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**CLASSIFICATION OF STANDARDS RELATED TO
PUBLIC TELECOMMUNICATIONS SERVICES**



FOREWORD

1. This Standardisation Guide describes the classification of ~~HKTA~~ **HKCA** specifications issued by the ~~Telecommunications Authority (TA)~~ **Communications Authority (CA)** and other standards used by network operators related to public telecommunications services. This Standardisation Guide shall be observed by operators of the public telecommunications networks (PTNs) ~~including operators of Fixed Telecommunication Network Services (FTNS) and Public Mobile Radiotelephone Service (PMRS) / Personal Communications Service (PCS) as well as holders of fixed carrier licence and mobile carrier licence (hereafter referred to as "the operators")~~ in Hong Kong.
2. Pursuant to Section 32D of the Telecommunication Ordinance (Cap. 106), the ~~TA~~ **CA** may prescribe standards and specifications of telecommunications networks, systems, installations, customer equipment and services. Standards and specifications issued by the ~~TA~~ **CA** are in the form of ~~HKTA~~ **HKCA** specifications. For public telecommunications services, the general principles and scope of standardisation can be referred to the Standardisation Guide ~~HKTA~~ **HKCA** 3203 "General Principles and Scope of Standardisation for Public Telecommunication Services". In case that the need to set standard by the ~~TA~~ **CA** for the concerned service is not justified in accordance with ~~HKTA~~ **HKCA** 3203, the operators may use other standards which should in general be widely accepted, open and non-proprietary.
3. The classification of standards related to public telecommunications services is intended to define the responsibility of the operators in their provision of telecommunications services for the purpose of ensuring interconnectivity of terminal equipment and networks with the PTNs and interoperability of the telecommunications services over the PTNs. The contents of this Guide shall not be taken as basis for violation of any terms and conditions of any licence issued by the ~~TA~~ **CA** or limiting the ~~TA~~ **CA** to exercise any power under the Telecommunication Ordinance.
4. In order to give the operators, equipment suppliers as well as customers the widest choice of technologies, ~~HKTA~~ **HKCA** specifications are classified as mandatory only when considered necessary by the ~~TA~~ **CA**. The criteria for the classification are given in this Standardisation Guide.
5. The ~~TA~~ **CA** may amend any part of this document as and when he deems necessary.
6. In case of doubt about the interpretation of this document, the decision of the ~~TA~~ **CA** shall be final.
7. The ~~HKTA~~ **HKCA** series documents are issued by the ~~TA~~ **CA**. The documents can be obtained through one of the following methods:-
 - download direct through the ~~OFTA's~~ **OFCA's** Internet Home Page. The Home Page address is <http://www.ofca.gov.hk> ~~http://www.ofca.gov.hk~~;
 - hard copies will be available upon request to:-

Senior Telecommunications Engineer (Standards)
Standards Section,
Office of the ~~Telecommunications~~ **Communications** Authority,
29/F Wu Chung House,
213 Queen's Road East, Wanchai, Hong Kong.

8. If further information is required, please contact :

Senior Telecommunications Engineer (Standards)
Office of the ~~Telecommunications~~ **Communications** Authority
29/F, Wu Chung House,
213 Queen's Road East,
Wanchai,
Hong Kong.

Fax: +852 2838 5004

Email: standards@ofta.gov.hk standards@ofca.gov.hk

AMENDMENT TABLE

Item	Issue No.	Paragraph	Descriptions
1.	Issue 2	Title	Re-title document from "Classification of Wireline HKTA 2XXX Series Specifications" to "Classification of Standards Related to Public Telecommunications Services"
2.	Issue 2	Foreword	Include editorial changes.
3.	Issue 2	Body	Re-write Clause 2 and add new Clauses 3 and 4
4.	Issue 2	Schedules A-C	Re-number old Schedule A as new Schedule B for HKTA 2XXX Series Specifications. Add new Schedule A for HKTA 10XX Series Specifications and new Schedule C for Operator-specific Technical Standard.
5	Issue 3	All	Consequential amendments of the document as a result of the establishment of the CA and OFCA.

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1. INTRODUCTION

This Standardisation Guide describes the classification of standards issued by the ~~Telecommunications Authority (TA)~~ **Communications Authority (CA)** and other standards used by the operators for provision of public telecommunications services.

