

Project: IEEE P802.15 Working Group for Wireless Personal Area Networks

Submission Title: [Channel model status report]

Date Submitted: [September 21, 2005]

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Re: []

Abstract: [Update of activities in the channel modeling sub-group and call for participation]

Purpose: [Contribution to 802.15 TG3c at September 2005 meeting in Garden Grove]

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Objective

Develop channel models based on applications submitted in response to the CFA.

Status

- Twenty eight conference calls to date
- Tasks completed
 - Classified applications
 - Reviewed over 59 papers and classified them
 - Classified channels and operating environment
 - Identified measurement requirements

Profile of Applications

#	Description of Applications	Indoor	Document Number
1	<ul style="list-style-type: none"> ▪ Gigabit Ethernet link, wireless IEEE1394, wireless USB ▪ Wireless home video server connected to HDTV, PC and other video devices 	<ul style="list-style-type: none"> ▪ LOS, FDD ▪ Data rate: 300 Mbps to 3.2 Gbps ▪ Range: ≤ 17 m 	19, 348, 351, 653, 665
2	Connecting multimedia devices (wireless home link), ad-hoc meeting, heavy content download, distribution system	<ul style="list-style-type: none"> ▪ LOS, TDD ▪ Data rate: ≥ 100 Mbps to 3.2 Gbps ▪ Range: 3 m to 20 m 	97, 98, 118, 153, 155, 156, 351, 352, 514
3	Small office/meeting scenario, general office applications, PowerPoint applications	<ul style="list-style-type: none"> ▪ LOS and NLOS ▪ OFDM ▪ Data Rate: ≤ 200 Mbps ▪ Range: 2 to 4 m ▪ Space diversity 	141

Note

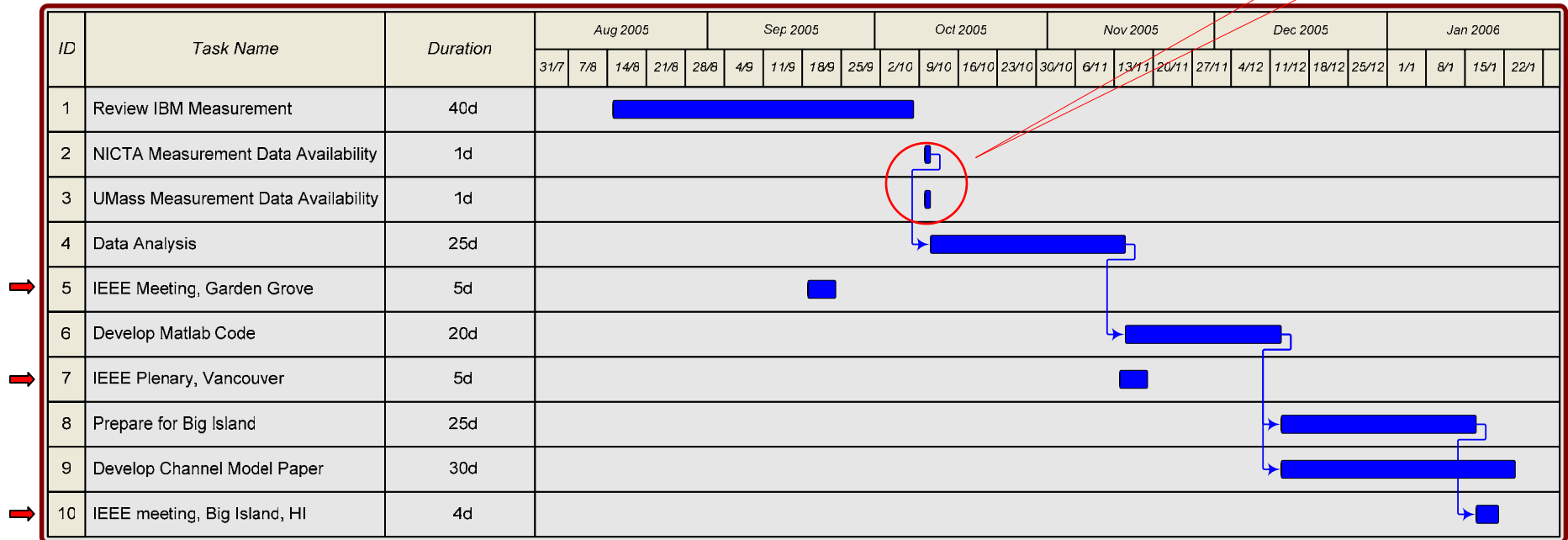
- 1) Decision was made in Cairns, Australia, not to consider the outdoor environment in the channel model
- 2) Refer to [15-05-0353-05-003c-Draft-TG3c-System-Requirements] for detailed information

Action Items

- In process of reviewing IBM measured data
- Waiting for measurement data
 - National ICT Australia (NICTA)
 - Office environment with linear polarized antenna
 - University of Massachusetts (UMass)
 - Residential environment (US) with circular polarized antenna
- Data analysis, MATLAB code, paper

'Old' Time Line

4 to 6 weeks
delay
possible



'New' Projected Time Line

ID	Task Name	Start	Finish	Duration	Aug 2005							Sep 2005							Oct 2005							Nov 2005							Dec 2005							Jan 2006							Feb 2006							Mar 2006							Apr 2006							May 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	29/1	5/2	12/2	19/2	26/2	5/3	12/3	19/3	26/3	2/4	9/4	16/4	23/4	30/4	7/5	14/5	21/5																											
1	Review IBM Measurement	8/15/2005	10/7/2005	40c																																																																						
2	IEEE Meeting Garden Grove	9/19/2005	9/23/2005	5c																																																																						
3	IEEE Plenary Vancouver	11/14/2005	11/18/2005	5c																																																																						
4	NICTA Measurement Data Availability	1/6/2006	1/6/2006	1c																																																																						
5	UMass Measurement Data Availability	1/6/2006	1/6/2006	1c																																																																						
6	IEEE Meeting Big Island HI	1/16/2006	1/20/2006	5c																																																																						
7	Data Analysis	1/9/2006	2/10/2006	25c																																																																						
8	Develop Matlab Code	2/13/2006	3/10/2006	20c																																																																						
9	IEEE Plenary TBD	3/13/2006	3/17/2006	5c																																																																						
10	Develop Channel Model Paper	3/20/2006	4/24/2006	26c																																																																						
11	IEEE meeting TBD	5/17/2006	5/22/2006	4c																																																																						

Conference Call

- Next weekly meeting is at the times listed below
- Dial-in number: +(641) 985-8000
- Access code: 657719#
- Time
 - EST (US)* 8 PM, Tuesday, 9/27
 - PST (US)* 5 PM, Tuesday, 9/27
 - Japan, South Korea 9 AM, Wednesday, 9/28
 - East Australia 10 AM, Wednesday, 9/28
 - UCT* 1 AM, Wednesday, 9/28

* Day light saving time observed