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# Corrections for Bandwidth Request Headers and Feedback Headers

### Joanne Wilson, Dave Pechner, Doug Dahlby, Todd Chauvin

### **1 Problem Statement**

There are multiple errors in the definition of the various Bandwidth Request Headers and Feedback Headers:

- 1) The "Bandwidth request and downlink burst profile change request header" does not have a correct definition.
- 2) The mapping of feedback content fields to the feedback header is not defined
- 3) CINR and RSSI feedback types are not defined

### 2 **Proposed Solution**

- 1) Proposed correction to the "Bandwidth request and downlink burst profile change request header".
- 2) Clarify the mapping of feedback content fields to the feedback header
- 3) Add CINR and RSSI feedback types.

## **3 Proposed Text Changes**

[Section 6.3.2.1.2.2]

[Replace Table 20b with the following:]

Figure 20b—Bandwidth request and downlink burst profile change

HT = 0	EC = 0	Type = 7 (3)	100		BR (11)
Preferred DIUC (4)			C Cha	DCD onfiguration ange LSBs (4)	CID MSB (8)
CID LSB (8)				3)	HCS (8)

Name	Length (bits)	Description
HT	1	Header Type = $\frac{1}{0}$
EC	1	Always set to zero
Туре	3	Type = 100
BR	11	Bandwidth Request: The number of bytes of uplink bandwidth requested by the SS. The bandwidth request is for the CID. The request shall not include any PHY overhead. It is aggregate BW request.
CINR Preferred DIUC	74	Preferred DUIC by MSS <u>UL Tx power level for the burst that carries this</u> <u>header(11.1.1)</u> . When the Tx power is different from slot to slot, the maximum value is reported.
DCD Change Indication DCD Configuration Count	+4	Four LSBs of the DCD configuration count that the preferred DIUC is determined from.
CID	16	SS Basic CID
HCS	8	Header Check Sequence

### [Make the following changes to Table 7b and the text following Table 7b:]

#### CINR

This parameter indicates the CINR in dB, and it shall be interpreted as a single value from 16.0 dB to 47.5 dB in unit of 0.5 dB.

#### **DCD Change Indication**

This parameter is set to '1' if the DCD change count stored at MS is not equal to that in the received DL MAP message. Otherwise, it is set to '0'.

[Section 6.3.2.1.4.1]

[Add the following entries to table 7d as follows:]

Table 7d Teedback Type and Teedback Content						
Feedback Type	Feedback Content	Description				
0b1100	CINR Mean (8 bits) + CINR Standard Deviation (8 bits)	CINR Feedback (values and coding defined in 8.4.11.3). For mini-feedback headers, only the mean CINR value shall be included.				
0b1101	RSSI Mean (8 bits) + RSSI Standard Deviation (8 bits)	RSSI Feedback (values and coding defined in 8.4.11.2). For mini-feedback headers, only the mean RSSI value shall be included.				

Table 7d — Feedback Type and Feedback Content

#### [Add the following text after Table 7d:]

The feedback content shall be placed in the feedback header starting with the first field listed in the in Table 7d being placed in the first available bits within the feedback header. Any additional fields defined are placed in the feedback header consecutively until the end of the defined fields, or until the defined field does not fit within the feedback header. In this case, the mapping of fields into the feedback header is terminated and it is transmitted with the fields that can be completely contained within the feedback header. Partial fields must not be transmitted. Any unused content locations in the feedback header shall be set to zero.