3GPP TSG-RAN WG1 Meeting #98 Tdoc R1-19xxxxx

Prague, CZ, Aug 26th –30th, 2019

Agenda Item: x.x.x

Source: Ericsson

Title: Meeting report from informal F2F meeting on indoor industrial channel model

Document for: Information

# 1 Introduction

An informal F2F meeting was conducted on July 1-2 in Berlin, Germany. The purpose of this meeting was to facilitate technical discussions and consensus building among channel model experts to support the SI on Indoor Industrial channel modeling. This tdoc contains a meeting report summarizing the discussions and views that were exchanged during the meeting.

# 2 Participation

The following participants attended the meeting:

1. Ahmed Abotabl, Samsung
2. **Raschkowski, Leszek, Fraunhofer HHI**
3. **Henrik Asplund, Ericsson**
4. **Rodriguez Larrad, Ignacio, Nokia**
5. **Koshiro Kitao, DOCOMO**
6. **Prasanth Karunakaran, Fraunhofer IIS**
7. **Schmieder, Mathis, Fraunhofer HHI**
8. Keusgen, Wilhelm, Fraunhofer HHI
9. **Jaeckel, Stephan, Fraunhiofer HHI**
10. **Tommi Jamsa, Huawei**
11. **Landmann, Markus, Fraunhofer IIS**
12. **Müller, Robert, Fraunhofer IIS**
13. **Guo Bolun, Huawei**

Remote participants:

1. Piyush Gupta, Qualcomm
2. Raffaele D'Errico, CEA-LETI
3. **Jianwu Dou, ZTE**
4. **Georg Wannemacher, Deutsche Telekom**
5. **Rakesh Tamrakar, Vivo**
6. **Xiaodong Sun, Vivo**

# 3 Company input

Company input is available at ftp://ftp.3gpp.org/Email\_Discussions/RAN1/RAN1\_IIChM\_July19/Docs/

# 4 Technical discussions

## 4.1 New measurements

## 4.2 Scenario description

## 4.3 Path loss

Huawei presented a first attempt at producing merged path loss models based on (a sub-set of) the available raw path loss data. The following improvements were discussed:

* Classify/re-classify sub-scenario association
* Provide “all LOS” and “all NLOS” fitting (AP: Huawei)
* Include missing raw data, e.g. Huawei/CMCC/CEA-LETI/Fraunhofer (AP: Huawei)
* Include random raw data generated from contributed path loss parameters (AP: Huawei, Nokia)
	+ How many data points? If not specified, check the reference if there is some information. Otherwise, handle later.
* How to apply weights to the data from different sources (low vs high number of samples in different data sets)
	+ No additional weighting as a starting point. Revisit later.

Nokia: random path loss data end of Monday 1 July. Huawei will update by Tuesday afternoon.

## 4.4 LOS probability

## 4.5 Fast fading modeling

## 4.6 Additional modelling components

## 4.7 Channel model calibration

# References

1. RP-182138, SID on Channel Modeling for Indoor Industrial Scenarios, Ericsson, 3GPP TSG-RAN Meeting #81, Gold Coast, Australia, September 10th – 13th 2018.
2. R1-1907920, List of agreements, Ericsson, RAN1#97, Reno, USA, May 13-17, 2019.
3. R1-1907940, Addition of indoor industrial channel model, Ericsson, RAN1#97, Reno, USA, May 13-17, 2019.
4. R1-1907405, Summary of email discussion on path loss, Ericsson, RAN1#97, Reno, USA, May 13-17, 2019.
5. R1-1907407, Summary of email discussion on fast fading, Ericsson, RAN1#97, Reno, USA, May 13-17, 2019.