



電信技術規範
檢驗規範

ISDN 6100(IS 6100)

修訂日期：96年 7月 20日
通傳法字第 09605108150 號

ISDN用戶終端設備技術規範

國家通訊傳播委員會



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一、依據

本規範係依據電信法第四十二條第一項規定訂定之。

二、適用範圍

(一)本規範所稱之ISDN用戶終端設備包括接入整體服務數位網路（Integrated Services Digital Network, ISDN）之下列各種用戶終端設備：

- 1.ISDN 數位電話機。
- 2.ISDN 個人電腦附加卡。
- 3.ISDN G4傳真機。
- 4.ISDN 影像電話機。
- 5.ISDN 終端配接器、ISDN 終端配接器模組。
- 6.ISDN PABX。
- 7.其他ISDN用戶終端設備等。

(二)本規範審驗用戶終端設備之OSI第一、二、三層通信協定。有關其OSI之高層通信協定，則不在本要點範圍內。

(三)ISDN交換機與110/119集中受理終端設備介接通信協定列為ISDN用戶終端設備之選測項目。

三、供販賣電信終端設備審驗申請表須檢附之技術資料中，其他經國家通訊傳播委員會

指定之資料如下：

(一)廠商測試準備資訊（Client Test Preparation Information, CTPI）二份，其內容包括：

- 1.系統符合性聲明（System Conformance Statement, SCS）。
- 2.協定製作符合性聲明（Protocol Implementation Conformance Statement, PICS）。
- 3.協定製作之額外測試資訊（Protocol Implementation eXtra Information for Testing,

PIXIT)。

- (二)以上廠商測試準備資訊，申請者應依經營ISDN服務之電信事業業者所提供書表格式逐項填寫，俾利進行通訊協定互通測試，書表下載網址：
<http://www.chttl.com.tw>。

四、檢驗項目及標準

- (一)基本速率接取界面：廠商販賣ISDN用戶終端設備之檢驗項目及合格標準如附表一，用戶自用之檢驗項目及合格標準如附表二。
- (二)原級速率接取界面(區分為T1【1.544Mbit/s】、E1【2.048Mbit/s】介面)：廠商販賣ISDN用戶終端設備之檢驗項目及合格標準如附表三、四，用戶自用之檢驗項目及合格標準如附表五、六。
- (三)若申請人只申請基本速率接取界面或原級速率接取界面之檢驗，則只檢驗該接取界面。
- (四)ISDN交換機與110/119集中受理終端設備介接通信協定之檢驗項目及合格標準如附表七(本檢驗項目適用於基本速率接取界面及原級速率接取界面、廠商販賣及用戶自用)，通信介面資料格式及測試規範詳如附件一。【本檢驗項目為選測項目】。
- (五)基本速率接取界面測試項目表詳如附件二，原級速率接取界面測試項目表(區分為T1【1.544Mbit/s】、E1【2.048Mbit/s】介面)詳如附件三、四。
- (六)基本速率接取界面之ISDN用戶終端設備若具備語音功能(指具備Speech或3.1KHz Audio Bearer Capability)，則需加測 μ -law及A-law編解碼(CODEC)相互切換機能。且須於使用手冊上詳述 μ -law及A-law編解碼(CODEC)相互切換之方法。
- (七)原級速率接取界面(T1介面【1.544Mbit/s】)、(E1介面【2.048Mbit/s】)在測試項目上，只有實體層符合性測試項目有差異，數據鏈路層及網路層符合性測試項目均相同。故如設備原級速率接取界面(T1介面【1.544Mbit/s】)已經國家通訊傳播委員會審驗通過，且該設備又同時支援(T1介面【1.544Mbit/s】)、(E1介面【2.048Mbit/s】)，在硬體(Hardware)部份完全相同，則只須補測實體層符合性測試項目。
- (八)檢驗項目之介面標準，須遵循ITU-T 1993年版白皮書中ISDN基本速率接取界面或原級速率接取界面第一、二、三層通信規約之規定。

基本速率接取界面－廠商銷售ISDN用戶終端設備檢驗表

檢驗項目		合格標準
實體層符合性測試		
1	基本互連測試	PH/BS_IC
2	功能特性測試	PH/FN_CH
3	電氣特性測試	PH/ET_CH
4	饋電測試	PH/PW_FD
數據鏈路層符合性測試		
5	終端端點識別符 管理程序測試	LAPD/MGMT
6	複框操作測試	LAPD/MFO
7	系統參數測試	LAPD/SYSTEM
網路層符合性測試		
8	狀態U0測試	ISDN3/U0
9	狀態U1測試	ISDN3/U1
10	狀態U3測試	ISDN3/U3
11	狀態U4測試	ISDN3/U4
12	狀態U8測試	ISDN3/U8
13	狀態U10測試	ISDN3/U10
14	狀態U11測試	ISDN3/U11
15	狀態U19測試	ISDN3/U19

附表二

基本速率接取界面－用戶自用ISDN用戶終端設備檢驗表

	檢驗項目	合格標準
1	實體層饋電測試	PH/PW_FD
2	基本呼叫連接測試	Basic Call Connection

原級速率接取界面－廠商銷售ISDN用戶終端設備檢驗表
(T1介面【1.544Mbit/s】)

檢驗項目		合格標準
實體層符合性測試		
1	功能特性測試	PH/FN_CH
2	電氣特性測試	PH/ET_CH
數據鏈路層符合性測試		
3	複框操作測試	LAPD/MFO
4	系統參數測試	LAPD/SYSTEM
網路層符合性測試		
5	狀態U0測試	ISDN3/U0
6	狀態U1測試	ISDN3/U1
7	狀態U3測試	ISDN3/U3
8	狀態U4測試	ISDN3/U4
9	狀態U8測試	ISDN3/U8
10	狀態U10測試	ISDN3/U10
11	狀態U11測試	ISDN3/U11
12	狀態U19測試	ISDN3/U19

附表四

原級速率接取界面－廠商銷售ISDN用戶終端設備檢驗表
(E1介面【2.048Mbit/s】)

檢驗項目		合格標準
實體層符合性測試		
1	功能特性測試	PH/FN_CH
2	電氣特性測試	PH/ET_CH
數據鏈路層符合性測試		
3	複框操作測試	LAPD/MFO
4	系統參數測試	LAPD/SYSTEM
網路層符合性測試		
5	狀態U0測試	ISDN3/U0
6	狀態U1測試	ISDN3/U1
7	狀態U3測試	ISDN3/U3
8	狀態U4測試	ISDN3/U4
9	狀態U8測試	ISDN3/U8
10	狀態U10測試	ISDN3/U10
11	狀態U11測試	ISDN3/U11
12	狀態U19測試	ISDN3/U19

原級速率接取界面－用戶自用ISDN用戶終端設備檢驗表
(T1介面【1.544Mbit/s】)

	檢驗項目	合格標準
1	基本呼叫連接測試	Basic Call Connection

附表六

原級速率接取界面－用戶自用ISDN用戶終端設備檢驗表
(E1介面【2.048Mbit/s】)

	檢驗項目	合格標準
1	基本呼叫連接測試	Basic Call Connection

ISDN交換機與110/119集中受理終端設備介接通信協定檢驗表

ANI/ALI介接符合性測試		
檢 驗 項 目		合 格 標 準
1	UI_ID=1傳送測試	ANI_ALI/UI_1
2	UI_ID=1重送測試	ANI_ALI/UI_2
3	UI_ID=2傳送測試	ANI_ALI/UI_3

