

# **Mobile Connection Explorer for Windows**

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Version 21

## **Introduction and Features**

Public version



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## History

Version	Date	Description	Author
1	29.6.2006	first release	Sales
2	19.9.2007	new features - generic models support - Vista support renaming	Sales
3	14.1.2008	updates - generic profiles	Sales
4	14.1.2008	new feature description	Sales
5	21.2.2008	new UI sample	Sales
6	10.4.2008	structure change, USSD	Sales
7	14.6.2008	operating systems support drop	Sales
8	25.8.2008	references update	Sales
9	17.3.2009	formatting, reference, MAC separation	Sales
10	19.3.2009	formatting	Sales
11	25.3.2009	formatting	Sales
12	3.6.2009	Q3/2009 features added	Sales
13	1.8.2009	Windows 7 RTM support	Sales
14	27.10.2009	default optional features	Sales
15	2.4.2010	updated list of supported devices	Sales
16	1.4.2011	new GUI, updated list of supported devices	Sales
17	29.7.2011	updated list of supported devices	Sales
18	21.12.2011	old version removal, MCE 2012 only	Sales
19	3.5.2012	Windows 8 Consumer Preview support, new modems support	Sales
20	21.8.2012	New screenshots	Sales
21	16.5.2013	Windows 8 support and new features	Sales

## 1. Scope

This document contains description and features of Mobile Connection Explorer (MCE).



## 2. Abbreviations

APN	Access Point Name
BT	Bluetooth
CDMA	Code Division Multiple Access
CHAP	Challenge-Handshake Authentication Protocol
CPU	Central Processing Unit
DUN	Dial-Up Networking
EC	Express Card
EDGE	Enhanced Data rates for GSM Evolution
EULA	End User License Agreement
EV-DO	Evolution Data Optimized
Flash-OFDM	Fast Low-latency Access with Seamless Handoff OFDM
GPRS	General Packet Radio Service
GSM	Global System for Mobile communications
HSDPA	High Speed Downlink Packet Access
HSPA	High Speed Packet Access
HSUPA	High Speed Uplink Packet Access
HTTP	Hypertext Transfer Protocol
HTTPS	HTTP - Secured
INF	Information File
IR	Infrared
LAN	Local Area Network
MTU	Maximum Transfer Unit
NDIS	Network Driver Interface Specification
NDISWAN	NDIS driver used by miniport WAN drivers
OFDM	Orthogonal Frequency Division Multiplexing
PAP	Password authentication protocol
PCMCIA	Personal Computer Memory Card International Association
PIN	Personal Identification Number
PPP	Point to Point Protocol
PPPoE	PPP over Ethernet
RAS	Remote Access Service
SMS	Short Message Service
SSID	Service Set Identifier
TDCDMA	Time Division CDMA
UCS2	Unicode Character Set (2-octets per character)
UMTS	Universal Mobile Telecommunications System
USB	Universal Serial Bus
VPN	Virtual Private Network
WAN	Wide Area Network
WLAN	Wireless LAN



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### 3. Introduction

The first version of Mobile Connection Explorer was launched in 2002. Since then, the software has steadily been enhanced and extended. Mobile Connection Explorer is already used by millions of subscribers in various countries worldwide.

### 4. Specification

Mobile Connection Explorer is a complex solution, which automates all steps required for successful connection setup. It includes detection of a connected mobile device, its installation including drivers, connection profile creation and un-installation when needed. Mobile Connection Explorer also offers connection management – connection setup, connection termination and data throughput and volume monitoring.

The currently supported radio access networks are GPRS (including EDGE), UMTS (up to DC-HSPA), LTE, TD-CDMA, CDMA (including EV-DO). The architecture is ready to support any other or upcoming radio access networks like WiMax.

Mobile Connection Explorer also allows control of other non-mobile connection types like VPN or PPPoE.

To increase the quality of user experience, Mobile Connection Explorer supports PIN management, SMS messaging, USSD service access, and cellular network preference selection.



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The application's user interface is ready to be customized and branded according to your needs.



Example of customized user interface (Cyfrowy Polsat LTE)



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The screenshot shows a window titled 'T-Mobile'. On the left sidebar, there are links for 'Read and send messages' and 'Change settings'. The main content area has a title 'Web'n'walk Manager' with a subtitle 'Easy way to Internet'. Below this, the device 'Alcatel One Touch X090' is listed. A section for 'Roaming (O2 - CZ)' shows 'UMTS' connectivity. A yellow warning box states: 'The message store on this device is full. You should remove some messages to be able to receive new messages.' It includes 'Go to messages' and 'Close' buttons. Navigation links include 'Statistics', 'Network Services' (with options for USSD command, Stan rahunku, Perekaz koshtiv, Menu 100, Peredzvony menu), and 'Tools' (with options for SIM PIN protection, Disable PIN protection, Change PIN, and Select network). At the bottom left, 'See also' links point to 'My T-Mobile' and 'Home Page'.

Example of customized user interface (T-Mobile Web'n'Walk)



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The screenshot shows a mobile application interface titled "Internet Center". At the top right, there are window control buttons (-, □, X) and the text "Prototype, © Gemfor s.r.o.". The main content area is titled "Alcatel One Touch X090". On the left, a green sidebar displays the "djuice" logo, a colorful geometric graphic, and links for "Read and send messages" and "Change settings". Below these, under "See also", are links for "My Kyivstar" and "Home Page". The main panel has a header "Roaming (O2 - CZ) WCDMA" with a "Connect" button and a profile link "Profile: www.ab.kyivstar.net". It includes sections for "Statistics" and "Network Services" (which is expanded to show "Plan: Prepaid" and "Balance: Na rahu..."). There are also "Tools" options like "SIM PIN protection is enabled" (with "Disable PIN protection" and "Change PIN" links), and "The network is selected automatically" (with "Select network" link). A "Send USSD command" button is also present.

