

# ESR6650

## 3G Mobile Wireless Mobile Router

- 2.4 GHz
- 2.5G / 3G / 3.5G
- 150Mbps
- AP/Router



### PRODUCT DESCRIPTION

ESR6650 is a 3G-enabled Wireless-N Router that delivers up to 3X faster speed (150Mbps). It supports 3G data cards from HuaWei, OPTION, Sierra and BandLuxe with standards covering WCDMA (HSDPA), CDMA2000 & TD-SCDMA. It is built-in with USB for easy and flexible plug-and-play interface for 3G cards.

ESR6650 supports home network with superior throughput and performance and unparalleled wireless range. With easy to use on the WPS function, it helps users to connect to wireless device with just one push button.

There's also a built-in 2-port full-duplex 10/100 Fast Switch to connect your wired-Ethernet devices together. The Router function ties it all together and lets your whole network shares a high-speed cable or DSL Internet connection.

### PACKAGE CONTENT

- 1\* 3G Mobile Wireless-N Router (ESR6650)
- 1\*12V/1.25A Power Adapter
- 1\*QIG
- 1\*CD (User's Manual)
- 1\*SMA Antenna

TECHNICAL SPECIFICATIONS	
<b>&gt; HARDWARE SPECIFICATIONS</b>	
<b>PCB dimension</b>	100mm * 90mm
<b>Physical Interface</b>	WAN: 1 * 10/100 Fast Ethernet RJ-45
	LAN: 2 * 10/100 Fast Ethernet RJ-45
	Rest button
	Power Jack
	WPS (WiFi Protected Setup)
	USB (for 3G data card)
<b>LEDs Status</b>	Power Status
	WAN (Internet connection)
	10/100Mbps LAN1 & LAN2
	WLAN(Wireless connection)
	3G networks
<b>Power Requirements</b>	Power Supply:
	200 to 240 VDC ± 10% ( ETSI)
	100 to 120 VDC ± 10% ( FCC)
	Device: <b>12V/1.25A</b>

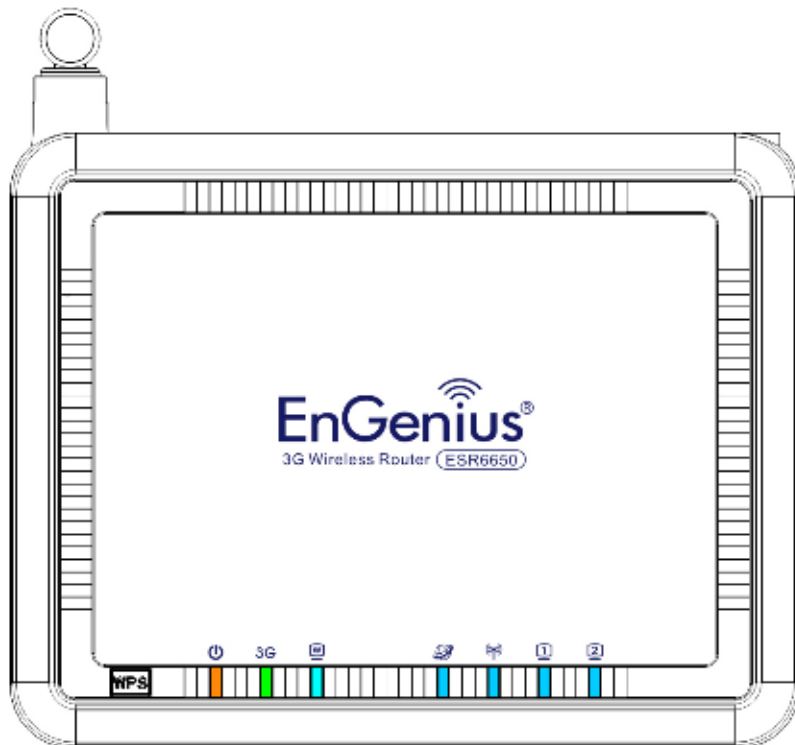
Note: 1.WAN can either be USB port or WAN port. USB is the default WAN. 2.RAM and Flash design should be flexible to cover SOHO and ISP purpose.