2. CLASSIFICATION OF STANDARDS

2.1 CATEGORIES OF STANDARDS

According to the criteria in clauses 2.2, standards related to public telecommunications services are classified into three categories, namely :-

- a) **Technical Standard I (TS I)** – the standard is issued by the ~~TA~~ **CA** in the form of ~~HKTA~~ **HKCA** specification and it defines mandatory requirements to be met by the operators if the telecommunications network, system, installation customer equipment or service as set out in the concerned specification is to be provided;
- b) **Technical Standard II (TS II)** – the standard is issued by the ~~TA~~ **CA** in the form of ~~HKTA~~ **HKCA** specification and it defines requirements which constitute one option of implementation by the operators if the telecommunications network, system, installation, customer equipment or service as set out in the concerned specification is to be provided; but the operators can use other open and non-proprietary standards which are accepted by the ~~TA~~ **CA**; and
- c) **Operator-specific Technical Standard (OTS)** – the standard is notified by the operators to the ~~TA~~ **CA** and it defines specific requirements implemented by individual operator at their discretion if the telecommunications network, system, installation, customer equipment or service as set out in the concerned specification is to be provided. An OTS is *not* a standard issued by the ~~TA~~ **CA**.

2.2 CRITERIA FOR CLASSIFICATION

2.2.1 TS I

- a) the standard covers the provision of basic telecommunications services;
- b) the standard is related to interworking among the operators;
- c) there is a need to ensure interoperability of services from a customer's point of view
- d) there is already open, well-defined and world-wide accepted standard in existence;
- e) there are public concerns in terms of safety, interference to other users, efficient use of telecommunications resources as well as proper operation of the telecommunications equipment to be governed by a mandatory standard;

- f) the standard is for meeting regulatory requirements (e.g. metering and billing accuracy, numbering) mandated by the ~~TA~~ **CA**;
- g) there may be massive subscription of the concerned service of which a mandatory standard will allow easy adaptability of the customer equipment in respect of change of network operator or service provider.

2.2.2 TS II

- a) the standard is for certain enhanced service applications (e.g. Analogue Display Services Interface);
- b) there may be massive subscription of the concerned service;
- c) the standard is based on open and non-proprietary standard;
- d) there is no world-wide accepted standard available or where it is premature to set the common standard due to the rapid technology change

2.2.3 OTS

- a) the standard is for certain special service applications;
- b) the concerned applications will affect a small number of telecommunications users;
- c) there is no open standard in existence;
- d) there is no immediate need for setting a common standard in Hong Kong

2.3 CLASSIFICATION OF ~~HKTA~~ **HKCA** SPECIFICATIONS

2.3.1 ~~HKTA~~ **HKCA** specifications in relation to public telecommunications services and classified as TS I or TS II are given in the following Schedules to this Guide:-

Schedule A: ~~HKTA~~ **HKCA** 10XX Series Specifications for Radio Equipment and Services

Schedule B: ~~HKTA~~ **HKCA** 2XXX Series Specifications for Wireline Equipment and Services

2.3.2 The Schedules will be subject to revision on a regular basis to scope with the continuous development of ~~HKTA~~ **HKCA** specifications.

3. IMPLEMENTATION STATUS OF STANDARDS

3.1 The operators shall notify the ~~TA~~ **CA** of their status of implementation for ~~HKTA~~ **HKCA** specifications classified as TS I and TS II as given in Schedules A and B.

3.2 In the provision of public telecommunications services, if an individual operator uses a standard which is not covered by an ~~HKTA~~ **HKCA** specification and which falls within the

scope of standardisation described in ~~HKTA~~ **HKCA** 3203 "General Principles and Scope of Standardisation for Public Telecommunications Services", the operator shall upon request submit information to the ~~TA~~ **CA** about the standard implementation. The submission should contain the minimum information as listed in Schedule C to this Guide. If the ~~TA~~ **CA** considers that there is no need of issuing ~~HKTA~~ **HKCA** specification for the concerned equipment or services, the standard will be classified as OTS and will be kept in an inventory maintained by ~~OFTA~~ **OFCA**. If the ~~TA~~ **CA** considers that individual OTS should be published for public information, prior consultation will be made with the ~~TSAC~~ **SSAC** or its working groups.

