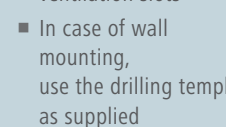
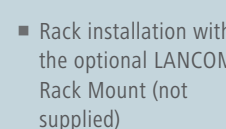




...connecting your business

## LANCOM 1781A-3G

### Quick Reference Guide



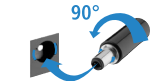
- Do not rest any objects on top of the device
- For devices to be operated on the desktop, please attach the adhesive rubber footpads

Please observe the following when setting up the device

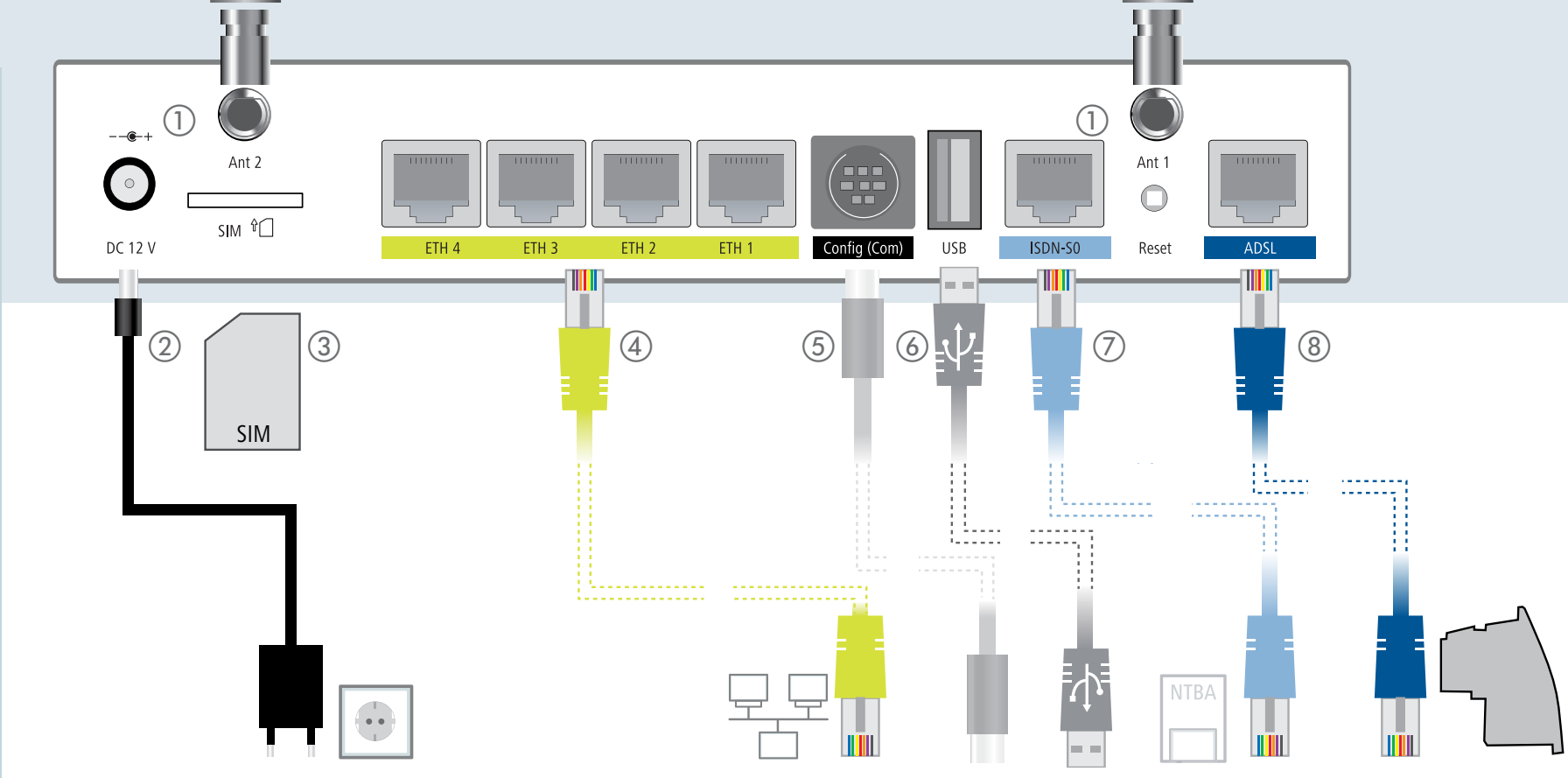


**!** If you operate separately purchased antennas, please ensure that you do not exceed the maximum allowed transmission power for your system. The system operator is responsible for adhering to the threshold values. Antennas are only to be attached or changed when the device is switched off. Mounting or demounting antennas while the device switched on may cause the destruction of the 3G module!

