

1. GENERALITY

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This operating manual describes the features of the following Digicom Terminal Adapter family:

CCI05 (PCMCIA active cards family)

SNT06/xx (stand alone and rack mounting Terminal Adapter family)

Both families provide the same commands and registers because they use the same configuration modes and the same response messages.

Unless otherwise specified the descriptions in this manual apply equally to CCI05 and SNT06/xx. The text will specify when informations refer only to a particular model/family.

Order Code **CCI05** **8D5366**
(1B+D, V.110, V.120 e V42bis)

Order Code **SNT06** **8D5370**
(2B+D, 2 V.24 data ports, V.110 Sync/Async, V.120 e V.42bis)

Order Code **SNT06/1** **8D5372**
(1B+D, 1 V.24 data port, V.110 Sync/Async, V.120 e V.42bis)

Order Code **SNT06/R** **8D5392**
(2B+D, V.110 Sync/Async, V.120 e V.42bis)

Order Code **CD 24** **9D0491**
(V24/V35 adapter cable for SNT06/xx family)

1.1. PRODUCTS DESCRIPTION

The CCI05 card is TERMINAL ADAPTER to be inserted into a PCMCIA rev 2.0 socket, the SNT06/xx family are Stand Alone or Rack mounting Terminal Adapter; all Digicom Terminal Adapters families are developed to comply with EUROISDN NET 3 interim CTR3 base access standard.

1.1.1. CCI05 description

The CCI05 is based on two parts: all digital components are present on the PCMCIA card; the line interface components are instead contained in the external line tail box.

The CCI05 allows to connect to the ISDN network an asynchronous data channel up to 115,2 Kbits/s.

In the CCI05 are implemented the CCITT V.110 and V.120 standard to have the bit rate adaption.

In the CCI05/B is implemented the CCITT V.110 only.

CCI05 is Microsoft Windows 95 certified. The plug & play driver is present into Windows 95 software.

1.1.2. SNT06/xx description

The SNT06 Digicom Terminal Adapter family, allows the following ISND network connections:

PRODUCT TYPE	NUMBER OF ASYNCHRONOUS DATA CHANNEL	RATE ADAPTION		NUMBER OF SYNCHRONOUS DATA CHANNEL
SNT06	2 up to 115,2 KBit/s.	V110, V120, V42bis	or	2 up to 64 Kbit/s.
SNT06/1	1 up to 115,2 KBit/s.	V110, V120, V42bis	or	1 up to 64 KBit/s.
SNT06/R	2 up to 115,2 Kbit/s.	V110, V120, V42bis	or	2 up to 64 Kbit/s.

In the SNT06, SNT06/1 and SNT06/R are implemented the CCITT V.110 and V.120 standard to have the bit rate adaption.

ATTENTION



To improve the performance of Digicom Terminal Adapters, is recommended to install in the Personal Computer serial port with 16C550 UART chip.

Other features of the CCI05 and SNT06/xx familys are the following:

- AT command set
- Asynchronous V25bis command set
- Synchronous V25bis command set (SNT06/xx family only)
- V42bis data compression
- Autologon
- Call-back
- Autobaud
- 4 selectable factory profile
- 4 selectable user configuration
- 8 stored phone number for AT and V25bis command set (CCI05 only)
- 20 stored phone number for AT and V25bis command set (SNT06/xx family only)

- Analog Local Loop and Digital Local Loop.

The CCI05 and SNT06 families are able to support ISDN network base services and advanced services.

Now it is important to describe the difference between base services and advanced services present in the ISDN network:

BASE SERVICES: These kind of services are available when you provide an agreement with the ISDN network administrator.

ADVANCED SERVICES: These services are not included in the base agreement with the ISDN network administrator. To activate the advanced services it is necessary to make a request to the ISDN network administrator.

In the following tables, are described the base and advanced services available in the Digicom Terminal Adapters:

BASE SERVICES

<i>Type of service</i>	<i>Description</i>	<i>Activation</i>	<i>Present into digicom T.A.</i>
Telephone recording meter	Is a base service which permits to know the number of units present in the telephone recording meter.		Implemented in the 3.0 new firmware release
Call Transfer	Is a base service which enables a user to transfer an established call to a third party. For the original call, the served user may have been either the calling or called party.		Implemented in the 3.0 new firmware release
Call Waiting	Is a base service which permits a subscriber to be notified of an incoming call with an indication that no interface information channel is available. The user then has the choice of accepting, rejecting or ignoring the waiting call.		Implemented in the 3.0 new firmware release
Intermediate call (Tree Party Services)	Is a base service which enables a user who is active on a call to hold that call, make an additional call to a third party, switch from one call to the other as required, and/or release one call and return to the other.		Implemented in the 3.0 new firmware release
Conference calling	Is a base service which allows a user to communicate simultaneously with multiple parties, which may also communicate among themselves.		YES

SUPPLEMENTARY SERVICES

<i>Type of service</i>	<i>Description</i>	<i>Activation</i>	<i>Present into digicom T.A.</i>
Advice of charge	Is a supplementary service allowing the user payng for a call to be informed of usage-based charging information.	It is necessary to make a request to the ISDN network administrator	Implemented in the 3.0 new firmware release
Multi Subscriber Number [MSN]	Is a supplementary services which provides the possibility fo assign multiple ISDN numbers to a single interface.	It is necessary to make a request to the ISDN network administrator	YES
Subaddressing[SUB]	Is a supplementary service which permits to have an addressing into a ISDN network. It is possible identify a specific terminal using an address stored into the TA.	It is a sequence of AT commands	YES

**ATTENTION**

If you want to use the supplementary services, it is very important to request the activation to the ISDN network administrator !!!

