Project	IEEE 802.16 Broadband Wireless Access Working Group <**http://ieee802.org/16**>	
Title	Simultaneous Reception and Transmission Support	
Date Submitted	2007-04-06	
Source(s)	Young-jae Kim, Kyu Ha Lee, Jae Hyung Eom, Changkyoon Kim Samsung Thales San 14, Nongseo-Dong, Giheung-Gu,Yongin, Gyeonggi-Do, Korea 449-712	Voice: +82-31-280-9975 Fax: +82-31-280-1562 youngjae2.kim@samsung.com kyuha.lee@samsung.com
	Byung-Jae Kwak, Young-il Kim ETRI 161, Gajeong-Dong, Yuseong-Gu, Daejeon, Korea 205-350	Voice: +82-42-860-6618 Fax: +82-42-861-1966 bjkwak@etri.re.kr yikim@etri.re.kr
Re:	IIEEE 802.16j-07/007r2: “Call for Technical Comments and Contributions regarding IEEE Project 802.16j”	
Abstract	The document contains technical proposals for IEEE P802.16j that provides TLV for simultaneous reception and transmission support.	
Purpose	Text proposal for 802.16j Baseline Document	
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Simultaneous Reception and Transmission Support

Introduction

So far, RS' transmission of preamble and MAPs for MS of access link has been discussed. It is necessary to en hance coverage and improve performance. To do that, RS need to know preamble index and MAPs data. These can be received thru payload. And RS also needs some reference for synchronization, thus R-amble has been int roduced. All these were based on an assumption that RS cannot transmit frame start preamble and MAPs while receiving.

But if RS can transmit frame start preamble and MAPs while receiving those, we can have some benefits from i t. Then, RS can have tree different methods for relaying.

1) Transmitting while receiving: RS transmits its own frame start preamble and MAPs to MS while receiving f rame start preamble from BS for synchronization.

- This method has a benefit that R-amble can be removed for non-transparent RS..

2) Direct relaying : RS just amplifies and forwards received preamble and MAPs to MS.

- This method is useful for virtual grouping and centralized scheduling.

In considering simultaneous transmission and reception, generally RS would consist of two sets of PA & LNA, which are major components, for each relay link from/to BS and access link from/to MS. But if the common ha rdware architecture is used, a RS could have only one PA, because only one way transmission exists at a time.

Proposed text changes

++++++++++++ start text proposal ++++++++++++++++++++++++++++++++++

[Insert the followings at section 11.8.3.7.xx]

This filed indicates the availability of RS support for simultaneous Tx/Rx.

Type	Length	Value	Scope
TBA	1	0: Switching Tx/Rx support 1: Simultaneous but separate Tx/Rx support 2: Direct relaying support 3-255: *Reserved*	SBC-REQ SBC-RSP

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