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| Project | **IEEE 802.16 Broadband Wireless Access Working Group <**<http://ieee802.org/16>**>** | |
| Title | **Power Control Talk-around Direct Communication** | |
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| Re: | “EEE 802.16-12-0142,” in response to Letter Ballot #38 on P802.16.1a/D1 | |
| Abstract | This provides AWD text proposals for power control of talk-around direct communication in IEEE 802.16.1a | |
| Purpose | To be discussed and adopted by TGn | |
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**Power Control for Talk-around Direct Communication**

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# Introduction

This contribution is for power control of talk-around direct communication. Sending HR-MS inform receiving HR-MS of its Tx power level. Under certain operational circumstances, receiving HR-MS may reduce its Tx power compared to sending HR-MS if it determines that it is in close proximity to the sending HR-MS. But detailed power control mechanism is implementation issue.

# References

[1] IEEE P802.16.1a/D1, WirelessMAN-Advanced Air Interface for Broadband Access Systems – Draft Amendment: Higher Reliability Networks, Feb. 2012.

# Proposed Text for the 802.16.1a AWD

Note:

The text in **BLACK** color: the existing text in the 802.16.1a AWD

The text in **~~RED~~** color: the removal of existing 802.16.1a AWD

The text in **BLUE** color: the new text added to the 802.16.1a AWD

[-------------------------------------------------Start of Text Proposal---------------------------------------------------]

# *[Remedy1: Add new text in the section 6.2.3.65.37 in the IEEE 802.16.1a Draft]*

**6.2.3.65.37 AAI-DC-RTS**

…

**Table 1066kk – AAI-DC-RTS message field description**

|  |  |  |  |
| --- | --- | --- | --- |
| **Field** | **Size**  **(bits)** | **Value/Description** | **Condition** |
| Source DCTID | 24 | Indicates a source HR-MS address |  |
| Destination DCTID or DCGID | 24 | Indicates a destination HR-MS (Group) address |  |
| Maximum Index of Burst Size | 8 | Indicates a maximum index of burst size that the  sending HR-MS suggests the receiving HR-MS  to recommend. The receiving HR-MS selects  burst size that is less than |  |
| Maximum Number of HARQ  Retransmission | 2 | Indicates maximum number of PHY burst  retransmission for HARQ operation.  0: HARQ retransmission is disabled  1~3: HARQ retransmission is enabled |  |
| Destination Address Type | 1 | Indicates type of destination address.  0: DCTID  1: DCGID |  |
| Piggyback Message Indicator | 1 | Indicates whether a control message is  piggybacked or not  0: no piggyback  1: MAC control message |  |
| Transmit Power | 6 | Unsigned integer from 1 to 64 in units of 1 dBm, where  0b000000=1 dBm and 0b111111=64 dBm. |  |
| Reserved | ~~4~~6 |  |  |
| MAC Control Message | varia  ble | MAC control messages in Table 1216 except  AAI-DC-RTS and AAI-DC-CTS messages. | Present if  Piggyback  message  indicator is set  to 1 |

# *[Remedy2: Add new section (6.12.2.3.2.9) and following text in the section in the IEEE 802.16.1a Draft]*

6.12.2.3.2.9 Power control

For dedicated channel transmission, sending HR-MS inform receiving HR-MS of its Tx power by AAI-DC-RTS message. For supplementary channel transmission, receiving HR-MS may reduce its Tx power compared to Tx power of sending HR-MS if it determines that it is in close proximity to the sending HR-MS.

[-------------------------------------------------End of Text Proposal---------------------------------------------------]