Example of customized user interface (Djuice)



## 5. Product description

### 5.1 Supported operating systems

- Windows XP SP3
- Windows XP SP2 64bit
- Windows Server 2003 (including 64bit version)
- Windows Vista (including 64bit version)
- Windows Server 2008 (including R2)
- Windows 7 (including 64bit version)
- Windows 8 (x86/x64)

All current Microsoft's desktop operating systems are supported. Support for Mac OS X is described in a separate document.

### 5.2 Hardware device connections

- Bluetooth
- PCMCIA
- Express Card (both USB and PCI Express backplane supported)
- USB
- PPP over Ethernet

Any additional/proprietary interface may be supported if documentation and API is available.

### 5.3 Network connection types

- Plug and Play modem (e.g. USB phone, dongle)
- NDIS (e.g. Huawei, General Dynamics Broadband LTE)
- Microsoft Mobile Broadband API (WWAN)
- PPP over Ethernet Microsoft stack (e.g. DSL modem)
- Ethernet
- VPN (currently Microsoft and Cisco VPN, other available on request)

Multiple (even established) connections are supported simultaneously. Users can choose which device to work with.



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## 5.4 Customizable graphical skin

The application's user interface is highly customizable according the customer's needs. We can change:

- size
- colors
- animations
- buttons
- icons
- window shape
- notification area icon behavior
- basic / advanced user interface mode

## 5.5 Setup package (size and features)

By utilizing advanced compression methods and clean programming techniques, MCE is only about 5MB in size (excluding USB/Express Card drivers). This simplifies distribution via downloads.

Our own installer can bundle any 3<sup>rd</sup> party application. This allows offering a single setup package to users, providing multiple functionality (e.g. real-time compression, VPN).

## 5.6 Connection profiles

Dual-radio devices (e.g. CDMA 1x combined with DC-HSPA) are configured with a single multi-technology connection profile.

Corporate users can deploy their private connection profile easily with provided tools and documentation. Majority of known network authentication methods are supported (e.g. PAP, CHAP).



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## 6. Features

### 6.1 Automatic device detection and driver handling

Devices connected to the system are automatically detected (except for non-Plug and Play Bluetooth devices which require the user to start manual discovery).

Devices with incorrectly installed or missing drivers will also be discovered and MCE will try to fix the problem if possible.

The user is informed in case the mobile equipment is blocked by other software.

The detection and installation process was tested with hundreds of devices and is continually re-tested with devices coming to market.

### 6.2 Connection monitoring

While connected, MCE monitors the speed and amount of data transferred and makes this information available to the user.

### 6.3 PIN management

Complete PIN management is built into the application, which is especially useful for devices without a keypad, like USB dongles.

### 6.4 Malicious software protection (optional)

Connections configured by MCE are protected against unauthorized modification at three levels:

- Phone number (e.g. modification of \*99# to +987654321)
- APN setting (e.g. use of premium APN)
- Assigned modem driver (e.g. using laptop PSTN modem to dial to premium number rather than making GPRS connection)

Validity of the configuration is verified prior each connection.



## 6.5 System integration

- Checks for necessary Windows and network components
- Energy saving techniques
- Tuning of TCP stack parameters to optimize data transfers (reduces network communication overhead and increases speed)

## 6.6 Generic device profile (optional)

Mobile Connection Explorer doesn't need to be updated often to support new devices. We have used our long term experience with hundreds of mobile devices and we have created generic device profiles - detection and configuration procedures for all current and planned Nokia, Sony Ericsson, Samsung, Motorola and LG devices (support for other manufacturers is available on request). We have established a testing team that analyzes newly launched devices to ensure compatibility with generic profiles in the software. We believe that this unique feature significantly reduces support costs and time to market.

Generic profiles cover the majority of new devices by supported manufacturers that are launched 3 to 6 months after the last generic profile update. Updates are provided about 4 times a year.

## 6.7 Zero-CD devices support (optional)

Devices with an embedded virtual CD containing drivers are supported. Due to our long-term cooperation with major vendors (e.g. Huawei, ZTE, Option) we are ready to provide a fully integrated solution with embedded drivers.

## 6.8 Automated driver installation (optional)

Supported manufacturers:

- Nokia (global driver redistribution agreement available)
- Sony Ericsson (global driver redistribution agreement available)
- Samsung (global driver redistribution agreement available)
- Motorola (global driver redistribution agreement available)
- LG (global driver redistribution agreement available)
- Huawei
- ZTE
- General Dynamics Broadband



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## **6.9 Pre-paid credit and network services management (optional)**

Pre-paid credit management via USSD or USSD based self-care is supported.

- Credit balance
- Credit top-up (by entering voucher number)
- Service purchase and activation
- USSD menu

The user may be warned about low credit prior to every connection. ARPU increase was observed after introduction of this feature.

## **6.10 Roaming warning (optional)**

For users traveling abroad and those living in border areas, there is a configurable roaming warning available.

- Warning before establishing a connection
- Warning after a certain amount of data (configurable) has been transferred while roaming

## 6.11 Advertising (optional)

Advertising content can be displayed to the user.

