USER MANUAL

ETU-05

16/30 Channel
E1 Voice Multiplexer

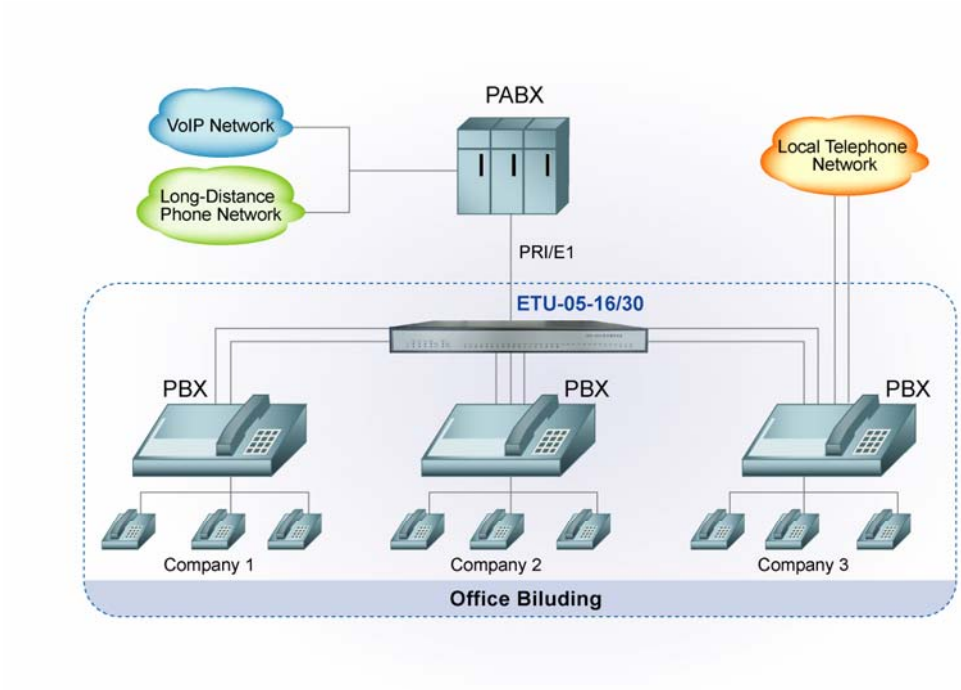
Version 1.0
2004/06

Introduction

Utilizing advanced digital time-division multiplex technology, the ETU05, E1 voice multiplexing device, can connect up to 30 user exterior line with one E1 channel in a 1U standard rack mountable case, and can be cascaded according to user capacity. The device has call-in/call-out bi-directional communication function, user-circuit inversing cost counter function, and a datacom interface. (can connect with user data interface (V.35 or R350)), for comprehensive access of voice and data. E1 interface is compliant with ISDN PRI standard. D channel signaling interface is compliant with ISDN Q921/Q931 30B+D subset (compliant with GBYDN 034.1-034.4). This device has self-diagnosis and remote maintenance function, can perform centralized remote surveillance, alert, configuration, management and maintenance of all online ETU05 E1voice multiplexing devices through a centralized network administrative system.

With the ETU05, operators can conveniently provide caller cost counting, user loop inverse cost counting, billing card, prepaid card, IP public telephone (Internet telephony service provider), IP service and data-access service business etc…

The ETU05 has several distinct features, including compact-size, low-cost, maintenance-free, easy installation, cascaded solution, remote centralized management and is an ideal choice for operators!



This page is left in blank intentionaly

Features

2.1 Description

The ETU05 pictured below is built in a 19-inch 1U standard case. It may be placed on a desktop or installed in a rack. The **ETU05** is available in either AC power or DC –48V version.