- 3.3 For ~~HKTA~~ **HKCA** specifications classified as TS I, the operators shall have prior approval by the ~~TA~~ **CA** before changing the status of implementation from "support" to "not support" in their networks.
- 3.4 For ~~HKTA~~ **HKCA** specifications classified as TS II, the operators shall give prior notification to the TA not less than 12 months in advance before changing the status of implementation from "support" to "not support" in their networks.
- 3.5 For standards classified as OTS, the operators shall give prior notification to the ~~TA~~ **CA** not less than 6 months in advance before changing the status of implementation from "support" to "not support" in their networks.

4. REFERENCE

- [1] ~~HKTA~~ **HKCA** 3201 "General Procedure for Setting Telecommunications Standards and Related Policies" issued by the ~~Telecommunications~~ **Communications** Authority"
- [2] ~~HKTA~~ **HKCA** 3203 "General Principles and Scope of Standardisation for Public Telecommunications Services" issued by the ~~Telecommunications~~ **Communications** Authority"

- END -

SCHEDULE A CLASSIFICATION OF ~~HKTA~~ **HKCA 10XX SERIES SPECIFICATIONS (UP TO ~~JUNE 2001~~ **JANUARY 2014**)**

No.	Title	Classification	Applicable operators	Remarks
HKCA 1001	Performance Specification for Single-Sideband Radiotelephone Transmitting and Receiving Equipment Operating in the Frequency Band 1.605 MHz to 27.5 MHz for Voluntary Fitting in Small Crafts	NA		
HKCA 1002	Performance Specification for Angle Modulated VHF and UHF Radio Transmitters and Receivers for Use as Base, Mobile and Portable Equipment in the Land Mobile Radio Service	NA		
HKCA 1003	Performance Specification for Private Fixed Link Equipment with a Capacity of 12 or 24 FDM-FM Channels in the Frequency Band 1429 - 1530 MHz	NA		
HKCA 1004	Performance Specification for VHF Transmitters and Receivers for Use in the Public Paging Service	NA		
HKCA 1005	Performance Specification for Angle Modulated VHF Maritime Band Radio Equipment for Voluntary Fitting in Small Craft	NA		
HKCA 1006	Performance Specification for Radio Equipment Operating in the Bands 1.7 MHz and 47 MHz for Cordless Telephone Service	NA		
HKCA 1007	Performance Specification for the Limits and Methods of Measurement of Electromagnetic Disturbance Characteristics of Industrial, Scientific and Medical (ISM) Radio-Frequency Equipment	NA		
HKCA 1008	Performance Specification for Low Power Radio Microphones, Including Associated Receiving Equipment	NA		
HKCA 1015	Performance Specification for Radio Equipment Operating in the Band 864.1 to 868.1 MHz for Cordless Telephone Services	NA		

No.	Title	Classification	Applicable operators	Remarks
HKCA 1016	Performance Specification for Angle Modulated Radio Equipment for Use at Repeater, Base and Mobile Stations in 800 MHz Trunked Radio	NA		
HKCA 1019	Performance Specification for TV Antenna Amplifiers	NA		
HKCA 1020	Performance Specification of the Base Station System (BSS) Equipment for use in the Public Mobile Radiotelephone Service (PMRS) Employing Global System for Mobile Communications (GSM) or in the Personal Communications Service (PCS)	TS I	PMRS/PCS mobile services	Specification shall be complied by PMRS/PCS mobile services operators providing mobile services based on GSM standard.
HKCA 1022	Performance Specification for Citizen Band (CB) Radio Transceivers for Use On-Board Fishing Vessels	NA		
HKCA 1026	Performance Specification for radio equipment operating in the bands 46MHz and 49MHz for cordless telephone service	NA		
HKCA 1027	Performance Specification For Personal Handy Phone System (PHS) Equipment For Private Use	NA		
HKCA 1028	Performance Specification For Digital Enhanced Cordless Telecommunications (DECT) Equipment For Public and Private Use	NA		
HKCA 1029	Performance Specification for 800 MHz TDMA Dual Mode Mobile Station for Use in the Public Mobile Radiotelephone Service	TS I	PMRS/PCS mobile services	Specification shall be complied by PMRS/PCS mobile services operators providing TDMA-based mobile services operating in 800 MHz band.
HKCA 1030	Performance Specification for 800 MHz Base Station Supporting TDMA Dual-Mode Mobile Station for Use in Public Mobile Radiotelephone Service	TS I	PMRS/PCS mobile services	Specification shall be complied by PMRS/PCS mobile services operators providing TDMA-based mobile services operating in 800 MHz band.
HKCA 1031	Performance Specification for CDMA Dual-Mode Mobile Station for Use in the Public Mobile Radiotelephone Service	TS I	PMRS/PCS	Specification shall be complied by PMRS/PCS mobile services operators providing CDMA-