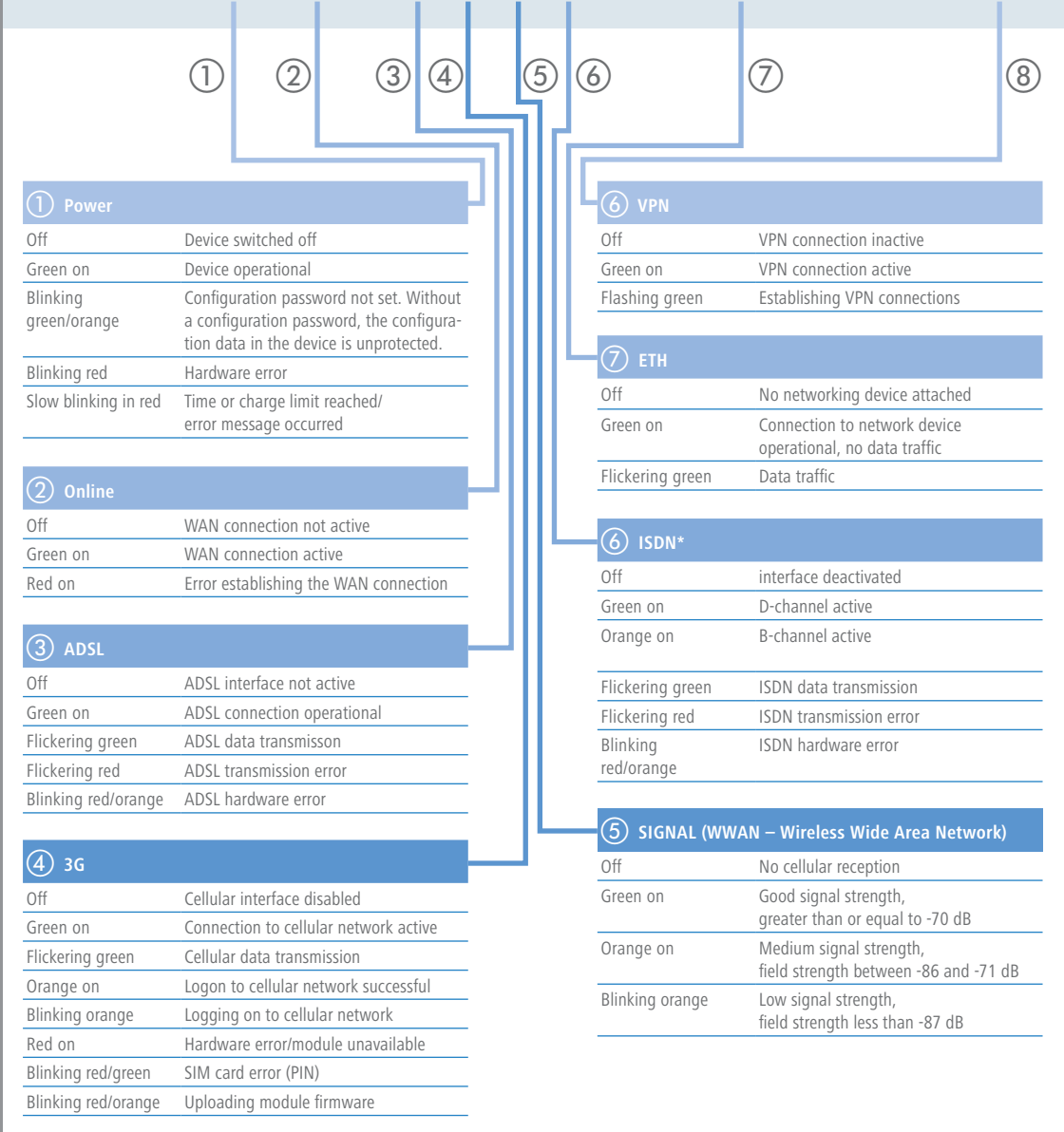
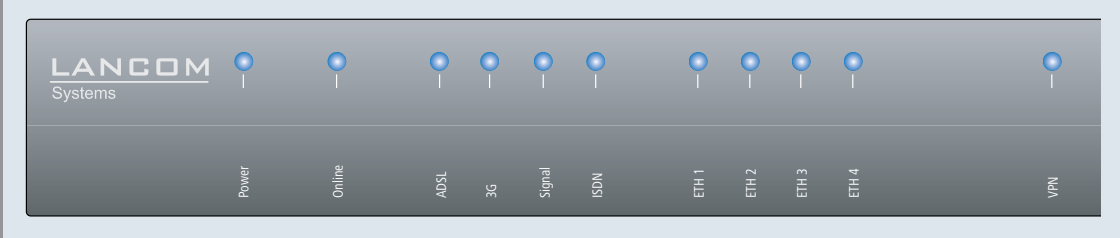
**!** The SIM may only be inserted or removed with the device switched off. Inserting or removing the SIM card while the device is switched on could destroy the 3G module!

- Optional: 3G antennas or GPS antenna**  
Screw the supplied 3G antennas to the terminals Ant1 and Ant2. Alternatively, screw the GPS antenna (available at no charge) to the connector Ant 2 (see voucher supplied).
- Power cable**  
When connecting the cable to the device, turn the bayonet connector 90° clockwise until it clicks into place.  
  