RF SPECIFICATION																																																					
Frequency Band	2.400 ~ 2.484 GHz																																																				
Modulation Technology	<ul style="list-style-type: none"> <li>● OFDM: BPSK, QPSK, 16-QAM, 64-QAM</li> <li>● DB PSK, DQPSK, CCK</li> <li>● <b>3G / 3.5G</b>: WCDMA (HSDPA), CDMA2000 &amp; TD-SCDMA</li> </ul>																																																				
Operating Channels	11 for North America, 14 for Japan, 13 for Europe																																																				
Wireless Setting	<ul style="list-style-type: none"> <li>● Wireless Mode – 11b/ 11g / 11n</li> <li>● Channel Selection (Setting varies by Country)</li> <li>● Channel Bandwidth (Auto, 20Mhz, 40Mhz)</li> <li>● Transmission Rate</li> </ul> <p>-11g: Best. 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 in Mbps</p> <table border="1"> <thead> <tr> <th rowspan="2">MCS index</th> <th colspan="2">Guard Interval 800ns</th> <th colspan="2">Guard Interval 400ns</th> </tr> <tr> <th>20MHz(Mbps)</th> <th>40MHz (Mbps)</th> <th>20MHz(Mbps)</th> <th>40MHz(Mbps)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>6.5</td> <td>13.5</td> <td>7.2</td> <td>15</td> </tr> <tr> <td>1</td> <td>13</td> <td>27</td> <td>14.4</td> <td>30</td> </tr> <tr> <td>2</td> <td>19.5</td> <td>40.5</td> <td>21.7</td> <td>45</td> </tr> <tr> <td>3</td> <td>26</td> <td>54</td> <td>28.9</td> <td>60</td> </tr> <tr> <td>4</td> <td>39</td> <td>81</td> <td>43.3</td> <td>90</td> </tr> <tr> <td>5</td> <td>52</td> <td>108</td> <td>57.8</td> <td>120</td> </tr> <tr> <td>6</td> <td>58.5</td> <td>121.5</td> <td>65</td> <td>135</td> </tr> <tr> <td>7</td> <td>65</td> <td>135</td> <td>72.2</td> <td>157.5</td> </tr> </tbody> </table>				MCS index	Guard Interval 800ns		Guard Interval 400ns		20MHz(Mbps)	40MHz (Mbps)	20MHz(Mbps)	40MHz(Mbps)	0	6.5	13.5	7.2	15	1	13	27	14.4	30	2	19.5	40.5	21.7	45	3	26	54	28.9	60	4	39	81	43.3	90	5	52	108	57.8	120	6	58.5	121.5	65	135	7	65	135	72.2	157.5
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Receive Sensitivity (Typical)	<ul style="list-style-type: none"> <li>● IEEE802 .11n MCS0@ -91dBm MCS7@ -74dBm</li> <li>● IEEE802 .11g 6Mbps@ -90dBm 54Mbps@ -70dBm</li> <li>● IEEE802 .11b 1Mbps@ -90dBm 11Mbps@ -87dBm</li> </ul>																																																				
Available transmit power (Typical)	<ul style="list-style-type: none"> <li>● IEEE802 .11N MCS0~7@ 15dBm</li> <li>● IEEE802 .11g 6~54 Mbps@ 15dBm</li> <li>● IEEE802 .11b 1~11Mbps@ 16dBm</li> </ul>																																																				
Antenna *1	Peak Gain = 2 dBi with SMA connector																																																				

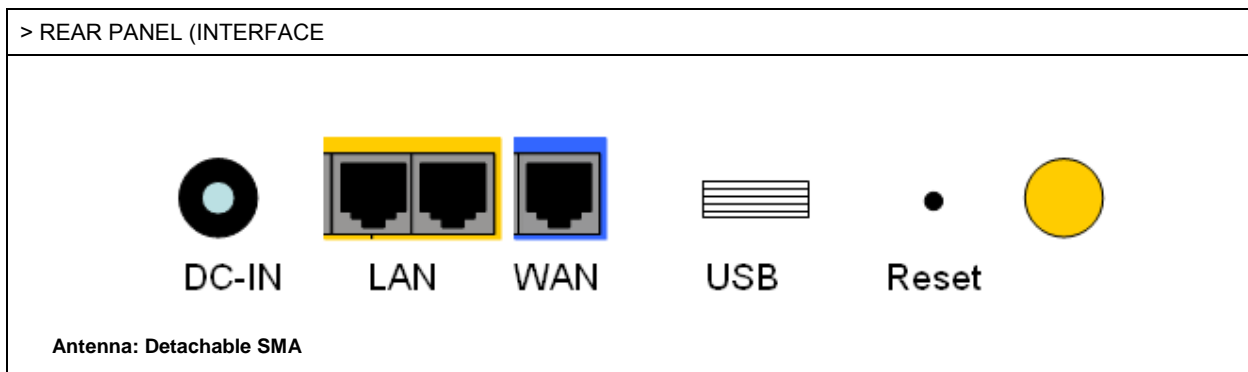
Wireless	<input type="checkbox"/> Power saving(Green technology) <input type="checkbox"/> Multiple SSID <input type="checkbox"/> 64/128 bit WEP Encryption <input type="checkbox"/> WPA Personal (WPA-PSK using TKIP or AES) <input type="checkbox"/> WPA Enterprise (WPA-EAP using TKIP) <input type="checkbox"/> 802.1x Authenticator <input type="checkbox"/> Hide SSID in beacons <input type="checkbox"/> Wi-Fi Protection Setup (WPS) <input type="checkbox"/> WDS <input type="checkbox"/> ACL control <input type="checkbox"/> Best channel selection <input type="checkbox"/> Speed/Bandwidth monitor
QoS	<input type="checkbox"/> WMM <input type="checkbox"/> Application base <ul style="list-style-type: none"> <li>➢ P riority Queue</li> <li>➢ B andwidth Allocation</li> </ul>
<b>&gt; Management</b>	
Con figuration	Web-based configuration (HTTP)
Firmware Upgrade	Via webpage upgrade Auto recovery once firmware upgrade fail
Administrator Setting	Administrator password change Idle time out
Reset Setting	Reboot Reset to Factory Default
System monitoring	Speed and Bandwidth monitoring
Scheduling	Enable Firewall Enable power saving
E asy access	User can type model name and access the main page.
Install wizard	Guide user to set-up Router smoothly
Remote Management	<b>Optional SNMP or TR069</b>
<b>&gt; ENVIRONMENT &amp; PHYSICAL</b>	
Temperature Range	0 to 45° C - Operating, -10 to 70 ° C - Storage
Humidity (non-condensing)	15% ~ 95% typical
Dimensions	125mm (L) x 98mm (W) x 25mm (H)