Content type:

- Dynamic text
- Banners

Advertising targeting:

- Per user (e.g. IMSI based)
- Per group (e.g. Postpaid)

Click actions:

- USSD
- Open a specific URL in web browser
- Service activation (e.g. via proprietary IP interface)
- SMS

Other features:

- Statistics about click rate are available from central management server
- Ad download via a separate APN

### Connection Manager

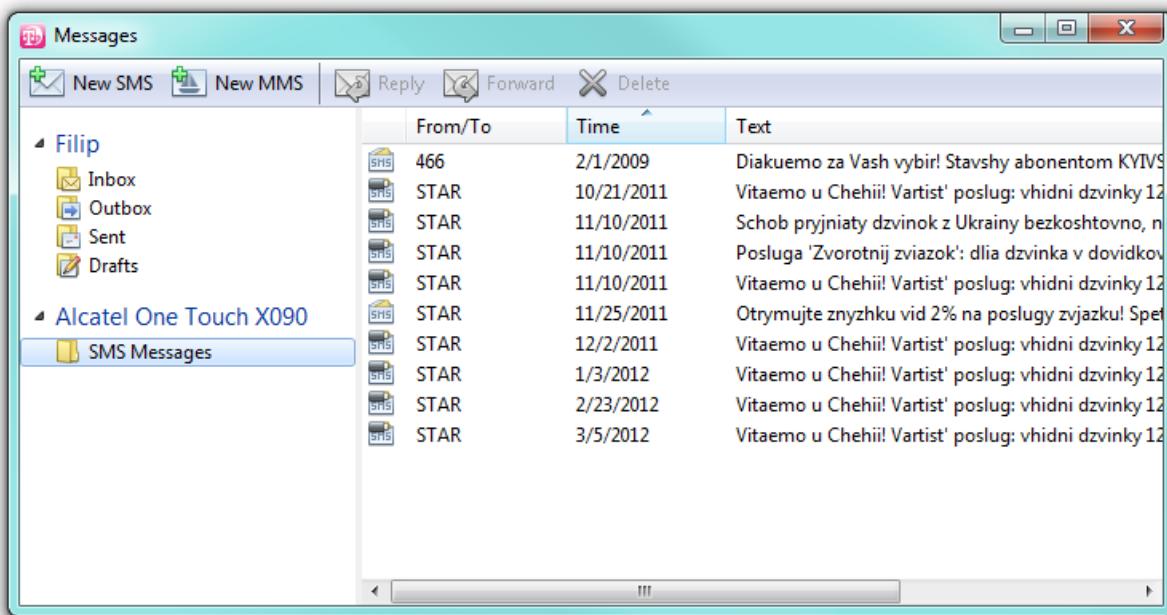
Use your LTE/3G/EDGE/GPRS/WiFi/DSL device to connect to the Internet and more.



Example of ad banner

## 6.12 SMS and network control (optional)

- Network control
  - Technology preference (e.g. LTE / 3G / GPRS)
  - Manual network selection (e.g. in roaming)
- SMS
  - UCS2 / Unicode support
  - Concatenated SMS support
  - Visual feedback on the total number of SMS used and characters remaining
- Signal strength monitor
- Network properties monitor
- Microsoft Outlook address book contact integration
- Device / SIM phonebook support (if supported by device)
  - Support for international characters in phonebook entries





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## 6.13 WLAN hotspot support (optional)

- WLAN hotspot availability notification based on SSID detection
- Configuration of preferred SSID when using Microsoft Wireless Zero Configuration service
- HTTP/HTTPS, WISPr, EAPOL with EAP-SIM based hotspot service login/logout
- Integration with Gemfor Wi-Fi Connection Explorer

More details are available in a separate document.

## 6.14 Compression and optimization (optional)

In cooperation with our partners, we are able to provide an embedded real-time data transfer optimization and compression software bundled in the installation package. In comparison with a standalone optimization software you will get the following benefits:

- Per APN optimization settings
  - Compression level
  - Allow / disallow compression
- Only one application for the users (compression is controlled from within MCE)
- Online statistics about compression usage

## 7. References

Carriers using Mobile Connection Explorer who agreed to having their names published:

- T-Mobile Czech Republic
- Kyivstar Ukraine
- MTS Ukraine
- VimpelCom Russia and Kazakhstan (Beeline)
- Cyfrowy Polsat

Customers using other software based on Mobile Connection Explorer core:

- Telefónica O2
- Siemens FSP
- T-Mobile Croatia



## 8. Currently supported mobile devices

All Nokia, Motorola, Samsung, Sony Ericsson and LG ETSI compliant phones are supported. Also all Huawei, ZTE and Option UMTS 3G modems are supported. MCE currently supports over 5 000 devices.

In addition following specific devices where explicitly tested in our laboratories:

