Technical Specification Group Services and System Aspects Meeting #13, Beijing, China, 24-27 September 2001 TSGS#13(01)0455

Source: TSG-SA WG4

Title: CRs to TS 26.173 Corrections to AMR-WB C-code and file format description (Release 5)

Document for: Approval

Agenda Item: 7.4.3

The following CRs, agreed at the TSG-SA WG4 meeting #18, are presented to TSG SA #13 for approval.

Spec	CR	Rev	Phase	Subject	Cat	Vers	WG	Meeting	S4 doc
26.173	007		REL-5	Error in the C-code of the encoder homing function	F	5.1.1	S4	TSG-SA WG4#18	S4-010503
26.173	008		REL-5	Inconsistency in the file format description	F	5.1.1	S4	TSG-SA WG4#18	S4-010504

Tdoc S4 (01)0503

											CR-Form-v3
CHANGE REQUEST											
ж	26.	<mark>.173</mark>	CR 007	/	ж rev	-	ж	Current vers	sion: <mark>5</mark>	.1.1	Ħ
For HELP on using this form, see bottom of this page or look at the pop-up text over the # symbols.											
Proposed change affects: # (U)SIM ME/UE X Radio Access Network Core Network X											
Title: %	"Errc	or in th	e C-code of	the encod	der hon	ning fu	Inctio	n"			
Source: ೫	TSC	G SA N	NG4								
Work item code: Ж	AM	<mark>R-WB</mark>						Date: ೫	24-Se	<mark>p-2001</mark>	
Category: Ж	F							<i>Release:</i>	REL-5	5	
Use one of the following categories:Use one of the following releases:F (correction)2A (corresponds to a correction in an earlier release)R96B (Addition of feature),R97C (Functional modification of feature)R98D (Editorial modification)R99D (Editorial modification)R99D tetailed explanations of the above categories canREL-4be found in 3GPP TR 21.900.REL-5									<i>54</i> 355.		
Reason for change	e: #	The c	<mark>hecking of h</mark>	oming fra	<mark>me is i</mark>	naccu	rate				
Summary of chang	је: Ж	The lo	oop counter	<mark>in the che</mark>	<mark>cking c</mark>	<mark>f hom</mark>	<mark>ing fra</mark>	<mark>ame is chan</mark> g	<mark>jed from</mark>	256 to	320.
Consequences if not approved:	Ħ	The p	robability of	falsely de	tecting	homir	ng frai	mes increase	es.		
Clauses affected:	ж	File:	homing.c								
Other specs affected:	¥[0 Te 0	ther core sp est specifica &M Specific	ecification tions ations	IS	¥					
Other comments:	ж										

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://www.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

1. Background

In the "*encoder_homing_frame_test*" function, the loop counter for checking the homing frame is set to L_FRAME, which has the value of 256 defined in cnst.h. However, the length of the homing frame is 320 samples. So the loop counter should be changed from L_FRAME to L_FRAME16k.

2. How the code is changed in the file homing.c

2.1 Before the change

```
Word16 encoder_homing_frame_test(Word16 input_frame[])
{
    Word16 i, j = 0;
    /* check 320 input samples for matching EHF_MASK: defined in
e_homing.h */
    for (i = 0; i < L_FRAME; i++)
    {
        j = (Word16) (input_frame[i] ^ EHF_MASK);
        if (j)
            break;
    }
    return (Word16) (!j);
}</pre>
```

2.2 After the change

```
Word16 encoder_homing_frame_test(Word16 input_frame[])
{
    Word16 i, j = 0;
    /* check 320 input samples for matching EHF_MASK: defined in
e_homing.h */
    for (i = 0; i < L_FRAME16k; i++)
    {
        j = (Word16) (input_frame[i] ^ EHF_MASK);
        if (j)
            break;
    }
    return (Word16) (!j);
}</pre>
```

3GPP TSG-SA4 Meeting #18 Erlangen, Germany, September 3-7, 2001

Tdoc S4 (01)0504

										CR-Form-v3
CHANGE REQUEST										
ж	26	. <mark>173</mark>	CR 008	ж	rev	- *	Current	versio	^{n:} 5.1.1	Ħ
For <u>HELP</u> on	using	this fo	rm, see botto	om of this pa	age or	look at t	he pop-up	text ov	/er the ¥ sy	mbols.
Proposed change affects: # (U)SIM ME/UE X Radio Access Network Core Network										
Title: \$	€ Inc	onsiste	<mark>ency in the fil</mark>	<mark>e format de</mark>	scripti	ion				
Source: 3	€ <mark>TS</mark>	G SA V	WG4							
Work item code: ३	€ <mark>AM</mark>	R-WB	5				Date	e: # 🚺	<mark>24-Sep-200</mark>	1
Category: ೫	€F						Release	e: #	REL-5	
Use one of the following categories:Use one of the following releases:F (essential correction)2(GSM Phase 2)A (corresponds to a correction in an earlier release)R96(Release 1996)B (Addition of feature),R97(Release 1997)C (Functional modification of feature)R98(Release 1998)D (Editorial modification)R99(Release 1999)Detailed explanations of the above categories canREL-4(Release 4)be found in 3GPP TR 21.900.REL-5(Release 5)))))))))))	
Reason for chang	је: Ж	The fo	ormat of spee	ech encode	r para	<mark>meter b</mark> i	ts in chapte	er 6.3 i	s incorrect.	
Summary of change: # Format description is corrected to be aligned with the C-code.										
Consequences if not approved:	ж	There	e is inconsiste	ency betwee	en the	text of 2	6.173 and 1	the C-	code.	
	مە	Cont	ion 6 2							
Clauses affected:	ж	Sect	101 6.3.							
Other specs affected:	ж	0 Te 0	ther core spe est specificat &M Specifica	ecifications ions ations	ж					
Other comments:	ж									

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- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

1. Background

The format of speech encoder parameter bits in chapter 6.3 is incorrect. It states that bits 0 and 1 are transmitted by using 16-bit words 0x0000 and 0x0001. The correct format of these bits in the C-code is 0x0081 and 0x007f respectively.

