

### Fixed line via flexible GSM solution

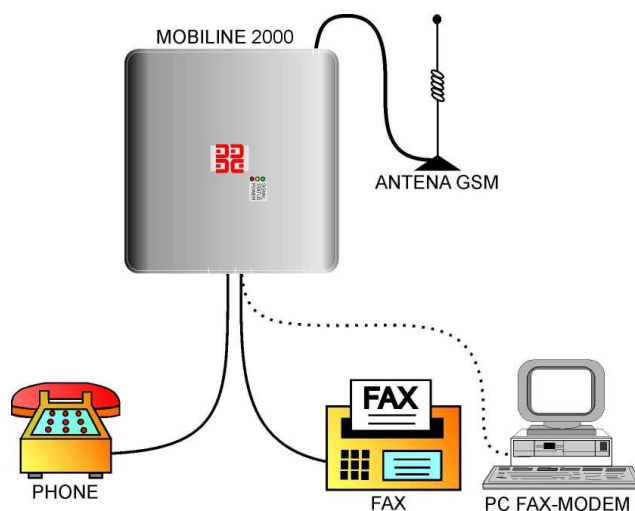


**Mobiline2000** is FCT (Fixed Cellular Terminal) that converts a mobile phone connection into a standard analogue telephone connection. Mobiline2000 fulfils all requirements for fixed line like: national, international and mobile calls, sending and receiving fax, data transmission and dial-up connection to internet.

**Mobiline2000** gives you all services which you know from PSTN line, via GSM infrastructure, and at the same time in intelligent way eliminates differences between GSM net and PSTN net.

This is a nice Plug & Play solution, with build in internal GSM antenna (with possibility to connect external antenna), build in battery backup and external power supply. It easily can be wall mounted and requires only SIM card installation.

**Mobiline2000**, amongst others, includes an echo canceling system for adaptation to different line impedance, a fixed dial system for minimising the waiting time when dialing out and supports GSM 850/900/1800/1900 technology. CDMA version is also available. Mobiline2000 has MMS-remote management system, dedicated for Network Operators, to keep control of installed units in the field and receive alarms from them.



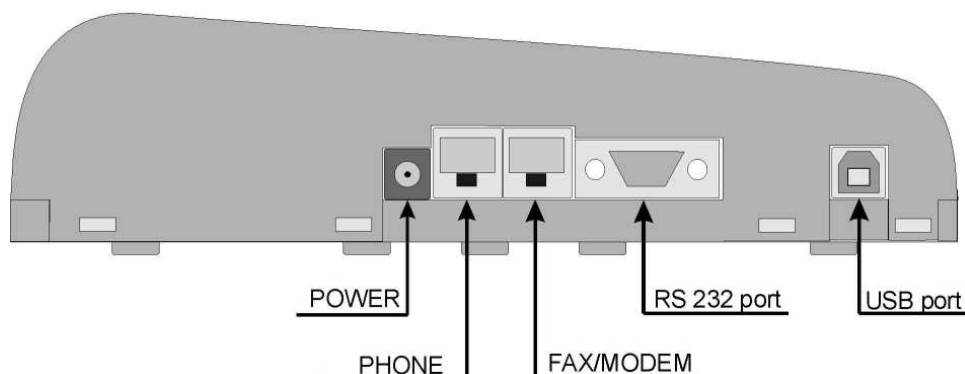
# Mobiline2000 – features

## Mobiline2000 as fixed line:

- Two independent lines:
  - a. RJ11 analogue port for ordinary phone
  - b. RJ11 analogue port for FAX/DATA
- Transmission fax group 3 support
- GPRS/EDGE and CSD support
- National alignments: tones, cadence, etc
- Data transmission services V.90 and V.92-optional (ISP/server mode), V.34
- FSK/CLIP presentation
- Intelligent Quick Dial System, which route the dialed number immediately through the GSM net at the last dialed digit
- Build in Echo cancelation system for adaptation to different line impedance
- Polarity reversal line when B-answer

## Other Features:

- Additional features easily programmable locally via PC and/or DTMF
- Protection system – 3 level security access system
- Remote Mobiline management system for configuration and service all unit in the field
- Fraud protection and detection system
- Build in antenna GSM, TNC plug for outside antenna
- PIN Code management
- Service & Network operator SIM card lock system
- Build in battery backup
- LED indicator for battery backup, line status and signal level



# Mobiline2000 – specification

## TECHNICAL SPECIFICATION

Description	Specifications
Physical dimensions (HxWxD)	210 x 200 x 55 mm
Weight (excl. Power Supply).	1385 g

## ENVIRONMENTAL SPECIFICATION

Description	Specifications
Operating temperature	-10 C - +55 C
Storage temperature	-20 C - +70 C
Relative humidity	85 % non condensing

## POWER SUPPLY SPECIFICATION

Description	Specifications
Type:	Switch mode high efficiency type
Input AC:	100-240V AC, 50/60Hz
Output VDC:	18V DC
Output current:	0,8 A
Weight	155 g