Figure 2 Overview of ETU05 E1 voice multiplexing device

2.2 Ordering Information

ETU-05-XX-XX

16 or 30	AC or DC
16: 16-ports	AC: AC model
30: 30-ports	DC: DC model

Examples

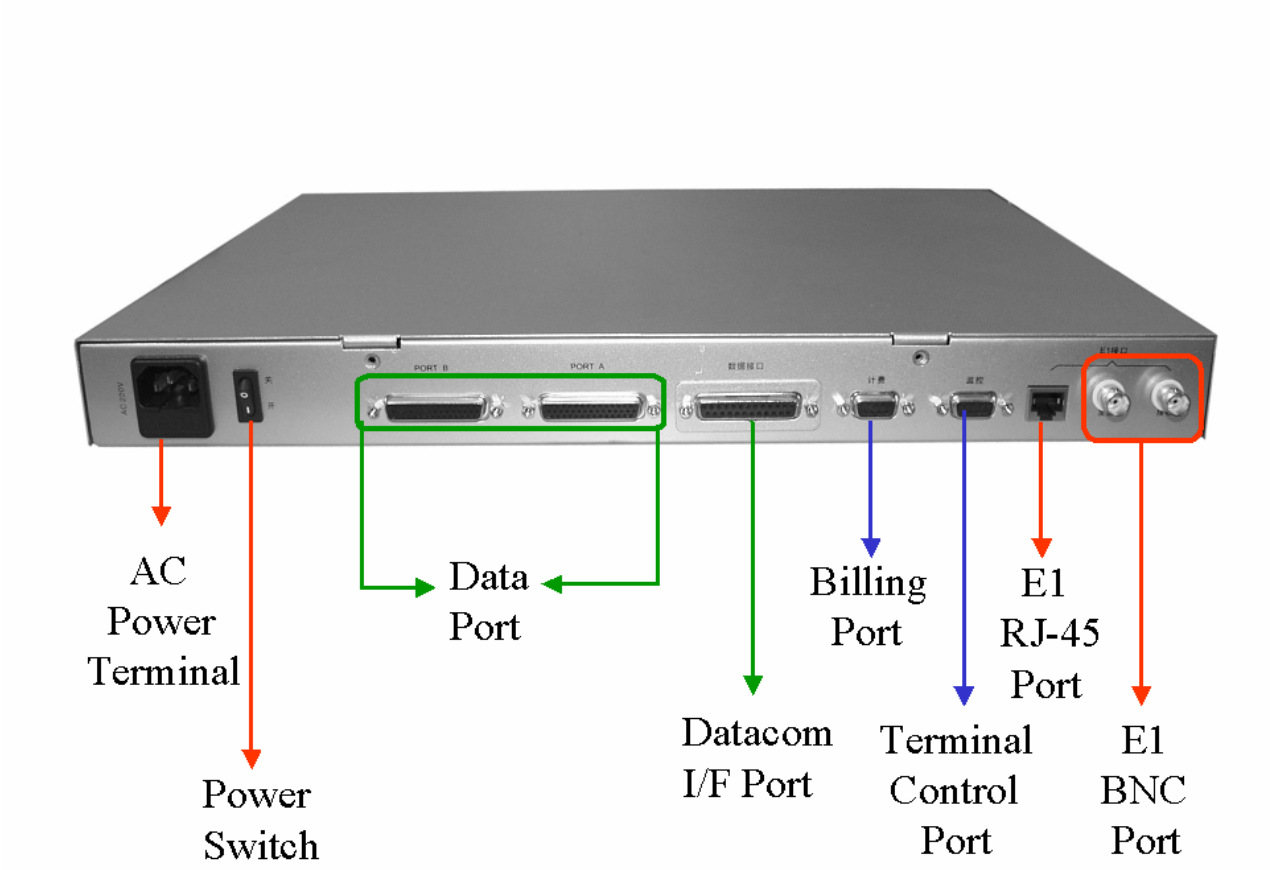
- **ETU-05-16-AC** ETU-05, AC model, up to 16 channels voice multiplexing, with Dataport module
- **ETU-05-30-DC** ETU-05, DC model, up to 30 channels voice multiplexing, with Dataport module

Note: you can check the ETU05 firmware version in terminal mode after boot.

2.3 Front Panel

"Power" LED: Indication of the power system's status (Green indicates the unit status is normal);
"System" LED: Indication of the system operation status (Green indicates the status is normal, red indicates for alert);
"Signal" LED: Indication of E1 loop signal status (Green indicates the status is normal, red indicates for alert);
"Sync" LED: E1 loop synchronous status (Green indicates the status is normal, red indicates for alert);
"Link" LED: System's linking status (Green indicates the status is normal, red indicates for alert);
"Data" LED: Indicates the data communication (send and receive) status
(when LED is flashing, it indicates the data is transmitting)
"L1"-"L32" LED: Indicates the status of each (loop) user status (pick up/hang up).
(when LED is flashing, it indicates the user is processing the phone call).

2.4 Rear Panel



2.4.1 E1-PRI Signal Port

75Ω unbalanced interface: 2 BNC connectors, HDB3 code type

120Ω balanced interface: RJ45

1=RXTIP 2=RXRING 3=TXTIP 4=TXRING

If E1 circuit use unbalanced mode 75Ω (SW#1, all dip switch turn to "ON" position)

Then the PRI interface connects to BNC socket, on the rear panel tagged TX, RX to individually denote two directions.

If E1 circuit use balance mode 120Ω (SW#1, all dip switch turn to "OFF" position)

Then the PRI interface connects to RJ45 socket.

2.4.2 Terminal Control Port

Terminal control interface (DB9, RS-232, DCE, N, 8, 1, no flow control), can perform configuration setting and status monitor.

2.4.3 Billing Port

Billing counter interface (DB9, RS-232, DCE, N, 8, 1, no flow control), can output the billing information. The first format is the same as Siemens 315 exchanger, output a telephone bill data information string after each call.

Siemens 315 exchanger telephone bill format:

06.08.02 21:19:38 13 8020 00:00:29 07553170818 //this is the output bill of exchanger

Date(8) Blank(1)starting time(8) Blank(1) Relay(3) Blank(1) Extension(6) Blank(7) Duration of the call(8) Blank(1) Telephone number//Note

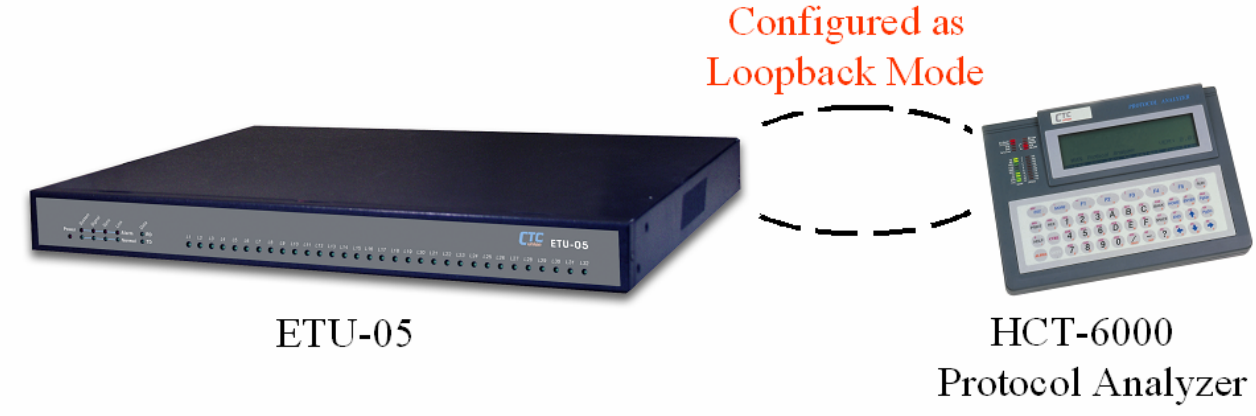
The definition of educed circuit of terminal interface and CDR billing interface are listed as follows:

