



**Universal Mobile Telecommunications System (UMTS);  
LTE;  
Internet Protocol (IP) multimedia call control protocol  
based on Session Initiation Protocol (SIP)  
and Session Description Protocol (SDP);  
User Equipment (UE) conformance specification;  
Part 3: Abstract test suite (ATS)  
(3GPP TS 34.229-3 version 14.6.0 Release 14)**



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## Foreword

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## Introduction

The present document is 3<sup>rd</sup> part of a multi-part conformance test specification for UE and is *valid for 3GPP Release 5 and above*. The specification contains a TTCN design frame work and the detailed test specifications in TTCN for the UE conformance at the Gm reference point.

3GPP TS 34.229-1 [5] contains a conformance test description in prose.

3GPP TS 34.229-2 [6] contains a pro-forma for the UE Implementation Conformance Statement (ICS).

3GPP TS 34.229-3 the present document.

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# 1 Scope

The present document specifies the protocol conformance testing in TTCN for the 3GPP User Equipment (UE) at the Gm interface.

The present document is the 3<sup>rd</sup> part of a multi-part test specification, 3GPP TS 34.229. The following TTCN test specification and design considerations can be found in the present document:

- the overall test suite structure;
- the testing architecture;
- the test methods and PCO definitions;
- the test configurations;
- the design principles, assumptions, and used interfaces to the TTCN tester (System Simulator);
- TTCN styles and conventions;
- the partial PIXIT proforma;
- the TTCN files for the mentioned protocols tests.

The Abstract Test Suites designed in the document are based on the test cases specified in prose (3GPP TS 34.229-1 [5]).

The present document is valid for UE implemented according 3GPP Releases starting from Release 5 up to the Release indicated on the cover page of the present document.

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# 2 References

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

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[1] to [52] (void)

- [53] 3GPP TS 34.229-3 Release 15: "Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); User Equipment (UE) conformance specification; Part 3: Abstract Test Suite (ATS)"

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# 3 Definitions and abbreviations

Void

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# 4 Requirements on the TTCN development

The requirements of the present document are provided in 3GPP TS 34.229-3 Release 15 [53].

5 to 8 Void

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# Annex A to H: Void

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## Annex I (informative): Change history

Meeting	TSG doc	CR	Rev	Subject	Cat	Old vers	New vers	WG doc
RP-31	RP-060054	-	-	Update to version 1.0.0 and present to RAN#31 for information	-	-	1.0.0	R5-060513
RP-34	RP-060664	-	-	Present version 1.3.0 to RAN#34 for information	-	-	1.3.0	R5-063500
RP-35	RP-070010	-	-	Presented as version 2.0.0 for approval to go under revision control	-	-	2.0.0	R5-070456
-	-	-	-	Upgraded to version 5.0.0 by the 3GPP support	-	-	5.0.0	-
RP-36	RP-070352	0001	-	Addition of IMS-CC test case 8.6 to IMS_CC ATS V1.3.0	F	5.0.0	5.1.0	R5s070101
RP-36	RP-070353	0002	-	CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	5.0.0	5.1.0	-
RP-37	RP-070594	0003	-	Extension to TTCN ASP DeactivatePDPCContextReq	F	5.1.0	5.2.0	R5-072509
RP-37	RP-070594	0004	-	IMS CC / PIXIT parameter px_CellId	F	5.1.0	5.2.0	R5-072546
RP-38	RP-070870	0007		Addition of IMS-CC test case 8.5 to IMS_CC ATS V5.1.0	B	5.2.0	5.3.0	R5s070489
RP-38	RP-070870	0008		Addition of IMS-CC test case 8.7 to IMS_CC ATS V5.3.0	B	5.2.0	5.3.0	R5s070259
RP-38	RP-070870	0009		Addition of IMS-CC test case 9.1 to IMS_CC ATS V5.3.0	B	5.2.0	5.3.0	R5s070261
RP-38	RP-070889	0010		CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	5.2.0	5.3.0	-
RP-38	RP-070869	0006		Production of 34.229-3 pointer version in Rel-5 pointing to Rel-6 version	F	5.2.0	5.3.0	R5-073439
RP-38	RP-070869	0005		Addition of an MMI command	F	5.2.0	6.0.0	R5-073046
RP-39	RP-080098	0011		Update of MMI command strings	F	6.0.0	6.1.0	R5-080041
RP-39	RP-080089	0012		CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	6.0.0	6.1.0	-
RP-39	RP-080094	0013		Addition of IMS-CC test case 7.2 to IMS_CC ATS V5.3.0	B	6.0.0	6.1.0	R5s070535
RP-39	RP-080094	0014		Addition of IMS-CC test case 10.1 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070549
RP-39	RP-080094	0015		Addition of IMS-CC test case 8.3 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070545
RP-39	RP-080094	0016		Addition of IMS-CC test case 8.2 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070543
RP-39	RP-080094	0017		Addition of IMS-CC test case 7.6 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070539
RP-39	RP-080094	0018		Addition of IMS-CC test case 7.4 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070537
RP-39	RP-080094	0019		Addition of IMS-CC test case 11.1 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070551
RP-39	RP-080094	0020		Addition of IMS-CC test case 14.1 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070555
RP-39	RP-080094	0021		Addition of IMS-CC test case 13.1 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070553
RP-39	RP-080094	0022		Addition of IMS-CC test case 8.4 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070547
RP-39	RP-080094	0023		Addition of IMS-CC test case 8.1 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070541
RP-39	RP-080094	0024		Addition of IMS-CC test case 7.1 to IMS_CC ATS V5.1.0	B	6.0.0	6.1.0	R5s070491
RP-39	RP-080094	0025		Common corrections to IMS-CC test cases	F	6.0.0	6.1.0	R5s070534
RP-40	RP-080369	0027		Correction to regular expressions in IMS	F	6.1.0	7.0.0	R5s080036
RP-40	RP-080369	0028		IMS ATS / handling of P-Access-Network-Info header over non secure ports	F	6.1.0	7.0.0	R5s080063
RP-40	RP-080369	0029		IMS ATS / test case 9.1 / handling of authorization header in Register messages	F	6.1.0	7.0.0	R5s080085
RP-40	RP-080376	0030		Extend test model supporting XCAP test	F	6.1.0	7.0.0	R5-081036
RP-41	RP-080654	0031		CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	7.0.0	7.1.0	-
RP-41	RP-080615	0032		Addition of IMS-CC test case 9.2 to IMS_CC ATS v.7.0.0	F	7.0.0	7.1.0	R5s080115
RP-41	RP-080615	0033		Addition of IMS-CC test case 7.3 to IMS_CC ATS v.7.0.0	F	7.0.0	7.1.0	R5s080114