一、110/119網路通信介面資料格式

110/119網路通信介面UI訊息計有下列二種資料格式，定義如下：

(1). ISDN交換機至110/119集中受理ISDN CPE

UI_ID	ANI	Call_Class	User_ID	ALI
1 byte Char	10 bytes Char Array	1 byte Char (S：市話, P：公話, M：行動, R：Pager)	100 bytes Char Array	100 bytes Char Array

註：1.資料長度不足之欄位一律補 '\0' char
2.中文文字以BIG 5碼編碼

所有ALI相關資料共211 bytes，分兩次透過UI Message傳送，第一次送112 bytes(包括UI_ID=1, ANI, Call-Class與User_ID等四個欄位資料)，第二次送101 bytes(包括UI_ID=2, ALI等二個欄位資料)。

(2). 110/119集中受理ISDN CPE至ISDN交換機

UI_ID	ALI_ACK
1 byte	1 byte

註：ALI_Ack = 1 OK; =0 Failed

二、ISDN交換機與110/119集中受理終端設備ANI/ALI介接通信協定 認證測試規範

(一)、範圍

本測試規範含一測試群組(Test Group)，共計三測試項(Test Case)，同時適用於測試BRI/PRI介面。

待測物(IUT - Implementation Under Test)必須先通過ISDN BRA/PRA介面符合性測試。

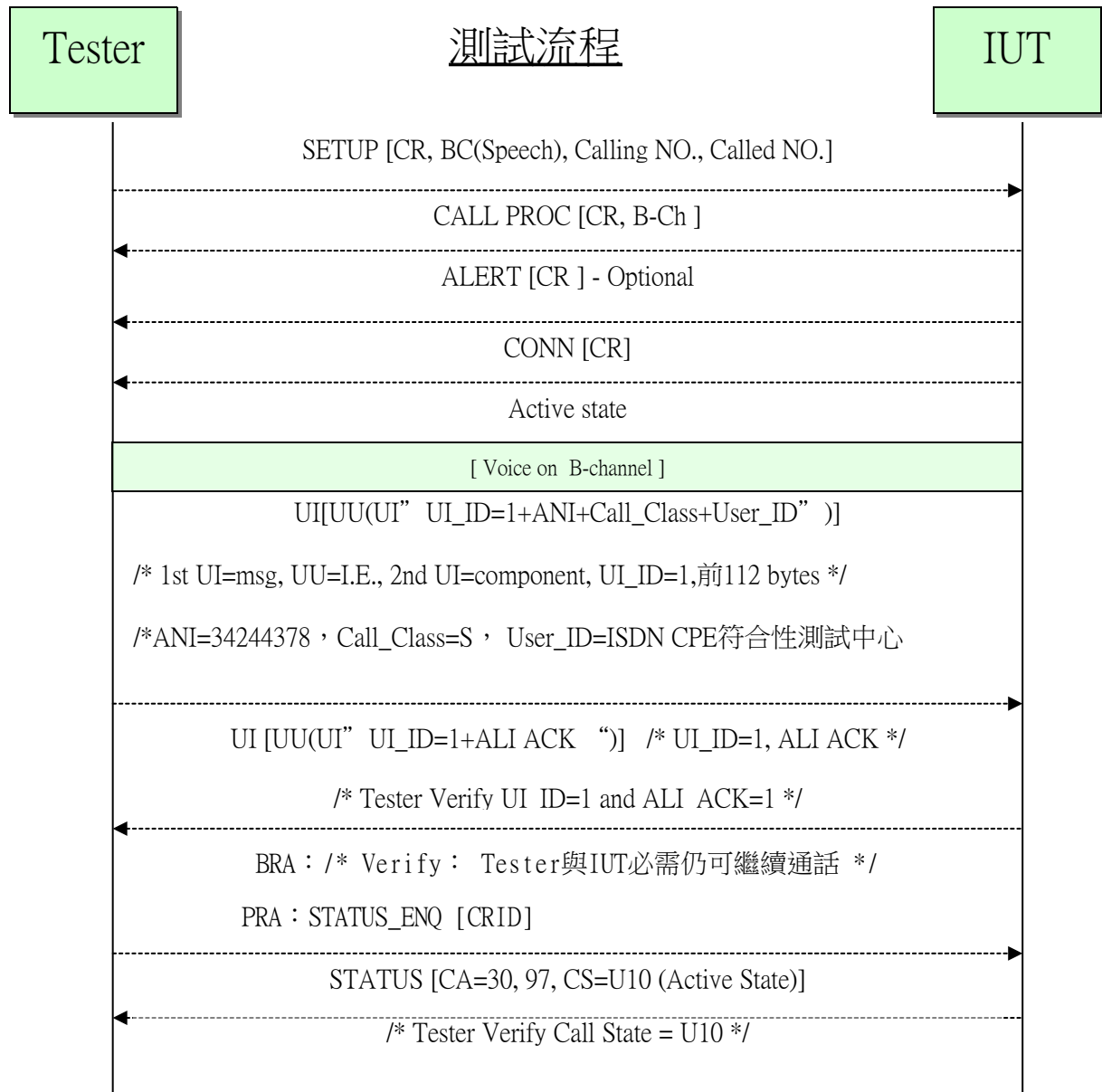
(二)、內容

如后：

Test Group: ANI/ALI

Test Id: UI_1

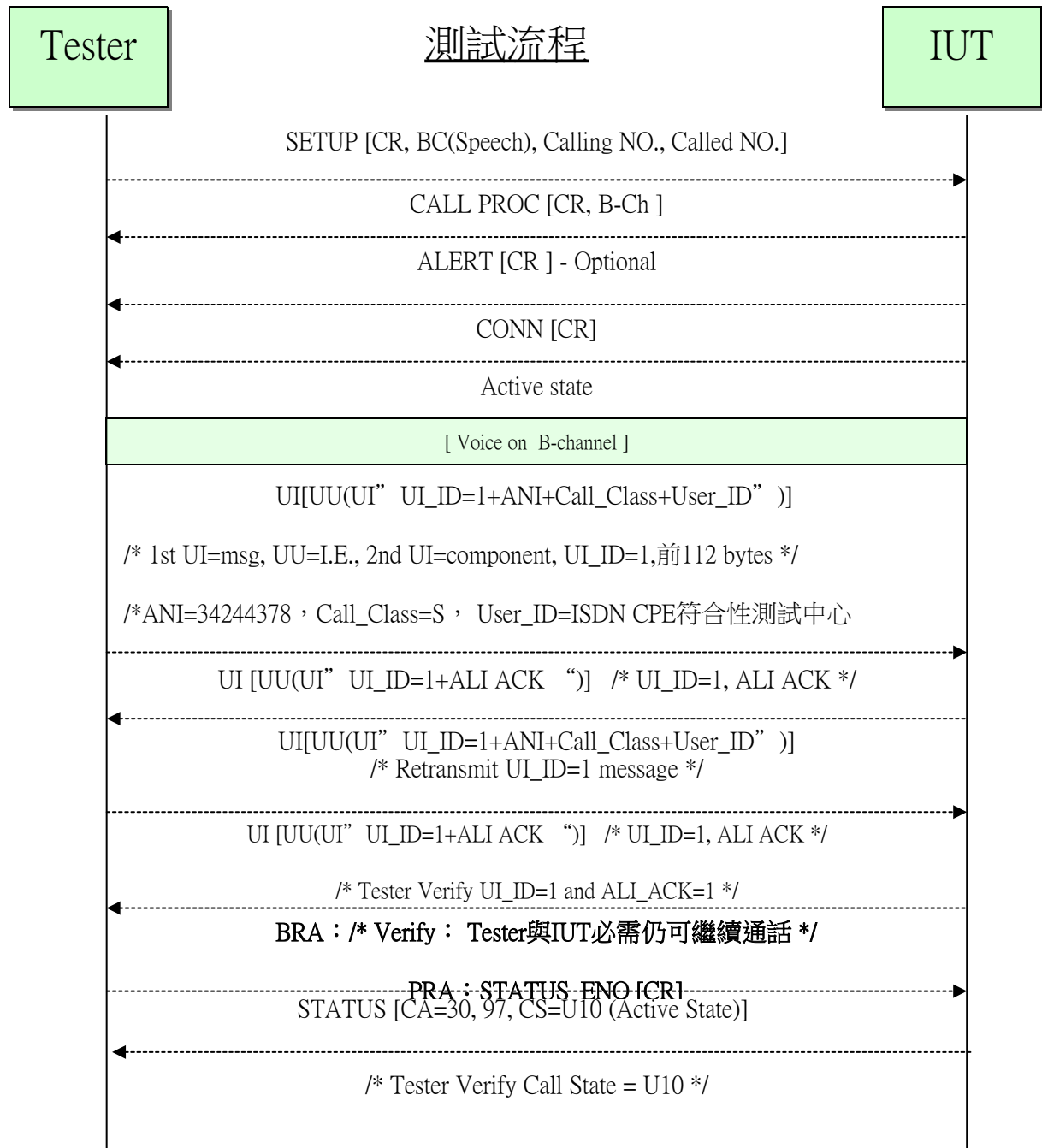
Test Purpose: Ensure that on receipt of a UI(UI_ID=1) message the IUT responds with UI(ACK UI_ID=1) and remains in U10 state



Test Group: ANI/ALI

Test Id: UI_2

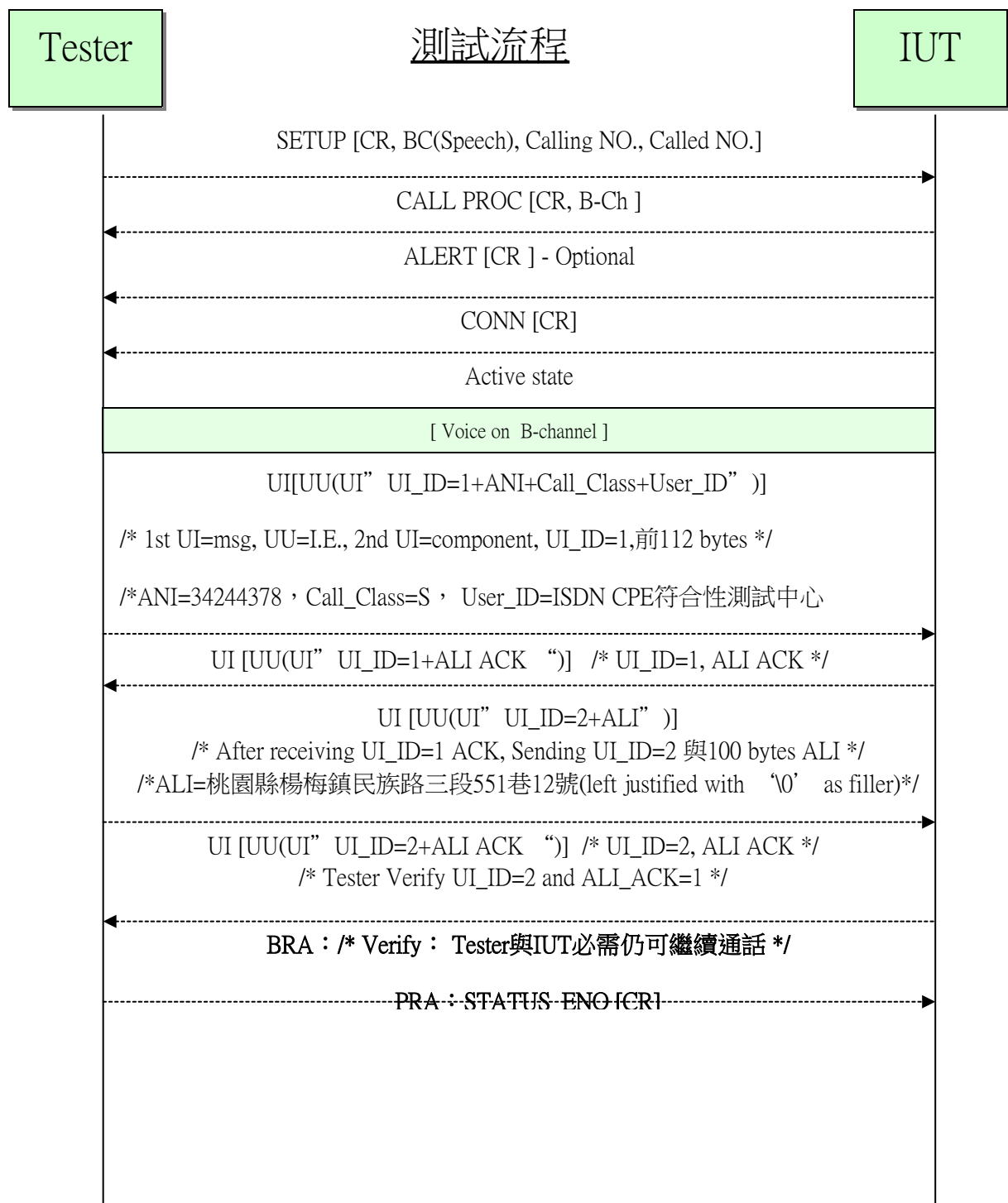
Test Purpose: Ensure that on receipt of a retransmitted UI(UI_ID=1) message the IUT responds with UI(ACK UI_ID=1) and remains in U10 state



Test Group: ANI/ALI

Test Id: UI_3

Test Purpose: Ensure that on receipt of a UI(UI_ID=2) message the IUT responds with UI(ACK UI_ID=2), remains in U10 state and Displays all the provided information



STATUS [CA=30, 97, CS=U10 (Active State)]



/ Tester Verify Call State = U10 */*

/ Operator find all provided information on the screen of IUT */*

基本速率接取界面測試項目表

1. Layer 1 Conformance Test

Test Suite: CHT-96-BA-L1 Verdicts Assigned

PASS: 06

FAIL: 0

INCONC:0

Selected Cases: 06

Test Identifier	ITU-T REC. I.430	Verdict
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Test Group: Basic Interconnection Test

3. Basic Interconnection Test	--(註)	PASS
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Test Group: Binary Organization of Frame

4.1.1 TEST A	5.4.2.1	PASS
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4.1.2 TEST B	6.2.2	PASS
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Test Group: Electrical Characteristics Test

