

**DESKTOP MODEM**

**MCT 710 C1 Eng.**



- **Sharing of telephone line with telephone, fax or modem**
- **One RS232 serial communication output for PC**

**APPLICATION**

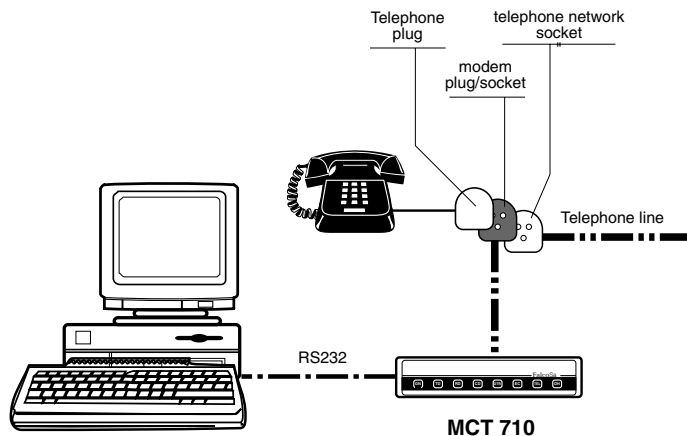
Modem MCT 710 is designed to connect a central computer to a telephone line in order to communicate with the remote units controlled.  
The call discriminator makes it possible to share a telephone line with a telephone, fax or another modem.

**ACCESSORIES SUPPLIED**

- The following are supplied with the modem:
- 1 external power transformer;
  - 1 telephone cable fitted with RJ11 type plug;
  - 1 plug/socket for connecting modem to telephone network and to a telephone.

**OPERATIONAL DIAGRAM**

fig. 1



**TECHNICAL DATA**

Power supply	External transformer (supplied)
	Input : 230 V ~ ± 10 %
	Output : 15 V – 200 mA
Consumption	5 VA
Protection	IP40
Construction standards	Italian Electrotech. Committee (CEI)
Operating mode	IT/94/MD/043 del 14.10.94
Call mode :	Full Duplex
- in multifrequency	ATDT
- pulses	ATDP
Transmission speed:	
- RS232 and C-Bus	1,200 bps asynch.
- telephone line	1,200 bit/s
Ambient temperature:	
- operation	0 ... 45 °C
- storage	- 25 ... + 60 °C
Dimensions	130 x 135 x 30 mm
Weight	0.5 kg

**OPERATION**

**GENERAL**

The data transmission signals from the computer output (RS232) are of the digital type (d.s.) because they can assume only two precise levels:

- 1 – High signal - presence of voltage;
- 0 – Low signal - absence of voltage.

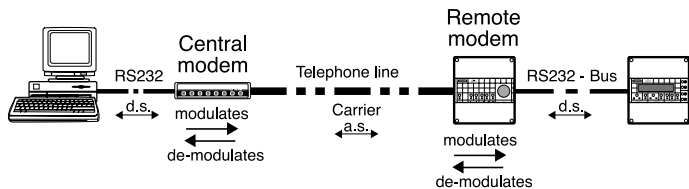
The signals which travel along the telephone lines are of the analogue type (a.s.) because, within certain limits, they can assume over time any intermediate level.

The modem is a device which permits converting the digital signals into analogue ones (MODulation) and of reconverting the analogue signals into digital ones (DEModulation).

The digital signal converted into an analogue one is called CARRIER; its amplitude, its frequency or its phase are the characteristics which render it understandable to the receiving device. The digital signal is a cyclic signal which is repeated at definite time intervals; the frequency with which the repetitions occur determines the transmission speed, expressed in BAUD or bps (bits per second).

Modems are divided into categories according to their dialoguing capacity. The two most common categories are:

- **Half - duplex** : the modem is able to transmit and to receive but not at the same time.
- **Full - duplex** : the modem is able to transmit and receive at the same time.



**MCT 710**

MCT 710 central modem is of the full-duplex type and operates at the speed of :

- 1,200 bps on communication port RS232;
- 1,200 bps on the telephone line.