Definition list of pin-assignment of terminal interface/CDR billing interface

PIN	Definition	Direction
2	RD(104) RXD	Device out
3	TD(103) TXD	Device in
5	SG(102) Ground	——

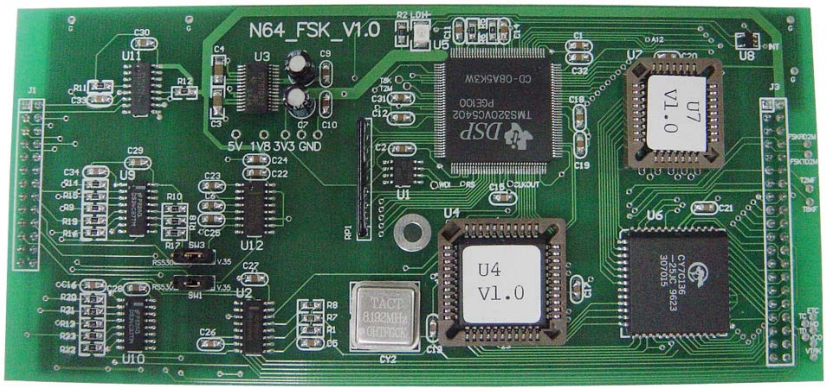
2.4.4 Data Port

A V.35 or RS-530 data connector is added, it can perform the data and voice synchronization function via the installed N64-FSK interface card. Data interface connector: DB25/ V.35 or RS-530 (select from the jumper on the interface card), connect one side of the cable to DB25 socket on the back panel, and connects the other side to the user data device. Test of data interface: The user can use interface loop to test the connection status. See picture for details:



The configuration setting of data port are as below :

1) It can be processed by configured E1 time-slot occupied as the data port (1 time slot corresponds 64Kbps)
2) It can also be processed by setting V.35 or RS-530 as the data port, just set the dip switch on the PCB board to the corresponding position, see as follows:



Data interface card

SW1, SW9, SW5 all short circuited to above and set as V.35,
SW1, SW9, SW5 all short circuited to bottom and set as RS-530;
The factory default setting is configured as V.35.

The data port cable pin assignment is as below

Table 2.2
Data port & V.35 port I/F connection table

DB25-M Connector	V.35-F34 Connector
1	A
7	B
2	P
14	S
3	R
16	T
4	C
5	D
6	E
20	H
8	F
24	U
11	W
15	Y
12	AA
17	V
9	X

Note ："2&14"；"3&16"；"24&11"；"15&12"；"17&9" These five pairs need to use the twisted pair cable.

Table 2.3 Data port & RS-530 port I/F connection table

DB25-M Connector	DB25-F Connector
1	**1**
7	**7**
2	**2**
14	**14**
3	**3**
16	**16**
4	**4**
19	**19**
5	**5**
13	**13**
6	**6**
22	**22**
20	**20**
23	**23**
8	**8**
10	**10**
24	**24**
11	**11**
15	**15**
12	**12**
17	**17**
9	**9**

Note ："2&14" ; "3&16" ; "4&19" ; "5&13" ; "6&22" ; "20&23" ; "8&10" ; "24&11" ; "15&12" ; "17&9". These ten pairs need to use the twisted pair cable.

Caller ID Display Function :
This function can be performed by installed the N64-FSK interface module.
The user will receive the phone number of calling party after received the first ring.

2.4.4 Data Port

FXS interface module supports the billing and caller-id functions.
Feed-in loop current 25mA/4Km, the interface will be driven by the ring current.
For 32 loops channel user, two DB44 twisted-pair cable is needed.
Port#1 corresponds L1~L8 & L17~L24, Port#2 corresponds L9 ~L16 & L25~L32.
Cable pin assignment as below :

Table 2.4 ETU05 Port#1(DB44 cable pin assignment)

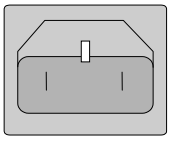
DB44 Pin	Call-out definition	Inner call definition	Correspond color
16	TIP1	L1	White
1	Ring1		Orange
18	TIP2	L2	White
3	Ring2		Blue
20	TIP3	L3	White
5	Ring3		Green
22	TIP4	L4	White
7	Ring4		Brown
24	TIP5	L5	White
9	Ring5		Grey
26	TIP6	L6	Black
11	Ring6		Orange
28	TIP7	L7	Black
13	Ring7		Blue
30	TIP8	L8	Black
15	Ring8		Green
31	TIP17	L17	Black
32	Ring17		Brown
17	TIP18	L18	Black
2	Ring18		Grey
19	TIP19	L19	Red
4	Ring19		Orange
21	TIP20	L20	Red
6	Ring20		Blue
23	TIP21	L21	Red
8	Ring21		Green
25	TIP22	L22	Red
10	Ring22		Brown
27	TIP23	L23	Red
12	Ring23		Grey
29	TIP24	L24	Yellow
14	Ring24		Blue

