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Requirements for connection to an air interface of a Telecommunications Network— Part 4: IMT-2000 and IMT-Advanced Customer Equipment

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Australian STANDARD

Draft Australian Standard – *Requirements for connection to an air interface of a Telecommunications Network— Part 4: IMT-2000 and IMT-Advanced Customer Equipment*

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Guidance for public comment on DR AS/CA S042.4:2025

This draft Standard is the outcome of the revision of AS/CA S042.4:2022 undertaken by the Communications Alliance WC107 : ***PMTS and Satellite Service Customer Equipment Standards*** Working Committee. The two-month public comment phase is a part of the requirements of Communications Alliance Operating Procedures for the development or revision of an AS/CA Standard.

The reader is invited to comment on the requirements for customer equipment scoped within this Standard and on the following proposed recommendations. All submissions received will be made publicly available on the Communications Alliance website unless the submitter requests otherwise.

Please return comments by 6 May 2025 to:
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This draft is available from www.commsalliance.com.au for download.

Background

The AS/CA S042 *Requirements for connection to an air interface of a Telecommunications Network* Standard specifies the general requirements and test methods for CE for use in connection with a PMTS or a Satellite Service in order to meet the regulatory arrangements for such equipment in Australia.

Changes to Part 1, 4 and 5

The primary objective of this revision is to update the Emergency Call Services (ECS) requirements and introduce new requirements for Emergency Cell Broadcast (ECB) for the National Messaging System (NMS), and to review the requirements for satellite services.

This edition of the Standard introduces new requirements for CE to support the NMS, which utilises Cell Broadcast (CB) technology to distribute targeted Emergency Warning Messages to compatible mobile phones and other devices in near real time. The requirements are based on ETSI Standards used for the European EU-Alert Public Warning System and follow a similar approach as in other jurisdictions, such as the US CMAS (Commercial Mobile Alert System) (also known as Wireless Emergency Alerts (WEA)) and the Japanese Earthquake and Tsunami Warning System (ETWS).

This Standard does not include general requirements for CE accessing Non-Terrestrial Networks (NTN). These requirements, including those for Emergency Call Services (ECS) and Emergency Cell Broadcast (ECB), are under development within the 3GPP and will be reviewed at a future point in time when they become stable. Radiofrequency (RF) requirements for NTN spectrum bands are specified in Part 4 of this Standard.

The objective of the revision of Parts 4 and 5 is to align the spectrum band requirements in the Standard with current CE capabilities and service offerings.

The principal differences between these editions of AS/CA S042.1, AS/CA S042.4 and AS/CA S042.5 and the previous editions are list in the Introduction of each Part.

Compliance arrangements

This Standard is intended to be enforceable by the ACMA under the ACMA *Telecommunications (Labelling Notice for Customer Equipment and Customer Cabling) Instrument 2015* (TLN) or its replacement. Information on the ACMA TLN is available from the ACMA *Find the right labelling notice* at https://www.acma.gov.au/find-right-labelling-notice.

The 2025 versions of AS/CA S042.1, AS/CA S042.4 and AS/CA S042.5 will be mandated by the ACMA *Telecommunications (Mobile Equipment Air Interface) Technical Standard 2022*. A 12-month transition period for all Parts will apply, commencing on the day all three Parts are published, targeting Q3 2025.

FOREWORD

General

This Standard was prepared by Communications Alliance and most recently revised by the WC107 : *PMTS and Satellite Service Customer Equipment Standards* Working Committee. 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 (ACIF).

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.

Communications Alliance was formed in 2006 and continues the functions previously fulfilled by ACIF.

This Standard is a revision of AS/CA S042.4: 2018 *Requirements for connection to an air interface of a Telecommunications Network— Part 4: IMT Customer Equipment*.

This Standard is the result of a consensus among representatives on the Communications Alliance 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 an Emergency Call Service (ECS); 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.

The Standard should be read in conjunction with *AS/CA S042.1: General.*

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

Intellectual property rights

Equipment which is manufactured to comply with this Standard may require the use of technology which is protected by patent rights in Australia. Questions about the availability of such technology, under licence or otherwise, should be directed to the patent holder or Australian licensee (if known) or through enquiry at IP Australia which incorporates the Patent, Designs and Trade Marks and Offices. Further information can be found at www.ipaustralia.gov.au.