6.8.2 Receiver Sensitivity	8.6.2.1	PASS
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Test Group: Power Feeding

7.1.1.1 NORMAL POWER PROVISION--TEST A	9.3.1.1	PASS
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7.1.2.1 RESTRICTED POWER PROVISION--TEST A	9.3.2.1	PASS
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註：'-' 表示無相對應章節。

2. Layer 2 Conformance Test

Test Suite: CHT-96-BA-L2 Verdicts Assigned

PASS:63

FAIL: 0

INCONC:0

Selected Cases: 63

Test Identifier ITU-T REC. Q.921 Verdict

Test Group: DM70_V State 7.0 Valid Frms

DM70_V01	ID-Assigned : Ai Duplicated	5.3.2	PASS
DM70_V02	ID-Assigned : Ai Non Matching	5.3.2	PASS
DM70_V05	ID-Chk-Request : Ai Match	5.3.3.1	PASS
DM70_V06	ID-Chk-Request : Ai=127	5.3.3.1	PASS
DM70_V11	ID-Remove : Ai=127	5.3.4	PASS
DM70_V12	ID-Remove : Ai Match	5.3.4	PASS
DM70_V13	UA/F=1	5.8.7	PASS
DM70_V14	UA/F=0	5.8.7	PASS

Test Group: DM80_V State 8.0 Valid Frms

DM80_V01	ID-Assigned : Ai Duplicated	5.3.2	PASS
DM80_V02	ID-Assigned : Ai Non Matching	5.3.2	PASS
DM80_V05	ID-Chk-Request : Ai Match	5.3.3.1	PASS
DM80_V06	ID-Chk-Request : Ai=127	5.3.3.1	PASS
DM80_V11	ID-Remove : Ai=127	5.3.4	PASS
DM80_V12	ID-Remove : Ai Match	5.3.4	PASS
DM80_V13	UA/F=1	5.8.7	PASS
DM80_V14	UA/F=0	5.8.7	PASS

Test Group: DS70_V State 7.0 Valid Frms

DS70_V01	Window Rotation	5.9.5	PASS
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Test Group: DL70_V State 7.0 Valid Frms

DL70_V08	SABME/P=1	5.5.2	PASS
DL70_V10	SABME/P=0	5.5.2	PASS
DL70_V12	DISC/P=1	5.5.3.2	PASS

DL70_V13	DISC/P=0	5.5.3.2	PASS
DL70_V14	DM/F=0	5.7.1	PASS
DL70_V16	DM/F=1	5.8.7	PASS
DL70_V17	FRMR : Reject RR	5.7.1	PASS
DL70_V20	RR/P=1 : N(R)=V(S)	5.6.5	PASS
DL70_V21	RR/P=0 : N(R)=V(S)	5.6.5	PASS
DL70_V23	RR/F=0 : N(R)=V(S)	5.6.5	PASS
DL70_V30	REJ/P=1 : N(R)=V(S)	5.6.4	PASS
DL70_V31	REJ/P=0 : N(R)=V(S)	5.6.4	PASS
DL70_V32	REJ/F=0 : N(R)=V(S)	5.8.7	PASS
DL70_V36	RNR/P=1 : N(R)=V(S)	5.6.5	PASS
DL70_V37	RNR/P=0 : N(R)=V(S)	5.6.5	PASS
DL70_V39	RNR/F=0 : N(R)=V(S)	5.6.5	PASS
DL70_V44	I/P=1 : N(S)=V(R), N(R)=V(S)	5.6.2.1	PASS
DL70_V45	I/P=0 : N(S)=V(R), N(R)=V(S)	5.6.2.2	PASS
DL70_V46	I/P=1 : N(S)<>V(R), N(R)=V(S)	5.8.1	PASS
DL70_V47	I/P=0 : N(S)<>V(R), N(R)=V(S)	5.8.1	PASS
DL70_V57	T203 Timeout	5.10.3.3	PASS
Test Group: DL80_V State 8.0 Valid Frms			
DL80_V08	SABME/P=1	5.5.2	PASS
DL80_V10	SABME/P=0	5.5.2	PASS
DL80_V12	DISC/P=1	5.5.3.2	PASS
DL80_V13	DISC/P=0	5.5.3.2	PASS
DL80_V14	DM/F=1	5.7.1	PASS
DL80_V15	DM/F=0	5.7.1	PASS
DL80_V17	FRMR : Reject RR	5.7.1	PASS
DL80_V20	RR/P=1 : V(A)<=N(R)<=V(S)	5.6.5	PASS
DL80_V21	RR/P=0 : V(A)<=N(R)<=V(S)	5.6.5	PASS
DL80_V22	RR/F=1 : V(A)<=N(R)<=V(S)	5.6.5	PASS
DL80_V23	RR/F=0 : V(A)<=N(R)<=V(S)	5.6.5	PASS
DL80_V24	REJ/P=1 : V(A)<=N(R)<=V(S)	5.6.4	PASS
DL80_V25	REJ/P=0 : V(A)<=N(R)<=V(S)	5.6.4	PASS
DL80_V26	REJ/F=1 : V(A)<=N(R)<=V(S)	5.6.4	PASS
DL80_V27	REJ/F=0 : V(A)<=N(R)<=V(S)	5.6.4	PASS
DL80_V28	RNR/P=1 : V(A)<=N(R)<=V(S)	5.6.5	PASS
DL80_V29	RNR/P=0 : V(A)<=N(R)<=V(S)	5.6.5	PASS

DL80_V30	RNR/F=1 : V(A)<=N(R)<=V(S)	5.6.5	PASS
DL80_V31	RNR/F=0 : V(A)<=N(R)<=V(S)	5.6.5	PASS
DL80_V32	I/P=1 : N(S)=V(R), N(R)=V(S)	5.6.2.1	PASS
DL80_V33	I/P=0 : N(S)=V(R), N(R)=V(S)	5.6.2.2	PASS
DL80_V34	I/P=1 : N(S)<>V(R), N(R)=V(S)	5.8.1	PASS
DL80_V35	I/P=0 : N(S)<>V(R), N(R)=V(S)	5.8.1	PASS
DL80_V44	T200 Timeout, RC=N200	5.6.7	PASS
DL80_V46	T200 Timeout, RC<N200, V(A)=V(S)	5.6.7	PASS

3. Layer 3 Conformance Test Summary Report

Test Suite: CHT-96-BA-L3

Verdicts Assigned

PASS: 57

FAIL: 0

INCONC: 0

Selected Cases: 57

Test Identifier

ITU-T REC. Q.931 Verdict

Test Group: Basic Interconnection Tests

1. Incoming Call (#21003)	5.3.3	PASS
2. Outgoing Call (#11105)	5.3.4	PASS
3. Outgoing Call (#11106) (A law call)	5.3.4	PASS
4. Outgoing Call (#11107) (U law call)	5.3.4	PASS

Test Group: U0 TESTS

#10001: [RC2(1,16), NO_MSG]	5.8.3	PASS
#10002: [RL3(1,16), RC_81]	5.8.3.2b)	PASS
#10005: [SU3(BC,CD#,LLC,HLC), AL+CN+CP]	5.2.4	PASS
#10006: [SU2(SCI,BC,CD#,LLC,HLC), AL+CN+CP]	5.2.5	PASS
#10007: [SU6(BC,LLC,HLC), AL+CN+CP]	5.2.6	PASS
#10008: [SU4(BCAP,LLC,HLC), RC_88+NO_MSG]	5.2.2	PASS
#20002: [<IUT!SETUP>, SU]	5.1.3	PASS

