetts' (UMass) plan for reflection measurements and on IBM's measured data.
- (c) Reviewed the project time line. That was presented last week in San Francisco.

**Action Items**

- (a) Daniel Zitrick, a student of Prof. Rappaport, University of Texas, will join us to answer questions in regard to 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.". This paper<sup>2</sup> can be downloaded from the IBM server.
- (b) Discuss the University of Massachusetts' measurement plans.
- (c) Review the project time line (see APPENDIX – A).

**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 2 - Tuesday
US Mountain Time	6.00 PM, August 2 – Tuesday
US Pacific Time	5.00 PM, August 2 – Tuesday
Japan/South Korea Time	9.00 AM, August 3 – Wednesday
Australia, Eastern Standard Time	10.00 AM, August 3 – Wednesday

**APPENDIX - A**  
**Project Time Line**

ID	Task Name	Start	Finish	Duration	Aug 2005				Sep 2005				Oct 2005				Nov 2005				Dec 2005				Jan 2006							
					31/7	7/8	14/8	21/8	28/8	4/9	11/9	18/9	25/9	2/10	9/10	16/10	23/10	30/10	6/11	13/11	20/11	27/11	4/12	11/12	18/12	25/12	1/1	8/1	15/1	22/1		
1	Review IBM Measurement	8/8/2005	8/26/2005	15d	[Gantt bar from 8/8 to 8/26]																											
2	NICTA Measurement Data Availability	8/26/2005	8/26/2005	1d	[Gantt bar at 8/26]																											
3	UMass Measurement Data Availability	8/26/2005	8/26/2005	1d	[Gantt bar at 8/26]																											
4	Data Analysis	8/29/2005	9/30/2005	25d	[Gantt bar from 8/29 to 9/30]																											
5	IEEE Meeting, Garden Grove	9/19/2005	9/23/2005	5d	[Gantt bar from 9/19 to 9/23]																											
6	Develop Matlab Code	10/3/2005	10/28/2005	20d	[Gantt bar from 10/3 to 10/28]																											
7	Preparation for Vancouver	10/31/2005	11/11/2005	10d	[Gantt bar from 10/31 to 11/11]																											
8	IEEE Plenary, Vancouver (Submission)	11/14/2005	11/18/2005	5d	[Gantt bar from 11/14 to 11/18]																											
9	Develop Channel Model Paper	11/21/2005	1/13/2006	40d	[Gantt bar from 11/21 to 1/13]																											
10	IEEE Plenary, Big Island, HI	1/16/2006	1/20/2006	5d	[Gantt bar from 1/16 to 1/20]																											

**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> . Similar to a paper titled 'MEDIAN 60 GHz Wideband Indoor Radio Channel Measurements and Model' – also on the server. Require clarification.
2	BROADWAY study "the 60 GHz channel and its modeling"	Broadway-wp3-d7R3_annex1	Bruce Bosco	
3	BROADWAY simulation results for the 60 GHz indoor radio channel	Broadway-wp3-d7R3_annex2	Bruce Bosco	
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. Rappaport.
8	Effects of antenna directivity and polarization on indoor multipath propagation characteristics at 60 GHz	Manabe_Miura_Ihara_IEEEApril1996	Alireza Seyedi	Uploaded two Manabe's papers to the IBM server <sup>3</sup> . [CLOSED]
9	Multipath measurement at 60 GHz for indoor wireless communication system	Manabe_Taira_Sato_Ihara_Kasashima_Yamaki_IEEE1994	Alireza Seyedi	
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	
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>1</sup> 60 GHz Indoor Radio Channel Measurement, MEDIAN AC006

<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.