Standards revision

Australian Standards (AS/ACIF and AS/CA Standards) developed by Communications Alliance, are updated according to the needs of the industry,

by amendments or revision. Users of these Standards should make sure that they possess the latest amendments or editions. Representations concerning the need for a change to this AS/CA Standard should be addressed to—

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

Regulatory notice

The 2025 version of AS/CA S042.4 is mandated by the ACMA *Telecommunications (Mobile Equipment Air Interface) Technical Standard 2022*. A 12-month transition period for AS/CA S042.4:2022 applies commencing on the day AS/CA S042.4:2025 is published.

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

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INTRODUCTION

This introduction for the AS/CA S042.4 ***Requirements for connection to an air interface of a Telecommunications Network— Part 4: IMT-2000 and IMT-Advanced 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 and to list the principle differences between the new and the previous edition.

The reader is directed to the clauses of this Standard for the specific requirements and to the 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 Notice for Customer Equipment and Customer Cabling) Instrument 2015* (the TLN) can be obtained from the ACMA website at www.acma.gov.au.

The objective of Part 4 is to align the spectrum band requirements and associated test methods for IMT-2000 and IMT-Advanced CE in order to comply with the regulatory arrangements for such CE in Australia.

The objective of this revision is to bring the Standard spectrum band requirements up to date with current CE capabilities and service offerings.

The principal differences between this edition of AS/CA S042.4 and the previous edition are—

(a) updates to the references, including the addition and removal of ETSI Standards in line with changes to spectrum band support;

(b) the removal of requirements for UTRA and the referenced ETSI Standards (the former Clause 5.1). Due to this deletion the clause numbering in this Standard has changed;

(c) the addition of E-UTRA Band 26 (850 MHz) (Clause 5.1.4.2);

(d) the addition of E-UTRA NTN Bands 255 (2 GHz) and 256 (2 GHz) for NB IoT (Clause 5.1.6.2.3); and

(e) a new informative appendix on the minimum band support to enable emergency calling on all networks, supporting amendments to the *Telecommunications (Emergency Call Service) Determination 2019*.

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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 mandatory documents referred to in this Standard are specified in Section 3: REFERENCES. The bibliography contains information about other publications referred to in this Standard e.g. publications only referred to in notes and informative appendices.

(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].

1.7 Parts of Standards

CE scoped by this Standard is to comply with the applicable technology-specific Part(s) of this Standard.

2 SCOPE

2.1 This Standard applies to IMT-2000 and IMT-Advanced CE. It defines the technical conditions and requirements for IMT CE that is designed or intended for use in connection with an IMT-2000 and IMT-Advanced public mobile telecommunications service (PMTS) and is an addressable device.

Note: In the context of this scope, CE intended for connection to a service includes CE capable of connection to a service.

2.2 This Standard applies to IMT CE based upon the following IMT-2000 and IMT-Advanced technologies:

(a) UTRA FDD.

(b) E-UTRA FDD and E-UTRA TDD.

(c) OFDMA TDD WMAN.

2.3 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

For ETSI Standards where a Release is cited (e.g. Release 14, 15 or 18), the applicable minimum Standard is the latest version of that Standard in the same Release.

However, parties to agreements based on this Standard are encouraged to investigate the possibility of applying the most recent Releases and versions of the cited documents.

	Publication	Title
	Australian Standards	
[1]	AS ISO 1000 -1998	The international System of Unit (SI) and its application.
	EC Publications	
[2]	Radio Equipment Directive (RED)	Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC
	ETSI publications	
[3]	ETSI TS 122 016 V15.0.0 (2018-07)	Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; International Mobile station Equipment Identities (IMEI) (3GPP TS 22.016)
[4]	ETSI TS 122 185	LTE; Service Requirements for V2X services
[5]	ETSI TS 136 101	LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception (3GPP TS 36.101)
[6]	ETSI TS 136 102	LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception for satellite access (3GPP TS 36.102)
[7]	ETSI TS 136 300	LTE; Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2
[8]	ETSI TS 136 321	LTE Evolved Universal Terrestrial Radio Access (E-UTRA) Medium Access Control (MAC) Protocol Specification (3GPP TS 36.321)