Use only the supplied power adapter.
- Optional: SIM card**  
Slide the SIM card into the slot using the marking to ensure that the card is the right way round. Ensure that the SIM card clicks into place on insertion. To remove the card from the device again, press the card lightly into the device. Let go to release the SIM card from the slot.
- LAN cable**  
Use the cable with the green-colored connectors to connect one of the interfaces ETH1 to ETH4 to your PC or a LAN switch.
- Optional: Serial configuration cable**  
Connects the device and a PC for carrying out the configuration (cable sold separately).
- Optional: USB cable**  
Connect a compatible USB cellular modem, a USB printer or a USB stick for device configuration via USB interface.
- ISDN cable\***  
Use the ISDN cable with the light-blue connectors to connect the ISDN interface to the NTBA if you wish to use ISDN additionally.
- ADSL cable\*\***  
Connect the cable with the dark-blue connectors to the DSL splitter from your provider. Please ensure that you carefully follow any instructions from your provider regarding the installation of the DSL splitter and NTBA (if applicable).

\*\*\*) For operation without splitter please use the DSL cable supplied by your Internet provider or the enclosed adapter. For further information please contact your Internet provider.



MOUNTING AND CONNECTING THE DEVICE



<b>Hardware</b>	
Power supply	12 V DC, external power adapter (110 or 230 V) with bayonet connector to secure against disconnection
Power consumption	Max. ca. 12.5 W
Environment	Temperature range 5–40 °C; humidity 0–95 %; non-condensing
Housing	Robust synthetic housing, rear connectors, ready for wall mounting, Kensington lock; measures 210 x 45 x 140 mm (W x H x D)
Number of fans	None; fanless design, no rotating parts, high MTBF

<b>Interfaces</b>	
ADSL	<ul style="list-style-type: none"> <li>ADSL compliance: ADSL2+ as per ITU G.992.5 Annex A/Annex B/Annex J/Annex M, ADSL2 as per ITU G.992.3 Annex A/Annex B/Annex J/Annex M, ADSL as per ITU G.992.1 Annex A/Annex B</li> <li>Supports just one virtual connection at a time in ATM (VPI-VCI pair)</li> </ul>
ETH	4 individual 10/100/1000-Mbps Fast Ethernet ports; operate as switch ex-factory. Up to 3 ports can be switched as additional WAN ports. Ethernet interfaces can be completely electrically disabled in the LCOS configuration
Ant1, Ant2	Two SMA antenna connectors for external UMTS antennas (RX diversity) or for operating a GPS antenna at the Ant2 connector
USB	USB 2.0 Hi-Speed host port for connecting USB printers (USB print server), serial devices (COM-port servers), USB data media (FAT file system)
ISDN*	ISDN S <sub>0</sub> bus
Config (COM)	Serial configuration interface / COM port (8-pin Mini-DIN): 9,600 - 115,000 baud, suitable for optional connection of analog/GPRS modems.

<b>WAN protocols</b>	
ADSL2+	PPPoE, PPPoA, Multi-PPPoE, ML-PPP, PPTP (PAC or PNS) and IPoE (with or without DHCP), IPoA, RIP-1, RIP-2, VLAN
ISDN*	1TR6, DSS1 (Euro- ISDN), PPP, X75, HDLC, ML-PPP, V.110/GSM/HSCSD
<b>UMTS/3G+ modem</b>	
Supported standards	GPRS, EDGE, UMTS, HSPA+ (HSPA with up to 21 Mbps; HSUPA with up to 5.76 Mbps)
UMTS HSxPA bands	850/900/1900/2100 MHz
EDGE GPRS bands	850/900/1800/1900 MHz (EDGE to max. 236 kbps)

<b>Declaration of conformity</b>	
For the declaration of conformity, see the product page on our website <a href="http://www.lancom-systems.eu">www.lancom-systems.eu</a>	
<b>Package content</b>	
Manual	Quick Reference Guide (DE, EN) and Quick Installation Guide (DE/EN/FR/ES/IT/PT/NL), FCC Documentation (only in the US version)
CD/DVD	Management software (LANconfig, LANmonitor, LANCAPI) and LCOS documentation
Antennas	2 dipole indoor antennas for attachment to device
Adapter	All-IP adapter (only in the EU version)
Cable	1 Ethernet cable, 3m (kiwi-colored connectors)
Cable	1 ADSL cable, 3m (dark-blue connectors)
Cable*	1 ISDN cable, 3m (light-blue connectors)
Power adapter	External power supply adapter, NEST 12 V/1.5A DC/S, barrel connector 2.1/5.5 mm bayonet, LANCOM item no. 110723 (EU, 230 V), LANCOM item no. 110829 (UK, 230 V), LANCOM item no. 111007 (US, 110 V)

\*) ISDN is not available in US version and only Annex A/M  
Specific device properties are not available to LANCOM CC devices operating in CC mode according to the "Operational User Guidance".  
This product contains separate modem firmware with open-source software components. These are subject to their own licenses, in particular the General Public License (GPL). The license text for the modem firmware is available on the data medium supplied. If the respective license demands, the source files for the corresponding software components will be made available on a download server upon request. License information for the device firmware (LCOS) is available in the file LCOS-Licenses.txt on the data medium supplied.

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TECHNICAL DETAILS