It can transmit with two different call tones which can be set by the telemanagement programme, so as to permit the remote modems to distinguish between the "telemanagement" call not only from the voice calls but also from fax or calls from other non-Coster modems:

- "Standard" call tone: used when all the remote modems have a dedicated telephone line or a line shared with a telephone handset.
- "Coster" call tone: used when one of the remote modems shares a telephone line with a fax or with a non-Coster modem. In this case all the remote modems must be configured for reception with Coster tone.

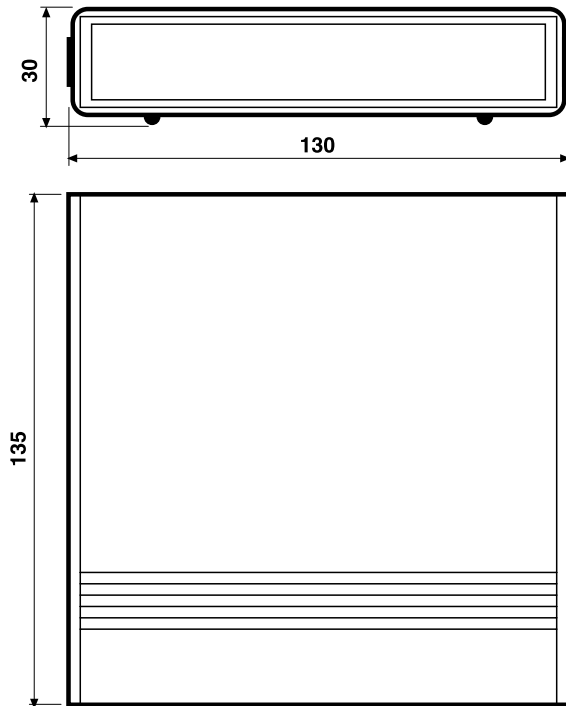
MCT 710 is able to process, by means of the **automatic incoming calls discriminator**, a telephone line shared with a telephone handset or with a fax or with a non-Coster modem.

**When the modem is switched off or is faulty the telephone line is automatically switched to the parallel device.** Using the telemanagement programme it is possible to select the type of incoming call tone so that the central modem can distinguish between the "telemanagement" call from voice calls as well as from calls from fax or from another non-Coster modem :

- "Standard + Coster" call tone: used when the telephone line is dedicated or shared with a telephone handset. The voice calls are sent to the parallel telephone and the calls with Standard and with Coster tone are all sent to the telemanagement programme.
- "Coster" call tone: used when the telephone line is shared with a fax or with a non-Coster modem. In this case all the remote modems must be configured for transmission with Coster tone. The calls with "Standard" tone, originating from fax or from non-Coster modems are sent along the parallel line and only the calls with "Coster" tone are sent to the telemanagement programme.

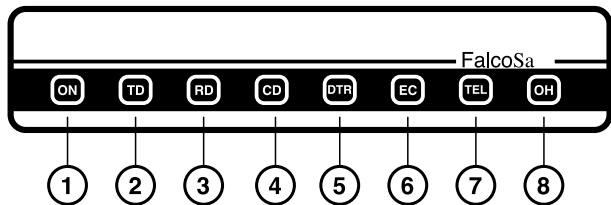
**OVERALL DIMENSIONS**

fig. 2



**FACIA**

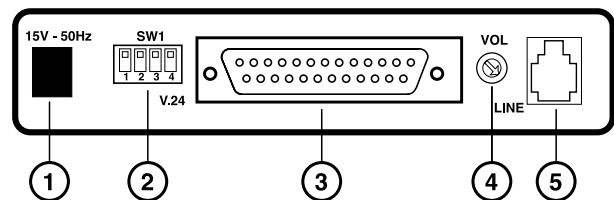
fig. 3



- 1 – Power supply LED
- 2 – Modem in transmission mode LED
- 3 – Modem in reception mode LED
- 4 – Recognition of the carrier LED
- 5 – Modem ready to operate LED
- 6 – Error corrector LED
- 7 – Line engaged by telephone LED
- 8 – Line engaged by modem LED

**REAR PANEL**

fig. 4



- 1 – Power supply jack
- 2 – Hardware programmer
- 3 – Female connector RS232
- 4 – Regolazione volume
- 5 – Socket for RJ11 telephone line plug

**TELEPHONE CONNECTIONS**

On the rear panel of modem MCT 710 is located the RJ11 socket (fig. 4.5) for connecting the telephone line and a parallel telephone handset, using the cable and jack supplied (see fig. 1).