	Publication	Title
[9]	ETSI TS 136 322	LTE Evolved Universal Terrestrial Radio Access (E-UTRA) Radio Link Control (RLC) Protocol Specification (3GPP TS 36.322)
[10]	ETSI TS 136 323	LTE Evolved Universal Terrestrial Radio Access (E-UTRA) Packet Data Convergence Protocol (PDCP) Specification (3GPP TS 36.323)
[11]	ETSI TS 136 331	LTE Evolved Universal Terrestrial Radio Access (E-UTRA) Radio Resource Control (RCC) Protocol Specification (3GPP TS 36.331)
[12]	ETSI TS 136 521-1	LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing (3GPP TS 36.521-1)
[13]	ETSI TS 136 521-4	LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 4: Satellite access Radio Frequency (RF) and performance Conformance Testing (3GPP TS 36.521-4)
[14]	ETSI TS 136 523-1	LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part1 Protocol conformance specification (3GPP TS 36.523-1)
[15]	ETSI TS 136 523-2	LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part2: Implementation Conformance Statement (ICS) proforma specification (3GPP TS 36.523-2)
[16]	ETSI TS 136 523-3	LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part3: Test Suites (3GPP TS 36.523-3)
[17]	ETSI EN 301 908-1	IMT cellular networks; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 1: Introduction and common requirements

	Publication	Title
[18]	ETSI EN 301 908-13	IMT cellular networks; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 13: Evolved Universal Terrestrial Radio Access (E-UTRA) User Equipment (UE)
[19]	ETSI EN 301 908-19	IMT cellular networks; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 19: OFDMA TDD WMAN (Mobile WiMAX™) TDD User Equipment (UE)
	FCC Requirements	
[20]	FCC Part 22 Rules	Public Mobile Services (URL: http://www.access.gpo.gov/nara/cfr/waisidx_05/47cfr22_05.html)
	ITU-T Recommendations	
[21]	X.509 (10/16)	Information technology - Open Systems Interconnection - The Directory: Public-key and attribute certificate frameworks

4 ABBREVIATIONS AND DEFINITIONS

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

4.1 Abbreviations

Cat M1	Category M1
EC	European Commission
EN	European Norm
FCC	Federal Communications Commission
ID	Identifier
IoT	Internet of Things
LAA	License Assisted Access
LPWA	Low-Power Wide-Area
NB	Notified Body
NB-IoT	NarrowBand Internet of Things
R&TTE	Radiocommunications & Telecommunications Terminal Equipment
RED	Radio Equipment Directive
TCB	Telecommunication Certified Body
TRP	Total Radiated Power
TRS	Total Radiated Sensitivity
V2X	Vehicle-to-Everything

4.2 Definitions

4.2.1 Carrier Aggregation

Carrier Aggregation is the aggregation of two or more LTE component carriers in the downlink, uplink or both, in order to support wider transmission bandwidths. FDD and TDD LTE component carriers in both licensed and unlicensed spectrum can be part of any Carrier Aggregation combination.

4.2.2 Cat M1

LTE Cat M1 is a LPWA technology which supports IoT through lower device complexity which provides extended coverage and long battery life. LTE Cat M1 uses a 1.4 MHz bandwidth and has a peak downlink and uplink data rate of 1 Mbps. Refer to ETSI 136 300 [7]

4.2.3 NB-IoT

NB-IoT is a cellular LPWA technology that significantly improves the power consumption of devices, system capacity and spectrum efficiency, especially in deep coverage.

NB-IoT uses a 200 kHz bandwidth and has a peak downlink and uplink data rate of 250 kbps. Refer to ETSI TS 136 300 [7]

4.2.4 V2X

Vehicle-to-everything describes a set of technologies that allow vehicles to communicate with each other and other smart transport solutions via existing cellular networks. Refer to ETSI 122 185 [4]

5 REQUIREMENTS

5.1 E-UTRA FDD and E-UTRA TDD

5.1.1 Applicability

The requirements in Clause 5.1 are applicable to CE based upon E-UTRA FDD and E-UTRA TDD technologies.

5.1.2 IMEI security

CE **shall** comply with IMEI security requirements of ETSI TS 122 016 [3].

Note: This requirement has been reproduced from Part 1 to avoid a potential compliance gap during the transition period of the applicable Standards. It will be removed from Part 4 during the next revision of this Part.

