

# ETSI TS 126 451 V13.0.0 (2016-01)



**Universal Mobile Telecommunications System (UMTS);  
LTE;  
Codec for Enhanced Voice Services (EVS);  
Voice Activity Detection (VAD)  
(3GPP TS 26.451 version 13.0.0 Release 13)**



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# Contents

Intellectual Property Rights .....	2
Foreword.....	2
Modal verbs terminology.....	2
Foreword.....	4
1 Scope .....	5
2 References .....	5
3 Abbreviations .....	5
4 General .....	6
5 The SAD Algorithm .....	6
<b>Annex A (informative): Change history .....</b>	<b>7</b>
History .....	8

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## Foreword

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# 1 Scope

The present document specifies the Voice Activity Detector (VAD) used in the Discontinuous Transmission (DTX) of the EVS Codec. Although the main application of the VAD algorithm is the detection of speech or voice signals, the algorithm is more accurately described as a Signal Activity Detection (SAD) algorithm.

The present document is a high level overview of the functionality with reference to the Codec Detailed Algorithmic Description where the functionality is specified in detail.

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# 2 References

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

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
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- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TS 26.441: "Codec for Enhanced Voice Services (EVS); General Overview".
- [3] 3GPP TS 26.445: "Codec for Enhanced Voice Services (EVS); Detailed Algorithmic Description".
- [4] 3GPP TS 26.442: "Codec for Enhanced Voice Services (EVS); ANSI C code (fixed-point)".
- [5] 3GPP TS 26.443: "Codec for Enhanced Voice Services (EVS); ANSI C code (floating-point)".
- [6] 3GPP TS 26.444: "Codec for Enhanced Voice Services (EVS); Test Sequences".
- [7] 3GPP TS 26.446: "Codec for Enhanced Voice Services (EVS); AMR-WB Backward Compatible Functions".
- [8] 3GPP TS 26.449: "Codec for Enhanced Voice Services (EVS); Comfort Noise Generation (CNG) Aspects".
- [9] 3GPP TS 26.450: "Codec for Enhanced Voice Services (EVS); Discontinuous Transmission (DTX)".
- [10] 3GPP TR 26.952: "Codec for Enhanced Voice Services (EVS); Performance Characterization".

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# 3 Abbreviations

For the purposes of the present document, the abbreviations given in TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in TR 21.905 [1].

ACELP	Algebraic Code-Excited Linear Prediction
AMR-WB	Adaptive Multi Rate Wideband (codec)
CNG	Comfort Noise Generator
DTX	Discontinuous Transmission
EVS	Enhanced Voice Services
FB	Fullband