XELIA

User's Manual Version 1.1



© 2009 NeoMedia Europe AG, Würselen (Germany)

While the information in this manual has been compiled with great care, it may not be deemed an assurance of product characteristics. NeoMedia Europe AG shall be liable only to the degree specified in the terms of sale and delivery.

Trademarks

NeoMedia is a registered trademark of NeoMedia Technologies, Inc.

XELIA[®] is a registered trademark of NeoMedia Europe AG.

Windows[®], Windows NT[®] and Windows Vista[®] are registered trademarks of Microsoft, Corp.

All other names mentioned may be trademarks or registered trademarks of their respective owners.

Subject to change without notice. No liability for technical errors or omissions.



Table of contents

ABOUT THIS MANUAL		5
<u>CHAPTER 1</u>	INTRODUCTION	6
	XELIA short description	7
	XELIA scanner models	8
	XELIA optional accessories	8
<u>CHAPTER 2</u>	UNPACKING AND CONNECTING XELIA	9
	Packaging contents	10
	Installing and connecting XELIA	11
	Connecting XELIA using the USB port	11
	Connecting XELIA using the serial port	11
	Installing XELIA-E using the Ethernet port	12
	CPR Manager	13
<u>CHAPTER 3</u>	SETUP TOOL	14
	Installation requirements	15
	Operating systems	15
	Installing the XELIA Setup Tool	16
	Starting the XELIA Setup Tool	17
	Exiting the XELIA Setup Tool	18
	Removing the XELIA Setup Tool	19
<u>CHAPTER 4</u>	CONFIGURING XELIA	20
	Menu bar	21
	RS-232	22
	Output	23
	EAN/JAN-13	24
	EAN/JAN-8	25
	UPC-A	26



	UPC-E0	27
	Code 128	28
	Interleaved 2 of 5	29
	2D symbologies	30
	Additional Commands	31
<u>APPENDIX A</u>	TRIGGER COMMANDS	32
	Trigger commands	33
<u>APPENDIX B</u>	DIVERSE	34
	Warranty conditions of NeoMedia Europe AG	35
	1. Warranty coverage	35
	2. Warranty period	35
	3. Warranty procedure	35
	4. Suspension of the warranty	36
	5. Operating mistakes	36
	6. Additional regulations	36
<u>APPENDIX C</u>	TECHNICAL DATA	38
	Data sheet	39
	ASCII conversion chart	41
	XELIA/XELIA-E Connector Pin-out	43
	XELIA Connectors	43
	XELIA-E Connectors	43
	XELIA / XELIA-E Connector Pin-out	43
	XELIA / XELIA-E Connector Pin-out	44



About this manual

Thank you for placing your trust in our XELIA desktop scanner!

This manual contains all important information you will need to configure and operate your XELIA. For instance, how to physically install the unit in its intended location, how to set it up to operate on your specific network and according your user-specific reading parameters, how to get optimal reading results?

The accompanying setup tool will be described, and you will find detailed information on its basic functions and features.

The following information addresses to experienced users with knowledge of the hardware and software configuration.

If you have further questions or need additional help, please contact our support:

NeoMedia Europe AG Jens-Otto-Krag-Str. 11 52146 Würselen Germany

 Phone
 +49 2405 49922-50

 Fax
 +49 2405 49922-99

 E-Mail
 support@neom.com

Remark: Please collect the version number of the Setup Tool software, the device information of your XELIA device (code reader and Ethernet tabs) before asking for technical support.



CHAPTER 1 Introduction

This chapter provides general information about the XELIA desktop scanner and its optional accessories.

- XELIA short description
- XELIA different scanner models
- XELIA optional accessories

XELIA short description

XELIA is a versatile desktop scanner that incorporates Honeywell Adaptus[®] Imaging Technology 5.0 to enable high-performance reading of 2D codes from mobile phone displays.

Thanks to its high-speed processor, XELIA automatically recognizes 2D codes sent as text messages (SMS, EMS) or MMS messages as well as printed 1D barcodes. It rapidly processes codes with extreme accuracy.



