

3GPP2 C.S0083-0 v1.0

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**3RD GENERATION
PARTNERSHIP
PROJECT 2
"3GPP2"**

Video Codec for 3GPP2 Packet Switched Multimedia Services - H.263

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PREFACE

This specification provides normative and informative recommendations for H.263 decoding for 3GPP2 Packet Switched Multimedia Services.

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NOTES

The following verbal forms are used: “shall” and “shall not” identify requirements to be followed strictly to conform to the standard and from which no deviation is permitted. “Should” and “should not” indicate that one of several possibilities is recommended as particularly suitable, without mentioning or excluding others; that a certain course of action is preferred but not necessarily required; or that (in the negative form) a certain possibility or course of action is discouraged but not prohibited. “May” and “need not” indicate a course of action permissible within the limits of the standard. “Can” and “cannot” are used for statements of possibility and capability, whether material, physical, or causal.

1 Introduction and Scope

ITU-T Recommendation H.263 (01/05) [4] has been adopted as a video codec for various 3GPP2 multimedia services such as Multimedia Messaging Service (MMS, [1]), Multimedia Streaming Service (MSS, [2]), and Packet Switched Video Telephony (PSVT, [3]). The ITU-T recommendation [4] only specifies syntax elements and decoding process under lossless condition. However, parts of video information for 3GPP2 Packet Switched Multimedia (PSM) Services may be lost due to latency, over the air loss, etc. Therefore, this specification provides informative recommendation of H.263 decoding when parts of video information for 3GPP2 PSM services are lost.

2 References

The following documents contain provisions, which, through reference in this text, constitute provisions of this document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP2 document, a non-specific reference implicitly refers to the latest version of that document in the same Release as the present document.

[1] **3GPP2**: C.S0045-A, Multimedia Messaging Service (MMS) Media Format and Codecs for cdma2000 Spread Spectrum Systems, Apr., 2006

[2] **3GPP2**: C.S0046-0, 3G Multimedia Streaming Services, Mar., 2006

[3] **3GPP2**: C.S0055-0 V1.0, Packet Switched Video Telephony Services (PSVT/MCS), Mar., 2007

[4] **ITU-T**: "Video Coding for Low Bit Rate Communication," ITU-T Recommendation H.263, Jan., 2005

3 Definitions and Abbreviations

This section contains definitions, symbols and abbreviations that are used throughout the document.

3.1 Abbreviations

3GPP2	3 rd Generation Partnership Project 2
Codec	Coder-Decoder
ITU-T	International Telecommunication Union Telecommunication Standardization Sector
MMS	Multimedia Messaging Service
MS	Mobile Station
MSS	Multimedia Streaming Service
PSM	Packet Switched Multimedia
PSVT	Packet Switched Video Telephony

4 H.263 Decoding

This section provides normative and informative recommendations for H.263 decoding for 3GPP2 PSM services.

4.1 Normative recommendation

H.263 bitstream syntax for 3GPP2 PSM services shall be compliant to [4]. Decoding procedure of lossless and/or error concealed bitstream shall follow [4].

4.2 Informative recommendation

Video information loss for 3GPP2 PSM services should be detected by a receiver. The loss can be detected by using information from the other layers or by detecting syntax element violations. When video information loss is detected, the receiver should conceal the lost information.