Test Group: U1 TESTS

#10101: [CP2, NO_MSG, U3]	5.1.5.1	PASS
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#10102:	[RC2(1,16), NO_MSG, U0]	5.8.4	PASS
#10103:	[RL3(1,16), RC]	5.3.2	PASS
#10106:	[SQ2, ST]	5.8.10	PASS

Test Group: U3 TESTS

#10301:	[AL2, NO_MSG, U4]	5.1.7	PASS
#10302:	[CN2, ST(97,8,101)+SQ+CA+NO_MSG]	5.1.8	PASS
#10303:	[DI2(1,16), RL]	5.3.4	PASS
#10304:	[IN2(1), NO_MSG]	5.2.4	PASS
#10305:	[PG2, NO_MSG]	5.1.6	PASS
#10306:	[RC2(1,16), NO_MSG, U0]	5.8.4	PASS
#10307:	[RL3(1,16), RC]	5.3.4	PASS
#10308:	[SQ2, ST]	5.8.10	PASS
#20301:	[<IUT!DISC>, DI_16]	5.3.3	PASS

Test Group: U4 TESTS

#10401:	[CN2, CA+NO_MSG]	5.1.8	PASS
#10402:	[DI2(1,16), RL]	5.3.4	PASS
#10403:	[IN2(1), NO_MSG]	5.2.4	PASS
#10404:	[PG2, NO_MSG ST]	5.1.6	PASS
#10405:	[RC2(1,16), NO_MSG, U0]	5.8.4	PASS
#10406:	[RL3(1,16), RC]	5.8.4	PASS
#10407:	[SQ2, ST]	5.8.10	PASS
#20401:	[<IUT!DISC>, DI_16]	5.3.3	PASS

Test Group: U8 TESTS

#10801:	[CA2, NO_MSG, U10]	5.2.7	PASS
#10802:	[DI2(0,16), RL]	5.3.4	PASS
#10803:	[IN2(0), NO_MSG]	5.2.4	PASS
#10804:	[RC2(0,16), NO_MSG, U0]	5.8.4	PASS
#10805:	[RL3(0,16), RC]	5.3.2	PASS
#10806:	[SQ2, ST]	5.8.10	PASS
#20801:	[T313(4S) TIMEOUT, DI]	5.2.8	PASS

Test Group: U10 TESTS

#11001:	[DI2(0,16), RL]	5.3.4	PASS
#11002:	[IN2(0), NO_MSG]	5.2.4	PASS
#11003:	[NO2(0), NO_MSG]	5.9	PASS
#11004:	[RC2(0,16), NO_MSG, U0]	5.8.4	PASS
#11005:	[RL3(0,16), RC]	5.8.4	PASS

#11006: [SQ2, ST] 5.8.10 PASS

#21003: [<IUT!DISC>, DI_16] 5.3.3 PASS

Test Group: U11 TESTS

#11101: [DI2(1,16), RL] 5.3.5 PASS

#11102: [IN2(1), NO_MSG] 5.2.4 PASS

#11103: [NO2(1), NO_MSGIST] 5.9 PASS

#11104: [RC2(1,16), NO_MSG, U0] 5.8.4 PASS

#11105: [RL3(1,16), RC] 5.3.4 PASS

#21101: *[T305(30S) TIMEOUT, RL] 5.3.3 PASS

Test Group: U19 TESTS

#11902: [IN2(0), NO_MSGIST] 5 PASS

#11903: [RC2(0,16), NO_MSG, U0] 5.3.4 PASS

#11904: [RL3(0,16), NO_MSG, U0] 5.3.5 PASS

#11905: [SQ2, ST] 5.8.10 PASS

#21901: *[T308(4S) TIMEOUT, RL] 5.3.3 PASS

附件三

原級速率接取界面測試項目表
(T1介面【1.544Mbit/s】)

1.Layer 1 Conformance Test System Summary Report

Test Suite: CHT-96-PA-L1 Verdicts Assigned

PASS: 5

FAIL: 0

INCONC: 0

Selected Cases: 5

Test Identifier ITU-T REC. I.431 Verdict

Test Group: Electrical/Functional
characteristic test

1. Line code	4.1.3	PASS
2. Pulse shape	4.1.4.2	PASS
3. Interframe time fill	4.6.2	PASS
4. Bit rate	4.1.1	PASS
5. Jitter	4.5.1	PASS

2.Layer 2 Conformance Test System Summary Report

Test Suite: CHT-96-PA-L2 Verdicts Assigned

PASS:74

FAIL: 0

INCONC:0

Selected Cases: 74

Test Identifier	ITU-T REC. Q.921	Verdict
Test Group: DS70_V State 7.0 Valid Frms		
DS70_V01 Window Rotation	5.9.5	PASS
Test Group: DL40_V State 4.0 Valid Frms		
DL40_V04 SABME/P=1	5.5.1.2	PASS
DL40_V06 SABME/P=0	5.5.1.2	PASS
DL40_V08 DISC/P=1	5.5.4	PASS
DL40_V09 DISC/P=0	5.5.4	PASS
DL40_V10 DM/F=1	5.5.4	PASS
DL40_V11 DM/F=0	5.5.4	PASS
Test Group: DL70_V State 7.0 Valid Frms		
DL70_V03 I Frame in Queue : Window Open	5.6.1	PASS
DL70_V08 SABME/P=1	5.5.2	PASS
DL70_V10 SABME/P=0	5.5.2	PASS
DL70_V12 DISC/P=1	5.5.3.2	PASS
DL70_V13 DISC/P=0	5.5.3.2	PASS
DL70_V14 DM/F=0	5.7.1	PASS
DL70_V16 DM/F=1	5.8.7	PASS
DL70_V17 FRMR : Reject RR	5.7.1	PASS
DL70_V20 RR/P=1 : N(R)=V(S)	5.6.5	PASS
DL70_V21 RR/P=0 : N(R)=V(S)	5.6.5	PASS
DL70_V23 RR/F=0 : N(R)=V(S)	5.6.5	PASS
DL70_V27 RR/P=1 : V(A)=N(R)<V(S)	5.6.5	PASS
DL70_V28 RR/P=0 : V(A)=N(R)<V(S)	5.6.5	PASS