1.2. TECNICAL DESCRIPTION**1.2.1. Standards Compatibility**

The CCI05 and SNT06/xx family comply with the following standards:

ISDN

ETS 300 012 / I430	layer 1
ETS 300 125 / Q920 - Q921	layer 2
ETS 300 102 / Q930 - Q931	layer 3

SAFETY - PROTECTIONS

EN 41003
EN 60950
ETS 300 047-1
ETS 300 047-2
ETS 300 047-3

EMC

EN 50082-1
EN55022

1.2.2. CCI05 Mechanical dimension

Width	54 mm
Height	5 mm
Depth	85.6 mm
Weight	350 gr.

**1.2.3. SNT06/xx mechanical dimension**

Width	190 mm
Height	44 mm
Depth	266 mm
Weight	2 Kg.

**1.2.4. SNT06/R mechanical dimension**

Width	30 mm
Height	173 mm
Depth	245 mm
Weight	700 g.

1.2.5. Electrical description**CCI05 power requirement**

Consumption	800 mW ca
Supply voltage	+5 V (from PC bus)

SNT06/xx power requirement

Consumption	10 VA ca
Protection	Termical protection inside the trasformer
Supply voltage	220-240 VAC (-10% +6%)

CCI05 digital interface

The TA provides a rev 2.0 PCMCIA interface, for programming and asynchronous data transfer.

This interface allows to use the PCMCIA socket of the PC answering to every COM x port of any software terminal emulation (in the package there is a disk containing the CCM program to power on and to configure the TA, according to the selected COM port).

Connector: PCMCIA 2.0
Asynchronous DTE speed: 1200, 2400, 4800, 9600, 12000, 19200, 38400, 57600 e 115200 bit/s.
V110 Asynchronous Line Speed: 1200, 2400, 4800, 9600, 12000, 14400, 19200, 38400 bit/s.
V120 Asynchronous Line Speed: 1200, 2400, 4800, 9600, 12000, 14400, 19200, 64000 bit/s.

SNT06/xx digital interface

Interface (SNT06 and SNT06/1 only): V.24/V.28 or V.35 selectable using internal jumpers
Connector (SNT06/R only): DIN 32+32 pin
Connector (SNT06 and SNT06/1 only): ISO 2110 female (25 pin)
V.110 Asynchronous Line Speed: 1200, 2400, 4800, 9600, 12000, 14400, 19200, 38400 bit/s.
V.110 Synchronous Line Speed: 1200, 2400, 4800, 9600, 12000, 14400, 19200, 48000, 64000 bit/s.
V.120 Asynchronous Line Speed: 1200, 2400, 4800, 9600, 12000, 14400, 19200, 64000 bit/s.
Clock: Regenerated on the C114 e C115 interface circuits

CCI05 ISDN interface

Interface Bus S 1B + D, base access
Connector RJ 45
Protocol EUROISDN

SNT06/xx ISDN interface

Interface Bus S 2B + D, base access
Connector RJ 45
Protocol EUROISDN

Operating temperatureOperating ambient temperature $0^{\circ}\text{C} \div +45^{\circ}\text{C}$ Storage temperature $-20^{\circ}\text{C} \div +80^{\circ}\text{C}$

Relative Humidity from 5% to 92% (If the humidity doesn't condense)

