

The FCM-12 is a digital subscriber Pair Gain System, transmitting twelve 64 kbit/s PCM voice channels over one single twisted pair of copper wire.

Telephone companies worldwide are experiencing a huge growth in demand for new subscriber lines. Making the best use of the existing subscriber network, the FCM-12 system multiplies the capacity of subscriber lines, offering economical solutions where new connections are requested without adding new cables. Besides that, FCM-12 reduces material and labour costs for a new network, providing new subscriber lines within a short time.

FCM-12 is a member of FCM family within the MACSystem. Besides FCM-12, which serves twelve POTS subscribers, also versions for 4, 6, 8, 10 and 11 POTS subscribers (FCM-04 – FCM-12) are available. Furthermore it is possible to mix in the same shelf NOM-14 also products of other MACSystem families, for instance BAV family which enables up to 5 ISDN-BRA subscribers over one copper pair or TMA which provides a 2Mb access with G.703/V.5.x interface for POTS and ISDN-BRA. We offer a complete solution for your subscriber access network contained in one shelf and controlled by the telemanagement system NKS-03.

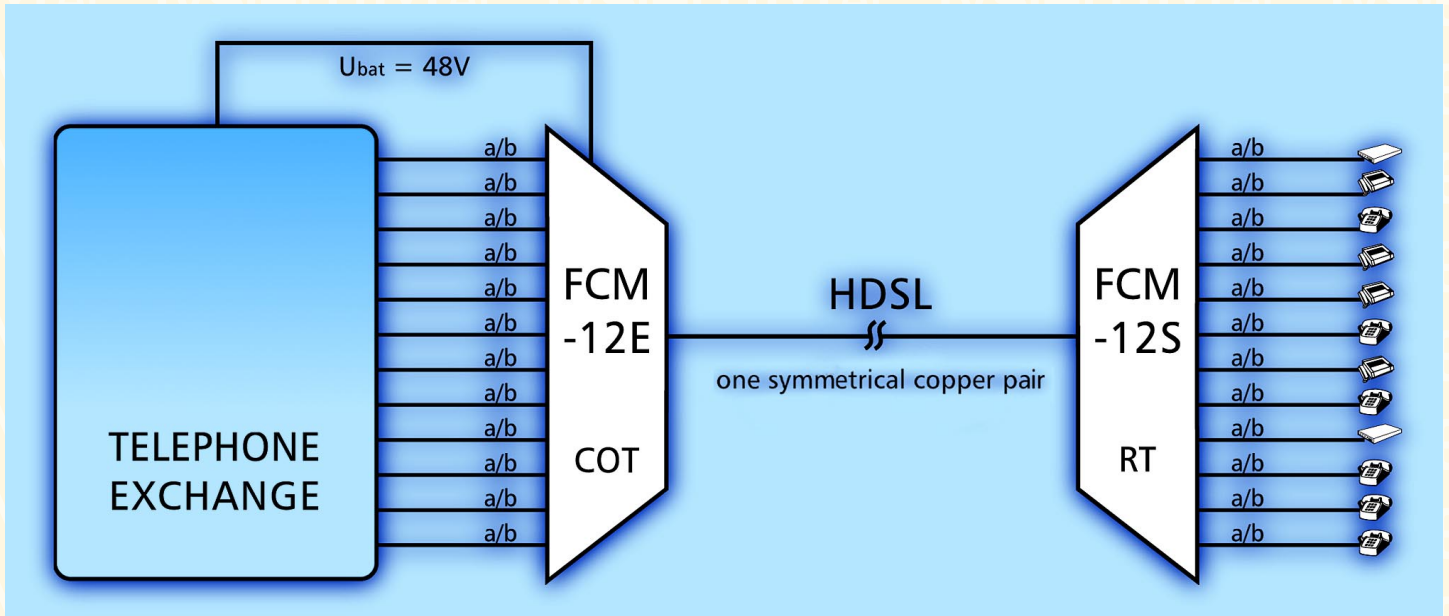
In the time of extensive deployment of broadband services, MACSystem offers effective solution for building up efficient POTS/ISDN dedicated multiplexed copper access network, thus releasing copper pairs for emerging technologies like ADSL, HDSL, G.SHDSL, VDSL etc. **Rediscover the power of copper!**

MAIN FEATURES:

- Up to twelve subscribers over one copper pair without concentration.
- 2B1Q line code, HDSL technology, two wires full duplex.
- Allows full speed modem transmission.
- CLIP transparent with distinctive ringing.
- Polarity reversal transparent (option).
- Metallic bypass (option).
- Remote power feeding of subscriber side unit (RT).
- Optional local power feeding of RT for special needs.
- Low power consumption.
- Stand alone operation of each system.
- Extended temperature range and special outdoor housing.
- Extra small physical dimensions of remote terminal unit (RT).
- Repeater RPT-12 for extending loop range available.
- 4, 6, 8, 10 and 11 channel version available.



- Remote supervision of the system on PC computer via PSTN network (PNS-02) or via data and PSTN network (PNS-03). SNMP protocol supported.
- Local supervision of the system by means of LCD display and/or PC computer.



Digital Subscriber Line (DSL) Interface

- Medium symmetrical copper pair
- Line code 2B1Q
- Data bit rate 800 kbit/s
- Transmission HDSL, 2 wire full duplex
- Bandwidth allocation Twelve 64 kbit/s channels
- Transmission range app. 4 km with D=0,4mm

Powering

- Nominal remote power feeding voltage +/- 130 V (adjustable)
- Maximum remote power feeding current 59mA (adjustable)

Voice Transmission

- D/A conversion acc. to ITU G.711
- Voice channels characteristics acc. to ITU G.712 (1992)

VF Exchange Interface (COT)

- Ring detection 35 - 130Veff, 16 - 50 Hz
- Tax pulse detection 16 kHz (12kHz as an option)

VF Subscriber Interface (RT)

- Max. subscriber loop resistance 750 Ohms including telephone
- Loop current 23 mA (adjustable)
- Ring generator voltage 40Veff on 2,5 kOhm
..... 25Hz, THD < 5%
- Tax pulse generator 16 kHz, 400mVeff on
..... 200 Ohm,
..... (12kHz as an option)

Signalling Transmission

- Dialing pulse distortion 2ms
- Distinctive ringing Yes

Physical dimensions

(width x height x depth in mm)

- Unit on exchange side **FCM-12E (COT)** 30 x 233 x 160
- Unit on subscriber side **FCM-12S (RT)** 55 x 202 x 103
- Shelf for 14 FCM-12E unit: **NOM-14** 432 x 235 x 264
- Single housing for FCM-12E unit: **EOM-01** ... 269 x 36 x 193