Equipped with various communication interfaces, XELIA can be easily integrated into an existing system in order to provide increased flexibility for mobile phone-based applications at the point-of-sale (shopping malls, grocery stores, and offices) or point-of-access (concert venues, theme parks, movie theatres, sporting events). Its compact size and sleek design make XELIA ideal for counter-top use at a point-of-sale or service desk. It can also be used for sweepstakes, mobile advertising (tickets and coupons) and boarding passes.

XELIA scanner models

XELIA exists in two versions - with and without Ethernet connectivity.

The model without Ethernet (XELIA) has two interfaces: a USB port to allow you to connect your XELIA scanner directly to you PC using the included USB cable (a power supply is not required since the scanner is powered via the USB port in this connection method), and a serial port to connect your XELIA scanner to any serial device. The serial cable with power supply is not included in the package (refer to *XELIA optional accessories* on page 8).

The model with Ethernet (XELIA-E) possesses an Ethernet interface in addition to the USB and serial ports. The USB-cable is provided with this scanner model. The serial cable with power supply and the Ethernet cable are not included in the package (refer to *XELIA optional accessories* on page 8).

Remark: XELIA in the scope of this manual refers to XELIA and XELIA-E. If a feature or function is related to only one of the two models, this manual refers to "XELIA only" or "XELIA-E only".

XELIA optional accessories

The following optional accessories for XELIA and XELIA-E are currently available at NeoMedia Europe:

 Serial cable with power supply for XELIA and XELIA-E to connect your XELIA/XELIA-E to a wide variety of serial devices or to run XELIA-E in Ethernet connection mode.

CHAPTER 2 Unpacking and connecting XELIA

This chapter provides an overview on the XELIA components and includes instructions on how to install and connect the XELIA scanner to a PC for evaluation.

- Packaging contents
- Installing and connecting XELIA

Packaging contents

Please check the completeness of your XELIA package.

The package consists of:

- 1 XELIA
- 1 Configuration CD
- 1 USB cable



Installing and connecting XELIA

The XELIA scanner can be connected to a PC for evaluation and individual configuration. XELIA can be connected via USB, serial or Ethernet port.

Connecting XELIA using the USB port

- Switch on your computer.
- First install the software driver provided on the configuration CD if your PC is running under Windows, and be sure to follow the instructions. The software driver creates a virtual COM port which can be used like any other standard COM port on your PC.

Remark: Linux operating systems don't require an extra driver installation. Default serial over USB driver will be used.

- Connect one end of the included interface cable to the XELIA (leftmost port) and the other end of the cable to the matching USB port of your PC.
- Power supply is not required.
- The scanner emits a beep sequence via the built-in speaker and the scanning illumination starts to flicker.

Connecting XELIA using the serial port

- Switch on your computer.
- Connect one end of the serial interface cable to XELIA (middle port) and the other end of the cable to the matching serial port of your PC.
- Then, plug the power supply unit into an electrical outlet.
- The scanner emits a beep sequence via the built-in speaker and the scanning illumination starts to flicker.

Remark: You don't need to install a software driver for a serial communication. If connecting the XELIA scanner using an RS-232 interface, all communication parameters between XELIA and terminal must match for correct data transfer through the serial port using RS-232 protocol. The default settings for the Xelia serial port are 38.400 Bit/s, No Parity, 8 Data Bits, 1 Stop Bit, RTS/CTS Handshake.

Installing XELIA-E using the Ethernet port

- Connect one end of the Ethernet cable to the Ethernet port (rightmost port) on the back of the XELIA-E scanner and the other end of the cable to an Ethernet port of your network.
- For the power supply connection of your XELIA-E, plug the provided power supply unit into an electrical outlet.
- Now install the software provided on the configuration CD and be sure to follow the instructions for your specific operating system.



CPR Manager

- Open the CPR Manager.
- Click Add/Remove.
- Select a free COM port and click OK to create a virtual COM port.
- Mark the new COM port by clicking on it.
- Click *Search For Devices* to scan your network for available XELIAs.
- Right click on the correct XELIA device in the device list at the bottom and choose *Add To Settings*.
- Click *Save* and close the CPR Manager.

Remark: You need administrator rights to create a virtual COM port using the CPR Manager.