SOFTWARE FEATURES	
<b>&gt; ROUTER AND GATEWAY</b>	
Topology In	frastructure
Operation Mode	AP / Router / WDS
LAN	<input type="checkbox"/> DHCP Server <input type="checkbox"/> Static Routing Table <input type="checkbox"/> UPNP
WAN	<input type="checkbox"/> PPTP <input type="checkbox"/> PPPoE <input type="checkbox"/> Static IP <input type="checkbox"/> DHCP Client <input type="checkbox"/> Clone MAC
Router	<input type="checkbox"/> NAT/ NAPT <input type="checkbox"/> Static Routing <input type="checkbox"/> Dynamic Route <input type="checkbox"/> Virtual server mapping <input type="checkbox"/> IP address mapping <input type="checkbox"/> Port Forwarding <input type="checkbox"/> Port Triggering <input type="checkbox"/> Special application <input type="checkbox"/> ALG(Application Layer Gateway) support (RTP/RTSP, AOL, FTP, ICMP, WMP/MMS, NetMeeting, SIP) <input type="checkbox"/> DNS Relay <input type="checkbox"/> DDNS <input type="checkbox"/> Time Zone(NTP client)
Firewall	<input type="checkbox"/> Blocking Ping <input type="checkbox"/> DoS(Blocking Ping, Port scan, Sync Flood) <input type="checkbox"/> MAC / IP Filtering <input type="checkbox"/> ICMP Blocking <input type="checkbox"/> SPI (Stateful Packet Inspection) <input type="checkbox"/> DMZ (Demilitarized Zone) Host <input type="checkbox"/> Policy Based Parental Controls <ul style="list-style-type: none"> <li>➢ Port Range / Service Filtering</li> <li>➢ Internet Domain Restriction</li> <li>➢ Dynamic URL Filtering (OEM subscription service)</li> </ul>
VPN	VPN pass-through (PPTP, L2TP, IPSEC)

> Top Panel (LED status)



> TOP PANEL	
<div style="border: 1px solid black; padding: 2px; display: inline-block;">WPS</div> <div style="display: inline-block; vertical-align: middle; margin-left: 10px;">  Power                 </div> <div style="display: inline-block; vertical-align: middle; margin-left: 10px;">  3G                 </div> <div style="display: inline-block; vertical-align: middle; margin-left: 10px;">  WAN                 </div> <div style="display: inline-block; vertical-align: middle; margin-left: 30px;">  Internet                 </div> <div style="display: inline-block; vertical-align: middle; margin-left: 10px;">  WLAN                 </div> <div style="display: inline-block; vertical-align: middle; margin-left: 10px;">  LAN1                 </div> <div style="display: inline-block; vertical-align: middle; margin-left: 10px;">  LAN2                 </div>	
Power	1 ( On-> red Test/reset default->blink)
3G	1 ( Link-> blue on)
WAN	1 ( Link-> blue on, traffic->blink)
Internet	1 ( Link-> blue on)
WLAN	1 ( Link-> blue on, traffic->blink)
LAN1	1 ( Link-> blue on, traffic->blink)
LAN2	1 ( Link-> blue on, traffic->blink)



> 3G DONGLE SUPPORTED LIST

Vendor Name	Model Name
Huawei	E169G
	E170
	E172
	E176
	E180
	E220
	E270
	E272
	E1750
	Vodafone K3565
BandRich (BandLuxe)	C100S
	C120
	C270

Vendor Name	Model Name
Option	ICON 225 (GIO 225)
	GlobeSurfer iCON 7.2
Novatel	Ovation MC950D
NU	MU-Q101
Sony Ericsson	MD300
ZTE	MF626
	Vodafone K3565-Z
	Vodafone K3520-Z
	MF627
ASUS	T500
AKIO	82D
PROLINK	PHS100
Sierra	Aircard 888U (Aircard 888)