

Dual Radio Multi-Function Repeater			<i>EOR7550</i>
2.4GHz / 5GHz	300Mbps	802.11a/b/g/n	Multi-Function

EOR7550 equips with two powerful independent RF interfaces which support 802.11a/b/g and 802.11b/g/n. With certified IP-65 protection, it is designed to deliver high reliability under harsh outdoor environment.

Built-in advanced multi-functions provide flexibility in constructing scalable WiFi networks for all possible applications. With two individual interfaces, each can be configured into 6 different modes with maximum of 18 combinations. With 802.11n support, EOR7550 offers bandwidth up to 300Mbps to accommodate heavy traffic services such as multimedia streaming. Establishing backbone network using 802.11a ensures stability and reduces interference while 802.11b/g offers great compatibility to all wireless clients.

EOR7550 provides wide-range of authentication and encryption standards (including WEP, WPA, WPA2, TKIP/AES and IEEE 802.1X) to enforce maximum security. Furthermore, friendly security management user interface reduces configuration complexity. EOR7550 is a true carrier-grade product which is guaranteed to fulfill any business proposals.



Package Content

- 1 x Dual Radio Multi-Function Repeater (EOR7550)
- 1 x PoE injector with Power Adapter
- 1 x Wall Mounting kit
- 1 x 1.8m Grounding Cable
- 1 x CD with User's Manual
- 1 x QIG

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

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Features

Wireless

- **Dual Radio** Two radio for independent backhaul(a/b/g, Radio1) and local access(b/g/n, Radio2).
- **High Data Rate** High speed physical transmitting rate up to 300Mbps with 11n, support large payload such as MPEG video streaming
- **Multifunction application** Defining each radio configuration for different application
- **Wireless Distributed System (WDS)** Supporting WDS to bridge repeater
- **Multiple SSID** 4 BSSID supported. Primary(1st) BSSID for normal setting follow this router's main default setting for security setting. Each SSID can set itself wireless or WAN access setting.

Networking

- **Public wireless solution** An AP interface that is especially useful in public areas such as hotspots and enterprise
- **Bandwidth Selection** Provides 5MHz/ 10MHz/ 20MHz for 802.11a/b/g and 20MHz/ 40MHz for 802.11n
- **Signal Strength** Display 0%~100% to show the signal condition for more convenient installation and setup.
- **QoS(WMM)** Enhance performance and density

Security

- **802.11i** WPA, WPA2
- **802.1x** EAP-TLS/TTLS, IEEE 802.1x Supplicant support in CB mode
- **MAC address functions** MAC address access control list, MAC address filter

Management

- **Firmware Upgrade** Upgrading firmware via web browser, setting are reserved after upgrade
- **Reset & Backup** Reset to factory default. User can export all setting into a file via WEB
- **MIB** MIB I, MIB II(RFC1213) and private MIB
- **SNMP** V1, V2c

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Technical Specifications

Hardware Specification	
MCU	Ralink RT2880
RF	Atheros AR5414 (Radio1) + Ralink RT2820 (Radio2)
Memory	32MB SDRAM
Flash	8MB
Physical Interface	One 10/100 Fast Ethernet RJ-45 One Reset Button
Power Requirements	Power over Ethernet, 48V DC/0.375A
Regulation Certifications	FCC Part 15C/15B/15E, EN301 893, EN 300 328, EN 301 489-1/-17, EN60950