Alcatel One Touch 535	Huawei E1752	Huawei model EC226
Alcatel One Touch 535	Huawei E1752C	Huawei model EC228
Alcatel One Touch 715	Huawei E1756	Huawei model EC360
Alcatel One Touch 735	Huawei E1756C	Huawei model EC8189
Alcatel One Touch 800	Huawei E176	Huawei Pulse
Alcatel One Touch S853	Huawei E1762	IPW TD-CDMA modem Ethernet
AnyData ADU-500	Huawei E176G	IPW TD-CDMA modem USB
AnyData ADU-510	Huawei E177	IPW TD-CDMA modem V2 Ethernet
AnyData ADU-H100E	Huawei E1780	IPW TD-CDMA modem V2 USB
AxesTel MV110	Huawei E17X	IPW TD-CDMA PCMCIA card
AxesTel MV210A	Huawei E180	IPW TD-CDMA PCMCIA card V3
AxesTel MV240	Huawei E1800	LG A133
BenQ-Siemens C81	Huawei E1815	LG A230
BenQ-Siemens EF51	Huawei E1820	LG A258
BenQ-Siemens S68	Huawei E1823	LG ASUS M20
BenQ-Siemens S88	Huawei E182E	LG B2050
C-motech CNU-680	Huawei E192	LG B2070
Ericsson R520	Huawei E219	LG B2100
Ericsson T39	Huawei E220	LG BL20
Ericsson T65	Huawei E226	LG BL40
HTC MDA Compact	Huawei E230	LG C100
HTC MDA Compact II	Huawei E270	LG C-100S
HTC MDA II	Huawei E272	LG C-120
HTC MDA III	Huawei E303	LG C1200-C2200
HTC MDA Vario	Huawei E352	LG C-170
Huawei E122	Huawei E353	LG C-178
Huawei E150	Huawei E367	LG C-180
Huawei E153	Huawei E372	LG C3100
Huawei E153Eu-1	Huawei E3735	LG C3300
Huawei E1550	Huawei E630+	LG C3380
Huawei E1552	Huawei E800A	LG C3600
Huawei E1553	Huawei E870	LG C550
Huawei E1556	Huawei E960	LG E510
Huawei E156	Huawei EC306	LG F1200
Huawei E156B	Huawei EC500	LG F2100
Huawei E156C	Huawei EG162	LG F2400
Huawei E156G	Huawei EG162G	LG F2410
Huawei E158	Huawei EG602	LG G1600
Huawei E160	Huawei EM730	LG G1610
Huawei E160E	Huawei EM770	LG G1800
Huawei E160G	Huawei EM770U	LG G7100
Huawei E160X	Huawei EM770W	LG GB220
Huawei E161	Huawei EM820W	LG GB230
Huawei E1612	Huawei model EC122	LG GC900
Huawei E1630	Huawei model EC1260	LG GD330
Huawei E169	Huawei model EC1260-2	LG GD350
Huawei E1690	Huawei model EC1261	LG GD510
Huawei E1692	Huawei model EC153	LG GD880
Huawei E169G	Huawei model EC156	LG GD900
Huawei E171	Huawei model EC167	LG GM360
Huawei E173	Huawei model EC168	LG GM360i
Huawei E1731	Huawei model EC168C	LG GM600
Huawei E1750	Huawei model EC169C	LG GS290



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LG GS500	LG S5200	Motorola K1v
LG GT350	LG T300	Motorola K3
LG GT500	LG T310	Motorola L2
LG GT505	LG T310i	Motorola L6
LG GT540	LG T315i	Motorola L6f
LG GU230	LG T320	Motorola L6i
LG GU280	LG T500	Motorola L7
LG GW520	LG T510	Motorola L71
LG GX300	LG T515	Motorola L7e
LG GX500	LG U250	Motorola L7i
LG KB770	LG U300	Motorola L7v
LG KC560	LG U310	Motorola L7 XpressMedia
LG KC910	LG U803	Motorola L9
LG KC910i	LG U830	Motorola MOTOKRZR K1
LG KE500	LG U8500	Motorola MOTORAZR V9
LG KE600	LG U900	Motorola MoToR e1
LG KE770	LG U960	Motorola MOTORIZR Z8
LG KE800	LG U990	Motorola MOTO Z10
LG KE850	LG UM185US	Motorola MPx220
LG KE970	LG VL600 136	Motorola MpVx360
LG KE990	LG VX8500 154	Motorola Nokia56985
LG KF310	Motorola 280	Motorola PEBL U6
LG KF510	Motorola A1000	Motorola RAZRV3x
LG KF600	Motorola A1200e	Motorola RAZRV3xM
LG KF690	Motorola A1200r	Motorola RAZRV3xR
LG KF700	Motorola A380	Motorola RAZRV3xv
LG KF750	Motorola A910	Motorola RAZRV3xx
LG KF755	Motorola AURA	Motorola RAZRV3xxR
LG KF900	Motorola C33x	Motorola RAZRV6
LG KG110	Motorola C350	Motorola Roker E-1
LG KG210	Motorola C380	Motorola Rokr E1
LG KG225	Motorola C381P	Motorola ROKR E1
LG KG245	Motorola C385	Motorola ROKR_E1
LG KG320	Motorola C390	Motorola Rokr L6
LG KG800	Motorola C450	Motorola Sanja
LG KG920	Motorola C550	Motorola Serias E
LG KM380	Motorola C650	Motorola SmartPhone
LG KM500	Motorola C975	Motorola S@NDRO
LG KM555	Motorola C980M	Motorola Tallinn
LG KM900	Motorola CHILLI_XP	Motorola Timeport
LG KP500	Motorola Cool7	Motorola Timeport 260
LG KP570	Motorola E1	Motorola Timoha
LG KS360	Motorola E1000	Motorola U9
LG KS660	Motorola E1070	Motorola V1075
LG KT520	Motorola E1 iTunes	Motorola V150
LG KT52x	Motorola E1@iTunes	Motorola V180
LG KT770	Motorola E1K FREE STYLE	Motorola V188
LG KU380	Motorola E365	Motorola V190
LG KU580	Motorola E39	Motorola V220
LG KU800	Motorola e398	Motorola V235
LG KU990	Motorola E398	Motorola V3
LG KU990i	Motorola E398B	Motorola V300
LG L1100	Motorola E398 @iTunes	Motorola V360
LG U8xxx	Motorola E550	Motorola V360i
LG M-280	Motorola E770	Motorola V360v
LG M6100	Motorola E770 (Q-MUSIC)	Motorola V3e
LG MG810c	Motorola E770v	Motorola V3i
LG N7010	Motorola E770V-Walkman	Motorola V3ire
LG P350	Motorola E8	Motorola V3iv
LG P500	Motorola Electric E1	Motorola V3r
LG P520	Motorola EM30	Motorola V3re
LG P7200	Motorola EMO	Motorola V3t
LG PocketPC	Motorola I250-000	Motorola V3v
LG S367	Motorola iPod e770v	Motorola V3x
LG S5000	Motorola K1	Motorola V500



