

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	Transparent zone and PRBS ID	
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Re:	Call for Technical Proposals regarding IEEE Project P802.16j (IEEE 802.16j-07/007r2)	
Abstract	This contribution proposes a procedure for handling retransmission of downlink HARQ for transparent RS.	
Purpose	Add proposed spec changes in P802.16j Baseline Document	
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Transparent Zone and PRBS ID

1. Introduction

In 802.16e-2005 specification, a MS may be instructed to perform physical CINR of a specific permutation zone (c.f. 6.3.18.1 or 6.3.18.2).

6.3.18.1 of 802.16e-2005 reads

For report on a specific permutation zone, the REP-REQ indicates the report type configuration, which includes the zone for which the CINR is to be estimated. The zone is identified by its permutation type (PUSC with 'use all SC = 0', PUSC with 'use all SC = 1', FUSC, Optional FUSC, AMC zone, Safety channel), and PRBS ID.

6.3.18.2 of 802.16e-2005 reads

For the report on the specific permutation zones, the CQICH Allocation IE indicates the report type configuration, which includes the zone for which the CINR is to be estimated. The zone is identified by its permutation type (PUSC with 'use all SC = 0', PUSC with 'use all SC = 1', AMC AAS zone, FUSC, Optional FUSC, Safety channel), and PRBS ID.

To make CINR measurement at a MS appropriate, transmissions from MR-BS and RS should be separated at MS for the sake of CINR measurement. This contribution raise possible problem and propose a resolution.

2. Problem Statement

In transparent mode relay, in case relay link and access link have common permutation mode with the same PRBS_ID, MS would take it as a common permutation mode zone(s) under which physical CINR measurement is to be made. When these zones include both a transmission from MR-BS and a transmission from RS, hence, physical CINR measurement of a specific permutation would be improperly calculated at a MS.

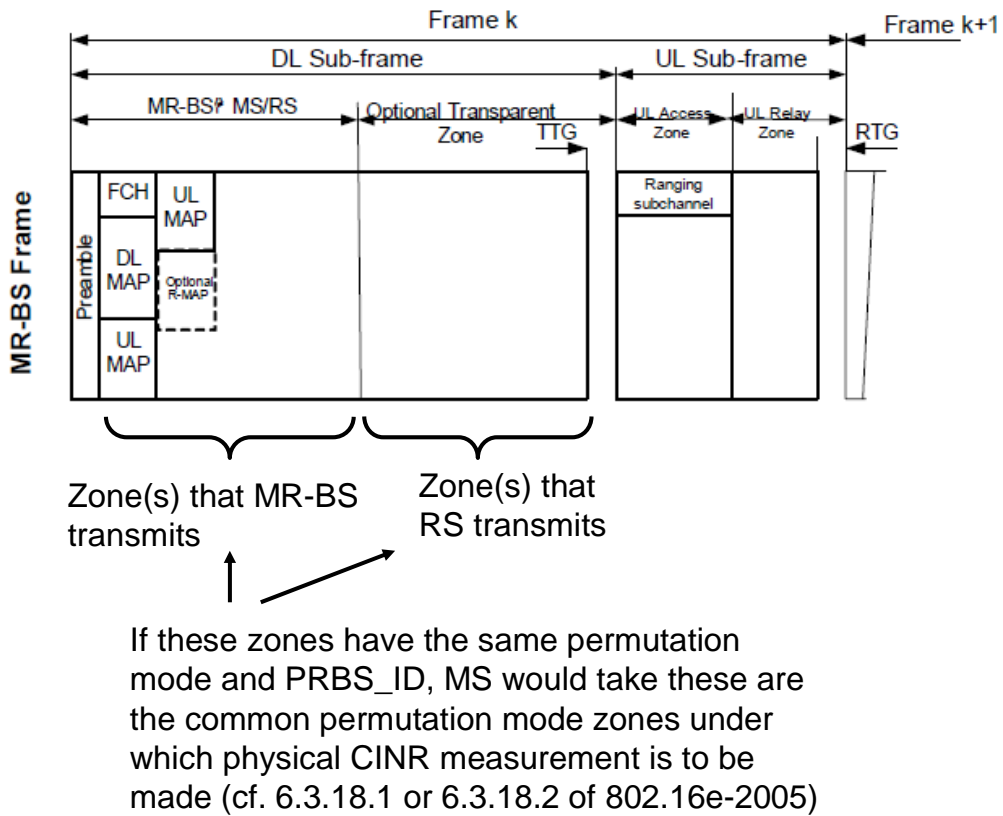


Figure 1 Problem statement

3. Proposed solution

To address the problem stated above, the following method is proposed.

To specify different PRBS_ID for the zones used for the transmission from MR-BS and from RS.

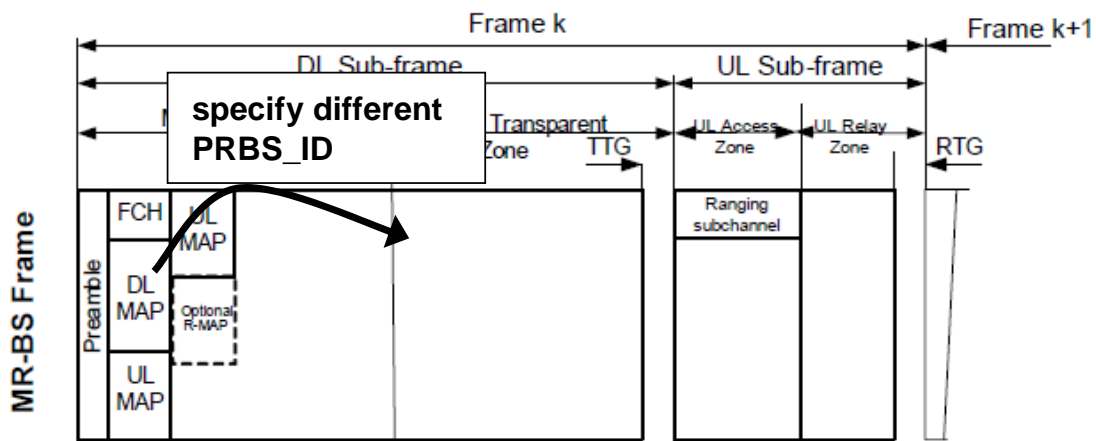


Figure 2 Proposed resolution

4. Proposed text changes

[Change the text in 8.4.4.7.1.1 of the baseline document as follows]

The DL sub-frame shall include at least one zone for MR-BS to its subordinate MS/RS transmissions and may optionally include a transparent zone for RS to its subordinate stations transmissions. Optionally the MR-BS may transmit in the transparent zone as well. The transparent zone can be indicated by STC_DL_ZONE_IE() defined in Table 279. The transparent zone should be specified with different PRBS_ID from the zone that MR-BS transmits. The UL sub-frame may include a zone for MS to its access station transmissions and optionally include a zone for RS to its access station transmissions