Compliance with Clause 5.1.2 should be by way of a manufacturer's DoC.

5.1.3 Core Protocol Specifications

CE **shall** comply with the applicable mandatory requirement of the following ETSI Specifications:

(a) ETSI TS 136 321 [8]

(b) ETSI TS 136 322 [9]

(c) ETSI TS 136 323 [10]

(d) ETSI TS 136 331 [11]

Note: The applicable mandatory requirements mean the relevant mandatory requirements in the ETSI specifications which have been implemented in the CE and commercially deployed by the manufacturer.

Compliance with Clause 5.1.3 should be demonstrated by way of a manufacturer's DoC for the applicable mandatory requirements.

Note: Formal conformance test cases covering mandatory requirements are defined in ETSI TS 136 523-1 [14], ETSI TS 136 523-2 [15] and ETSI TS 136 523-3 [16].

5.1.4 Single carrier

5.1.4.1 RED E-UTRA bands

CE used in the bands listed in Table 1 **shall** comply with the requirements of ETSI EN 301 908-1 [17] and ETSI EN 301 908-13 [18] for RF compatibility, network integrity and interoperability with the STS excluding those requirements relating to antenna performance.

Compliance with Clause 5.1.4.1 should be demonstrated by way of a—

(a) test report, excluding Receiver Total Radiated Sensitivity (TRS) and Total Radiated Power (TRP) test cases);

(b) EU-Type Examination by a Notified Body (NB), based on conformity assessment procedures described in the RED, Annex III [2]; or

(c) manufacturer's DoC, based on conformity assessment procedures described in the RED, Annex III [2].

Note: Radiated antenna performance requirements are outside the scope of this Standard.

TABLE 1
E-UTRA Bands under ETSI

Band No.	Band frequency
FDD Band 1	2.1 GHz
FDD Band 3	1.8 GHz
FDD Band 7	2.6 GHz
FDD Band 8	900 MHz
FDD Band 28	700 MHz
TDD Band 38	2.6 GHz
TDD Band 40	2.3 GHz
TDD Band 42	3.5 GHz

5.1.4.2 FCC E-UTRA Bands

CE used in in the bands listed in Table 2 **shall** comply with the requirements of FCC Part 22 Rules [20] for RF compatibility, network integrity and interoperability with the STS.

TABLE 2
E-UTRA Bands under FCC Rules

Band No.	Band frequency
FDD Band 5	850 MHz
FDD Band 26	850 MHz

Compliance with Clause 5.1.4.2 should be demonstrated by way of a—

(a) test report;

(b) FCC/TCB Grant of Equipment Authorization, based on FCC ID to FCC requirements; or

(c) manufacturer's DoC.

5.1.5 Carrier Aggregation

5.1.5.1 RED Carrier Aggregation combinations

CE used in any combination of bands listed in Table 3 for Carrier Aggregation **shall** comply with the requirements of ETSI EN 301 908-1 [17] and ETSI EN 301 908-13 [18] for RF compatibility, network integrity and interoperability with the STS.

TABLE 3

Bands used for Carrier Aggregation

Band No.	Band frequency
FDD Band 1	2.1 GHz
FDD Band 3	1.8 GHz
FDD Band 5	850 MHz
FDD Band 7	2.6 GHz
FDD Band 8	900 MHz
FDD Band 26	850 MHz
FDD Band 28	700 MHz
TDD Band 38	2.6 GHz
TDD Band 40	2.3 GHz
TDD Band 42	3.5 GHz
TDD Band 46	5 GHz

Compliance with Clause 5.1.5.1 should be demonstrated by way of a—

(a) test report;

(b) EU-Type Examination by a Notified Body (NB), based on conformity assessment procedures described in the RED, Annex III [2]; or

(c) manufacturer's DoC, based on conformity assessment procedures described in the RED, Annex III [2].

Note 1: Conformance test cases covering mandatory transmitter and receiver requirements for Carrier Aggregation combinations are defined in ETSI TS 136 521-1 [12].

Note 2: Compliance options (a) and (b) may contain E-UTRA bands listed in Table 1 only. Subject to the CE Carrier Aggregation configurations, further evidence (DoC) may be required.