RF Specification																								
Frequency Band	802.11a 5.15 ~ 5.35GHz, 5.47 ~ 5.725GHz, 5.725~5.825GHz 802.11b/g/n U.S., Europe and Japan product covering 2.400 to 2.484 GHz, programmable for different country regulations																							
Modulation Technology	OFDM = BPSK, QPSK, 16-QAM, 64-QAM DSSS = DBPSK, DQPSK, CCK																							
Operating Channels	802.11a US/Canada:12 non-overlapping channel (5.15~5.35GHz, 5.725~5.825GHz) Europe:19 non-overlapping channel (5.15~5.35GHz, 5.47~5.825GHz) Japan:4 non-overlapping channel (5.15~5.25GHz) China:5 non-overlapping channel (5.725~5.85GHz) 802.11b/g 11 for North America, 14 for Japan, 13 for Europe																							
Receive Sensitivity (Typical)	802.11a -92dBm @ 6Mbps, -73dBm @ 54Mbps	802.11g -94 dBm @ 6Mbps, -74 dBm @ 54Mbps	802.11b -97 dBm @ 1Mbps -92 dBm @ 11Mbps	802.11n -91 dBm @ MCS8 -74 dBm @ MCS15																				
Available transmit power	Radio 1 (WLAN1) <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">FCC</th> <th colspan="2">ETSI</th> </tr> <tr> <th>Frequency</th> <th>Power</th> <th>Frequency</th> <th>Power</th> </tr> </thead> <tbody> <tr> <td rowspan="3" style="text-align: center;">5.150~5.350 GHz IEEE802.11a</td> <td style="text-align: center;">28dBm@6~24Mbps</td> <td rowspan="3" style="text-align: center;">5.150~5.350 GHz IEEE802.11a</td> <td style="text-align: center;">28dBm@6~24Mbps</td> </tr> <tr> <td style="text-align: center;">26dBm@36Mbps</td> <td style="text-align: center;">26dBm@36Mbps</td> </tr> <tr> <td style="text-align: center;">24dBm@48Mbps 22dBm@54Mbps</td> <td style="text-align: center;">24dBm@48Mbps 22dBm@54Mbps</td> </tr> <tr> <td style="text-align: center;">5.470~5.725 GHz</td> <td style="text-align: center;">28dBm@6~24Mbps</td> <td style="text-align: center;">5.470~5.725 GHz</td> <td style="text-align: center;">28dBm@6~24Mbps</td> </tr> </tbody> </table>				FCC		ETSI		Frequency	Power	Frequency	Power	5.150~5.350 GHz IEEE802.11a	28dBm@6~24Mbps	5.150~5.350 GHz IEEE802.11a	28dBm@6~24Mbps	26dBm@36Mbps	26dBm@36Mbps	24dBm@48Mbps 22dBm@54Mbps	24dBm@48Mbps 22dBm@54Mbps	5.470~5.725 GHz	28dBm@6~24Mbps	5.470~5.725 GHz	28dBm@6~24Mbps
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Radio 2 (WLAN2)				
FCC		ETSI		
Frequency	Power	Frequency	Power	
2.412~2.462 GHz IEEE802.11g/n	19dBm@6~24Mbps 18dBm@36Mbps 17dBm@48Mbps 16dBm@54Mbps	2.412~2.472 GHz IEEE802.11g/n	19dBm@6~9Mbps 18dBm@12~18Mbps 17dBm@24~36Mbps 16dBm@48~54Mbps	
2.412~2.462 GHz IEEE802.11b	18dBm@1~11Mbps	2.412~2.472 GHz IEEE802.11b	18dBm@1~11Mbps	
Internal Antenna	1 x Simulated Omni Antenna (2.4GHz) for 802.11b/g/n			
External Antenna	2 x N type connector for 802.11a and 802.11b/g			

Software Features	
General	
Topology	Infrastructure
Protocol / Standard	IEEE 802.3 (Ethernet) IEEE 802.3u (Fast Ethernet) IEEE 802.11a (5GHz WLAN) IEEE 802.11b/g (2.4GHz WLAN) RFC 768 UDP RFC 791 IP RFC 792 ICMP RFC 793 TCP RFC 826 ARP

