



**Universal Mobile Telecommunications System (UMTS);
LTE;
Specification of the TUAK algorithm set: A second example
algorithm set for the 3GPP authentication and
key generation functions f_1 , f_1^* , f_2 , f_3 , f_4 , f_5 and f_5^* ;
Document 5: Performance evaluation
(3GPP TR 35.935 version 13.0.0 Release 13)**



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Foreword

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- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

1 Scope

The present document provides a reference to an independent performance evaluation report of the Tuak algorithm set carried out by the ISG Smart Card Centre of the Royal Holloway University of London.

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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- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TS 35. 231: "Specification of the Tuak algorithm set: A second example algorithm set for the 3GPP authentication and key generation functions f1, f1*, f2, f3, f4, f5 and f5*; Document 1: Algorithm specification".
- [2] "Performance Evaluation of the TUAK algorithm in support of the ETSI Sage standardisation group"; Keith Mayes; ISG Smart Card Centre, Royal Holloway University of London; (available at http://www.3gpp.org/ftp/Specs/archive/35_series/35.936/SAGE_report/Perfevaluation.zip)
- [3] "Performance Evaluation of the TUAK algorithm in support of the GSMA and ETSI SAGE standardisation group"; Keith Mayes; ISG Smart Card Centre, Royal Holloway University of London; Crisp Telecom Limited; (available at http://www.3gpp.org/ftp/Specs/archive/35_series/35.936/SAGE_report/Perfevaluationext.zip)

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in TS 35.231 apply. A term defined in the present document takes precedence over the definition of the same term, if any, in TS 35.231 [1].

4 Performance evaluation of the Tuak algorithm set

The performance evaluation report of the Tuak algorithm set [1] can be found here: [2].

An extension to the performance evaluation report can be found here: [3].

Annex A: Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
Nov 2014					First TR version		0.1.0
Dec 2014	SA#66	SP- 140817			Version for information and approval	0.1.0	1.0.0
					Version after approval	1.0.0	12.0.0
Jan 2016	SA#70				Upgrade to Rel-13 (MCC)	12.0.0	13.0.0

History

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