DL70_V29	RR/F=0 : V(A)=N(R)<V(S)	5.6.5	PASS
DL70_V30	REJ/P=1 : N(R)=V(S)	5.6.4	PASS
DL70_V31	REJ/P=0 : N(R)=V(S)	5.6.4	PASS
DL70_V32	REJ/F=0 : N(R)=V(S)	5.8.7	PASS
DL70_V33	REJ/P=1 : V(A)<=N(R)<V(S)	5.6.4	PASS
DL70_V34	REJ/P=0 : V(A)<=N(R)<V(S)	5.6.4	PASS
DL70_V35	REJ/F=0 : V(A)<=N(R)<V(S)	5.8.7	PASS
DL70_V36	RNR/P=1 : N(R)=V(S)	5.6.5	PASS
DL70_V37	RNR/P=0 : N(R)=V(S)	5.6.5	PASS
DL70_V39	RNR/F=0 : N(R)=V(S)	5.6.5	PASS
DL70_V40	RNR/P=1 : V(A)<=N(R)<V(S)	5.6.5	PASS
DL70_V41	RNR/P=0 : V(A)<=N(R)<V(S)	5.6.5	PASS
DL70_V43	RNR/F=0 : V(A)<=N(R)<V(S)	5.6.5	PASS
DL70_V44	I/P=1 : N(S)=V(R), N(R)=V(S)	5.6.2.1	PASS
DL70_V45	I/P=0 : N(S)=V(R), N(R)=V(S)	5.6.2.2	PASS
DL70_V46	I/P=1 : N(S)<>V(R), N(R)=V(S)	5.8.1	PASS
DL70_V47	I/P=0 : N(S)<>V(R), N(R)=V(S)	5.8.1	PASS
DL70_V52	I/P=1 : N(S)=V(R), V(A)=N(R)<V(S)	5.6.2.1	PASS
DL70_V53	I/P=0 : N(S)=V(R), V(A)=N(R)<V(S)	5.6.2.2	PASS
DL70_V54	I/P=1 : N(S)<>V(R), V(A)=N(R)<V(S)	5.8.1	PASS
DL70_V55	I/P=0 : N(S)<>V(R), V(A)=N(R)<V(S)	5.8.1	PASS
DL70_V56	T200 Timeout, RC<N200	5.6.7	PASS
DL70_V57	T203 Timeout	5.10.3.3	PASS

Test Group: DL80_V State 8.0 Valid Frms

DL80_V03	I Frame in Queue : Window Open	5.6.1	PASS
DL80_V08	SABME/P=1	5.5.2	PASS
DL80_V10	SABME/P=0	5.5.2	PASS
DL80_V12	DISC/P=1	5.5.3.2	PASS
DL80_V13	DISC/P=0	5.5.3.2	PASS
DL80_V14	DM/F=1	5.7.1	PASS
DL80_V15	DM/F=0	5.7.1	PASS
DL80_V17	FRMR : Reject RR	5.7.1	PASS
DL80_V20	RR/P=1 : V(A)<=N(R)<=V(S)	5.6.5	PASS
DL80_V21	RR/P=0 : V(A)<=N(R)<=V(S)	5.6.5	PASS
DL80_V22	RR/F=1 : V(A)<=N(R)<=V(S)	5.6.5	PASS

DL80_V23	RR/F=0 : $V(A) \leq N(R) \leq V(S)$	5.6.5	PASS
DL80_V24	REJ/P=1 : $V(A) \leq N(R) \leq V(S)$	5.6.4	PASS
DL80_V25	REJ/P=0 : $V(A) \leq N(R) \leq V(S)$	5.6.4	PASS
DL80_V26	REJ/F=1 : $V(A) \leq N(R) \leq V(S)$	5.6.4	PASS
DL80_V27	REJ/F=0 : $V(A) \leq N(R) \leq V(S)$	5.6.4	PASS
DL80_V28	RNR/P=1 : $V(A) \leq N(R) \leq V(S)$	5.6.5	PASS
DL80_V29	RNR/P=0 : $V(A) \leq N(R) \leq V(S)$	5.6.5	PASS
DL80_V30	RNR/F=1 : $V(A) \leq N(R) \leq V(S)$	5.6.5	PASS
DL80_V31	RNR/F=0 : $V(A) \leq N(R) \leq V(S)$	5.6.5	PASS
DL80_V32	I/P=1 : $N(S)=V(R), N(R)=V(S)$	5.6.2.1	PASS
DL80_V33	I/P=0 : $N(S)=V(R), N(R)=V(S)$	5.6.2.2	PASS
DL80_V34	I/P=1 : $N(S) <> V(R), N(R)=V(S)$	5.8.1	PASS
DL80_V35	I/P=0 : $N(S) <> V(R), N(R)=V(S)$	5.8.1	PASS
DL80_V40	I/P=1 : $N(S)=V(R), V(A)=N(R) < V(S)$	5.6.2.1	PASS
DL80_V41	I/P=0 : $N(S)=V(R), V(A)=N(R) < V(S)$	5.6.2.2	PASS
DL80_V42	I/P=1 : $N(S) <> V(R), V(A)=N(R) < V(S)$	5.8.1	PASS
DL80_V43	I/P=0 : $N(S) <> V(R), V(A)=N(R) < V(S)$	5.8.1	PASS
DL80_V44	T200 Timeout, $RC=N200$	5.6.7	PASS
DL80_V45	T200 Timeout, $RC < N200, V(A) < V(S)$	5.6.7	PASS
DL80_V46	T200 Timeout, $RC < N200, V(A)=V(S)$	5.6.7	PASS

3.Layer 3 Conformance Test System Summary Report

Test Suite: CHT-96-PA-L3 Verdicts Assigned

PASS: 55

FAIL: 0

INCONC: 0

Selected Cases: 55

Test Identifier ITU-T REC. Q.931 Verdict

Test Group: Basic Interconnection Tests

- 1. Incoming Call (#21003) 5.3.3 PASS
- 2. Outgoing Call (#11105) 5.3.4 PASS

Test Group: U0 TESTS

- #10001: [RC2(1,16), NO_MSG] 5.8.3 PASS
- #10002: [RL3(1,16), RC_81] 5.8.3.2B) PASS
- #10005: [SU3(BC,CD#,LLC,HLC), AL+CN+CP] 5.2.4 PASS
- #10006: [SU2(SCI,BC,CD#,LLC,HLC), AL+CN+CP] 5.2.5 PASS
- #10007: [SU6(BC,LLC,HLC), AL+CN+CP] 5.2.6 PASS
- #10008: [SU4(IBC,LLC,HLC), RC_88+NO_MSG] 5.2.2 PASS
- #20002: [<IUT!SETUP>, SU] 5.1.3 PASS

Test Group: U1 TESTS

- #10101: [CP2, NO_MSG, U3] 5.1.5.1 PASS
- #10102: [RC2(1,16), NO_MSG, U0] 5.8.4 PASS
- #10103: [RL3(1,16), RC] 5.3.2 PASS
- #10106: [SQ2, ST] 5.8.10 PASS

Test Group: U3 TESTS

- #10301: [AL2, NO_MSG, U4] 5.1.7 PASS
- #10302: [CN2, ST(97,8,101)+SQ+CA+NO_MSG] 5.1.8 PASS
- #10303: [DI2(1,16), RL] 5.3.4 PASS
- #10304: [IN2(1), NO_MSG] 5.2.4 PASS
- #10305: [PG2, NO_MSG] 5.1.6 PASS

#10306: [RC2(1,16), NO_MSG, U0] 5.8.4 PASS
#10307: [RL3(1,16), RC] 5.3.4 PASS
#10308: [SQ2, ST] 5.8.10 PASS
#20301: [<IUT!DISC>, DI_16] 5.3.3 PASS

Test Group: U4 TESTS

#10401: [CN2, CA+NO_MSG] 5.1.8 PASS
#10402: [DI2(1,16), RL] 5.3.4 PASS
#10403: [IN2(1), NO_MSG] 5.2.4 PASS
#10404: [PG2, NO_MSGIST] 5.1.6 PASS
#10405: [RC2(1,16), NO_MSG, U0] 5.8.4 PASS
#10406: [RL3(1,16), RC] 5.8.4 PASS
#10407: [SQ2, ST] 5.8.10 PASS
#20401: [<IUT!DISC>, DI_16] 5.3.3 PASS

