

AUSTRALIAN
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INDUSTRY FORUM



AUSTRALIAN STANDARD

AS/ACIF S042.3:2005

Requirements for connection to an air interface
of a Telecommunications Network—
Part 3: GSM Customer Equipment

Adopted for
regulatory purposes

STANDARDS
Australia



**Australian Standard – Requirements for connection to an air interface of a Telecommunications Network —
Part 3: GSM Customer Equipment**

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FOREWORD

General

This Standard was prepared by the ACIF Working Committee CECRP/WC10 on *GSM Technology*. It is one of a series of Telecommunication Standards developed under the Memorandum of Understanding between the Australian Communications Authority (ACA) and the Australian Communications Industry Forum.

Note: On 1 July 2005 the ACA became the Australian Communications and Media Authority (ACMA) and the Memorandum of Understanding continues in effect as if the reference to the ACA were a reference to ACMA.

This Standard is the outcome of a review of ACA TS 018-1997 *Digital Cellular Mobile Telecommunications System - GSM Mobile Station*. It is the result of a consensus among representatives on the ACIF Working Committee to produce it as an Australian Standard.

The requirements in this Standard are consistent with the aims of s376 of the *Telecommunications Act 1997*. Specifically these aims are—

- (a) protecting the integrity of a telecommunications network or facility;
- (b) protecting the health and safety of persons;
- (c) ensuring access to emergency services; and
- (d) ensuring interoperability with a standard telephone service (STS).

It should be noted that some Customer Equipment (CE) may also need to comply with requirements in other Standards or other Parts of this Standard.

This Standard should be read in conjunction with ACIF AS/ACIF S042.1 [2] and the supporting arrangements document ACIF G548 [3].

Applicable electrical safety Standards and EMC Standards may apply under Commonwealth or State laws, or both.

Intellectual property rights

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Standards revision

Australian Standards developed by the Australian Communications Industry Forum (AS/ACIF Standards) are updated, according to the needs of the industry, by amendments or revision. Users of AS/ACIF Standards should make sure that they possess the latest amendments or editions. Representations concerning the need for a change to this AS/ACIF Standard should be addressed to:

The Project Manager
Customer Equipment and Cable Reference Panel
The Australian Communications Industry Forum
PO Box 444
Milsons Point NSW 1565

Regulatory notice

This document has been made by ACMA as Telecommunications Technical Standard AS/ACIF S042.3-2005 under s376 of the *Telecommunications Act 1997*.

ACMA is a Commonwealth authority with statutory powers to impose requirements concerning telecommunications Customer Equipment and Customer Cabling.

ACMA requires Australian manufacturers and importers of specified items of Customer Equipment and Customer Cabling to establish compliance with Standards such as this. Items are required to be labelled to the applicable labelling notices.

Details on current compliance arrangements can be obtained from the ACMA website at <http://www.acma.gov.au> or by contacting ACMA below at:

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Melbourne VIC 8010
Australia

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Introduction

This introduction for the AS/ACIF S042.3:2005 **Requirements for connection to an air interface of a telecommunications network— Part 3: GSM Customer Equipment** Standard is not an authoritative section of this Standard and is only provided as guidance for the user of the Standard to outline its objectives and the factors that have been taken into account in its development.

The reader is directed to the clauses of Part 3 for the specific requirements and to the Australian Communications and Media Authority (ACMA) for the applicable telecommunications labelling and compliance arrangements.

Note: Further information on the telecommunications labelling and compliance arrangements can be found in The Telecommunications Labelling (Customer Equipment and Customer Cabling) Notice (the TLN). The TLN can be obtained from the Australian Communications and Media Authority (ACMA) website at www.acma.gov.au.

The objective of Part 3 is to specify the requirements and associated test methods for GSM Customer Equipment (GSM CE) in order to meet the regulatory arrangements for such equipment in Australia. Part 3 should be read in conjunction with Part 1 of AS/ACIF S042.

Part 3 covers the basic compliance requirements for up to and including Phase 2+ GSM equipment. Consideration has been given to align the requirements of this Standard with:

- (i) the European *DIRECTIVE 1999/5/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity* (the R&TTE Directive); and
- (ii) the Official Journal of the European Union (2003/C 271/03) *Commission communication in the framework of the implementation of the Council Directive 1999/5/EC which lists ETSI EN 301 511: V9.0.2 Global System for Mobile communications (GSM); Harmonised standard for mobile stations in the GSM 900 and DCS 1800 bands covering essential requirements under Article 3.2 of the R&TTE Directive (1999/5/EC)*.