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Motorola V525	Nokia 5230	Nokia 6500c
Motorola V525M	Nokia 5230-1d	Nokia 6500 classic
Motorola V547	Nokia 5232	Nokia 6500s-1
Motorola V550	Nokia 5233	Nokia 6510
Motorola V600	Nokia 5235	Nokia 6555
Motorola V620	Nokia 5236	Nokia 6600
Motorola V635	Nokia 5250	Nokia 6600 fold
Motorola V66i	Nokia 5300	Nokia 6600i slide
Motorola V8	Nokia 5310	Nokia 6600 slide
Motorola V82GB	Nokia 5310 XpressMusic	Nokia 6610
Motorola V975	Nokia 5320	Nokia 6610i
Motorola V980	Nokia 5330-1d	Nokia 6630
Motorola V980m	Nokia 5530 XpressMusic	Nokia 6650
Motorola V980M	Nokia 5610d-1	Nokia 6650d
Motorola VE66	Nokia 5610 XpressMusic	Nokia 6650d-1c
Motorola W510	Nokia 5630	Nokia 6670
Motorola YoMoto L6	Nokia 5700	Nokia 6680
Motorola Z3	Nokia 5730 XpressMusic	Nokia 6681
Motorola Z6	Nokia 5800 XpressMusic	Nokia 6700 classic
Motorola ZN5	Nokia 6020	Nokia 6700s
Nokia 12i	Nokia 6021	Nokia 6710
Nokia 200	Nokia 603	Nokia 6720
Nokia 2323c-2	Nokia 6070	Nokia 6730c
Nokia 2330c-2	Nokia 6080	Nokia 6730c-1
Nokia 2330c-2b	Nokia 6085	Nokia 6760s-1
Nokia 2600c	Nokia 6100	Nokia 6800
Nokia 2600c-2	Nokia 6101	Nokia 6820
Nokia 2600 classic	Nokia 6103	Nokia 6822
Nokia 2630	Nokia 6110	Nokia 700
Nokia 2680s-2	Nokia 6110 Navigator	Nokia 701
Nokia 2690	Nokia 6111	Nokia 7020
Nokia 2700c	Nokia 6120	Nokia 7100s-2
Nokia 2700 classic	Nokia 6120c	Nokia 7210
Nokia 2710c-2	Nokia 6121	Nokia 7210 Supernova
Nokia 2720a-2	Nokia 6124	Nokia 7230
Nokia 2730 classic	Nokia 6125	Nokia 7230-1c
Nokia 2760	Nokia 6131	Nokia 7250
Nokia 300	Nokia 6131 NFC	Nokia 7250i
Nokia 3109c	Nokia 6133	Nokia 7260
Nokia 3109 classic	Nokia 6136	Nokia 7270
Nokia 3110c	Nokia 6151	Nokia 7280
Nokia 3110 classic	Nokia 6170	Nokia 7310 Supernova
Nokia 3120 classic	Nokia 6210 Navigator	Nokia 7360
Nokia 3220	Nokia 6212 classic	Nokia 7370
Nokia 3230	Nokia 6220	Nokia 7373
Nokia 3250	Nokia 6220c	Nokia 7380
Nokia 3500c	Nokia 6220 classic	Nokia 7390
Nokia 3600s	Nokia 6230	Nokia 7500
Nokia 3600 slide	Nokia 6230i	Nokia 7510 Supernova
Nokia 3610a	Nokia 6233	Nokia 7600
Nokia 3650	Nokia 6234	Nokia 7610
Nokia 3660	Nokia 6263	Nokia 7610 Supernova
Nokia 3710 fold	Nokia 6267	Nokia 7650
Nokia 3720c	Nokia 6270	Nokia 7710
Nokia 500	Nokia 6280	Nokia 7900
Nokia 5000d-2	Nokia 6288	Nokia 8310
Nokia 5070	Nokia 6290	Nokia 8600
Nokia 5100	Nokia 6300	Nokia 8600 Luna
Nokia 5130	Nokia 6300i	Nokia 8800
Nokia 5130c-2	Nokia 6301	Nokia 8800e
Nokia 5140	Nokia 6303ci	Nokia 8800e-1
Nokia 5140i	Nokia 6303 classic	Nokia 8800 Sirocco
Nokia 5200	Nokia 6303i classic	Nokia 8801
Nokia 5220 XpressMusic	Nokia 6310	Nokia 8910
Nokia 5228	Nokia 6310i	Nokia 8910i