Test Group: U8 TESTS

#10801: [CA2, NO_MSG, U10] 5.2.7 PASS
#10802: [DI2(0,16), RL] 5.3.4 PASS
#10803: [IN2(0), NO_MSG] 5.2.4 PASS
#10804: [RC2(0,16), NO_MSG, U0] 5.8.4 PASS
#10805: [RL3(0,16), RC] 5.3.2 PASS
#10806: [SQ2, ST] 5.8.10 PASS
#20801: [T313(4S) TIMEOUT, DI] 5.2.8 PASS

Test Group: U10 TESTS

#11001: [DI2(0,16), RL] 5.3.4 PASS
#11002: [IN2(0), NO_MSG] 5.2.4 PASS
#11003: [NO2(0), NO_MSG] 5.9 PASS
#11004: [RC2(0,16), NO_MSG, U0] 5.8.4 PASS
#11005: [RL3(0,16), RC] 5.8.4 PASS
#11006: [SQ2, ST] 5.8.10 PASS
#21003: [<IUT!DISC>, DI_16] 5.3.3 PASS

Test Group: U11 TESTS

#11101: [DI2(1,16), RL] 5.3.5 PASS
#11102: [IN2(1), NO_MSG] 5.2.4 PASS
#11103: [NO2(1), NO_MSGIST] 5.9 PASS
#11104: [RC2(1,16), NO_MSG, U0] 5.8.4 PASS
#11105: [RL3(1,16), RC] 5.3.4 PASS
#21101: *[T305(30S) TIMEOUT, RL] 5.3.3 PASS

Test Group: U19 TESTS

#11902: [IN2(0), NO_MSGIST]	5	PASS
#11903: [RC2(0,16), NO_MSG, U0]	5.3.4	PASS
#11904: [RL3(0,16), NO_MSG, U0]	5.3.5	PASS
#11905: [SQ2, ST]	5.8.10	PASS
#21901: *[T308(4S) TIMEOUT, RL]	5.3.3	PASS

原級速率接取界面測試項目表
(E1介面【2.048Mbit/s】)

1.Layer 1 Conformance Test

Test Suite: CHT-98-PA-L1 Verdicts Assigned

PASS: 5

FAIL: 0

INCONC: 0

Selected Cases: 5

Test Identifier ITU-T REC. I.431 Verdict

Test Group: Electrical/Functional
characteristic test

1. Bit rate	4.1.3	PASS
2. Line code	4.1.4.2	PASS
3. Pulse shape (1)	4.6.2	PASS
4. Pulse shape (2)	4.1.1	PASS
5. Idle channel code	4.5.1	PASS

2.Layer 2 Conformance Test System Summary Report

Test Suite: CHT-96-PA-L2 Verdicts Assigned

PASS:74

FAIL: 0

INCONC:0

Selected Cases: 74

Test Identifier	ITU-T REC. Q.921	Verdict
Test Group: DS70_V State 7.0 Valid Frms		
DS70_V01 Window Rotation	5.9.5	PASS
Test Group: DL40_V State 4.0 Valid Frms		
DL40_V04 SABME/P=1	5.5.1.2	PASS
DL40_V06 SABME/P=0	5.5.1.2	PASS
DL40_V08 DISC/P=1	5.5.4	PASS
DL40_V09 DISC/P=0	5.5.4	PASS
DL40_V10 DM/F=1	5.5.4	PASS
DL40_V11 DM/F=0	5.5.4	PASS
Test Group: DL70_V State 7.0 Valid Frms		
DL70_V03 I Frame in Queue : Window Open	5.6.1	PASS
DL70_V08 SABME/P=1	5.5.2	PASS
DL70_V10 SABME/P=0	5.5.2	PASS
DL70_V12 DISC/P=1	5.5.3.2	PASS
DL70_V13 DISC/P=0	5.5.3.2	PASS
DL70_V14 DM/F=0	5.7.1	PASS
DL70_V16 DM/F=1	5.8.7	PASS
DL70_V17 FRMR : Reject RR	5.7.1	PASS
DL70_V20 RR/P=1 : N(R)=V(S)	5.6.5	PASS
DL70_V21 RR/P=0 : N(R)=V(S)	5.6.5	PASS
DL70_V23 RR/F=0 : N(R)=V(S)	5.6.5	PASS
DL70_V27 RR/P=1 : V(A)=N(R)<V(S)	5.6.5	PASS
DL70_V28 RR/P=0 : V(A)=N(R)<V(S)	5.6.5	PASS
DL70_V29 RR/F=0 : V(A)=N(R)<V(S)	5.6.5	PASS

DL70_V30	REJ/P=1 : N(R)=V(S)	5.6.4	PASS
DL70_V31	REJ/P=0 : N(R)=V(S)	5.6.4	PASS
DL70_V32	REJ/F=0 : N(R)=V(S)	5.8.7	PASS
DL70_V33	REJ/P=1 : V(A)<=N(R)<V(S)	5.6.4	PASS
DL70_V34	REJ/P=0 : V(A)<=N(R)<V(S)	5.6.4	PASS
DL70_V35	REJ/F=0 : V(A)<=N(R)<V(S)	5.8.7	PASS
DL70_V36	RNR/P=1 : N(R)=V(S)	5.6.5	PASS
DL70_V37	RNR/P=0 : N(R)=V(S)	5.6.5	PASS
DL70_V39	RNR/F=0 : N(R)=V(S)	5.6.5	PASS
DL70_V40	RNR/P=1 : V(A)<=N(R)<V(S)	5.6.5	PASS
DL70_V41	RNR/P=0 : V(A)<=N(R)<V(S)	5.6.5	PASS
DL70_V43	RNR/F=0 : V(A)<=N(R)<V(S)	5.6.5	PASS
DL70_V44	I/P=1 : N(S)=V(R), N(R)=V(S)	5.6.2.1	PASS
DL70_V45	I/P=0 : N(S)=V(R), N(R)=V(S)	5.6.2.2	PASS
DL70_V46	I/P=1 : N(S)<>V(R), N(R)=V(S)	5.8.1	PASS
DL70_V47	I/P=0 : N(S)<>V(R), N(R)=V(S)	5.8.1	PASS
DL70_V52	I/P=1 : N(S)=V(R), V(A)=N(R)<V(S)	5.6.2.1	PASS
DL70_V53	I/P=0 : N(S)=V(R), V(A)=N(R)<V(S)	5.6.2.2	PASS
DL70_V54	I/P=1 : N(S)<>V(R), V(A)=N(R)<V(S)	5.8.1	PASS
DL70_V55	I/P=0 : N(S)<>V(R), V(A)=N(R)<V(S)	5.8.1	PASS
DL70_V56	T200 Timeout, RC<N200	5.6.7	PASS
DL70_V57	T203 Timeout	5.10.3.3	PASS
Test Group: DL80_V State 8.0 Valid Frms			
DL80_V03	I Frame in Queue : Window Open	5.6.1	PASS
DL80_V08	SABME/P=1	5.5.2	PASS
DL80_V10	SABME/P=0	5.5.2	PASS
DL80_V12	DISC/P=1	5.5.3.2	PASS
DL80_V13	DISC/P=0	5.5.3.2	PASS
DL80_V14	DM/F=1	5.7.1	PASS
DL80_V15	DM/F=0	5.7.1	PASS
DL80_V17	FRMR : Reject RR	5.7.1	PASS
DL80_V20	RR/P=1 : V(A)<=N(R)<=V(S)	5.6.5	PASS
DL80_V21	RR/P=0 : V(A)<=N(R)<=V(S)	5.6.5	PASS
DL80_V22	RR/F=1 : V(A)<=N(R)<=V(S)	5.6.5	PASS
DL80_V23	RR/F=0 : V(A)<=N(R)<=V(S)	5.6.5	PASS
DL80_V24	REJ/P=1 : V(A)<=N(R)<=V(S)	5.6.4	PASS