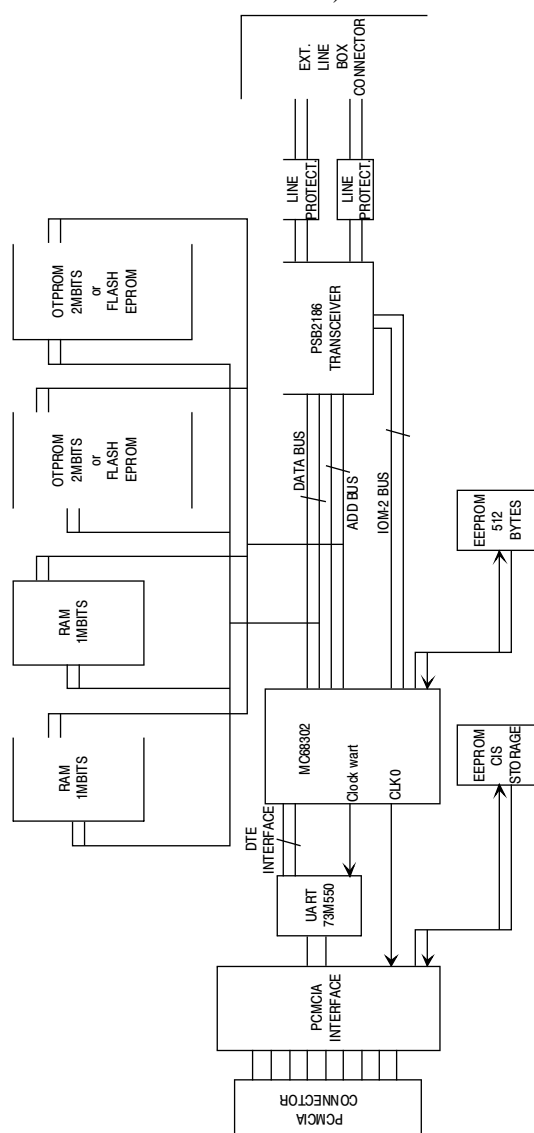


FIG.1.3. CCI05
BLOCK
DIAGRAM

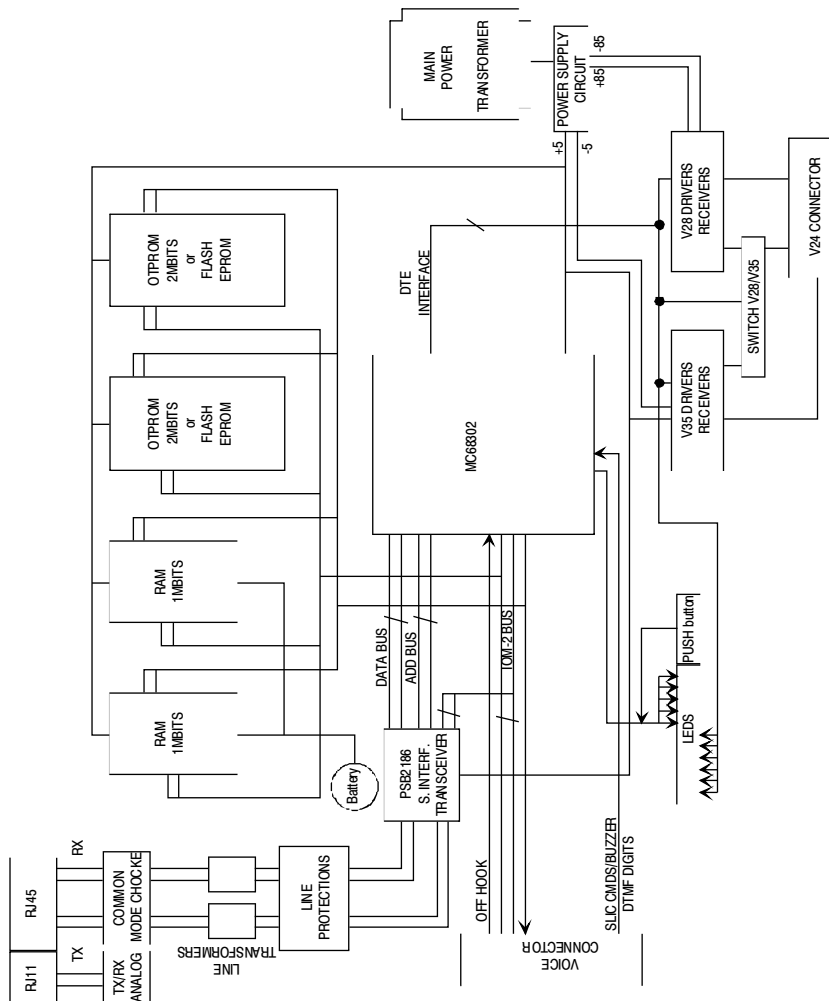


FIG.1.4. SNT06 BLOCK DIAGRAM

1.4. FUNCTIONAL DESCRIPTION

1.4.1. Autobaud

The TA CCI05 and SNT06/xx family automatically detects DTE speed (until to 115.2 Kbit/s) and parity format.

The valid parity formats are the following:

7 bit + even/odd parity

7 bit + mark/space parity

8 bit no parity

1.4.2. V42bis Data Compression

The TA's allows to select (V.120 asynchronous mode only) the data compression complying with the CCITT V42bis recommendation, for all the DTE speed from 300bit/s to 115.2 Kbit/s. It is not usual to apply the data compression on an ISDN network. For this reason it was developed a V42bis release that, according to V.120 asynchronous mode, introduce a parameter in the negotiation.

1.4.3. Autologon

It is possible to associate a list of options to the stored phone numbers, that enable some particular procedures. (ex: call with security password).

These procedures allow to access to the authorized system.

1.4.4. Call-Back

Using this feature "A" emplacement calls "B" emplacement. When the connection is established "B", where previously was stored the phone number, disconnects and calls "A".

1.4.5. Factory configurations

Using a Hayes command, it is very easy to load 4 different factory configuration present into the Digicom Terminal Adapters.

1.4.6. Diagnostic

When a Digicom Terminal Adapter is turned on, starts automatically an internal diagnostic self test to verify the integrity of hardware and software.

Using the AT command it is possible to activate the normal Analog Local Loop and Digital Local Loop.