No.	Title	Classification	Applicable operators	Remarks
			mobile services	based mobile services operating in 800 MHz band.
HKCA 1032	Performance Specification For 800 MHz Base Station Supporting CDMA Dual-Mode Mobile Station For Use In The Public Mobile Radiotelephone Service	TS I	PMRS/PCS mobile services	Specification shall be complied by PMRS/PCS mobile services operators providing CDMA-based mobile services operating in 800 MHz band.
HKCA 1033	Performance Specification of Mobile Stations and Portable Equipment for Use in the Public Mobile Radiotelephone Service (PMRS) Employing Global System for Mobile Communications (GSM) and/or in the Personal Communications Service (PCS)	TS I	PMRS/PCS mobile services	Specification shall be complied by PMRS/PCS mobile services operators providing mobile services based on GSM standard.
HKCA 1034	Performance Specification For Digital Enhanced Cordless Telecommunications (DECT) Equipment for Private Use only	NA		
HKCA 1035	Method of Measurement for Low Power Devices	NA		
HKCA 1036	Performance Specification for Digital Fixed Link Equipment Operating in the 38 GHz Frequency Band	NA		
HKCA 1037	Performance Specification for Digital Fixed Link Equipment Operating in the 23 GHz Frequency Band	NA		
HKCA 1039	Performance Specification for Radiocommunications Apparatus Operating in the 2.4 GHz or 5 GHz Band and Employing Frequency Hopping or Digital Modulation	NA		
HKCA 1041	Performance Specification for Radiocommunications Apparatus Operating in the 27 MHz Band for Private Use	NA		
HKCA 1042	Performance Specification for Radio Equipment Operating in the 5 GHz Band for Wireless Access	NA		
HKCA 1043	Performance Specification for Base Station and Repeater Equipment for Use in the Third Generation (3G) Mobile Communications Services Employing CDMA Direct Spread (UTRA FDD)	TS I	mobile services	Specification shall be complied by mobile services operators providing mobile services based on UTRA FDD standard.
HKCA 1044	Performance Specification for Short-range Portable Radio	NA		

No.	Title	Classification	Applicable operators	Remarks
	operating in the 409 MHz Band			
HKCA 1045	Performance Specification for Cordless Telephone Operating in the 254 MHz and 380 MHz Bands	NA		
HKCA 1046	Method of Measurement for Radio Transmitter for Use in the Land Mobile Service	NA		
HKCA 1047	Performance Specification of Radio Equipment for use in the Trunked Mobile Radio System employing Terrestrial Trunked Radio (TETRA) Technology	NA		
HKCA 1048	Performance Specification for User Equipment for Use in the Third Generation (3G) Mobile Communications Services Employing CDMA Direct Spread (UTRA FDD)	TS I	mobile services	Specification shall be complied by mobile services operators providing mobile services based on UTRA FDD standard.
HKCA 1049	Performance Specification for Radio Frequency Identification (RFID) Equipment Operating in the 865 – 868 MHz and/or 920 – 925 MHz Bands	NA		
HKCA 1050	Performance Specification for 26.96 - 27.41 MHz Citizens Band (CB) Radio Transceivers	NA		
HKCA 1052	Performance Specification for Medical Implant Communication Systems	NA		
HKCA 1053	Performance Specification for Base Station and Repeater Equipment for Use in the Third Generation (3G) Mobile Communications Services Employing cdma2000 Spread Spectrum	TS I	mobile services	Specification shall be complied by mobile services operators providing mobile services based on cdma2000 standard.
HKCA 1054	Performance Specification for Mobile Station for Use in the Third Generation (3G) Mobile Communications Services Employing CDMA2000 Spread Spectrum	TS I	mobile services	Specification shall be complied by mobile services operators providing mobile services based on cdma2000 standard.
HKCA 1056	Performance Specification for Base Station and Repeater Equipment for Use in Public Mobile Communications Services based on Evolved Universal Terrestrial Radio Access (E-UTRA) Frequency Division Duplex (FDD)	TS I	mobile services	Specification shall be complied by mobile services operators providing mobile services based on E-UTRA standard.
HKCA 1057	Performance Specification for User Equipment for Use in Public Mobile Communications Services based on Evolved Universal Terrestrial Radio Access (E-UTRA) Frequency Division Duplex (FDD)	TS I	mobile services	Specification shall be complied by mobile services operators providing mobile services based on E-UTRA standard.
HKCA 1061	Performance Specification for Short Range Devices Operating in the 433 MHz Band	NA		