2. How 3GPP TS 26.173 V5.1.1 is changed

2.1 Before the change (section 6.3)

FRAME_TYPE	transmit	frame	type,	which	is	one	of
	RX_S	PEECH_GOOD	(0x0000)				
	RX_S	PEECH_PROBA	ABLY_DEGRA	DED (0x00)01)		
	RX_S	PEECH_LOST	(0x0002)				
	RX_S	PEECH_BAD	(0x0003)				
	RX_S	ID_FIRST	(0x0004)				
	RX_S	ID_UPDATE	(0x0005)				
	RX_S	ID_BAD	(0x0006)				
	RX_N	O_DATA	(0x0007)				

B0...B2nn speech encoder parameter bits (i.e. the bitstream itself). Each Bx either has the value 0x0000 or 0x0001.

MODE_INFO	encoding	mode info		rmation,	which	is	one	of
	6.60	kbit/s m	node	(0x0000)				
	8.85	kbit/s m	node	(0x0001)				
	12.65	kbit/s m	node	(0x0002)				
	14.25	kbit/s m	node	(0x0003)				
	15.85	kbit/s m	node	(0x0004)				
	18.25	kbit/s m	node	(0x0005)				
	19.85	kbit/s m	node	(0x0006)				
	23.05	kbit/s m	node	(0x0007)				
	23.85	kbit/s m	node	(0x0008)				

2.2 After the change

FRAME_TYPE	transmit	frame	type,	which	is	one	of
	RX_S	PEECH_GOOD	(0x0000)				
	RX_S	PEECH_PROBA	BLY_DEGRAD	DED (0x00	01)		
	RX_S	PEECH_LOST	(0x0002)				
	RX_S	PEECH_BAD	(0x0003)				
	RX_S	ID_FIRST	(0x0004)				
	RX_S	ID_UPDATE	(0x0005)				
	RX_S	ID_BAD	(0x0006)				
	RX_N	O_DATA	(0x0007)				

B0...B2nn speech encoder parameter bits (i.e. the bitstream itself). Each Bx either has the value 0x0081 (for bit 0) or 0x007F (for bit 1).

encoding	mode info		rmation,	which	is	one	of
6.60	kbit/s	mode	(0x0000)				
8.85	kbit/s	mode	(0x0001)				
12.65	kbit/s	mode	(0x0002)				
14.25	kbit/s	mode	(0x0003)				
15.85	kbit/s	mode	(0x0004)				
18.25	kbit/s	mode	(0x0005)				
19.85	kbit/s	mode	(0x0006)				
23.05	kbit/s	mode	(0x0007)				
23.85	kbit/s	mode	(0x0008)				
	encoding 6.60 8.85 12.65 14.25 15.85 18.25 19.85 23.05 23.85	encoding mode 6.60 kbit/s 8.85 kbit/s 12.65 kbit/s 14.25 kbit/s 15.85 kbit/s 18.25 kbit/s 19.85 kbit/s 23.05 kbit/s	encoding mode info 6.60 kbit/s mode 8.85 kbit/s mode 12.65 kbit/s mode 14.25 kbit/s mode 15.85 kbit/s mode 18.25 kbit/s mode 19.85 kbit/s mode 23.05 kbit/s mode	encoding mode information, 6.60 kbit/s mode (0x0000) 8.85 kbit/s mode (0x0001) 12.65 kbit/s mode (0x0002) 14.25 kbit/s mode (0x0003) 15.85 kbit/s mode (0x0004) 18.25 kbit/s mode (0x0005) 19.85 kbit/s mode (0x0006) 23.05 kbit/s mode (0x0007) 23.85 kbit/s mode (0x0008)	encodingmodeinformation,which6.60kbit/s mode(0x0000)8.85kbit/s mode(0x0001)12.65kbit/s mode(0x0002)14.25kbit/s mode(0x0003)15.85kbit/s mode(0x0004)18.25kbit/s mode(0x0005)19.85kbit/s mode(0x0006)23.05kbit/s mode(0x0007)23.85kbit/s mode(0x0008)	encoding mode information, which is 6.60 kbit/s mode (0x0000) is 8.85 kbit/s mode (0x0001) is 12.65 kbit/s mode (0x0002) is 14.25 kbit/s mode (0x0003) is 15.85 kbit/s mode (0x0004) is 18.25 kbit/s mode (0x0005) is 19.85 kbit/s mode (0x0006) is 23.05 kbit/s mode (0x0007) is 23.85 kbit/s mode (0x0008) is	encoding mode information, which is one 6.60 kbit/s mode (0x0000) is one 8.85 kbit/s mode (0x0001) is one 12.65 kbit/s mode (0x0002) is is 14.25 kbit/s mode (0x0003) is is 15.85 kbit/s mode (0x0004) is is 18.25 kbit/s mode (0x0005) is is 19.85 kbit/s mode (0x0006) is is 23.05 kbit/s mode (0x0007) is is 23.85 kbit/s mode (0x0008) is is