SCPR Manager (g) 4.2.1.		×	
V Addikemove 🔚 Save	C wind a search for Devices C Exclude		
Com Ports Hide 😜	Settings Com 8 lests		
All Com Ports (8)			
Com 1 (Inac Com 3 (Inac Com 4 (Inac	Window's Port Name: CPR (g) Port (CDM8) Window's Device Name: \Device\GcprDevice8 Com Status: Closed Window's Service Name: GcprDrvr Network Status: Disconnected		
👘 Com 6 (Inac	Reset to Defaults Cancel Edits		
	Com 7 (Inac Com 8 Com 9 (Inac Com 9 (Inac Com 9 (Inac No Net Close		
	Listen Mode Normal - port closed after disconnect TCP Port Add To Firewall		
TCP KeepAlive 7200000 🚎 KeepAlive Time (msec) 1000 🚔 KeepAlive Interval (msec)			
Service Host I TCP Port WARNINGI If the Host is on the other side of a router or a remote firewall, then UDP ports 30718, 43282 and 43283 may need to be added to the firewall's exclusion list. You may experience trouble opening this com port if these UDP ports are not excluded.			
	3 Also, some legacy device servers respond on UDP port 43283. If you are unable to connect to a device server, one possible cause is the Firewall on this machine is blocking this port. Press the 'Add Rx Port' button to add this port to the Firewall. If the button caption reads 'Remove Rx Port' then the port has already been added and can be removed by pressing this button. 7 Add Rx Port' 8 Add Rx Port		
		-	
Device List	Collapse	2	
IP Address	# Ports TCP Port Product ID HW Address Network Interface Device Name		
10.0.0.77	1 10001 XF0rF03 X5 00:20:44:21 10.0.0.105		
		<u>ت</u>	

CHAPTER 3 Setup Tool

The XELIA Setup Tool is a program designed to configure your XELIA in order to achieve optimal reading results. With this program, you can carry out all necessary parameterizations and main settings, adapt them to your specific needs and suit your individual area of application. In most cases, the default settings are sufficient.

In this chapter, you will learn how to install, remove, start and exit the XELIA Setup Tool.

- Installing the XELIA Setup Tool
- Removing the XELIA Setup Tool
- Starting the XELIA Setup Tool
- Exiting the XELIA Setup Tool

Installation requirements

To install and run the XELIA Setup Tool, your computer must fulfill the following requirements:

Operating systems

To install the XELIA Setup Tool, following operating systems are required:

- Windows 2000
- Windows XP (32-bit versions only)
- Windows Vista (32-bit versions only)

Should you use other operating systems, please contact our support (contact address on page 5).



Installing the XELIA Setup Tool

- Switch on your computer and wait until Windows is started.
- Insert the provided configuration CD into the CD-ROM disk drive. The Install program will start automatically. (If the auto-start function is disabled, start setup manually by double-clicking on SETUP.EXE in the CD root directory).
- Confirm the next installation dialogue with *Next*.

Remark: If needed, log in with administration rights for the local computer. Install the Setup Tool using an administrator account.

- Select the destination folder to install the Setup Tool and click then on *Next*.
- Click again on *Next* to confirm and start the installation.
- The successful installation is complete and a corresponding dialogue message appears.
- Click on *Close*.

Starting the XELIA Setup Tool

- Switch on your computer and wait until Windows is started.
- Select Start → Programs → XELIA Setup Tool
- Select the appropriate connection according to the way you have connected XELIA to your PC – *Network*, *RS-232* or *USB*.

Remark: If connecting the XELIA scanner using an RS-232 interface, all communication parameters between XELIA and terminal must match for correct data transfer through the serial port using RS-232 protocol.

How do y	ou want to connect to the device?	
? O Netv	ork	
V	IP Adress MAC Adress	Scan
		Change IF
C RS-2	32 TOSHIBA Software Modem AMR	▼ 38400
USB	5180 Area Imager (COM6)	-

- Click on OK.
- Connection will be established.



Exiting the XELIA Setup Tool

- Go to *Connection* in the menu bar of the XELIA Setup Tool and select the menu item *Disconnect*, or click on the icon *Disconnect* below the menu bar.
- Connection to the device will be disconnected.
- Close the window by clicking on the cross in the upper right corner or selecting *Connection > Quit* from the menu bar.



Removing the XELIA Setup Tool

• Switch on your computer and wait until Windows is started.