DL80_V25	REJ/P=0 : V(A)<=N(R)<=V(S)	5.6.4	PASS
DL80_V26	REJ/F=1 : V(A)<=N(R)<=V(S)	5.6.4	PASS
DL80_V27	REJ/F=0 : V(A)<=N(R)<=V(S)	5.6.4	PASS
DL80_V28	RNR/P=1 : V(A)<=N(R)<=V(S)	5.6.5	PASS
DL80_V29	RNR/P=0 : V(A)<=N(R)<=V(S)	5.6.5	PASS
DL80_V30	RNR/F=1 : V(A)<=N(R)<=V(S)	5.6.5	PASS
DL80_V31	RNR/F=0 : V(A)<=N(R)<=V(S)	5.6.5	PASS
DL80_V32	I/P=1 : N(S)=V(R), N(R)=V(S)	5.6.2.1	PASS
DL80_V33	I/P=0 : N(S)=V(R), N(R)=V(S)	5.6.2.2	PASS
DL80_V34	I/P=1 : N(S)<>V(R), N(R)=V(S)	5.8.1	PASS
DL80_V35	I/P=0 : N(S)<>V(R), N(R)=V(S)	5.8.1	PASS
DL80_V40	I/P=1 : N(S)=V(R), V(A)=N(R)<V(S)	5.6.2.1	PASS
DL80_V41	I/P=0 : N(S)=V(R), V(A)=N(R)<V(S)	5.6.2.2	PASS
DL80_V42	I/P=1 : N(S)<>V(R), V(A)=N(R)<V(S)	5.8.1	PASS
DL80_V43	I/P=0 : N(S)<>V(R), V(A)=N(R)<V(S)	5.8.1	PASS
DL80_V44	T200 Timeout, RC=N200	5.6.7	PASS
DL80_V45	T200 Timeout, RC<N200, V(A)<V(S)	5.6.7	PASS
DL80_V46	T200 Timeout, RC<N200, V(A)=V(S)	5.6.7	PASS

3.Layer 3 Conformance Test

Test Suite: CHT-96-PA-L3 Verdicts Assigned

PASS: 55

FAIL: 0

INCONC: 0

Selected Cases: 55

Test Identifier ITU-T REC. Q.931 Verdict

Test Group: Basic Interconnection Tests

1. Incoming Call (#21003) 5.3.3 PASS

2. Outgoing Call (#11105) 5.3.4 PASS

Test Group: U0 TESTS

#10001: [RC2(1,16), NO_MSG] 5.8.3 PASS

#10002: [RL3(1,16), RC_81] 5.8.3.2B) PASS

#10005: [SU3(BC,CD#,LLC,HLC), AL+CN+CP] 5.2.4 PASS

#10006: [SU2(SCI,BC,CD#,LLC,HLC), AL+CN+CP] 5.2.5 PASS

#10007: [SU6(BC,LLC,HLC), AL+CN+CP] 5.2.6 PASS

#10008: [SU4(IBC,LLC,HLC), RC_88+NO_MSG] 5.2.2 PASS

#20002: [<IUT!SETUP>, SU] 5.1.3 PASS

Test Group: U1 TESTS

#10101: [CP2, NO_MSG, U3] 5.1.5.1 PASS

#10102: [RC2(1,16), NO_MSG, U0] 5.8.4 PASS

#10103: [RL3(1,16), RC] 5.3.2 PASS

#10106: [SQ2, ST] 5.8.10 PASS

Test Group: U3 TESTS

#10301: [AL2, NO_MSG, U4] 5.1.7 PASS

#10302: [CN2, ST(97,8,101)+SQ+CA+NO_MSG] 5.1.8 PASS

#10303: [DI2(1,16), RL] 5.3.4 PASS

#10304: [IN2(1), NO_MSG] 5.2.4 PASS

#10305: [PG2, NO_MSG] 5.1.6 PASS

#10306: [RC2(1,16), NO_MSG, U0] 5.8.4 PASS

#10307: [RL3(1,16), RC] 5.3.4 PASS
#10308: [SQ2, ST] 5.8.10 PASS
#20301: [<IUT!DISC>, DI_16] 5.3.3 PASS

Test Group: U4 TESTS

#10401: [CN2, CA+NO_MSG] 5.1.8 PASS
#10402: [DI2(1,16), RL] 5.3.4 PASS
#10403: [IN2(1), NO_MSG] 5.2.4 PASS
#10404: [PG2, NO_MSGIST] 5.1.6 PASS
#10405: [RC2(1,16), NO_MSG, U0] 5.8.4 PASS
#10406: [RL3(1,16), RC] 5.8.4 PASS
#10407: [SQ2, ST] 5.8.10 PASS
#20401: [<IUT!DISC>, DI_16] 5.3.3 PASS

Test Group: U8 TESTS

#10801: [CA2, NO_MSG, U10] 5.2.7 PASS
#10802: [DI2(0,16), RL] 5.3.4 PASS
#10803: [IN2(0), NO_MSG] 5.2.4 PASS
#10804: [RC2(0,16), NO_MSG, U0] 5.8.4 PASS
#10805: [RL3(0,16), RC] 5.3.2 PASS
#10806: [SQ2, ST] 5.8.10 PASS
#20801: [T313(4S) TIMEOUT, DI] 5.2.8 PASS

Test Group: U10 TESTS

#11001: [DI2(0,16), RL] 5.3.4 PASS
#11002: [IN2(0), NO_MSG] 5.2.4 PASS
#11003: [NO2(0), NO_MSG] 5.9 PASS
#11004: [RC2(0,16), NO_MSG, U0] 5.8.4 PASS
#11005: [RL3(0,16), RC] 5.8.4 PASS
#11006: [SQ2, ST] 5.8.10 PASS
#21003: [<IUT!DISC>, DI_16] 5.3.3 PASS

Test Group: U11 TESTS

#11101: [DI2(1,16), RL] 5.3.5 PASS
#11102: [IN2(1), NO_MSG] 5.2.4 PASS
#11103: [NO2(1), NO_MSGIST] 5.9 PASS
#11104: [RC2(1,16), NO_MSG, U0] 5.8.4 PASS
#11105: [RL3(1,16), RC] 5.3.4 PASS
#21101: *[T305(30S) TIMEOUT, RL] 5.3.3 PASS

Test Group: U19 TESTS

#11902: [IN2(0), NO_MSGIST]	5	PASS
#11903: [RC2(0,16), NO_MSG, U0]	5.3.4	PASS
#11904: [RL3(0,16), NO_MSG, U0]	5.3.5	PASS
#11905: [SQ2, ST]	5.8.10	PASS
#21901: *[T308(4S) TIMEOUT, RL]	5.3.3	PASS

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