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**BASIC REQUIREMENTS OF  
TELECOMMUNICATIONS EQUIPMENT FOR  
CONNECTION TO IN-BUILDING COAXIAL  
CABLE DISTRIBUTION SYSTEM (IBCCDS)**



**TELECOMMUNICATIONS AUTHORITY  
HONG KONG**

## **FOREWORD**

1. This specification is issued pursuant to Section 32D of the Telecommunications Ordinance (Cap. 106). This specification sets out the basic requirements of telecommunications equipment for connection to the In-Building Coaxial Cable Distribution System (IBCCDS). The IBCCDS refers to the coaxial cable systems in residential and/or business premises for the distribution and relaying of signals for telecommunications, broadcasting and security services. The IBCCDS may include Communal Aerial Broadcast Distribution (CABD) Systems, Satellite Master Antenna Television (SMATV) Systems, Closed Circuit Television (CCTV) Systems, Cable Television (CTV) Systems or any combination of these systems.
2. Under the TA Statement dated 15 July 1999 on “Frequency layout Plan of In-building Coaxial Cable Distribution Systems”, the Telecommunications Authority (TA) has specified a number of basic requirements (paragraph 51 of the Statement) for set-top boxes attached to IBCCDS for access to telecommunications and broadcasting services. These requirements shall be complied by telecommunications equipment attached to IBCCDS wherever applicable.
3. The TA may amend any part of this specification as and when he deems necessary.
4. The TA Statement, HKTA specifications and information notes issued by the TA can be obtained through one of the following methods:-
  - Downloading direct through the OFTA’s Internet Home Page. The Home Page address is <http://www.ofta.gov.hk>;
  - Making a request for hard copies to:-

Radio Laboratory  
Standards Section  
Office of the Telecommunications Authority  
29/F Wu Chung House  
213 Queen’s Road East  
Wanchai  
Hong Kong

Fax: +852 2343 5824  
Email: [certification@ofta.gov.hk](mailto:certification@ofta.gov.hk)

5. Enquiries about this specification may be directed to:-

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## AMENDMENT TABLE

Item	Issue No.	Paragraph	Descriptions
1.	Issue 2	Foreword	The Foreword is updated in order to align with other HKTA specifications.
2.	Issue 3	2.2, 3.1, 4.1, 5.2, 7	Editorial changes and update to the title of the HKTA specifications under reference.

## **CONTENTS**

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## **1. SCOPE**

This specification sets out the basic requirements of telecommunications equipment for connection to the In-Building Coaxial Cable Distribution System (IBCCDS).

## **2. ELECTRICAL SAFETY**

### **2.1 PRINCIPLE OF PROTECTION**

In order to safeguard operating personnel, users, and plant, it is essential to prevent the transmission of excessive voltages from the equipment into the public telecommunications networks (PTNs) in Hong Kong.

### **2.2 SAFETY REQUIREMENTS**

The equipment shall comply with HKTA 2001 “Compliance Test Specification - Safety and Electrical Protection Requirements for Subscriber Telecommunications Equipment” issued by the TA.

## **3. FREQUENCY ALLOCATION AND CHANNEL PLAN**

### **3.1 FREQUENCY ALLOCATION**

The equipment shall provide for transmission and reception of signals carried on the IBCCDS in compliance with the frequency allocation plan as given in the Annexes of HKTA 1105 “Technical Information for Frequency Planning of In-building Coaxial Cable Distribution System (IBCCDS)” issued by the TA.

### **3.2 CHANNEL PLAN**

3.2.1 The equipment shall be capable of operating on adjacent channels as defined in the frequency allocation plan of IBCCDS (see clause 3.1).

3.2.2 The equipment shall be tunable for operation in different channels allocated for telecommunications services in the IBCCDS. The tunable range of the equipment shall be within the frequency range of the IBCCDS, i.e.

- (a) 5 to 50 MHz for upstream signals (transmission of signals from the equipment to IBCCDS); and
- (b) 54 to 862 MHz for downstream signals (reception of signals from IBCCDS by the equipment)

## **4. PERFORMANCE REQUIREMENTS FOR CONNECTION TO IBCCDS**

4.1 The equipment shall provide for transmission and reception of all wanted and unwanted signals such that it does not affect or cause interference to other signals and

services being distributed or relayed in the IBCCDS in compliance with HKTA 1104 “Performance Requirements for In-Building Coaxial Cable Distribution System (IBCCDS)”.

- 4.2 If the equipment is equipped with by-pass outputs for relaying of signals carried on the IBCCDS to other equipment for telecommunications / broadcasting services, the equipment shall allow upstream signals and downstream signals within the frequency range of the IBCCDS (see clause 3.2.2) to be by-passed with minimum attenuation. The degrade in signal-to-noise ratio introduced by the equipment should be as low as possible and shall be less than 5 dB.

## **5. PREVENTION OF RADIO INTERFERENCE**

- 5.1 The equipment shall provide for transmission and reception of all wanted and unwanted signals such that it does not cause interference with any other authorized telecommunications / broadcasting services including the reception of off-air broadcast sound and television signals.
- 5.2 The transmitted power from the equipment connected to the IBCCDS shall be adjustable and controlled in such a manner that the overall emitted radiation of the IBCCDS shall not exceed the limits as specified in HKTA 1102 “Radiation Limits and Measurement Methods for In-Building Coaxial Cable Distribution system (IBCCDS)” issued by the TA.

## **6. INTERFACE TO PUBLIC TELECOMMUNICATIONS NETWORKS**

The equipment shall comply with other specifications issued by the TA on the interface requirements for access to the public telecommunications services.

## **7. REFERENCE**

- [1] HKTA 2001 “Compliance Test Specification - Safety and Electrical Protection Requirements for Subscriber Telecommunications Equipment” issued by the Telecommunications Authority
- [2] HKTA 1102 “Radiation Limits and Measurement Methods for In-Building Coaxial Cable Distribution System (IBCCDS)” issued by the Telecommunications Authority
- [3] HKTA 1104 “Performance Requirements for In-Building Coaxial Cable Distribution System (IBCCDS)” issued by the Telecommunications Authority
- [4] HKTA 1105 “Technical Information for Frequency Planning of In-Building Coaxial Cable Distribution System (IBCCDS)” issued by the Telecommunications Authority

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