No.	Title	Classification	Applicable operators	Remarks
HKCA 1063	Performance Specification for Digital Fixed Link Equipment Operating in the 26 GHz Frequency Band	NA		
HKCA 1064	Performance Specification for Global System for Mobile Communications – Railway (GSM-R) Radiocommunications Equipment	NA		
HKCA 1065	Performance Specification for Multi-Standard Radio (MSR) Base Station	TS I	mobile services	Specification shall be complied by mobile services operators providing mobile services using MSR base stations.
HKCA 1066	Performance Specification for Ground-Based VHF Radio Equipment for the VHF Aeronautical Mobile Service	NA		
HKCA 1067	Performance Specification for Ground-Based VHF Digital Link (VDL) Mode 2 Radio Equipment	NA		

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TS I	Technical Standard Class I
TS II	Technical Standard Class II
NA	Not Applicable to Public Telecommunications Services

SCHEDULE B CLASSIFICATION OF ~~HKTA~~ **HKCA 2XXX SERIES SPECIFICATIONS (UP TO ~~JUNE 2001~~ **JANUARY 2014**)**

No.	Title	Classification	Applicable operators	Remarks
HKCA 2001	Compliance Test Specification Safety and Electrical Protection Requirements for Subscriber Equipment Connected to the Public Telecommunications Networks in Hong Kong	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing subscriber equipment in customer premises.
HKCA 2005	Network Connection Specification for Connection of 50-Baud or 300-Baud Subscriber Telex Equipment To the Public Telex Network in Hong Kong	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing telex services.
HKCA 2011	Network Connection Specification for Connection of Customer Premises Equipment (CPE) to Direct Exchange Lines (DEL) of the Public Switched Telephone Network (PSTN) in Hong Kong	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing DELs.
HKCA 2012	Network Connection Specification of Calling Number Display Service For Customer Premises Equipment (CPE) to Be Connected to the Public Switched Telephone Network (PSTN) in Hong Kong (1/96)	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing CND service over DELs.
HKCA 2013	Network Connection Specification for Connection Of Customer Premises Equipment (CPE) to Direct-Dial-In (DDI) Line of the Public Switched Telephone Network (PSTN) in Hong Kong	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing DDI lines.
HKCA 2014	Network Connection Specification for Connection of Customer Premises Equipment (CPE) to the Public Telecommunications Network (PTN) in Hong Kong using ISDN Basic Rate Access based on ITU-T Recommendations	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing ISDN BRA based on ITU-T Recommendations.
HKCA 2015	Network Connection Specification for Connection of Customer Premises Equipment (CPE) to the Public Telecommunications Network (PTN) in Hong Kong using ISDN Primary Rate Access based on ITU-T Recommendations at 1544 kbits/s	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing ISDN PRA at 1544 kbit/s based on ITU-T Recommendations.

No.	Title	Classification	Applicable operators	Remarks
HKCA 2016	Network Connection Specification for Connection of Customer Premises Equipment (CPE) to the Public Telecommunications Network (PTN) in Hong Kong using Asynchronous Transfer Mode (ATM)	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing ATM services.
HKCA 2017	Network Connection Specification for connection of Customer Premises Equipment (CPE) to the Public Telecommunications Network (PTN) in Hong Kong over Digital Trunk At 1544 kbits/s using DTMF Signalling	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing Digital Trunk at 1544 kbits/s using DTMF Signalling.
HKCA 2018	Network Connection Specification for connection of Customer Premises Equipment (CPE) to the Public Telecommunications Network (PTN) in Hong Kong over Digital Trunk at 1544 kbits/s using DTMF Signalling with Calling Line Identification (CLI) from the PTN	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing CND service over Digital Trunk at 1544 kbits/s using DTMF Signalling.
HKCA 2019	Network Connection Specification for Connection of Customer Premises Equipment (CPE) to the Public Telecommunications Network (PTN) in Hong Kong by Direct Exchange Line (DEL) with Data Interface to support Analogue Display Services (ADS)	TS II	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing Analogue Display Services Interface over DELs.
HKCA 2020	Performance Specification for Private Payphone Equipment (To Comply with Interim Single Payphone Common Access (SPCA) Requirements) using Access Line to be connected to the Public Fixed Telecommunications Network in Hong Kong	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing Access Line for connection with Private Payphone Equipment.
HKCA 2021	Network Connection Specification for Connection of Customer Premises Equipment (CPE) to the Public Telecommunications Network (PTN) in Hong Kong by ISDN Basic Rate Access (BRA) Interface Using Metallic Loops on the Network	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing ISDN BRA.