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Nokia 9300	Nokia N97	Samsung GT-B2700
Nokia 9300i	Nokia N97 mini	Samsung GT-B2710
Nokia 9500	Nokia N-Gage	Samsung GT-B3210
Nokia C2-01	Nokia N-Gage QD	Samsung GT-B3410
Nokia C3-01	Nokia Oro	Samsung GT-B3410W
Nokia C3-01.5	Nokia X2-00	Samsung GT-B5722
Nokia C5-00	Nokia X3-00	Samsung GT-C3010
Nokia C5-03	Nokia X3-02	Samsung GT-C3011
Nokia C5-06	Nokia X3-02.5	Samsung GT-C3060R
Nokia C6-00	Nokia X6-00	Samsung GT-C3200
Nokia C6-01	Nokia X7-00	Samsung GT-C3212
Nokia C7-00	Option 129	Samsung GT-C3222
Nokia C7-00.1	Option GI0461	Samsung GT-C3300i
Nokia E00	Option GI0505	Samsung GT-C3300K
Nokia E50	Option GI1505	Samsung GT-C3303K
Nokia E5-00	Option GI1515	Samsung GT-C3312
Nokia E5-00.2	Option GlobeSurfer ICON	Samsung GT-C3322
Nokia E51	Option Globetrotter	Samsung GT-C3330
Nokia E52-1	Option GlobeTrotter 3G+	Samsung GT-C3332
Nokia E55-1	Option Globetrotter EDGE	Samsung GT-C3510
Nokia E60	Option Globetrotter EDGE Combo	Samsung GT-C3510T
Nokia E6-00	Option Globetrotter Express 7.2	Samsung GT-C3520
Nokia E61	Option GlobeTrotter Fusion Quad	Samsung GT-C3530
Nokia E61i	Lite	Samsung GT-C3560
Nokia E61i-1	Option Globetrotter GPRS PCMCIA	Samsung GT-C3750
Nokia E63	Option Globetrotter HSDPA	Samsung GT-C3752
Nokia E65	Modem	Samsung GT-C5212i
Nokia E66	Option GlobeTrotter HSUPA	Samsung GT-C5510
Nokia E7-00	Modem	Samsung GT-C6112
Nokia E70-1	Option GTM351E	Samsung GT-E2121B
Nokia E71	Option GTM378	Samsung GT-E2152
Nokia E72-1	Option GTM380	Samsung GT-E2222
Nokia E72-2	Option GTM382	Samsung GT-E2230
Nokia E75	Option GTM661	Samsung GT-E2232
Nokia E90	Option GTM671	Samsung GT-E2370
Nokia N00	Option GTMxxx	Samsung GT-E2530
Nokia N70	Option iCON 210	Samsung GT-E2652
Nokia N71-1	Option iCon 225	Samsung GT-E2652W
nokia n72	Panasonic GD87	Samsung GT-E3210
Nokia N72	Panasonic X70	Samsung GT-E3213K
Nokia N73	Panasonic X700	Samsung GT-I5500
Nokia N75	Philips Fisio 620	Samsung GT-I5800
Nokia N76	Philips X520	Samsung GT-I6220
Nokia N77	Qtek 8200	Samsung GT-I7110
Nokia N78	RIM BlackBerry	Samsung GT-i7500
Nokia N79	Sagem my301X GPRS	Samsung GT-I8150
Nokia N8-00	Sagem my411V	Samsung GT-I8510
Nokia N80-1	Sagem my411X	Samsung GT-i8700
Nokia N81	Sagem my501X GPRS	Samsung GT-I8910
Nokia N82	Sagem my700x	Samsung GT-I9000
Nokia N85	Sagem my721X	Samsung GT-I9001
Nokia N86 8MP	Sagem my730C	Samsung GT-M3710
Nokia N89	Sagem myE77 GPRS	Samsung GT-M5650
Nokia N9	Sagem myX5-2 GPRS	Samsung GT-M8800
Nokia N90	Sagem TiGR 155R GPRS	Samsung GT-M8910
Nokia N900	Samsung B2100	Samsung GT-S3100
Nokia N91-1	Samsung B5702	Samsung GT-S3310i
Nokia N91-2	Samsung C3050	Samsung GT-S3350
Nokia N93	Samsung C3053	Samsung GT-S3370
Nokia N93i	Samsung C3110	Samsung GT-S3370E
Nokia N95	Samsung C5212	Samsung GT-S3500i
Nokia N95 8GB	Samsung D900E	Samsung GT-S3550
Nokia N96	Samsung E250i	Samsung GT-S3600i
Nokia N96-1	Samsung E2550	Samsung GT-S3650
Nokia N96-3	Samsung E2550D	Samsung GT-S3653



