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

Submission Title: [Channel model for human body communication]
Date Submitted: [11 Jan, 2008]
Source: [Hwang, Jung Hwan / Kang, Sung Weon] Company [ETRI]
Address: [161, Gajeong-Dong, Yuseong-Gu, Daejeon, South Korea]
Voice:[+82-42-860-1176], FAX: [+82-42-860-5236], E-Mail:[jhhwang@etri.re.kr]
Re: [ ]

Abstract: [Introduction of the channel model for the human body communication ]
Purpose: [To introduce the channel model for the human body communication]

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Channel Model for Human Body Communication


Human Body Communication SoC Team
Hwang, Jung Hwan / Kang, Sung Weon
Lumped Model

• The human body communication can be modeled with two lumped elements.
Channel Model for Human Body

- The channel model is composed of the frequency response and noise characteristics.

- **Noise characteristics**: The power level of noise which is received from outside noise source by EM field coupling.

- **Frequency response**: The variation of amplitude and phase by human body.
**Measurement of frequency response**

- A signal is transmitted through human body and the amplitude and the phase of receiving signal is measured.
Frquency Response

• The frequency response has been measured with total 10 persons.
• It is different by individual: the amplitude ant the phase response has deviation range of 10 dB and 20 degree respectively.
Noise measurement

• The noise power has been measured where a lot of electronics are distributed around.
Noise characteristics

- The measured noise has been classified into worst and normal cases according to its power level and each case has been averaged for the noise profile.