Meeting	TSG doc	CR	Rev	Subject	Cat	Old vers	New vers	WG doc
RP-41	RP-080615	0034		Implementation of IPCanCtl code as a parallel test component	F	7.0.0	7.1.0	R5s080138
RP-41	RP-080615	0035		Addition of IMS-CC test case 8.9 to IMS_CC ATS v.6.2.0	F	7.0.0	7.1.0	R5s080145
RP-41	RP-080615	0036		Addition of IMS-CC test case 8.8 to IMS_CC ATS v.6.2.0	F	7.0.0	7.1.0	R5s080143
RP-41	RP-080615	0037		Addition of IMS-CC test case 7.5 to IMS_CC ATS	F	7.0.0	7.1.0	R5s080151
RP-41	RP-080740	0038		Update of TS 34.229-3 from Rel-6 to Rel-7	F	7.1.0	7.2.0	R5-083065
RP-42	RP-080959	0039		Correction of HW Type and HW Length fields in DHCP response messages	F	7.1.0	7.2.0	R5s080171
RP-42	RP-080959	0040		Minor correction of Route header template in the initial Register message	F	7.1.0	7.2.0	R5s080168
RP-43	RP-090210	0041		Update of TS 34.229-3 from Rel-7 to Rel-8	F	7.2.0	8.0.0	R5-090765
RP-43	RP-090210	0042		IMS CC ATS / Improvement: Stopping test case execution once a PTC fails	F	8.0.0	8.1.0	R5s090019
RP-43	RP-090210	0043		IMS CC ATS / Handling of non-default port number in the Contact Header	F	8.0.0	8.1.0	R5s090018
RP-43	RP-090210	0044		IMS CC ATS / Handling of Contact Header	F	8.0.0	8.1.0	R5s090005
RP-43	RP-090210	0045		IMS CC / Minor corrections on test 11.2 (re-authentication)	F	8.0.0	8.1.0	R5s090004
RP-43	RP-090210	0046		IMS CC / Addition of test case 11.2 to the IMS ATS	F	8.0.0	8.1.0	R5s080313
RP-43	RP-090210	0047		IMS CC test model / Addition of new ASP to reconfigure IP Layer	F	8.0.0	8.1.0	R5-090032
RP-43	RP-090210	0048		Removal of an unused pixit and other routine updates	F	8.0.0	8.1.0	R5-090056
RP-46	RP-091156	0049	-	CR to 34.229-3 (prose) update to v820	F	8.1.0	8.2.0	-
RP-47	RP-100146	0050	-	CR to 34.229-3 (prose) update to v830	F	8.2.0	8.3.0	-
RP-47	RP-100155	0051	-	Correction of IMS test model for XCAP-based SS test	F	8.2.0	8.3.0	R5-100087
RP-47	RP-100140	0052	-	Add bearer information for E-UTRA	F	8.2.0	8.3.0	R5-100414
RP-48	RP-100514	0053	-	CR to 34.229-3 (prose) update to v840	F	8.3.0	8.4.0	-
RP-48	RP-100511	0054	-	Update IMS test model	F	8.3.0	8.4.0	R5-103382
RP-50	RP-101146	0055	-	Routine maintenance of TS 34.229-3	F	8.4.0	8.5.0	R5-106088
RP-50	RP-101150	0056	-	CR to 34.229-3 update to v850	F	8.4.0	8.5.0	-
RP-51	RP-110165	0057	-	Mapping of some PIXIT parameters to ISIM Efs – 3 IMPU	F	8.5.0	8.6.0	R5-110694
RP-51	RP-110169	0058	-	CR to 34.229-3 (prose) update to v860	F	8.5.0	8.6.0	-
RP-52	RP-110651	0059	-	Removal of technical content in 34.229-3 v8.6.0 and substitution with pointer to the next Release	F	8.6.0	8.7.0	R5-112246