No.	Title	Classification	Applicable operators	Remarks
HKCA 2022	Network Connection Specification for Calling Name Display (CNAM) Service for Customer Premises Equipment (CPE) to be Connected to the Public Switched Telephone Network (PSTN) in Hong Kong	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing CNAM service over DELs.
HKCA 2023	Network Connection Specification for Connection of Customer Premises Equipment with Voiceband Operation to the Private Circuits Provided by the Fixed Telecommunications Network Services (FTNS) Operators in Hong Kong	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing Voiceband Private Circuits.
HKCA 2024	Performance Specification for Private Payphone Equipment (Not Required to Comply with Interim Single Payphone Common Access (SPCA) Requirements) using Access Line to be Connected to the Public Fixed Telecommunications Network in Hong Kong	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing Access Line for connection with Private Payphone Equipment.
HKCA 2025	Network Connection Specification for Connection of Customer Premises Equipment (CPE) to the Public Telecommunications Network in Hong Kong for Broadband Digital Audio-Visual Services	TS II	FTNS fixed services	Specification constitutes one option of implementation which may be complied by FTNS fixed services operators providing Broadband Digital Audio-Visual Services.
HKCA 2026	Network Connection Specification for Connection of Customer Premises Equipment (CPE) to the Public Telecommunications Network (PTN) in Hong Kong using ISDN Basic Rate Access Based on ANSI Specifications	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing ISDN BRA based on ANSI Specifications.
HKCA 2027	Network Connection Specification for Connection of Customer Premises Equipment (CPE) to the Public Telecommunications Network (PTN) in Hong Kong using ISDN Primary Rate Access Based on ANSI Specifications at 1544 kbit/s	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing ISDN PRA at 1544 kbit/s based on ANSI Specifications.
HKCA 2028	Network Connection Specification for Connection of Customer Premises Equipment (CPE) to the Public Telecommunications Networks (PTNs) in Hong Kong using Digital Leased Circuits at Data Rate of 1544 kbit/s	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing Digital Leased Circuits at 1544 kbit/s.

No.	Title	Classification	Applicable operators	Remarks
HKCA 2029	Network Connection Specification for Connection of Customer Premises Equipment (CPE) to the Public Telecommunications Networks (PTNs) in Hong Kong using Digital Leased Circuits at Data Rate of 2048 kbit/s	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing Digital Leased Circuits at 2048 kbit/s.
HKCA 2030	Network Connection Specification for Connection of Customer Premises Equipment (CPE) to the Public Telecommunications Networks (PTNs) in Hong Kong using Digital Leased Circuits at Data Rates of nx64 kbit/s	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing Digital Leased Circuits at nx64 kbit/s.
HKCA 2031	Network Connection Specification for Connection of Customer Premises Equipment (CPE) to the Public Telecommunications Networks (PTNs) in Hong Kong using Digital Leased Circuits at Data Rates Below 64 kbit/s	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators providing Digital Leased Circuits below 64 kbit/s.
HKCA 2032	Network Connection Specification for Connection of Customer Premises Equipment (CPE) to Fixed Telecommunications Networks in Hong Kong Using Asymmetric Digital Subscriber Lines (ADSL) Based on ITU-T Recommendation G.992.1	TS II	FTNS fixed services	Specification constitutes one option of implementation which may be complied by FTNS fixed services operators providing ADSL services.
HKCA 2033	Network Connection Specification for Connection of Customer Premises Equipment (CPE) to Fixed Telecommunications Networks in Hong Kong Using Splitterless Asymmetric Digital Subscriber Lines (ADSL) Based on ITU-T Recommendation G.992.2	TS II	FTNS fixed services	Specification constitutes one option of implementation which may be complied by FTNS fixed services operators providing ADSL services.
HKCA 2034	Network Connection Specification for Connection of Customer Premises Equipment (CPE) to the Public Telecommunications Networks in Hong Kong Using Asynchronous Transfer Mode (ATM) with Switched Virtual Connection (SVC)	TS II	FTNS fixed services	Specification constitutes one option of implementation which may be complied by FTNS fixed services operators providing ATM services with SVC.
HKCA 2035	General Requirements of Telecommunications Equipment for Connection to In-Building Coaxial Cable Distribution System (IBCCDS)	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators having telecommunications equipment connected to IBCCDS.