Requirements for International Mobile Equipment Identification (IMEI) security have been aligned with ETSI TS 151 010-1.

Requirements for emergency call service access are specified in AS/ACIF S042.1.

The interoperability of GSM CE was identified by the committee as an ongoing matter. A review of the Standard is scheduled for 12 months after it is registered allowing for industry members to monitor any issues arising from its implementation.

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1 INTERPRETATIVE GUIDELINES

1.1 Categories of requirements

This Standard contains mandatory requirements as well as provisions that are recommendatory only. Mandatory requirements are designated by the words '**shall**' or '**shall not**'. All other provisions are voluntary.

1.2 Compliance statements

Compliance statements, in italics, suggest methodologies for demonstrating CE's compliance with the requirements.

1.3 Definitions, expressions and terms

If there is any conflict between the definitions used in this Standard and the definitions used in the *Telecommunications Act 1997*, the definitions in the Act take precedence.

1.4 Notes

Text denoted as 'Note' is for guidance in interpretation and is shown in smaller size type.

1.5 References

- (a) Applicable editions (or versions) of other documents referred to in this Standard are specified in Section 3: REFERENCES.
- (b) If a document refers to another document, the other document is a sub-referenced document.
- (c) Where the edition (or version) of the sub-referenced document is uniquely identified in the reference document, then that edition (or version) applies.
- (d) Where the edition (or version) of the sub-referenced document is not uniquely identified in the reference document, then the applicable edition (or version) is that which is current at the date the reference document is legislated under the applicable regulatory framework, or for a non- legislated document, the date upon which the document is published by the relevant standards organisation.
- (e) A number in square brackets '[]' refers to a document listed in Section 3: REFERENCES.

1.6 Units and symbols

In this Standard the International System (SI) of units and symbols is used in accordance with Australian Standard AS ISO 1000 [1].

2 SCOPE

- 2.1 This Standard applies to GSM Customer Equipment (CE). It defines the technical conditions and requirements for GSM CE that is designed or intended for use in connection with a GSM public mobile telecommunications service (PMTS) and is an addressable device.
- 2.2 CE is not excluded from the scope of this Standard by reason only that it is capable of performing functions additional to those described in this Standard.

3 REFERENCES

	Publication	Title
	Australian Standards	
[1]	AS ISO 1000:1998	The International System of Unit (SI) and its application
	AS/ACIF Standards	
	AS/ACIF S042	Requirements for connection to an air interface of a telecommunications network
[2]	AS/ACIF S042.1:1999	Part 1: General
	ACIF Guidelines	
[3]	ACIF G548:1999	Supporting arrangements for AS/ACIF S042 Requirements for connection to an air interface of a telecommunications network
	ETSI Standards	
[4]	ETSI TS 151 010-1 V4.9.0 (2002-07)	Digital cellular telecommunications system (Phase 2+); Mobile Station (MS) conformance specification; Part 1: Conformance specification (3GPP TS 51.010-1 version 4.9.0 Release 4)
[5]	ETSI TS 151 010-1 V6.2.1 (2005-04)	Digital cellular telecommunications system (Phase 2+); Mobile Station (MS) conformance specification; Part 1: Conformance specification (3GPP TS 51.010-1 version 6.2.1 Release 6)
[6]	ETSI EN 301 511 V9.0.2 (2003-03)	Global System for Mobile communications (GSM); Harmonized EN for mobile stations in the GSM 900 and GSM 1800 bands covering essential requirements under article 3.2 of the R&TTE directive (1999/5/EC)

Note: AS/ACIF S042.1 [2] and ACIF G548 [3] are being revised at the time of publication of this Standard.