Remark: If needed, log in with administration rights for the local computer.

- Select Start → Settings → Control Panel and open the Software directory.
- Locate the XELIA Setup Tool program already installed on your system and click the button "Change / Remove".
- Confirm the next dialogue with OK.
- Close the window "Software"

CHAPTER 4 Configuring XELIA

This chapter describes the XELIA Setup Tool, how to configure the XELIA scanner according to your specific needs, how to set up the decoding methods and how to define the communication between XELIA and host system.



Menu bar

Menu: Connection

Connect	establishes a connection to the XELIA.
Disconnect	closes the connection to the XELIA.
Quit	closes the setup tool application.

Menu: Configuration

Default	sets all parameters in the setup tool to default values and writes them directly to the XELIA scanner's EEPROM.
Apply	writes the current parameter set of the XELIA scanner to EEPROM. (Important : if you do not apply, all your parame- ters will be lost in case of a power interruption).
Open	loads a parameter set from a file into the setup tool and transmits it to the XELIA. Click on <i>Apply</i> to have them saved and written to EEPROM.
Save	saves the current parameter set from the setup tool to a file.
Menu: <i>Image</i>	
Snapshot	creates automatically a snapshot image from the XELIA scan- ner and displays this image in a separate window.
Menu: <i>Help</i>	
About	displays version numbers and Copyright information.

RS-232

Baud Rate	defines the data transmission rate from the XELIA scanner to the terminal via the serial interface. Host terminal must be set to the same baud rate as the XELIA.
	Default Baud Rate = 38400 BPS.
RTS/CTS	defines the data exchange between XELIA and host ter- minal (RS-232 handshaking).
	If checking the box <i>RTS/CTS</i> , XELIA issues always an active RTS signal to the receiving device. XELIA waits to send its data until it detects an active CTS signal from the receiving device. XELIA then sends its data while checking the CTS signal before the transmission of each data character. If an inactive CTS signal is detected at any time, the XELIA halts transmission until it detects another active CTS signal.

Default = RTS/CTS activated.



Output

Reread Delay sets the time period before the XELIA can read the same bar code a second time. Longer delays are effective in minimizing accidental rereads at the point of sale. Use shorter delays in applications where repetitive barcode scanning is required.

Default delay = Off.

Prefix and Suffix characters are data characters that can be sent before and after scanned data.

Prefix	Scanned data	Suffix
1-11 Alpha numeric characters	Variable length	1-11 Alpha numeric characters

You can specify if prefix and suffix characters should be sent with all symbologies.

Remark: Prefix and suffix should be added according to the hex values from the ASCII conversion chart on page 41.

- Prefixdefines the prefix that will be sent before the scanned
data. Enter here the hex values determined from the
ASCII conversion chart on page 41.Default Prefix = none.
- Suffixdefines the suffix that will be sent after the scanned data.Enter here the hex values determined from the ASCII conversion chart on page 41.

Default Suffix = none.

EAN/JAN-13

Enabled	enables/disables the decoding of <i>EAN/JAN-13</i> barcodes.
	Default = activated.
Addenda required	allows you to specify whether the check digit should be transmitted at the end of the scanned data or not. If you checked this box, only <i>EAN/JAN-13</i> barcodes with a check digit at the end will be decoded. The ones without addenda will be ignored.
	Default = inactivated.
2 Digit Addenda	enables the decoding of <i>EAN/JAN-13</i> barcodes with 2 digits at the end.
	Default = inactivated.
5 Digit Addenda	enables the decoding of <i>EAN/JAN-13</i> barcodes with 5 dig- its at the end.
	Default = inactivated.

EAN/JAN-8

Enabled	enables/disables the decoding of <i>EAN/JAN-8</i> barcodes.
	Default = activated.
Addenda required	allows you to specify whether the check digit should be transmitted at the end of the scanned data or not. If you checked this box, only <i>EAN/JAN-8</i> barcodes with a check digit at the end will be decoded. The ones without ad- denda will be ignored.
	Default = inactivated.
2 Digit Addenda	enables the decoding of <i>EAN/JAN-8</i> barcodes with 2 digits at the end.
	Default = inactivated.
5 Digit Addenda	enables the decoding of <i>EAN/JAN-8</i> barcodes with 5 digits at the end.
	Default = inactivated.