Table 2.5 ETU05 Port#2(DB44 cable pin assignment)

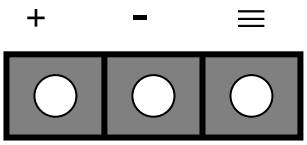
DB44 Pin	Call-out definition	Inner call definition	Correspond color
16	TIP9	L9	White
1	Ring9		Orange
18	TIP10	L10	White
3	Ring10		Blue
20	TIP11	L11	White
5	Ring11		Green
22	TIP12	L12	White
7	Ring12		Brown
24	TIP13	L13	White
9	Ring13		Grey
26	TIP14	L14	Black
11	Ring14		Orange
28	TIP15	L15	Black
13	Ring15		Blue
30	TIP16	L16	Black
15	Ring16		Green
31	TIP25	L25	Black
32	Ring25		Brown
17	TIP26	L26	Black
2	Ring26		Grey
19	TIP27	L27	Red
4	Ring27		Orange
21	TIP28	L28	Red
6	Ring28		Blue
23	TIP29	L29	Red
8	Ring29		Green
25	TIP30	L30	Red
10	Ring30		Brown
27	TIP31	L31	Red
12	Ring31		Grey
29	TIP32	L32	Yellow
14	Ring32		Blue

2.4.6 Power Supply

A standard IEC 3-prong receptacle, located on the rear of the unit. In the AC model, 100~240VAC (self-adjustable); in the DC model, 36~72VDC is connected to the lower terminal block, observing the proper polarity. The ***ETU05*** should always be grounded through the protective earth lead of the power cable in AC installations, or via the ground connection for DC installations.



Left: Live line
Right: Natural line
Middle: Ground



≡ stands for the "grounded"**.**

This page is left in blank intentionaly

Specifications

This device complied with ISDN-PRI interface regulation
YDN 034.1-1997
YDN 034.2-1997
YDN 034.3-1997
YDN 034.4-1997
Also complied with signal #1 interface regulation
YDN 065.1-1997
And the calling party identification signal (caller id display)
YD/T 1277.1-2003
This device also complied with the following related industrial standards for telephony exchanger network access examination of public telephony network:
GB3378 (Telephony auto-exchange network user signal mode)
GB3380 (Telephony auto exchange network bell stream and signal tone)
GB6879 (Technical specification of 2048Kbit/S, 30 circuit impulse code modular multiplex device)
GB/T5444 (User signal technical indices test method of telephony auto exchange network)

Technical specifications are listed as follows:

E1 Circuit		
	Frame format:	CCS(PCM31)/CAS(PCM30)
	Bit rate:	2.048Mb/s
	Line code:	HDB3
	Incept sensitivity:	-20/-43Db
	Circuit:	75Ω (non-balance) /120Ω (balance)
	“Impulse” rage:	Standard 2.37V(75Ω)
	Range of Jitter tolerance:	complied with ITU G.823, jitter attenuator installed
	Standards	G.703, G.704, G.732, G.823
E1 System clock		
	Recovery clock:	From E1 receiving signal
	Internal clock:	2.048Mb/s±50ppm
User line interface		
	Line impedance:	600Ω
	Feedback current:	25mA
	Wire length	Over than 4 Km
	The connector for the phone wire has electronic inducted protection and lightning strike surge protection	
	Bell stream parameter: Effective value 90V, 25Hz	
Data interface		
	Interface type	V.35, RS-530/RS-449/X.21
	Data rate	N x 64Kbps
Monitoring / Billing interface		
	Protocol:	RS-232 (DCE)
	Rate:	9600 bps
	Configuration	N, 8, 1, non flow control
Power supply		
	AC supply:	100~240 VAC，45~63Hz
	DC supply:	36~72 VDC
	Power consumption:	< 50W
LED indication		
	Alarm, Loop status , Power	
Physical indices		
	Case:	1U 19 inch standard case
	Size (H×W×D):	45×440×380mm
	Weight:	5.1Kg
	Working condition:	Temp 0~40°C Humidity 0~90% non-condensing

This page is left in blank intentionaly

System Installation and Boot Test

Mechanical assembly

The ***ETU05*** is designed for tabletop, shelf or rack mount installation, and except for rack mount installation, is delivered completely assembled. Rack mounted applications require installation of additional rack mounting “ears”. No provisions are made for bolting the ***ETU05*** to the tabletop.

The following procedure will offer you the idea about hardware installation :

1. Loosen the each two screws on the left and right sides of the front panel: altogether 4 bolts (3X4), rotate the unit afterward
2. Then go for the upper panel, loosen all the screws, altogether 4 bolts (3X4)
3. After the upper panel, you can reconfigure the DIP switch SW1 on the main board to configure the E1 channel impedance.
4. After installation each panels, if necessary, you can install the fixed bracket on the side, two ear-panels to fix on each side (3X6)(attached).

Connecting the power

Before you connects the power cable, please make sure the power is shut down.

Connecting the E1 loop channel

If E1 channel loop is in unbalance mode 75Ω.（which indicates that DIP switch SW1 are all on the position of "ON"）Then please connect the PRI interface to BNC connectors. If E1 channel loop is in balance mode 120Ω.（which indicates that DIP switch SW1 are all on the position of "OFF"）Then connect the PRI interface to RJ45 connector.

If test purpose is for single unit self-test, user may loop-back E1 channel, this way, the "link" LED will ight in red.

Connecting the voice channel

The phone cable wire gauge uses standard 0.4mm diameter, twisted-pair, 2 meters long, or custom-made. If channel/loop indicator on the front panel lights, which means the phone cable connection is ok and the status is normal. With this method, the user can easily tell which channel/loop is occupied or not.