No.	Title	Classification	Applicable operators	Remarks
HKCA 2036	Network Connection Specification for Cable Modem based on ITU-T Recommendation J.112 Annex B and used as Customer Premises Equipment (CPE) for Access to Public Telecommunications Services via In-Building Coaxial Cable Distribution System (IBCCDS)	TS II	FTNS fixed services	Specification constitutes one option of implementation which may be complied by FTNS fixed services operators providing cable modem services.
HKCA 2102	Requirements for Number Portability by Database Solution	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators supporting Operator Number Portability.
HKCA 2103	Requirements for Mobile Number Portability by Database Solution	TS I	FTNS PMRS/PCS fixed/mobile services	Specification shall be complied by FTNS and PMRS/PCS fixed/mobile services operators supporting Mobile Number Portability.
HKCA 2104	Functional Specification of Administration Database for Mobile Number Portability	TS I	FTNS PMRS/PCS fixed/mobile services	Specification shall be complied by FTNS and PMRS/PCS fixed/mobile services operators supporting Mobile Number Portability.
HKCA 2105	Implementation of Operator Number Portability	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed operators supporting Operator Number Portability.
HKCA 2106	Procedures for Handling Number Migration	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators supporting Operator Number Portability.
HKCA 2107	Procedures for the Provision of Operator Number Portability	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators supporting Operator Number Portability.
HKCA 2201	General Technical Characteristics of the Fixed Telecommunications Networks in Hong Kong	TS I	FTNS fixed services	Specification shall be complied by FTNS fixed services operators in general.
HKCA 2202	Network Connection Specification for Network-to-Network Connection of the Public Telecommunications Network (PTN) In Hong Kong based on ITU-T Common Channel Signalling System No. 7	TS I	FTNS PMRS/PCS fixed/mobile	Specification shall be complied by FTNS and PMRS/PCS fixed/mobile services operators using C7 for interconnection and by equipment / platforms permitted to interconnect with the PTNs

No.	Title	Classification	Applicable operators	Remarks
			services	using C7.
HKCA 2203	Network Connection Specification for Network-to-Network Connection of Calling Name Identification Service in the Public Telecommunications Network (PTN) in Hong Kong	TS I	FTNS PMRS/PCS fixed/mobile services	Specification shall be complied by fixed/mobile services operators providing CNAM service and using C7 for interconnection.
HKCA 2204	Network Connection Specification for Network-to-Network Connection of Call Forwarding Services in the Public Telecommunications Networks (PTNs) in Hong Kong	TS I	fixed/mobile services	Specification shall be complied by fixed/mobile services operators providing Call Forward Service.
HKCA 2301	Specification for Lawful Interception of Communications for Public Mobile Networks	TS II	mobile services	Specification shall be complied by mobile services operators.

LEGEND

- TS I Technical Standard Class I
- TS II Technical Standard Class II

SCHEDULE C Minimum Information to be submitted by Operators of Public Telecommunications Networks (PTNs) for consideration as Operator-specific Technical Standard (OTS)

The following are the minimum information for a standard which is proposed to the ~~TA~~ **CA** by an operator of PTN for consideration of classification as an OTS.

1. Name of Standard
2. Name of Operator
3. Date of Support for the Standard
4. Introduction

{ which may contain statements about copyright, IPR, non-disclosure, relationship with other standards etc }
5. Scope of Standard
6. Type of Standard

{ which may be of the following types :

 - (a) customer equipment;
 - (b) user-to-network interface;
 - (c) network-to-network interface;
 - (d) others (please specify) }
7. Technical Characteristics

{ which may include detailed description or reference to open standards on the following:

 - (a) physical interconnect point
 - (b) electrical safety requirements
 - (c) electrical characteristics
 - (d) signalling protocols
 - (e) others (please specify)
8. References
9. Point of contact for enquiry on the proposed standard