UPC-A

Enabled	enables/disables the decoding of UPC-A barcodes.
	Default = activated.
Addenda required	allows you to specify whether the check digit should be transmitted at the end of the scanned data or not. If you checked this box, only <i>UPC-A</i> barcodes with a check digit at the end will be decoded. The ones without addenda will be ignored.
	Default = inactivated.
2 Digit Addenda	enables the decoding of <i>UPC-A</i> barcodes with 2 digits at the end.
	Default = inactivated.
5 Digit Addenda	enables the decoding of UPC-A barcodes with 5 digits at the end.
	Default = inactivated.

UPC-E0

Enabled	enables/disables the decoding of UPC-E0 barcodes.
	Default = activated.
Addenda required	allows you to specify whether the check digit should be transmitted at the end of the scanned data or not. If you checked this box, only <i>UPC-EO</i> barcodes with a check digit at the end will be decoded. The ones without addenda will be ignored.
	Default = inactivated.
2 Digit Addenda	enables the decoding of <i>UPC-EO</i> barcodes with 2 digits at the end.
	Default = inactivated.
5 Digit Addenda	enables the decoding of <i>UPC-EO</i> barcodes with 5 digits at the end.
	Default = inactivated.

Code 128

Enabled enables/disables the decoding of *Code 128* barcodes.

Default = inactivated.

Min. Message length defines the minimum length of a *Code 128* barcode that will be accepted once scanned. The length varies from 0 to 80 characters. Check the box *Enabled* to define the minimum length.

Minimum Default = 0.

Max. Message length defines the maximum length of a *Code 128* barcode that will be accepted once scanned. The length varies from 0 to 80 characters. Check the box *Enabled* to define the maximum length.

Maximum Default = 80.



Interleaved 2 of 5

Enabled	enables/disables the decoding of <i>Interleaved 2 of 5</i> bar- codes.
	Default = inactivated.
Check Digit	allows the XELIA to read and transmit barcode data with or without check digit. Check the box <i>Enabled</i> to set this function.
	 When Check Digit is set to No Check Digit, XELIA reads and transmits barcode data with or without check digit.
	 When <i>Check Digit</i> is set to <i>Validate, but Don't Transmit</i>, XELIA only reads Interleaved 2 of 5 barcodes printed with a check digit, but will not transmit the check digit with the scanned data.
	 When Check Digit is set to Validate and Transmit, XELIA only reads Interleaved 2 of 5 barcodes printed with a check digit, and will transmit this digit at the end of the scanned data.
	Default = No Checked Digit.
Min. Message length	defines the minimum length of an <i>Interleaved 2 of 5</i> bar- code that will be accepted once scanned. The length var- ies from 2 to 80 characters. Check the box <i>Enabled</i> to de- fine the minimum length.
	Minimum Default = 4.
Max. Message length	defines the maximum length of an <i>Interleaved 2 of 5</i> bar- code that will be accepted once scanned. The length var- ies from 2 to 80 characters. Check the box <i>Enabled</i> to de- fine the maximum length.

Maximum Default = 80.



2D symbologies

QR	enables/disables the decoding of <i>QR</i> codes.						
	Default = inactivated.						
Data Matrix	enables/disables the decoding of <i>Data Matrix</i> codes. Default = activated.						
Aztec	enables/disables the decoding of <i>Aztec</i> codes. Default = inactivated.						
PDF417	enables/disables the decoding of <i>PDF417</i> codes. Default = inactivated.						

Additional Commands

This window is for maintenance purposes only. NeoMedia technical support might be responding to your special requests by sending you a set of special commands to be entered here. These additional commands can configure the scanner behaviour in a wider scope than the standard commands in the graphical user interface above.



APPENDIX A Trigger Commands

XELIA is usually running in Presentation Mode. This means that it continuously captures images and tries to decode existing bar and 2D codes. No triggering of the code reading is necessary.

If an application however wants to disable code reading for a certain period of time, the code reading can be disabled and re-enabled using dedicated command syntax as described on the following page.