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Operation Mode	18 modes <table border="1"> <thead> <tr> <th>EOR7550</th> <th colspan="8">Radio1(11a/b/g)</th> </tr> <tr> <th>Radio2 (11b/g/n)</th> <th>AP</th> <th>CB</th> <th>CR</th> <th>WDS Bridge</th> <th>WDS Repeater</th> <th>UR(AP)</th> <th>UR(STA)</th> <th>Disable</th> </tr> </thead> <tbody> <tr> <td>AP</td> <td>o (LAN/WAN)</td> <td>o (LAN/WAN)</td> <td>o (LAN)</td> <td>o (LAN)</td> <td>o (LAN/WAN)</td> <td>X</td> <td>X</td> <td>o (LAN/WAN)</td> </tr> <tr> <td>CB</td> <td>o (LAN/WAN)</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>o (LAN/WAN)</td> </tr> <tr> <td>CR</td> <td>o (LAN)</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>o (LAN)</td> </tr> <tr> <td>WDS Bridge</td> <td>o (LAN)</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>o (LAN)</td> </tr> <tr> <td>WDS Repeater</td> <td>o (LAN/WAN)</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>o (LAN/WAN)</td> </tr> <tr> <td>UR(AP)</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>o (LAN/WAN)</td> <td>X</td> </tr> <tr> <td>UR(STA)</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>o (LAN/WAN)</td> <td>X</td> <td>X</td> </tr> <tr> <td>Disable</td> <td>o (LAN/WAN)</td> <td>o (LAN/WAN)</td> <td>o (LAN)</td> <td>o (LAN)</td> <td>o (LAN/WAN)</td> <td>X</td> <td>X</td> <td>X</td> </tr> </tbody> </table>	EOR7550	Radio1(11a/b/g)								Radio2 (11b/g/n)	AP	CB	CR	WDS Bridge	WDS Repeater	UR(AP)	UR(STA)	Disable	AP	o (LAN/WAN)	o (LAN/WAN)	o (LAN)	o (LAN)	o (LAN/WAN)	X	X	o (LAN/WAN)	CB	o (LAN/WAN)	X	X	X	X	X	X	o (LAN/WAN)	CR	o (LAN)	X	X	X	X	X	X	o (LAN)	WDS Bridge	o (LAN)	X	X	X	X	X	X	o (LAN)	WDS Repeater	o (LAN/WAN)	X	X	X	X	X	X	o (LAN/WAN)	UR(AP)	X	X	X	X	X	X	o (LAN/WAN)	X	UR(STA)	X	X	X	X	X	o (LAN/WAN)	X	X	Disable	o (LAN/WAN)	o (LAN/WAN)	o (LAN)	o (LAN)	o (LAN/WAN)	X	X	X
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Wireless	- Auto Channel Selection (Setting varies by Regular Domains) - Transmission Rate 11 a/b/g : 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 in Mbps 11n : <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>20 MHz</th> <th>40 MHz</th> <th>20 MHz</th> <th>40 MHz</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> </tbody> </table>	MCS Index	Guard Interval 800ns		Guard Interval 400ns		20 MHz	40 MHz	20 MHz	40 MHz	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																					
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	12	78	162	86.7	180
	13	104	216	115.6	240
	14	117	243	130	270
	15	130	270	144.4	300
	<ul style="list-style-type: none"> - Distance Control (802.1x Ack timeout) for Radio2 - Signal Strength indication using LEDs - Bandwidth Selection 				
Security	Authentication: <ul style="list-style-type: none"> - 802.11i (WPA, WPA2) - 802.1x (including EAP-TLS/TTLS) IEEE 802.1x Supplicant support in CB mode Encryption: Open, WEP-64/128, TKIP, AES MAC address access control list MSSID Support in client access mode Hide SSID in beacons User isolation MAC address Filtering NAT in Client Router mode Multiple SSID (4 SSID)				
QoS	WMM				
Management					
Configuration	Web-based configuration (HTTP)/Telnet				
Firmware Upgrade	Upgrade firmware via web browser Fix latest setting parameter when firmware upgrading				
Administrator Setting	Administrator password can be changed				
System monitoring	Status in hand , useful statistic and Event log				
Reset Setting	Reset to factory default and reboot				
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Environment & Mechanical

