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**NETWORK CONNECTION SPECIFICATION  
FOR CONNECTION OF  
CUSTOMER PREMISES EQUIPMENT (CPE) TO THE  
PUBLIC TELECOMMUNICATIONS NETWORKS  
IN HONG KONG USING  
ASYMMETRIC DIGITAL SUBSCRIBER LINES (ADSL)  
BASED ON ITU-T RECOMMENDATION G.992.1**



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 technical requirements for connection of customer premises equipment (CPE) to the PTNs in Hong Kong using asymmetric digital subscriber lines (ADSL) based on ITU-T Recommendation G.992.1.
2. ADSL may be provided by any one of the FTNS operators in Hong Kong. Supplementary information on network characteristics and services of the FTNS networks may be obtained direct from the operators. Contact information of the FTNS operators can be found in the information note OFTA I 412.
3. At present, the Office of the Telecommunications Authority (OFTA) operates a **Hong Kong Telecommunications Equipment Evaluation and Certification (“HKTEC”)** scheme. Details of the scheme can be found in the information note OFTA I 421. Under the scheme, suppliers or manufacturers may apply to OFTA for certification of their customer premises equipment against this specification. The application procedures for certification of customer premises equipment can be found in the information note OFTA I 412. A prescribed label may be affixed to the equipment which has been certified by the Telecommunications Authority (TA). Details of the labeling arrangement can be found in the Standardisation Guide HKTA 3211.
4. The TA may amend any part of this specification as and when he deems necessary.
5. In case of doubt about the interpretation of this specification, the methods of carrying out the test and the validity of statements made by the manufacturers of the equipment, the decision of the TA shall be final.
6. The TA accepts no responsibility for the satisfactory performance of the CPE connected to the public telecommunications networks. The CPE is not normally evaluated against performance, reliability or quality-of-service parameters.
7. The 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:-

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

Fax: +852 2838 5004  
Email: standards@ofta.gov.hk

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

Senior Telecommunications Engineer  
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213 Queen's Road East  
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## AMENDMENT TABLE

Item	Issue No.	Paragraph	Descriptions
1.	Issue 2	Foreword	Certification and labeling requirements are updated.
2.	Issue 3	Clause 3	Add new clause 3.4 on POTS splitter characteristics.

## **CONTENTS**

- 1. SCOPE**
- 2. ELECTRICAL SAFETY**
- 3. INTERCONNECT POINT**
- 4. INTERFACE ELECTRICAL REQUIREMENTS**
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## **1. SCOPE**

This specification stipulates the minimum technical requirements for connection of customer premises equipment (CPE) to the public telecommunications networks (PTNs) in Hong Kong using asymmetric digital subscriber lines (ADSL) based on the ITU-T Recommendation G.992.1.

## **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 CPE into the PTNs in Hong Kong.

### **2.2 SAFETY REQUIREMENTS**

The CPE shall comply with the HKTA 2001 specification entitled “Compliance Test Specification Safety and Electrical Protection Requirements for Subscriber Equipment Connected to the Public Telecommunications Networks in Hong Kong” issued by the Telecommunications Authority (TA).

## **3. INTERCONNECT POINT**

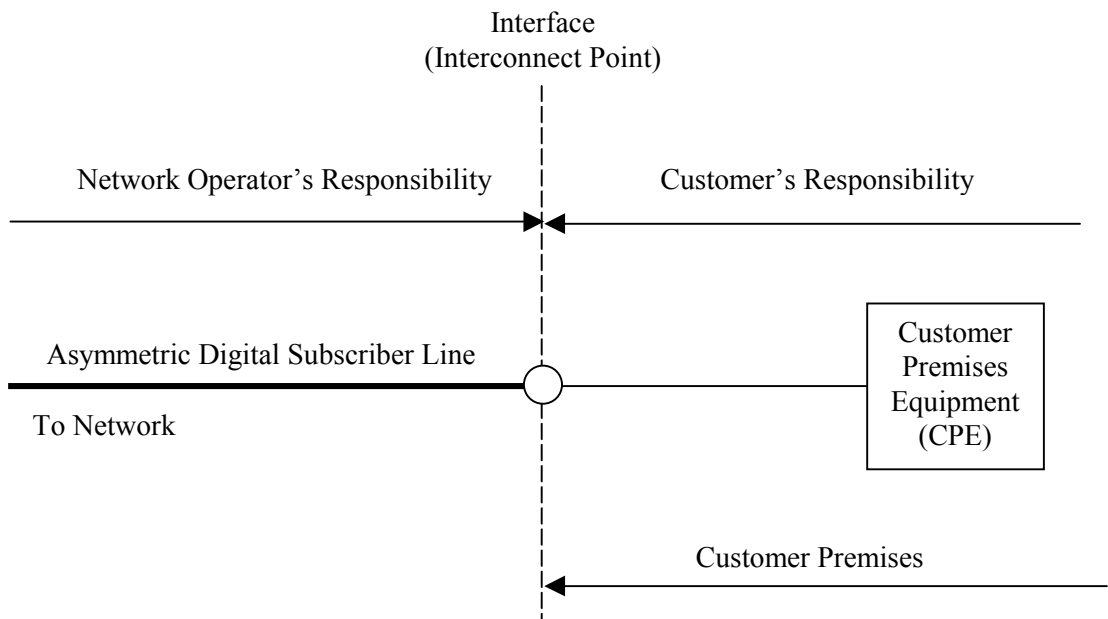
3.1 ADSL may be provided by one or more Fixed Telecommunication Network Services (FTNS) operators (hereafter referred to as the “network operators”) in Hong Kong.

3.2 The interconnect point (IP) marks the division of responsibility between the network operator and the customer (see Figure 1).

3.3 The network operators should provide RJ-45 type sockets for connection, disconnection or re-connection of CPE to the IP. The customer shall be responsible for connection and disconnection of the CPE at the IP.

Note: The network operators may supply other optional types of sockets to meet the service demand of customers.

3.4 Where a POTS splitter is required to allow line-sharing with services using a direct exchange line (DEL) of the public switched telecommunications networks, the splitter shall meet the technical characteristics specified in clause 8.1 of HKTA 2201.



**Figure 1** - Interconnection of CPE with ADSL interface to the PTN at the IP

#### **4. INTERFACE ELECTRICAL REQUIREMENTS**

The interface of the CPE shall comply with the requirements of ITU-T Recommendation G.992.1 “Asymmetric Digital Subscriber Line (ADSL) Transceivers”.

#### **5. REFERENCE**

- 5.1 HKTA 2001 “Safety and Electrical Protection Requirements for Subscriber Equipment Connected to The Public Switched Telephone Network (PSTN) in Hong Kong” issued by the Telecommunications Authority
- 5.2 HKTA 2201 “General Technical Characteristics of Fixed Telecommunications Networks in Hong Kong” issued by the Telecommunications Authority
- 5.3 HKTA 3201 “Standardisation Procedure for Telecommunications Standards and Related Policies” issued by the Telecommunications Authority
- 5.4 ITU-T Recommendation G.992.1 “Asymmetric Digital Subscriber Line (ADSL) Transceivers”

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