Trigger commands

Disable Code Reading	This command is used to disable code reading until the reading is re-enabled via the <i>Enable Code Reading</i> command (as described below) or the scanner has been switched off and on again.
	Send the following command to the scanner via the hardware interface the scanner and the controlling device are connected with:
	Three ASCII characters: SYN M CR (ASCII 22,77,13), followed by the ASCII command TRGMODO! (the closing exclamation mark is part of the command sequence and has to be present).
Enable Code Reading	This command is used to re-enable code reading until the reading is disabled via the <i>Disable Code Reading</i> command (as described above).
	Send the following command to the scanner via the hardware interface the scanner and the controlling device are connected with:
	Three ASCII characters: SYN M CR (ASCII 22,77,13), fol- lowed by the ASCII command TRGMOD3! (the closing exclamation mark is part of the command sequence and has to be present).
Responses	The scanner responds to these commands with the command (TRGMODx), one of three responses as follows and the exclamation mark to close the response:
	ACK Indicates a good command which has been processed.ENQ or NAK Indicates an invalid command (this means that there most probably was a typing error in the command syntax).

Example: TRGMOD0ACK!

APPENDIX B Diverse

This chapter contains information on:

Warranty conditions



Warranty conditions of NeoMedia Europe AG

1. Warranty coverage

- a) The warranty covers the equipment delivered and all its parts. Parts will, at NeoMedia Europe's sole discretion, be replaced or repaired free of charge if, despite proven proper handling and adherence to the operating instructions, these parts became defective due to fabrication and/or material defects. Alternatively, NeoMedia Europe reserves the right to replace the defective product with a comparable product with the same specifications and features. Operating manuals and possibly supplied software are excluded from the warranty.
- b) Material and service charges shall be covered by NeoMedia Europe, but not shipping and handling costs involved in transport from the buyer to the service station and/or to NeoMedia Europe.
- c) Replaced parts become property of NeoMedia Europe.
- d) NeoMedia Europe is authorized to carry out technical changes (e.g. firmware updates) beyond repair and replacement of defective parts in order to bring the equipment up to the current technical state. This does not result in any additional charge for the customer. A legal claim to this service does not exist.

2. Warranty period

The warranty period for this NeoMedia Europe product is twelve months. The warranty period begins at the day of delivery. Warranty services carried out by NeoMedia Europe do not result in an extension of the warranty period nor do they initiate a new warranty period. The warranty period for installed replacement parts ends with the warranty period of the device as a whole.

3. Warranty procedure

- a) If defects appear during the warranty period, the warranty claims must be made immediately, at the latest within a period of 7 days.
- b) In the case of any externally visible damage arising from transport (e.g. damage to the housing), the person carrying out the transportation and the sender should be informed immediately. On discovery of damage which is



not externally visible, the transport company and the sender are to be immediately informed in writing, at the latest within 3 days of delivery.

- c) Transport to and from the location where the warranty claim is accepted and/or the repaired device is exchanged, is at the purchaser's own risk and cost.
- d) Warranty claims are only valid if a copy of the original purchase receipt is returned with the device.

4. Suspension of the warranty

All warranty claims will be deemed invalid

- a) if the label with the serial number has been removed from the device,
- b) if the device is damaged or destroyed as a result of acts of nature or by environmental influences (moisture, electric shock, dust, etc.),
- c) if the device was stored or operated under conditions not in compliance with the technical specifications,
- d) if the damage occurred due to incorrect handling, especially to nonobservance of the system description and the operating instructions,
- e) if the device was opened, repaired or modified by persons not contracted by NeoMedia Europe,
- f) if the device shows any kind of mechanical damage,
- g) if the warranty claim has not been reported in accordance with 3a) or 3b).

5. Operating mistakes

If it becomes apparent that the reported malfunction of the device has been caused by unsuitable hardware, software, installation or operation, NeoMedia Europe reserves the right to charge the purchaser for the resulting testing costs.

6. Additional regulations

- a) The above conditions define the complete scope of NeoMedia Europe's legal liability.
- b) The warranty gives no entitlement to additional claims, such as any refund in full or in part. Compensation claims, regardless of the legal basis, are excluded. This does not apply if e.g. injury to persons or damage to private property are specifically covered by the product liability law, or in cases of intentional act or culpable negligence.