RP-52	RP-110651	0060	-	Routine maintenance	F	8.6.0	9.0.0	R5-112648
RP-52	RP-110655	0061	-	CR to 34.229-3 (prose) update to v870	F	8.6.0	9.0.0	-
RP-53	RP-111160	0062	-	CR to 34.229-3 (prose) update to v910	F	9.0.0	9.1.0	-
RP-54	RP-111584	0063	-	Routine maintenance and updates for IMS ASP	F	9.1.0	9.2.0	R5-115670
RP-55	RP-120187	0064	-	CR to 34.229-3 (prose) update to v930	F	9.2.0	9.3.0	-
RP-56	RP-120649	0065	-	Routine maintenance and updates	F	9.3.0	9.4.0	R5-121090
RP-56	RP-120802	0066	-	Correction to IMS CC test cases / IPv6 address handling	F	9.3.0	9.4.0	R5s120108
RP-57	RP-121103	0067	-	34229-3: Routine maintenance and updates	F	9.4.0	9.5.0	R5-123085
RP-57	RP-121221	0068	-	TTCN IMS correction	F	9.4.0	9.5.0	R5s120530
RP-57	RP-121221	0069	-	Addition of GCF WI-031 IMS test case 8.10	F	9.4.0	9.5.0	R5s120537
RP-57	RP-121221	0070	-	Addition of GCF WI-031 IMS test case 8.12	F	9.4.0	9.5.0	R5s120539
RP-57	RP-121221	0071	-	Addition of GCF WI-031 IMS test case 8.13	F	9.4.0	9.5.0	R5s120541
RP-57	RP-121221	0072	-	Addition of GCF WI-128 IMS test case 18.1	F	9.4.0	9.5.0	R5s120543
RP-57	RP-121221	0073	-	Addition of GCF WI-128 IMS test case 18.2	F	9.4.0	9.5.0	R5s120545
RP-57	RP-121221	0074	-	Addition of GCF WI-103 IMS test case 16.1	F	9.4.0	9.5.0	R5s120547
RP-57	RP-121221	0075	-	Addition of GCF WI-103 IMS test case 16.2	F	9.4.0	9.5.0	R5s120549
RP-57	RP-121106	0076	-	CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	9.4.0	9.5.0	-
RP-58	RP-121664	0077	-	34229-3: Routine maintenance and updates	F	9.5.0	9.6.0	R5-125120
RP-58	RP-121669	0078	-	Addition of GCF WI-103 IMS test case 12.12	B	9.5.0	9.6.0	R5s120605
RP-58	RP-121669	0079	-	Addition of GCF WI-103 IMS test case 12.13	B	9.5.0	9.6.0	R5s120607
RP-58	RP-121669	0080	-	Addition of GCF WI-103 IMS test case 15.11	B	9.5.0	9.6.0	R5s120609
RP-58	RP-121669	0081	-	IMS TTCN correction	F	9.5.0	9.6.0	R5s120729
RP-58	RP-121669	0082	-	Addition of GCF WI-103 IMS test case 15.8	B	9.5.0	9.6.0	R5s120730
RP-58	RP-121669	0083	-	Addition of GCF WI-103 IMS test case 15.12	B	9.5.0	9.6.0	R5s120732
RP-58	RP-121669	0084	-	Addition of GCF WI-103 IMS test case 15.27	B	9.5.0	9.6.0	R5s120733
RP-58	RP-121669	0085	-	Addition of GCF WI-103 IMS test case 15.28	B	9.5.0	9.6.0	R5s120736
RP-58	RP-121668	0086	-	CR to 34.229-3: Add new verified and e-mail agreed TTCN test cases in the TC lists in 34.229-3 (prose), Annex A	F	9.5.0	9.6.0	-
RP-59	RP-130145	0087	-	34229-3: Routine maintenance and updates	F	9.6.0	9.7.0	R5-130198
RP-59	RP-130150	0088	-	Re-verification of IMS Registration test case 8.10 over LTE with 36.523-3 test model	F	9.6.0	9.7.0	R5s120858