If a telephone cable other than that supplied is used it is important to note that:

- telephone line input: use central connectors of socket RJ11 (fig. 4.5);
- telephone output: use the external connectors of RJ11 socket (fig. 4.5).

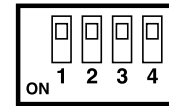
The modem is able to **discriminate automatically** the incoming calls destined for the telephone handsets (max. 3) or a fax or another non-Coster modem. According to the type of device connected, the incoming or outgoing call tone must be configured by the telemanagement programme.

**Transmission and reception call tones:**

- Central modem and remote modem with dedicated line or with telephone handset in parallel.
  - Central modem:
    - transmission with Standard tone
    - reception with Standard + Coster tone
  - Remote modems:
    - transmission with Standard tone
    - reception with Standard + Coster tone.
- Central modem with fax or non-Coster modem in parallel and remote modems with dedicated line or with telephone handset in parallel.
  - Central modem:
    - transmission with Standard tone
    - reception with Standard + Coster tone
  - Remote modems:
    - transmission with Coster tone. All remote modems must be configured for transmission with Coster tone.
    - reception with Coster tone
- Central modem with dedicated line or with telephone handset in parallel and remote modems (even if only one) with fax or non-Coster modem in parallel.
  - Central modem:
    - transmission with Coster tone
    - reception with Standard + Coster tone
  - Remote modems:
    - transmission with Standard tone
    - reception with Coster tone. The other remote modems can be set for reception with Coster or Standard + Coster tone.

**PROGRAMMER**

fig. 5

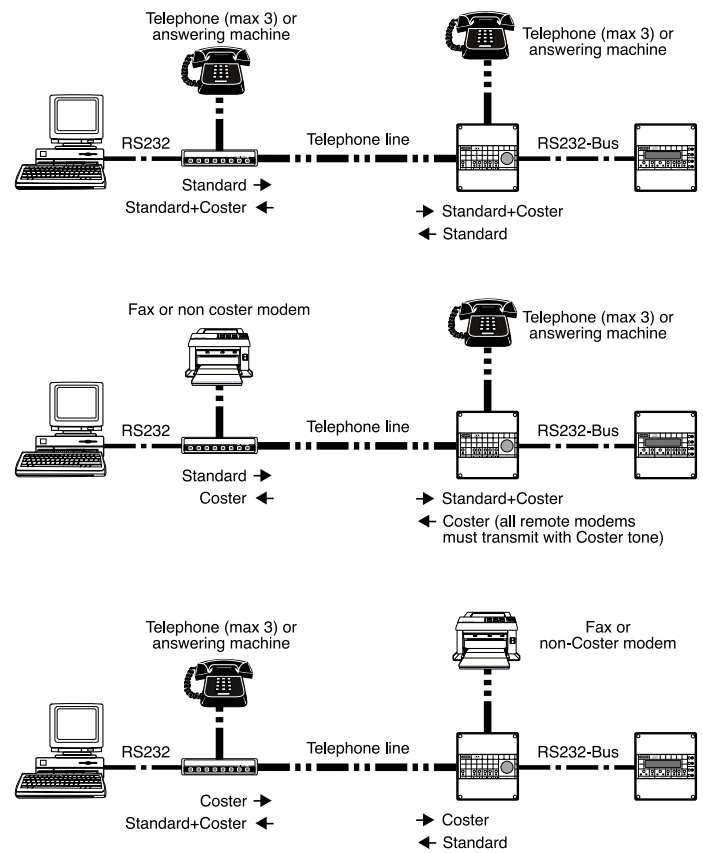


Factory setting

- 1 - Off : Data compression disabled.
- 2 - Off : DTR set Off, the modem connects in reception only when the telemanagement programme is enabled.
- 3 - Not used.
- 4 - Not used.

**CALL TONES**

fig. 6



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