- c) Claims for compensation of lost profits, indirect or consequential detriments, are excluded.
- d) NeoMedia Europe is not liable for lost data or retrieval of lost data in cases of slight and ordinary negligence.
- e) In the case that the intentional or culpable negligence of NeoMedia Europe employees has caused a loss of data, NeoMedia Europe will be liable for those costs typical to the recovery of data where periodic security data backups have been made.
- f) The warranty is valid only for the first purchaser and is not transferable.
- g) The court of jurisdiction is located in Aachen, Germany in the case that the purchaser is a merchant. If the purchaser does not have a court of jurisdiction in the Federal Republic of Germany or if he moves his domicile out of Germany after conclusion of the contract, NeoMedia Europe's court of jurisdiction applies. This is also applicable if the purchaser's domicile is not known at the time of institution of proceedings.
- h) The law of the Federal Republic of Germany is applicable. The UN commercial law does not apply to dealings between NeoMedia Europe and the purchaser.

APPENDIX C Technical Data

This chapter contains information on:

- Data sheet
- ASCII conversion chart
- XELIA/XELIA-E Connector Pin-out

Data sheet

Supported codes	
Code types	 2d: Data Matrix ECC200, QR, Aztec, PDF417 1d: UPC/EAN/JAN, 2/5 Interleaved, Code 128 (various other codes on request)
Optical Data	
Imager Reading direction Field of view Depth of field	Honeywell Adaptus [®] Imaging Technology Omni-directional On glass level, approx. 55x45mm From glass to approximately 5cm above glass
Electrical Data	Powered via USB or via optional wall power sup- ply (100-240V AC, 0.6A max.)
Interfaces	
Interface type	USB — powered via the USB connection
	RS-232 – 4.800-115.200 Bit/s – 8 Bit, no parity – HW handshake
	Ethernet (only on XELIA-E): – Configuration via built-in Web Server
	 IO/IOOBase-I/IX (auto-sensing) IP-Address via DHCP client or fixed Full TCP/IP stack, UDP support Virtual serial port device driver for Windows
Connections	1 input 1 output
Display	Beeper for successful reading

Mechanical Data

Housing Weight Dimensions Aluminum / thermoplastic 450 g

- Height: 110-125 mm
- Width: 84 mm
- Depth: 93 mm

Environmental Data

Operating Storage 0°C - 40°C (32°F - 104°F) -40°C...70° C (-40°F - 158°F); non-condensing



ASCII conversion chart

Remark: This table applies to U.S. style keyboards. Certain characters may differ depending on your Country Code/PC regional settings.

Dec	Hex	Char	Dec	Hex	Char	Dec	Hex	Char	Dec	Hex	Char
0	00	NUL	32	20		64	40	@	96	60	٤
1	01	SOH	33	21	İ	65	41	А	97	61	а
2	02	STX	34	22	er	66	42	В	98	62	b
3	03	ETX	35	23	#	67	43	С	99	63	с
4	04	EOT	36	24	\$	68	44	D	100	64	d
5	05	ENQ	37	25	%	69	45	E	101	65	е
6	06	ACK	38	26	&	70	46	F	102	66	f
7	07	BEL	39	27	4	71	47	G	103	67	g
8	08	BS	40	28	(72	48	Н	104	68	h
9	09	HT	41	29)	73	49	Ι	105	69	i
10	0A	LF	42	2A	*	74	4A	J	106	6A	j
11	0B	VT	43	2B	+	75	4B	К	107	6B	k
12	0C	FF	44	2C	,	76	4C	L	108	6C	Ι
13	0D	CR	45	2D	-	77	4D	М	109	6D	m
14	0E	SO	46	2E		78	4E	Ν	110	6E	n
15	0F	SI	47	2F	1	79	4F	0	111	6F	0
16	10	DLE	48	30	0	80	50	Р	112	70	р
17	11	DC1	49	31	1	81	51	Q	113	71	q
18	12	DC2	50	32	2	82	52	R	114	72	r
19	13	DC3	51	33	3	83	53	S	115	73	s
20	14	DC4	52	34	4	84	54	Т	116	74	t
21	15	NAK	53	35	5	85	55	U	117	75	u
22	16	SYN	54	36	6	86	56	V	118	76	v
23	17	ETB	55	37	7	87	57	W	119	77	w
24	18	CAN	56	38	8	88	58	Х	120	78	х
25	19	EM	57	39	9	89	59	Y	121	79	у
26	1A	SUB	58	3A	:	90	5A	Ζ	122	7A	Z
27	1B	ESC	59	3B	· ,	91	5B	[123	7B	{
28	1C	FS	60	3C	<	92	5C	1	124	7C	
29	1D	GS	61	3D	=	93	5D]	125	7D	}
30	1E	RS	62	3E	>	94	5E	Λ	126	7E	~
31	1F	US	63	3F	?	95	5F	_	127	7F	

