



# ESR6670

## 3G Mobile Wireless-N Router

2.4 GHz	19,000 sessions	2.5G / 3G / 3.5G	300Mbps	AP/Router
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### PRODUCT DESCRIPTION



ESR6670 is a 3G-enabled 2T2R Wireless-N Router that delivers up to 6x faster speed (300Mbps) and 3x extended coverage than 802.11g devices. With Extreme Session Support (19000 Sessions) users are able to experience the unprecedented performance and smooth network services.

This product supports 3G data cards from HuaWei, OPTION, Sierra, BandLuxe and SIMCOM 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.

ESR6670 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 (ESR6670)
- 1\*12V / 1.25A Power Adapter
- 1\*QIG
- 1\*CD (User's Manual)
- 2\*SMA Antenna

\* Theoretical wireless signal rate based on IEEE standard of 802.11a, b, g, n chipset used. Actual throughput may vary. Network conditions and environmental factors lower actual throughput rate.

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### Technical Specifications

#### HARDWARE SPECIFICATIONS

<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: 12V/1.25A

**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.

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### Currently Supported 3G Data Cards

Brand	Model	Standards
HuaWei	E220	HSDPA/EDGE/GPRS
	E272	HSDPA/HSUPA/EDGE/GPRS
	E169	HSDPA/EDGE/GPRS
OPTION	Luwxy	HSDPA /EDGE/GPRS
Sierra	AirCard 875U	HSDPA/EDGE/GPRS
BandLuxe	C120	HSDPA
		EDGE/GPRS
Datang	DTM5731	TD-SCDMA
		EDGE/GPRS
	DTM6211	TD-SCDMA
		EDGE/GPRS
DigitalChina	DC860	TD-SCDMA
Hojy	T3G	TD-SCDMA
		EDGE/GPRS

### Top Panel (LED status)

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)



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**Rear Panel (Interface)**  
**Antenna: Detachable SMA**



**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>● DBPSK, 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

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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 -11g: Best. 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 in Mbps</li> </ul>																																																																																									
	<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> <tr><td>8</td><td>13</td><td>27</td><td>14.4</td><td>30</td></tr> <tr><td>9</td><td>26</td><td>54</td><td>28.9</td><td>60</td></tr> <tr><td>10</td><td>39</td><td>81</td><td>43.3</td><td>90</td></tr> <tr><td>11</td><td>52</td><td>108</td><td>57.8</td><td>120</td></tr> <tr><td>12</td><td>78</td><td>162</td><td>86.7</td><td>180</td></tr> <tr><td>13</td><td>104</td><td>216</td><td>115.6</td><td>240</td></tr> <tr><td>14</td><td>117</td><td>243</td><td>130</td><td>270</td></tr> <tr><td>15</td><td>130</td><td>270</td><td>144.4</td><td>300</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	8	13	27	14.4	30	9	26	54	28.9	60	10	39	81	43.3	90	11	52	108	57.8	120	12	78	162	86.7	180	13	104	216	115.6	240	14	117	243	130	270	15	130	270	144.4	300
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Receive Sensitivity (Typical)	<ul style="list-style-type: none"> <li>● IEEE802.11n MCS0/8 @ -91dBm MCS7/15@ -74dBm</li> <li>● IEEE802.11g 6Mbps@ -86dBm 54Mbps@ -65dBm</li> <li>● IEEE802.11b 1Mbps@ -90dBm</li> </ul>																																																																																									

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	11Mbps@ -86dBm
Available transmit power	<ul style="list-style-type: none"> <li>● IEEE802.11N MCS 0~3@ <math>\geq 15</math>dBm MCS 4~5@ <math>\geq 13</math>dBm MCS 6~7@ <math>\geq 12</math>dBm</li> <li>● IEEE802.11g 6~18 Mbps@ <math>\geq 15</math> dBm 24~36 Mbps@ <math>\geq 13</math> dBm 48~54 Mbps@ <math>\geq 12</math> dBm</li> <li>● IEEE802.11b 1, 11Mbps@ <math>\geq 15</math> dBm</li> </ul>
Antenna *1	Peak Gain = 2 dBi with SMA connector

## SOFTWARE FEATURES

### Router and Gateway

Topology	Infrastructure
Operation Mode	AP / Router / WDS
LAN	<ul style="list-style-type: none"> <li>●DHCP Server</li> <li>●Static Routing Table</li> <li>●UPNP</li> </ul>
WAN	<ul style="list-style-type: none"> <li>●PPTP</li> <li>●PPPoE</li> <li>●Static IP</li> <li>●DHCP Client</li> <li>●Clone MAC</li> </ul>
Router	<ul style="list-style-type: none"> <li>●NAT/ NAPT</li> <li>●Static Routing</li> <li>●Dynamic Route</li> </ul>

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	<ul style="list-style-type: none"> <li>•Virtual server mapping</li> <li>•IP address mapping</li> <li>•Port Forwarding</li> <li>•Port Triggering</li> <li>•Special application</li> <li>•ALG(Application Layer Gateway) support (RTP/RTSP, AOL, FTP, ICMP, WMP/MMS, NetMeeting, SIP)</li> <li>•DNS Relay</li> <li>•DDNS</li> <li>•Time Zone(NTP client)</li> </ul>
Firewall	<ul style="list-style-type: none"> <li>•Blocking Ping</li> <li>•DoS(Blocking Ping, Port scan, Sync Flood)</li> <li>•MAC / IP Filtering</li> <li>•ICMP Blocking</li> <li>•SPI (Stateful Packet Inspection)</li> <li>•DMZ (Demilitarized Zone) Host</li> <li>•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> </li> </ul>
VPN	VPN pass-through (PPTP, L2TP, IPSEC)
Wireless	<ul style="list-style-type: none"> <li>•Power saving(Green technology)</li> <li>•Multiple SSID</li> <li>•64/128 bit WEP Encryption</li> <li>•WPA Personal (WPA-PSK using TKIP or AES)</li> <li>•WPA Enterprise (WPA-EAP using TKIP)</li> <li>•802.1x Authenticator</li> <li>•Hide SSID in beacons</li> <li>•Wi-Fi Protection Setup (WPS)</li> <li>•WDS</li> <li>•ACL control</li> <li>•Best channel selection</li> <li>•Speed/Bandwidth monitor</li> </ul>

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QoS	<ul style="list-style-type: none"> <li>• WMM</li> <li>• Application base             <ul style="list-style-type: none"> <li>➤ Priority Queue</li> <li>➤ Bandwidth Allocation</li> </ul> </li> </ul>
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### Management

Configuration	Web-based configuration (HTTP)
Firmware Upgrade	<ul style="list-style-type: none"> <li>• Via webpage upgrade</li> <li>• Auto recovery once firmware upgrade fail</li> </ul>
Administrator Setting	<ul style="list-style-type: none"> <li>• Administrator password change</li> <li>• Idle time out</li> </ul>
Reset Setting	<ul style="list-style-type: none"> <li>• Reboot</li> <li>• Reset to Factory Default</li> </ul>
System monitoring	<ul style="list-style-type: none"> <li>• Speed and Bandwidth monitoring</li> </ul>
Scheduling	<ul style="list-style-type: none"> <li>• Enable Firewall</li> <li>• Enable power saving</li> </ul>
Easy access	<ul style="list-style-type: none"> <li>• User can type model name and access the main page.</li> </ul>
Install wizard	<ul style="list-style-type: none"> <li>• Guide user to set-up Router smoothly</li> </ul>

### ENVIRONMENT & PHYSICAL

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)

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