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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	[30 March 2006]		
Source	[Abbie Mathew] [NewLANS, Inc.] [238 Littleton Road, Westford, MA 1886, U.S.A.]	Voice:	[+1-617-283-1363] E-mail: [amathew@newlans.com]
Re:	[Minutes of the conference call – TG3c Channel Model Subgroup]		
Abstract	[]		
Purpose	[]		
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**Date**

The 39<sup>th</sup> conference call was held at times listed below.

Los Angeles	March 28	Tuesday	5:00 PM
Boston	March 28	Tuesday	8:00 PM
London	March 29	Wednesday	2:00 AM <sup>1</sup>
Singapore	March 29	Wednesday	9:00 AM
Seoul, Tokyo	March 29	Wednesday	10:00 AM
Canberra	March 29	Wednesday	Noon <sup>1</sup>

**Participants**

1	Chang-Soon Choi
2	Abbie Mathew
3	Hirokazu Sawada
4	Kamran Sayrafian
5	Alireza Seyedi
6	Yozo Shoji
7	Su-Khiong Yong

**Issues Discussed & Action Items**

The meeting started off with a quick review of document [15-06-0195-00-003c-tg3c-channel-modeling-sub-committee-final-report-draft]. Comments were made on the content, syntax and interpretation. Listed below are the salient points.

- a) A question was raised on how NICTA plans to deconvolve the effects of the antenna.
- b) There was a general agreement that both the LOS and NLOS parameters for an environment cannot be mixed.
- c) There was a general agreement to reduce the number of environments. This lead to discussions on which metric to use for this task and a considerable time was spent on how to capture important measurement parameters.

Su-Khiong's March 29<sup>th</sup> email captures the action items. A copy of [his email](#) can be found on page 4. Page 5 contains the [Measurement Feature Table](#).

<sup>1</sup> Daylight saving time

**Next Conference Call**

The next conference call will be at following times.

Los Angeles	April 4, Monday	11:00 PM
Boston	April 5, Tuesday	2:00 AM
Paris, Brussels	April 5, Tuesday	8:00 AM <sup>1</sup>
Singapore	April 5, Tuesday	2:00 PM
Seoul, Tokyo	April 5, Tuesday	3:00 PM
Canberra	April 5, Tuesday	4:00 PM

Pascal Pagani, France Telecom, will briefly review documents<sup>2</sup> [15-06-0041-01-003c] and [15-06-0027-02-003c] and then answer questions.

The dial-in phone number and the access code are +(641) 985-8000 and 657719# respectively.

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<sup>2</sup> Following is the list of presentations Wei Li, France Telecom, made in Hawaii and Denver.

- 15-06-0105-00-003c-impact-antenna-diagram
- 15-06-0042-01-003c-slides-angular-characteristics-60ghz
- 15-06-0041-01-003c-slides-characterization-and-modeling-60-ghz-indoor-channel-in-office-and-residential-environments
- 15-06-0028-02-003c-angular-characteristics-60ghz-v1
- 15-06-0027-02-003c-indoor-channel-models-60ghz-v1-1

From: Su-Khiong Yong [mailto:su.khiong.yong@SAMSUNG.COM]  
Sent: Wednesday, March 29, 2006 6:36 PM  
To: STDS-802-15-3C@LISTSERV.IEEE.ORG  
Subject: Re: [802.15.3C] -TG3c Draft Channel Modeling Report

Dear All,

After the discussion on last teleconference, we have several action items.

(1) We need a more comprehensive table or description that describes the respective environments. The current descriptions are insufficient.

Can the respective contributors, send me a more detail description about the environment, such as layout, typical objects in the room, furniture in the room, types of wall, types of partition, presence of metallic reflector, etc?

(2) Discussion on the possibility of reducing the number of environments i.e. currently 8 (potentially 16 channel models accounting LOS and NLOS).

Can the respectively contributors send me their measurements detail i.e.environment considered, center frequency, bandwidth, angle of arrival resolution if measurements do capture that, #of "local" measurement points (for Large scale), # of "spatial" measurement points (for small scale), antennas used, etc.

Kamran has kindly provided the table for us, and I have added few more items in the table to make it more comprehensive.

BR,  
Su-Khiong

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**Measurement Feature Table**

Data Source	Environment	Number of Local Measurement points per environment	Number of Spatial Measurement points per Local point	Center Freq	BW	Contains Angular info. (Rotation/Virtual Array) and the AOA Resolution	TX Antenna Type	RX Antenna Type	Polarization
NICT	Office (open), Residential Room (Empty)	1 (Res) 1 (Office)		62.5 GHz	3 GHz	Receiver Rotation	Omni, Horn (10 dBi, 16 dBi, 22 dBi)	Omni, Horn (22 dBi)	Vertical
NICTA	Office (Desktop, Corridor, ...?)	?		60 GHz	10 GHz	Receiver Rotation	Omni	Direc (21 dBi)	?
IMST	Library	6 (Library)		59.02 GHz	2.4 MHz	Virtual Array	Omni	Horn (20 dBi), Planar (22 dBi), Bicone (9dBi)	co- and crosspolar orientations
France Telecom	Residential (Cluttered), Office (closed, Corridor), Conference room	?		60.5 GHz	512, 1024MHz	Virtual Array (10x10)	Dipole, Horn (72, 60, 10)	Dipole, Horn (72, 60, 10)	?
IBM	?	?		?	?	No	Omni	Omni	?
UMASS									