5.1.5.2 Other Carrier Aggregation combinations

For Carrier Aggregation combinations that are not defined in ETSI EN 301 908-13 [18], CE used in any combination of bands listed in Table 3 for Carrier Aggregation **shall** comply with the mandatory transmitter and receiver requirements for Carrier Aggregation of Clauses 6 and 7 of ETSI 136 101 [4] for RF compatibility, network integrity and interoperability with the STS.

Compliance with Clause 5.1.5.2 should be demonstrated by way of a manufacturer's DoC against the mandatory transmitter and receiver requirements for Carrier Aggregation of ETSI TS 136 101 [4] which are designated by the words 'shall' or 'shall not'.

5.1.6 Cellular Internet of Things

5.1.6.1 Cat M1

5.1.6.1.1 RED E-UTRA Bands

CE used in the bands listed in Table 4 for Cat M1 **shall** comply with the requirements of ETSI EN 301 908-1 [17] and ETSI EN 301 908-13 [18] for RF compatibility, network integrity and interoperability with the STS.

TABLE 4
Cat M1 E-UTRA Bands under ETSI

Band No.	Band frequency
FDD Band 1	2.1 GHz
FDD Band 3	1.8 GHz
FDD Band 7	2.6 GHz
FDD Band 8	900 MHz
FDD Band 28	700 MHz
TDD Band 40	2.3 GHz

Compliance with Clause 5.1.6.1.1 should be demonstrated by way of a—

(a) test report;

(b) EU-Type Examination by a Notified Body (NB), based on conformity assessment procedures described in the RED, Annex III [2]; or

(c) manufacturer's DoC based on conformity assessment procedures described in the RED, Annex III [2].

5.1.6.1.2 FCC E-UTRA Band 5

CE used in in the band listed in Table 5 for Cat M1 **shall** comply with the requirements of FCC Part 22 Rules [18] for RF compatibility, network integrity and interoperability with the STS.

TABLE 5
Cat M1 E-UTRA Band under FCC Rules

Band No.	Band frequency
FDD Band 5	850 MHz

Compliance with Clause 5.1.6.1.2 should be demonstrated by way of a—

(a) test report;

(b) FCC/TCB Grant of Equipment Authorization, based on FCC ID to FCC requirements; or

(c) manufacturer's DoC.

5.1.6.2 NarrowBand IoT

5.1.6.2.1 RED E-UTRA Bands

CE used in the bands listed in Table 6 for NB IoT **shall** comply with the requirements of ETSI EN 301 908-1 [17] and ETSI EN 301 908-13 [18] for RF compatibility and network integrity.

TABLE 6
NB-IoT E-UTRA Bands under ETSI

Band No.	Band frequency
FDD Band 1	2.1 GHz
FDD Band 3	1.8 GHz
FDD Band 8	900 MHz
FDD Band 28	700 MHz

Compliance with Clause 5.1.6.2.1 should be demonstrated by way of a—

(a) test report;

(b) EU-Type Examination by a Notified Body (NB), based on conformity assessment procedures described in the RED, Annex III [2]; or

(c) manufacturer's DoC based on conformity assessment procedures described in the RED, Annex III [2].

5.1.6.2.2 FCC E-UTRA Band 5

CE used in in the band listed in Table 7 for NB IoT **shall** comply with the requirements of FCC Part 22 Rules [18] for RF compatibility, network integrity and interoperability with the STS.

TABLE 7
NB-IoT E-UTRA Band under FCC Rules

Band No.	Band frequency
FDD Band 5	850 MHz

Compliance with Clause 5.1.6.2.2 should be demonstrated by way of a—

(a) test report;

(b) FCC/TCB Grant of Equipment Authorization, based on FCC ID to FCC requirements; or

(c) manufacturer's DoC.

5.1.6.2.3 NTN E-UTRA Bands

CE used in the bands listed in Table 8 for NB IoT **shall** comply with the mandatory transmitter and receiver requirements for NTN of Clauses 6 and 7 of ETSI TS 136 102 [6] for RF compatibility and network integrity.

TABLE 8

NTN E-UTRA Bands under ETSI

Band No.	Band frequency
FDD Band 255	2 GHz
FDD Band 256	2 GHz

Compliance with Clause 5.1.6.2.3 should be demonstrated by way of a—

(a) test report; or

(b) manufacturer's DoC against the mandatory transmitter and receiver requirements for NTN of ETSI TS 136 102 [6] which are designated by the words 'shall' or 'shall not'.