For 32 channels/loops system, it needs two DB44 connectors,

PORT#A for L1-L8 and L17-L24，PORT# B for L9-L16 and L25-L32.

Connecting the PC serial port with terminal port

Use attached DB9 straight cable to connect PC, Within this, the system can perform configuration setting and system device monitoring.

Operation test

After switch on the power, user can easily tell the device is under the normal status by the LED indicator. After connecting the power cord, then connecting E1 cable and telephone cable.

If the "Power" LED is on, it indicates power module is ok, the other way indicates the power module is out of service. .

System device status:

If it lights in red, it indicates system is out of service, the other way it will light in green, means it passes the self-test and the status is normal.

E1 circuit status:

If it lights in green, it indicates the E1 signal is proceed the transmitting, the other way it will light in red, it means no transmitting at;

Synchronization status:

If it lights in green, it indicates the E1 circuit frame is under synchronization, the other way it will light in red, it means E1 circuit frame is not under synchronization;

Link indication:

If it lights in green, it indicates the loop signal link is connected, the other way it will light in red, it indicates loop signal link connecting status failed.

Notice: If test purpose is for single unit self-test, user may loop-back E1 channel, this way, the "link" LED will light in red.

After all the configuration setting and tests which mentioned above, the PC terminal should displays special message as follows:

```
TEST...OK+OKC
CALLING
TEST ROM OK
TEST RAM OK
TEST FPGA OK
E1 LINE SET OK
TEST SWITCH LINK OK
VOICE CHANNEL SET OK
LOAD CALLING NUMBER OK.
INITIALIZE CALLER NUMBER LIMIT.
LOAD ACCESSING NUMBER OK.
LOAD PASSWORD OK.
INITIALIZE CARD NUMBER.
LOAD CARD PIN OK.
LOAD AREACODE OK.
LOAD NM ADDRESS OK.
ETU-05C VER 1.06.445566

DATAPORT:
ACTIVE:DISABLE
LOOP:NO LOOP
CLOCK:INTERNAL CLOCK
TIMESLOT:NULL
CDR: CDR MODE 1
NET MANAGER:
TIMESLOT: 0
 ADDRESS:02.00.00
```

The above message indicate the system is operating in the normal, the user may start to run the system for functional test.

System Configuration

After connecting of power cord and the DB9 cables, you can start to set the configuration for system operation. (You can also connect telephone cable for the communication test)
The system will run the self-diagnosis test first, then the message will display as follows
After passing the self-diagnosis, displays as follows:

```
TEST...OK+OKC
CALLING
TEST ROM OK
TEST RAM OK
TEST FPGA OK
E1 LINE SET OK
TEST SWITCH LINK OK
VOICE CHANNEL SET OK
LOAD CALLING NUMBER OK.
INITIALIZE CALLER NUMBER LIMIT.
LOAD ACCESSING NUMBER OK.
LOAD PASSWORD OK.
INITIALIZE CARD NUMBER.
LOAD CARD PIN OK.
LOAD AREACODE OK.
LOAD NM ADDRESS OK.
ETU-05C VER 1.06.445566

DATAPORT:
ACTIVE:DISABLE
LOOP:NO LOOP
CLOCK:INTERNAL CLOCK
TIMESLOT:NULL
CDR: CDR MODE 1
NET MANAGER:
TIMESLOT: 0
 ADDRESS:02.00.00
```

After E1 channel is established completely, the user may key in the factory default password "111111" for the system. Then it prompts configuration main menu window listed as follows:

```
DATE LINK SET OK
PASSWORD : * * * * * *
          < <    MAIN MENU > >
      1.  SET CALLER NUMBER
      2.  SET ACCESSING NUMBER
      3.  DISPLAY CALLER NUMBER
      4.  DISPLAY ACCESSING NUMBER
      5.  SET SYSTEM
      6.  SET DATA PORT
      0.  EXIT
```

The user may enter the option on the menu listing for detail configuration setting. Among these options, the option#6 will be invalid if the data port interface is not installed. (Detailed in the following pages).

Set Caller Number:

After the user enter "1" for the option on the main menu, the system will prompt another message to indicate for the detail setting for this function.

First, the user need to input the caller access (1-32) which desired to set.
Here is an example, user can following the setting as this one.
Example:
Enter "1" for the line#1 and then press "enter".
Input caller number: e.g 88888888, then confirm it by enter the same number again. (line 01: 88888888)
After system confirmation, it prompts to input the next caller number to be set.

```
          <<    MAIN MENU  >>
      1.  SET CALLER NUMBER
      2.  SET ACCESSING NUMBER
      3.  DISPLAY CALLER NUMBER
      4.  DISPLAY ACCESSING NUMBER
      5.  SET SYSTEM
      6.  SET DATA PORT
      0.  EXIT
SELECT? 1
          <<        SET CALLER NUMBER >>
INPUT LINE NUMBER (1- 32) : 1
INPUT CALLING NUMBER :88888888
LINE 01 : 88888888
INPUT LINE NUMBER (1- 32) :
```