Dec	Hex	Char	Dec	Hex	Char	Dec	Hex	Char	Dec	Hex	Char
128	80	€	160	A0		192	C0	À	224	E0	à
129	81		161	A1	i	193	C1	Á	225	E1	á
130	82	,	162	A2	¢	194	C2	Â	226	E2	â
131	83	f	163	A3	£	195	C3	Ã	227	E3	ã
132	84	n	164	A4	α	196	C4	Ä	228	E4	ä
133	85		165	A5	¥	197	C5	Â	229	E5	å
134	86	†	166	A6	ł	198	C6	Æ	230	E6	æ
135	87	‡	167	A7	§	199	C7	Ç	231	E7	Ç
136	88	~	168	A8		200	C8	È	232	E8	è
137	89	‰	169	A9	©	201	C9	É	233	E9	é
138	8A	Š	170	AA	<u>a</u>	202	CA	Ê	234	EA	ê
139	8B	<	171	AB	«	203	СВ	Ë	235	EB	ë
140	8C	Œ	172	AC	٦	204	CC	Ì	236	EC	ì
141	8D		173	AD	-	205	CD	Í	237	ED	Í
142	8E	Ž	174	AE	®	206	CE	Î	238	EE	î
143	8F		175	AF	-	207	CF	Ï	239	EF	ï
144	90		176	B0	0	208	D0	Ð	240	F0	ð
145	91		177	B1	±	209	D1	Ñ	241	F1	ñ
146	92	,	178	B2	2	210	D2	Ò	242	F2	Ò
147	93	et.	179	B3	3	211	D3	Ó	243	F3	Ó
148	94	"	180	B4		212	D4	Ô	244	F4	Ô
149	95	•	181	B5	μ	213	D5	Õ	245	F5	õ
150	96	-	182	B6	¶	214	D6	Ö	246	F6	Ö
151	97	—	183	B7		215	D7	×	247	F7	÷
152	98	~	184	B8	•	216	D8	Ø	248	F8	Ø
153	99	тм	185	B9	1	217	D9	Ù	249	F9	ù
154	9A	Š	186	BA	≙	218	DA	Ú	250	FA	ú
155	9B	>	187	BB	»	219	DB	Û	251	FB	û
156	9C	œ	188	BC	1⁄4	220	DC	Ü	252	FC	ü
157	9D		189	BD	1/2	221	DD	Ý	253	FD	ý
158	9E	Ž	190	BE	3/4	222	DE	Þ	254	FE	þ
159	9F	Ÿ	191	BF	j	223	DF	ß	255	FF	ÿ

XELIA/XELIA-E Connector Pin-out

XELIA Connectors



USB Power & I/O

XELIA-E Connectors



USB Power & I/O Ethernet



XELIA / XELIA-E Connector Pin-out

USBStandard USB-B connector to connect scanner to a USBhost device via the supplied USB cable

Power & I/O RJ45 socket with NeoMedia proprietary pin-out as follows:

Pin	Туре	Signal	Direction ¹	Remark
1	RS232	RTS	OUT	
2	RS232	CTS	IN	
3	RS232	ТХ	OUT	
4	RS232	RX	IN	
5	RS232, I/O, Power	GND		
6	I/O	GOODREAD	OUT	3.3V against GND
7	I/O	TRIGGER	IN	3.3V against GND
8	Power	VCC		12V 500 mA max.

¹ Direction seen from scanner, XELIA is DTE in RS232 mode

² For GOODREAD and TRIGGER signals please refer to the command description of the "Good Read" and "Trigger" commands in the Setup Tool

Ethernet

(only available on XELIA-E) Standard RJ45 Ethernet Port for 10BASE-T and 100BASE-TX connection