4 ABBREVIATIONS AND DEFINITIONS

For the purposes of this Standard, the following abbreviations and definitions and those of Part 1 apply:

4.1 Abbreviations

ACMA	Australian Communications and Media Authority
ACIF	Australian Communications Industry Forum
AS	Australian Standard
CE	Customer Equipment
EN	European Norm
GSM	Global System for Mobile communications
ETSI	European Telecommunications Standards Institute
IMEI	International Mobile Equipment Identity
IMSI	International Mobile Subscriber Identity
ISO	International Standardization Organization
ME	Mobile Equipment
PMTS	Public Mobile Telecommunications Service
SIM	Subscriber Identity Module
RF	Radiofrequency
STS	Standard Telephone Service
TS	Technical Standard

4.2 Definitions

4.2.1 Customer Equipment (CE)

Refer to the *Telecommunications Act 1997*.

4.2.2 GSM

Global System for Mobile Communications (GSM) as specified by ETSI and 3GPP.

Note: The complete specification provides requirements for not only the GSM CE but the infrastructure requirements.

4.2.3 GSM Customer Equipment (GSM CE)

CE that is designed or intended for use in connection with a GSM PMTS. GSM CE comprises of the Mobile Equipment (ME) with the Subscriber Identity Module (SIM). A GSM CE includes all equipment including terminal adapters required for provision of speech teleservices, bearer and supplementary services.

4.2.4 Mobile Equipment (ME)

A GSM CE less the Subscriber Identity Module (SIM). The mobile equipment contains the 15 digit international mobile equipment identity (IMEI) used to uniquely identify a GSM CE.

- 4.2.5 Public Mobile Telecommunications Service
Refer to section 32 of the *Telecommunications Act 1997*.
- 4.2.6 Subscriber Identity Module (SIM)
A removable module which is used in the GSM authentication procedures and contains the international mobile subscriber identity (IMSI) as well as other subscriber data.
- 4.2.7 Standard Telephone Service
Refer to the *Telecommunications (Consumer Protection and Service Standards) Act 1999*.

5 REQUIREMENTS

5.1 RF compatibility, network integrity and interoperability with the STS

GSM CE **shall** comply with the requirements of ETSI EN 301 511 [6] including the requirements incorporated by reference and found in ETSI TS 151 010-1 [4].

Compliance with Clause 5.1 should be demonstrated by way of a compliant test report.

5.2 IMEI security

GSM CE **shall** comply with *IMEI security* requirements of ETSI TS 151 010-1 [5].

Compliance with Clause 5.2 should be by way of self declaration.

6 TESTING

6.1 Verification of compliance with requirements

Compliance with all mandatory requirements in this AS/ACIF Standard is to be verified. This may be done by direct measurement, modelling and analysis, operation or inspection.

Methods for demonstrating compliance of CE with the requirements clauses specified in this AS/ACIF Standard are described in the referenced Standards.

Verification of compliance with the referenced standards may be confirmed by test reports to later versions of the referenced standards provided that all clauses of the referenced standards are shown to be met.

Alternative methods of demonstrating compliance to those described may be used if the risk of passing non-compliant CE is not increased because of increased measurement uncertainty.

PARTICIPANTS

The Working Committee that developed this Standard consisted of the following organisations:

Organisation	Membership
Australian Communications and Media Authority	Non-Voting
Australian Communications Industry Forum	Non-Voting
Cisco Systems	Voting
Motorola	Voting
NEC Australia	Voting
Nokia Australia	Voting
Optus	Voting
Telstra	Voting
Vodafone Australia	Voting

This Working Committee was chaired by Joseph Liroi. Mike Johns of ACIF provided project management support.

The policy objective of the greatest practicable use of industry self-regulation without imposing undue financial and administrative burdens on industry is central to the regulatory scheme of the *Telecommunications Act 1997*.

ACIF was established to implement the policy of industry self-regulation. It is a company limited by guarantee and is a not-for-profit membership-based organisation. Its membership comprises carriers/carriage service providers, business and residential consumer groups, industry associations and individual companies.

ACIF's mission is to develop collaborative industry outcomes that foster the effective and safe operation of competitive networks, the provision of innovative services and the protection of consumer interests. In the development of Industry Codes and Technical Standards as part of its mission, ACIF's processes are based upon its principles of openness, transparency, consensus, representation and consultation. Procedures have been designed to ensure that all sectors of Australian society are reasonably able to influence the development of Standards and Codes. Representative participation in the work of developing a Code or Standard is encouraged from relevant and interested parties. All draft Codes and Standards are also released for public comment prior to publication to ensure outputs reflect the needs and concerns of all stakeholders.



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