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Samsung GT-S5150	Samsung SGH-C200(N)	Samsung SGH-F300
Samsung GT-S5222	Samsung SGH-C200(N)	Samsung SGH-F310CIS
Samsung GT-S5230	Samsung SGH-C210	Samsung SGH-F330
Samsung GT-S5230G	Samsung SGH-C230	Samsung SGH-F400
Samsung GT-S5230W	Samsung SGH-C240	Samsung SGH-F480
Samsung GT-S5233A	Samsung SGH-C300	Samsung SGH-F480I
Samsung GT-S5233T	Samsung SGH-D500	Samsung SGH-F480V
Samsung GT-S5350	Samsung SGH-D500E	Samsung SGH-F490
Samsung GT-S5510	Samsung SGH-D520	Samsung SGH-F500
Samsung GT-S5550	Samsung SGH-D600	Samsung SGH-F700
Samsung GT-S5560	Samsung SGH-D600E	Samsung SGH-G400
Samsung GT-S5570	Samsung SGH-D780	Samsung SGH-G600
Samsung GT-S5600	Samsung SGH-D800	Samsung SGH-G800
Samsung GT-S5600V	Samsung SGH-D807	Samsung SGH-G810
Samsung GT-S5610	Samsung SGH-D820	Samsung SGH-I000
Samsung GT-S5620	Samsung SGH-D830	Samsung SGH-I300
Samsung GT-S5660	Samsung SGH-D840	Samsung SGH-I320
Samsung GT-S5670	Samsung SGH-D880	Samsung SGH-i450
Samsung GT-S5830	Samsung SGH-D900	Samsung SGH-i550
Samsung GT-S7070	Samsung SGH-D900i	Samsung SGH-i560
Samsung GT-S7230E	Samsung SGH-D980	Samsung SGH-i718
Samsung GT-S7350i	Samsung SGH-E200	Samsung SGH-i750
Samsung GT-S7550	Samsung SGH-E210	Samsung SGH-J150
Samsung GT-S8500	Samsung SGH-E250	Samsung SGH-J200
Samsung GT-S8530	Samsung SGH-E250i	Samsung SGH-J210
Samsung GT-S8600	Samsung SGH-E251	Samsung SGH-J400
Samsung GT-Y3100	Samsung SGH-E300	Samsung SGH-J600
Samsung GT-Y3300	Samsung SGH-E330	Samsung SGH-J600E
Samsung GT-Y3300X	Samsung SGH-E330N	Samsung SGH-J610
Samsung I9000	Samsung SGH-E350E	Samsung SGH-J700
Samsung I9003	Samsung SGH-E360	Samsung SGH-J700i
Samsung I9010	Samsung SGH-E370	Samsung SGH-J700V
Samsung I9100	Samsung SGH-E380	Samsung SGH-J770
Samsung M2710	Samsung SGH-E390	Samsung SGH-L170
Samsung M3510	Samsung SGH-E480	Samsung SGH-L310
Samsung M7500	Samsung SGH-E490	Samsung SGH-L320
Samsung M7600	Samsung SGH-E500	Samsung SGH-L600
Samsung MASTER	Samsung SGH-E530	Samsung SGH-L700
Samsung OK	Samsung SGH-E570	Samsung SGH-L760
Samsung P1000	Samsung SGH-E590	Samsung SGH-L770
Samsung S3030	Samsung SGH-E600	Samsung SGH-L770V
Samsung S3310	Samsung SGH-E620	Samsung SGH-L811
Samsung S3500	Samsung SGH-E630	Samsung SGH-M150
Samsung S3600	Samsung SGH-E635	Samsung SGH-M200
Samsung S5050	Samsung SGH-E700	Samsung SGH-M310
Samsung S5200	Samsung SGH-E710	Samsung SGH-M610
Samsung S5600	Samsung SGH-E720	Samsung SGH-M620
Samsung S7220	Samsung SGH-E730	Samsung SGH-P300
Samsung S7330	Samsung SGH-E740	Samsung SGH-P310
Samsung S7350	Samsung SGH-E760	Samsung SGH-P520
Samsung S8000	Samsung SGH-E770	Samsung SGH-P730
Samsung S8300	Samsung SGH-E780	Samsung SGH-S342i
Samsung S8300V	Samsung SGH-E790	Samsung SGH-S400i
Samsung Samsung S7330	Samsung SGH-E800	Samsung SGH-S401i
Samsung SCH-i830 160	Samsung SGH-E820	Samsung SGH-S500
Samsung SCH-W259	Samsung SGH-E830	Samsung SGH-T309
Samsung Serene	Samsung SGH-E840	Samsung SGH-T339
Samsung SGH-A561	Samsung SGH-E860V	Samsung SGH-T459
Samsung SGH-A737	Samsung SGH-E870	Samsung SGH-T509
Samsung SGH-B220	Samsung SGH-E880	Samsung SGH-T629
Samsung SGH-B320	Samsung SGH-E900	Samsung SGH-T739
Samsung SGH-B520	Samsung SGH-E950	Samsung SGH-U100
Samsung SGH-C100	Samsung SGH-F110	Samsung SGH-U300
Samsung SGH-C110	Samsung SGH-F210	Samsung SGH-U600
Samsung SGH-C130	Samsung SGH-F250	Samsung SGH-U700