User can press "Esc" key to return to the main menu
If you wish to browse all the caller number, the user can press "3" for the option on the main menu.

```
          <<    MAIN MENU  >>
      1.  SET CALLER NUMBER
      2.  SET ACCESSING NUMBER
      3.  DISPLAY CALLER NUMBER
      4.  DISPLAY ACCESSING NUMBER
      5.  SET SYSTEM
      6.  SET DATA PORT
      0.  EXIT
SELECT? 3
          <<        DISPLAY CALLER NUMBER     >>
LINE 01 : 88888888                    LINE 02 : (NULL)
LINE 03 : (NULL)                              LINE 04 : (NULL)
LINE 05 : (NULL)                              LINE 06 : (NULL)
LINE 07 : (NULL)                              LINE 08 : (NULL)
LINE 09 : (NULL)                              LINE 10 : (NULL)
LINE 11 : (NULL)                              LINE 12 : (NULL)
LINE 13 : (NULL)                              LINE 14 : (NULL)
LINE 15 : (NULL)                              LINE 16 : (NULL)
LINE 17 : (NULL)                              LINE 18 : (NULL)
LINE 19 : (NULL)                              LINE 20 : (NULL)
LINE 21 : (NULL)                              LINE 22 : (NULL)
LINE 23 : (NULL)                              LINE 24 : (NULL)
LINE 25 : (NULL)                              LINE 26 : (NULL)
LINE 27 : (NULL)                              LINE 28 : (NULL)
LINE 29 : (NULL)                              LINE 30 : (NULL)
LINE 31 : (NULL)                              LINE 32 : (NULL)
```

As the message display above, you may see the line#1 caller number has been modified.

Set Access Number:

After the user enter "2" for the option on the main menu, the system will prompt another message to indicate for the detail setting for this function.

1. Input line number according to system prompt (1－32)
2. Input access number: Example: Input "17910" and press "enter" key to confirm.
3. System will prompt the another line number to be set, the user can press "Esc" key to return to main menu

```
          <<   MAIN MENU  >>
      1.  SET CALLER NUMBER
      2.  SET ACCESSING NUMBER
      3.  DISPLAY CALLER NUMBER
      4.  DISPLAY ACCESSING NUMBER
      5.  SET SYSTEM
      6.  SET DATA PORT
      0.  EXIT
SELECT? 2
          <<        SET ACCESSING NUMBER        >>
INPUT LINE NUMBER (1- 32) : 1
INPUT ACCESSING NUMBER : 17910
LINE 01 :    17910
INPUT LINE NUMBER (1- 32 ) : _
```

Display access number:

User can press "Esc" key to return to the main menu
If you wish to browse all the caller number, the user can press "4" for the option on the main menu.

```
      6.  SET DATA PORT
      0.  EXIT
SELECT? 4
          <<        DISPLAY ACCESSING NUMBER          >>
LINE 01 : 88888888                    LINE 02 : (NULL)
LINE 03 : (NULL)                              LINE 04 : (NULL)
LINE 05 : (NULL)                              LINE 06 : (NULL)
LINE 07 : (NULL)                              LINE 08 : (NULL)
LINE 09 : (NULL)                              LINE 10 : (NULL)
LINE 11 : (NULL)                              LINE 12 : (NULL)
LINE 13 : (NULL)                              LINE 14 : (NULL)
LINE 15 : (NULL)                              LINE 16 : (NULL)
LINE 17 : (NULL)                              LINE 18 : (NULL)
LINE 19 : (NULL)                              LINE 20 : (NULL)
LINE 21 : (NULL)                              LINE 22 : (NULL)
LINE 23 : (NULL)                              LINE 24 : (NULL)
LINE 25 : (NULL)                              LINE 26 : (NULL)
LINE 27 : (NULL)                              LINE 28 : (NULL)
LINE 29 : (NULL)                              LINE 30 : (NULL)
LINE 31 : (NULL)                              LINE 32 : (NULL)
```

System Setting:

Press "5" for the option on the main menu to configure the system then the another options for this function will be display as follows

Press “1” for the option to set password, then the system will allow the user to input new password, and again to confirm it. New password will be saved as the current password after system verification.

```
SELECT? 5
          <<        SET SYSTEM     >>
       1.  SET PASSWORD
       2.  SET CDR
       3.  SET DEFAULT
       0.  EXIT
SELECT ? 1
          <<        SET PASSWORD  >>
OLD PASSWORD: ＊＊＊＊＊＊
NEW PASSWORD: ＊＊＊＊＊＊
ENTER NEW PASSWORD AGAIN : ＊＊＊＊＊＊
NEW PASSWORD SAVED .
```

Press “2” for the option to set CDR (cost billing) detail configuration

```
       << SET CDR  >>
       1.  CDR MODE 1
       2.  CDR MODE 2
       3.  CDR OFF
       0.  EXIT
 CURRENT : OFF
 SELECT? 2
          <<        SET CDR  >>
       1.  CDR MODE 1
       2.  CDR MODE 2
       3.  CDR OFF
       0.  EXIT
 CURRENT : CDR MODE 2
 SELECT ? _
```

The message will indicate the current status for CDR function. which is the “open” status, through corresponding selection to reconfigure CDR status. After setting complete, press "0" key to return to previous menu.

CDR mode 1: The billing output message format is according the Siemen 315 PABX format, it is compatible with the 3rd party billing software.

CDR mode 2: The billing system is installed the "IP phone billing system", it can be connect with the business calculator to handle the detail information. As "how to use the IP phone", please check the reference manual or installation.