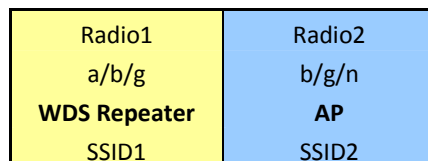
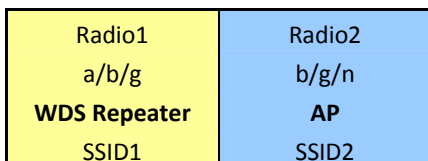
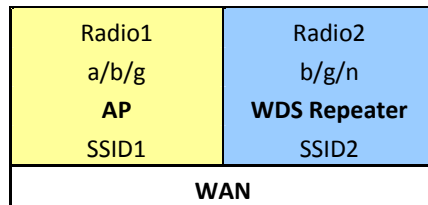
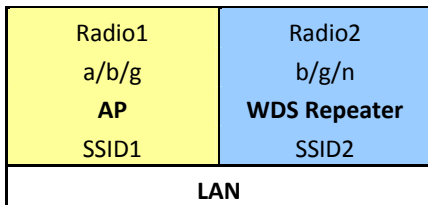
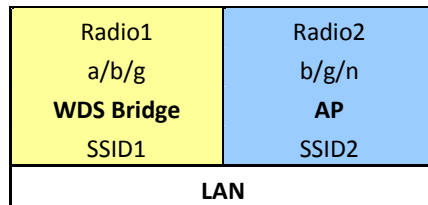
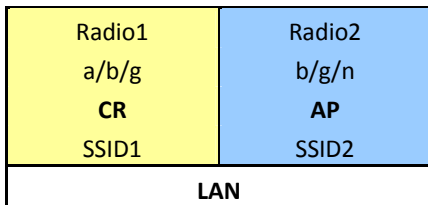
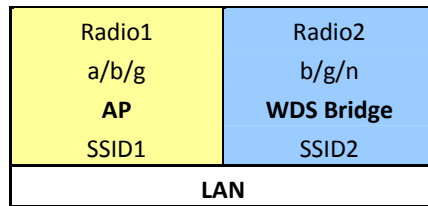
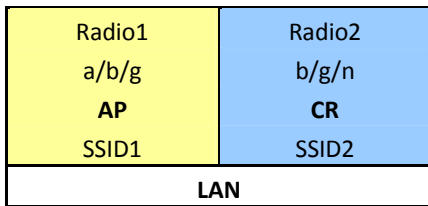
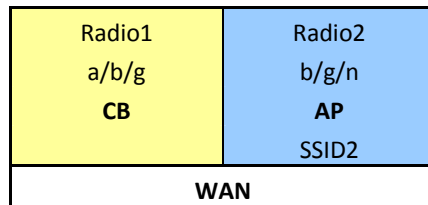
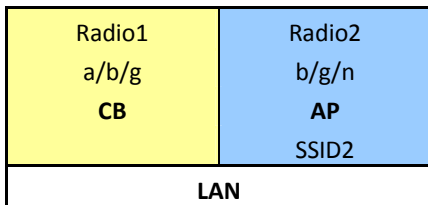
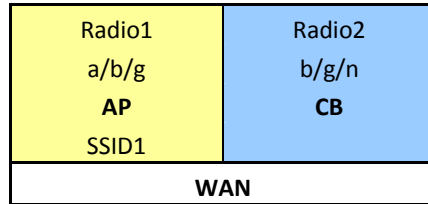
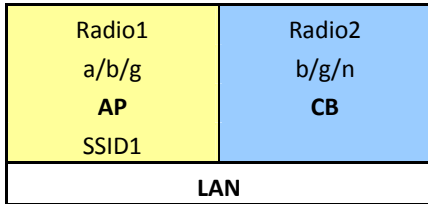
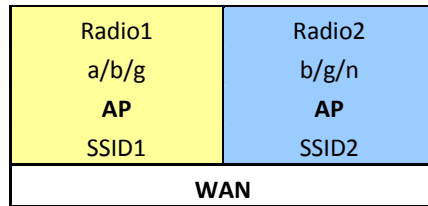
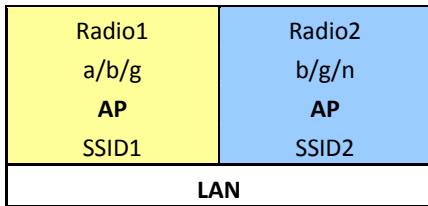
Temperature Range	Operating -20°C~70°C Storage -30°C to 80°C
Humidity (non-condensing)	0%~95% typical
Dimensions	260mm (L) x 175mm (W) x 65mm (H)
Weight	600g

Application 18 Modes

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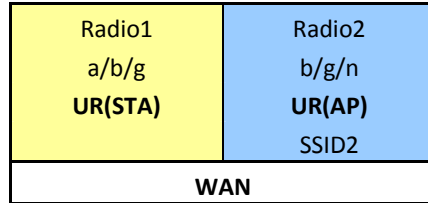
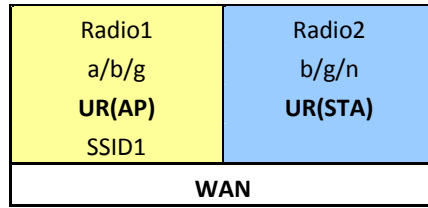
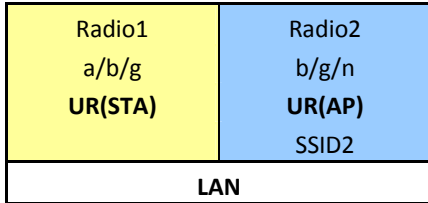
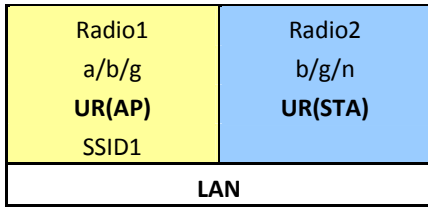
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