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Samsung SGH-U900	Siemens M65	Sony Ericsson K750i
Samsung SGH-U900V	Siemens M75	Sony Ericsson K770
Samsung SGH-X100	Siemens MC39i	Sony Ericsson K790
Samsung SGH-X120	Siemens MC45	Sony Ericsson K790i
Samsung SGH-X140	Siemens MC60	Sony Ericsson K800
Samsung SGH-X160	Siemens MC75	Sony Ericsson K800i
Samsung SGH-X200	Siemens ME45	Sony Ericsson K810
Samsung SGH-X210	Siemens ME75	Sony Ericsson K810i
Samsung SGH-X300	Siemens MT50	Sony Ericsson K850
Samsung SGH-X450	Siemens S45	Sony Ericsson M600i
Samsung SGH-X460	Siemens S55	Sony Ericsson MD400
Samsung SGH-X461	Siemens S65	Sony Ericsson P1i
Samsung SGH-X480	Siemens S75	Sony Ericsson P800
Samsung SGH-X481	Siemens SL55	Sony Ericsson P910i
Samsung SGH-X500	Siemens SL75	Sony Ericsson P990i
Samsung SGH-X510	Siemens SP65	Sony Ericsson PC300
Samsung SGH-X520	Siemens ST55	Sony Ericsson S302
Samsung SGH-X600	Siemens ST60	Sony Ericsson S312
Samsung SGH-X610	Siemens SX1	Sony Ericsson S500
Samsung SGH-X620	Sony Ericsson A300	Sony Ericsson S700i
Samsung SGH-X630	Sony Ericsson C510	Sony Ericsson S700 series
Samsung SGH-X640	Sony Ericsson C702	Sony Ericsson T230
Samsung SGH-X650	Sony Ericsson C901	Sony Ericsson T300
Samsung SGH-X660	Sony Ericsson C902	Sony Ericsson T300-T310
Samsung SGH-X670	Sony Ericsson C903	Sony Ericsson T610
Samsung SGH-X680	Sony Ericsson C905	Sony Ericsson T610 series
Samsung SGH-X700	Sony Ericsson D750i	Sony Ericsson T630
Samsung SGH-X800	Sony Ericsson EC400	Sony Ericsson T630-T628
Samsung SGH-X810	Sony Ericsson F100	Sony Ericsson T650
Samsung SGH-X820	Sony Ericsson F305	Sony Ericsson T68(i)
Samsung SGH-X830	Sony Ericsson F500 series	Sony Ericsson T700
Samsung SGH-Z130	Sony Ericsson G502	Sony Ericsson T707
Samsung SGH-Z150	Sony Ericsson G700	Sony Ericsson T715
Samsung SGH-Z220	Sony Ericsson G705	Sony Ericsson U10
Samsung SGH-Z240	Sony Ericsson G900	Sony Ericsson U100
Samsung SGH-Z370	Sony Ericsson GC85	Sony Ericsson U1i
Samsung SGH-Z400	Sony Ericsson J10	Sony Ericsson U5i
Samsung SGH-Z540	Sony Ericsson J105	Sony Ericsson U8i
Samsung SGH-Z620	Sony Ericsson J108	Sony Ericsson V630
Samsung SGH-Z630	Sony Ericsson J20	Sony Ericsson V640
Samsung SGH-Z650i	Sony Ericsson J300i	Sony Ericsson V800
Samsung SGH-Z720	Sony Ericsson J300 series	Sony Ericsson W20
Samsung SGH-Z720V	Sony Ericsson K300i	Sony Ericsson W200
Samsung SGH-ZV10	Sony Ericsson K300 series	Sony Ericsson W200i
Samsung SGH-ZV40	Sony Ericsson K310	Sony Ericsson W300
Samsung SGH-ZV60	Sony Ericsson K310i	Sony Ericsson W300i
Sharp TM100	Sony Ericsson K320	Sony Ericsson W302
Siemens A60	Sony Ericsson K320i	Sony Ericsson W350
Siemens AX75	Sony Ericsson K500i	Sony Ericsson W380
Siemens C55	Sony Ericsson K500 series	Sony Ericsson W395
Siemens C60	Sony Ericsson K508i	Sony Ericsson W508
Siemens C62	Sony Ericsson K510	Sony Ericsson W550
Siemens C65	Sony Ericsson K510i	Sony Ericsson W580
Siemens C72	Sony Ericsson K530	Sony Ericsson W595
Siemens C75	Sony Ericsson K550	Sony Ericsson W595c
Siemens CF62	Sony Ericsson K550i	Sony Ericsson W600
Siemens CF75	Sony Ericsson K600	Sony Ericsson W610
Siemens CFX65	Sony Ericsson K600i	Sony Ericsson W660
Siemens CL75	Sony Ericsson K610	Sony Ericsson W700
Siemens CX65	Sony Ericsson K610i	Sony Ericsson W705
Siemens CX70	Sony Ericsson K630	Sony Ericsson W710
Siemens CX75	Sony Ericsson K660	Sony Ericsson W715
Siemens ES75	Sony Ericsson K700i	Sony Ericsson W760



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Sony Ericsson W800	Sony Ericsson Z610	ZTE MF190
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Sony Ericsson W810i	Sony Ericsson Z750	ZTE MF190S
Sony Ericsson W830	Sony Ericsson Z770	ZTE MF210
Sony Ericsson W850	Sony Ericsson Z780	ZTE MF288
Sony Ericsson W880	Sony Ericsson Z800	ZTE MF30
Sony Ericsson W880i	T-Mobile MDA Compact	ZTE MF620
Sony Ericsson W890	T-Mobile MDA Compact II	ZTE MF622
Sony Ericsson W900i	T-Mobile MDA Compact IV	ZTE MF622+
Sony Ericsson W902	T-Mobile MDA II	ZTE MF626
Sony Ericsson W910	T-Mobile MDA III	ZTE MF627
Sony Ericsson W950i	T-Mobile MDA Vario	ZTE MF628
Sony Ericsson W960i	T-Mobile MDA Vario III	ZTE MF631
Sony Ericsson W980	T-Mobile MDA Vario IV	ZTE MF632
Sony Ericsson W995	Vertex VW110	ZTE MF636
Sony Ericsson Z1010 series	ZTE AC5710	ZTE MF637
Sony Ericsson Z310	ZTE MF100	ZTE MF637U
Sony Ericsson Z520	ZTE MF102	ZTE MF656
Sony Ericsson Z530	ZTE MF110	ZTE MF658
Sony Ericsson Z530i	ZTE MF112	ZTE MF668
Sony Ericsson Z550	ZTE MF170	ZTE MZ31
Sony Ericsson Z555	ZTE MF180	
Sony Ericsson Z600	ZTE MF180S	