Note 1: Formal conformance test cases covering mandatory transmitter and receiver requirements for NTN are defined in ETSI TS 136 521-4 [13].

5.1.7 V2X

CE used in the bands listed in Table 9 for V2X **shall** comply with the mandatory transmitter and receiver requirements for V2X of Clauses 6 and 7 of ETSI 136 101 [4] for RF compatibility and network integrity.

Compliance with Clause 5.1.7 should be demonstrated by way of a—

(a) test report; or

(b) manufacturer's DoC against the mandatory transmitter and receiver requirements for V2X of ETSI TS 136 101 [4] which are designated by the words 'shall' or 'shall not'.

Note 1: Formal conformance test cases covering mandatory transmitter and receiver requirements for V2X are defined in ETSI TS 136 521-1 [12].

TABLE 9
V2X Bands

Band No.	Band frequency
FDD Band 3	1.8 GHz
FDD Band 7	2.6 GHz
FDD Band 8	900 MHz
TDD Band 47	5.9 GHz

5.2 OFDMA TDD WMAN

5.2.1 Applicability

The requirements in Clause 5.2 are applicable to CE based upon OFDMA TDD WMAN technologies.

5.2.2 PKC security

CE **shall** comply with PKC security requirements of ITU-T Recommendation X.509 [21].

Note: This requirement has been reproduced from Part 1 to avoid a potential compliance gap during the transition period of the applicable Standards. It will be removed from Part 4 during the next revision of this Part.

Compliance with Clause 5.2.2 should be by way of a manufacturer's DoC.

5.2.3 TDD Band Class 3 (2.5 GHz)

CE used in the band listed in Table 10 **shall** comply with the requirements of ETSI EN 301 908-19 [19] for RF compatibility, network integrity and interoperability with the STS.

TABLE 10
OFDMA TDD WMAN Band Class 3

Band No.	Band frequency
TDD Band Class 3	2.5 GHz

Compliance with Clause 5.2.3 should be demonstrated by way of a test report.

5.2.4 TDD Band Class 5 (3.5 GHz)

CE used the band listed in Table 11 **shall** comply with the requirements of ETSI EN 301 908-19 [19] for RF compatibility, network integrity and interoperability with the STS.

TABLE 11
OFDMA TDD WMAN Band Class 5

Band No.	Band frequency
TDD Band Class 5	3.5 GHz

Compliance with Clause 5.2.4 should be demonstrated by way of a test report.

6 TESTING

6.1 Verification of compliance with requirements

Compliance with all mandatory requirements in this AS/CA 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/CA Standard are described in the requirements clauses and 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.

APPENDIX

A Minimum band support required for CE intended to be used with all mobile carriers (INFORMATIVE)

CE intended for use with any Mobile Carrier Network and based upon E-UTRA FDD and E-UTRA TDD technologies—

(a) may support FDD Band 1, 3, 5, 8, and 28; and

(b) may support the other bands in Tables 1 and 2.

Note: At the time of publishing 'Any Mobile Network', refers to Optus, Telstra and TPG Telecom.

NOTES

PARTICIPANTS

The Working Committee responsible for the revisions made to this Standard consisted of the following organisations:

Organisation	Membership
ACMA	Non-Voting
Apple	Voting
Certification Body Australia	Voting
Cisco Systems	Voting
Comtest Laboratories	Voting
EchoStar Global	Voting
Google	Voting
Motorola Mobility Australia	Voting
Omnispace Australia	Voting
nbn	Voting
Optus	Voting
Samsung	Voting
Telstra	Voting
TPG Telecom	Voting

This Working Committee was chaired by Steve Vodicka of Telstra. Mike Johns of Communications Alliance provided project management support.

HMD Global resigned from the Working Committee during the course of the project.

Communications Alliance was formed in 2006 to provide a unified voice for the Australian communications industry and to lead it into the next generation of converging networks, technologies and services.

In pursuing its goals, Communications Alliance offers a forum for the industry to make coherent and constructive contributions to policy development and debate.

Communications Alliance seeks to facilitate open, effective and ethical competition between service providers while ensuring efficient, safe operation of networks, the provision of innovative services and the enhancement of consumer outcomes.

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