On the following option menu
Press ”3” key to reset all modified values back to default setting
Reset default value is to completely earse all caller number and access number,
Close billing function and reset password to factory default setting.
Displays as follows:

```
      << SET SYSTEM  >>
      1.  SET PASSWORD
      2.  SET CDR
      3.  CDR DEFAULT
      0.  EXIT
SELECT? 3
         <<        SET DEFAULT  >>
ALL   DATA   WILL   BE   DELETED ! ARE YOU SURE(Y/N) ?
Y
PLEASE WAIT …
ALL  DATA  HAVE BEEN  SET  TO  DEFAULT .
```

Press "0" key for the option, you may go back the main menu

Data Port Setting:

Press "6" for the option on the main menu to configure the system then the another options for this function will be display as follows

```
      << SET SYSTEM  >>
      1.  SET CALLER NUMBER
      2.  SET ACCESSING NUMBER
      3.  DISPLAY CALLER NUMBER
      4.  DISPLAY ACCESSING NUMBER
      5.  SET SYSTEM
      6.  SET DATAPORT
      0.  EXIT
SELECT? 6
         <<        SET DATAPORT  >>
      1.  ACTIVE
      2.  TIMESLOT
      3.  CLOCK
      0.  EXIT
SELECT ? _
```

Option#1 is to active the data port, otherwise any function of data port will be closed. The user may press "1" or "2" to disable or enable the data port. By press the "0" key here, you may return to the previous option menu.

Option#2 is to set the configuration of timeslot. "NULL" indicates that this timeslot is available for current setting. You may learn the input value timeslot format as display as follow:

```
        <<        SET DATAPORT  >>
      1.  ACTIVE
      2.  TIMESLOT
      3.  CLOCK
      0.  EXIT
SELECT ? 2
      << SET DATA PORT TIMESLOT  >>
CURRENT TIMESLOT : NULL
INPUT TIMESLOT :5,3,8-10

UPDATE  TIMESLOT : 5,3,8-10
```

By press the "0" key here, you may return to the previous option menu.

Option#3 is to set the configuration of E1 loop. The user may press "1" or "2" to disable or enable the E1 loop function display as follow:

```
      3.  LOOP
      4.  CLOCK
      0.  EXIT
SELECT ? 3
      << SET LOOP  >>
       1. NO LOOP
       2. LOOP
      0.  EXIT
CURRENT : NO LOOP
SELECT : 2
      << SET LOOP  >>
      1.  NO LOOP
      2.  LOOP
      0.  EXIT
CURRENT : LOOP
SELECT :
```

By press the "0" key here, you may return to the previous option menu.

Option#2 is to set the configuration of timeslot. "NULL" indicates that this timeslot is available for current setting. You may learn the input value timeslot format as display as follow:

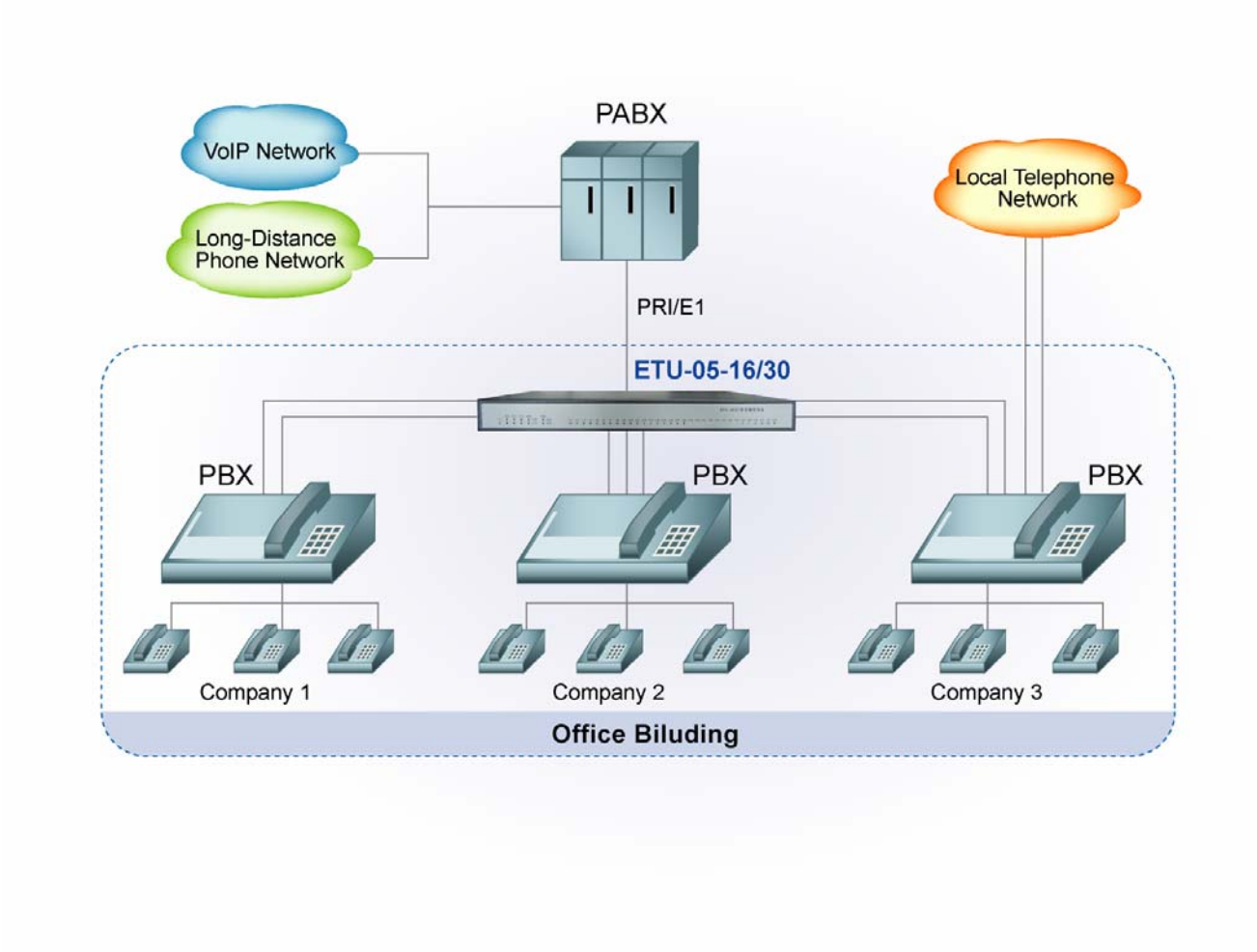
```
      3. LOOP
      4. CLOCK
      0. EXIT
SELECT ? 4
      << SET CLOCK >>
       1. INTERNAL CLOCK
      2.          EXTERNAL CLOCK
      0. EXIT
CURRENT : INTERNAL CLOCK
SELECT : 2

      << SET CLOCK >>
       1. INTERNAL CLOCK
      2.          EXTERNAL CLOCK
      0. EXIT
CURRENT : EXTERNAL CLOCK
SELECT : _
```