## INTERNAL ANTENNA SPECIFICATION

Description	Specifications
Type of antenna	Allaround helical antenna
Frequency band	870-960/1710-1880 MHz
Impedance	50 ohm
Gain	3,5 dB
VSWR	< 2,0 (overall VSWR including interface path from MC75)
Power (min)	Up to 10W
Type of plug	Directly for TNC-Female
Other	Dedicated design – optimised for the Mobiline 2000

## PERFORMANCE SPECIFICATION

Description	Specifications
Voltage requirement	11,0 – 20 VDC
Current consumption	0.7 A @ 18.0 VDC maximum
Current consumption	
- Standby	80 – 110 mA
- Line OFF hook	270 mA
- Line short circuit	300 mA
- Conversation	typical 350 mA – max. 400 mA @ 2W – 900 mHz / VSWR max 2,0
- GPRS class 10 – 2Tx / 3Rx	max. 485 mA @ 900 Mhz / VSWR max 2,0
- GPRS class 12 – 4Tx / 1Rx	max. 545 mA @ 900 Mhz / VSWR max 2,0
- EDGE class 12 – 4Tx / 1Rx	max. 550 mA @ 900 Mhz / VSWR max 2,0
Telephone interface	
- Impedance	600 $\Omega$ with adaptive system
- Hybrid	Adaptive hybrid system, with reflection attenuation > 30dB
- Echo cancellation	Fast 128 taps adaptive echo cancellation build-in
- Nominal RX-level (line)	-12 dBm +/- 5 dB
- Nominal TX-level (line)	-10 dBm +/- 5 dB
- Line voltage	48Vdc / nominal 52 VDC +/- 4 V
- Ringing voltage	48 Vrms +/- 8 V @ 25/50 Hz
- Ringing Cadence	Fully programmable
- Dialing system	DTMF and/or Pulse dialing
- Tone system	Fully programmable, single/dual tones with individual frequencies and individual cadences

# Mobiline2000 – specification

## MOBILE INTERFACE SPECIFICATION

Description	Specifications
- Technology	<p>Siemens GSM Phase 2+ technology</p> <ul style="list-style-type: none"> <li>- Quad band: GSM 850/900/1800/1900MHz</li> <li>- GSM class Small MS</li> </ul> <p>Output power (according to Release 99, V5)</p> <ul style="list-style-type: none"> <li>- Class 4 (+33dBm <math>\pm</math>2dB) for EGSM850</li> <li>- Class 4 (+33dBm <math>\pm</math>2dB) for EGSM900</li> <li>- Class 1 (+30dBm <math>\pm</math>2dB) for GSM1800</li> <li>- Class 1 (+30dBm <math>\pm</math>2dB) for GSM1900</li> <li>- Class E2 (+27dBm <math>\pm</math> 3dB) for GSM 850 8-PSK</li> <li>- Class E2 (+27dBm <math>\pm</math> 3dB) for GSM 900 8-PSK</li> <li>- Class E2 (+26dBm +3 /-4dB) for GSM 1800 8-PSK</li> <li>- Class E2 (+26dBm +3 /-4dB) for GSM 1900 8-PSK</li> </ul> <p>The values stated above are maximum limits. According to Release 99, Version 5, the maximum output power in a multislot configuration may be lower. The nominal reduction of maximum output power varies with the number of uplink timeslots used and amounts to 3.0dB for 2Tx, 4.8dB for 3Tx and 6.0dB for 4Tx.</p>
Data transmission :	<p>GPRS</p> <ul style="list-style-type: none"> <li>• Multislot Class 12</li> <li>• Full PBCCH support</li> <li>• Mobile Station Class B</li> <li>• Coding Scheme 1 – 4 EGPRS</li> <li>• Multislot Class 12</li> <li>• Mobile Station Class B</li> <li>• Modulation and Coding Scheme MCS 1 – 9</li> </ul> <p>CSD</p> <ul style="list-style-type: none"> <li>• V.110, RLP, non-transparent</li> <li>• 2.4, 4.8, 9.6, 14.4kbps</li> <li>• USSD</li> </ul>
Fax transmission	Group 3; Class 1
Power of transmission :	+22dBm / +33 dBm depending of the kind of connection
Sensitivity of receiver :	<p>@ BER Class II &lt; 2.4% (static input level)</p> <p>GSM 850 min.: -102 dBm typical <math>\therefore</math> -108 dBm</p> <p>E-GSM 900 min.: -102 dBm typical <math>\therefore</math> -108 dBm</p> <p>GSM 1800 min.: -102 dBm typical <math>\therefore</math> -107 dBm</p> <p>GSM 1900 min.: -102 dBm typical <math>\therefore</math> -107 dBm</p>
Speech Codec :	<p>ETS06.10/(ETS 06.10) (Full rate), ETS06.50/06.60/06.80 (Enhanced Full Rate), ETS06.20/(ETS 06.20) (Half rate) and Adaptive Multi Rate AMR</p>



**BD Consult E.E. A/S Denmark**

Sjaellandsvej 11

DK-9500 Hobro

Tel. +459852 4799

[www.bdconsult.eu](http://www.bdconsult.eu)