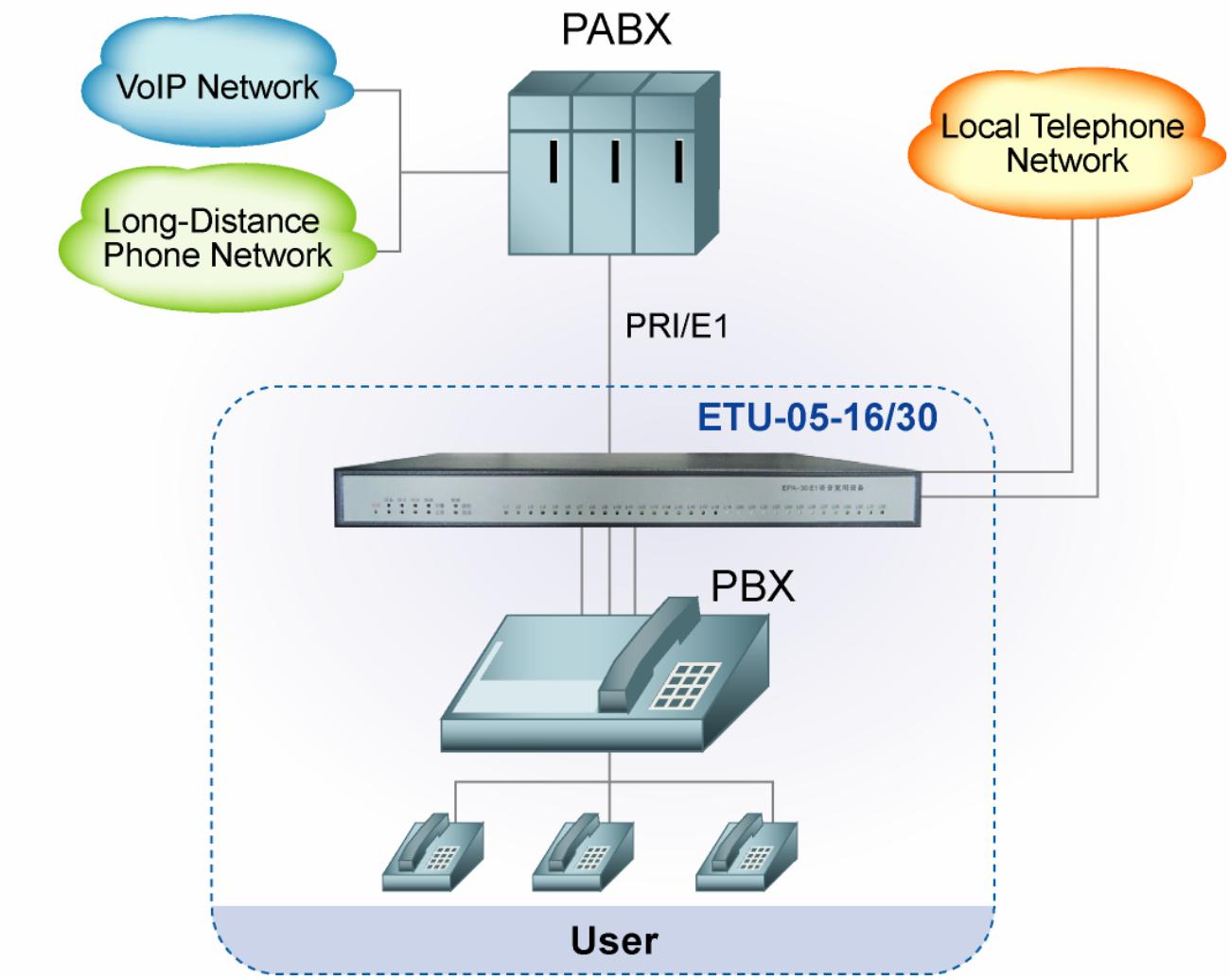
By press the "0" key here, you may return to the previous option menu.

At this moment, you have already completed all the menu setting, the user may exit the setting by press "0" key on the main menu.

This page is left in blank intentionaly

Application




PABX
VoIP Network
Long-Distance Phone Network
Local Telephone Network
PRI/E1
ETU-05-16/30
PBX
User

.

Item	Name	Q'ty	Remark
1	Ear Panel for Rack Mount Kit	2	
2	HD44M-RJ11*16 Cable	2	
3	DB9M/DB9F Cable	1	
4	AC Power Cord	1	

This page is left in blank intentionaly

ETU05 16/30 Channel
E1 Voice Multiplexer