Ricon Mobile Inc.

S9055-5G-WIFI7



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Product Overview

S9055-5G-WIFI7, is a high-performance 5G router supporting Wi-Fi 7 technology, developed by Ricon Mobile Inc. It combines a Samsung chipset-based cellular connectivity infrastructure with a dual-band Wi-Fi architecture (2x2+2x2) compliant with the IEEE 802.11be standard, delivering high connectivity performance and cost efficiency.

Compliant with the 3GPP Release 16 standard, the device supports the 5G NR SA, 5G NR NSA, FDD-LTE and TDD-LTE network technologies. Its advanced Carrier Aggregation features allow the capacity of the cellular network to be used efficiently and help deliver higher data throughput.

It relays the cellular network connection to end devices over Wi-Fi and wired Ethernet, providing flexible connectivity options for smartphones, tablets, computers and other network devices. Thanks to its Plug-and-Play architecture, it can be used quickly and easily without any additional configuration. It is a reliable and efficient network solution for homes, retail points of sale, small businesses and micro-scale commercial environments of all kinds.

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Product Features

High-Speed Internet Experience	This device supports widely used frequency bands worldwide, is compatible with both 5G SA and NSA networks, and supports bandwidths of up to 200M on the 5G network, providing users with an excellent 5G internet experience. Under SA networks, the device supports 5CC carrier aggregation; under NSA networks, it supports a rich set of ENDC combinations to deliver maximum download and upload speeds. Under LTE networks, the device can support up to 6CC downlink carrier aggregation and 2CC uplink carrier aggregation, providing outstanding uplink and downlink speeds even on 4G networks.
Latest WiFi 7 Standard, Dual Band Concurrent Connection	This device supports the latest WiFi 7 standard with 2.4GHz and 5GHz dual band, 2x2 MIMO and an ultra-wide 160M bandwidth, reaching theoretical speeds of up to 3600Mbps for an ultra-high-speed WiFi access experience. The device uses OFDMA technology, which allows data packets to be transmitted to multiple terminal devices at the same time; combined with MU-MIMO technology, it enables multiple terminal devices to access and use services simultaneously. The latest Multi-Link Operation technology allows a single STA device to connect over multiple bands at the same time, which significantly increases throughput and reduces latency.
Various Network Options and Multi-Service Support	The product supports mobile cellular and/or wired broadband as uplink, and supports WiFi and/or LAN ports for terminal device access. Network deployment is much more flexible. The device is also equipped with an RJ11 voice interface. When paired with a telephone, it can support voice call services over VoLTE/VoNR. Multiple services such as internet access, video streaming and voice calls can be carried out at the same time, meeting a wide range of user needs.
High Availability with Dual-Link Uplink	The product supports configuring both cellular and wired uplink connections at the same time. Users can set the link priority and detection criteria. When the primary link goes down, the device can automatically switch to the backup link, which significantly increases the high availability of the device. The device supports self-healing. After a cellular network failure that causes an outage, it automatically reconnects and restores the network connection once the network recovers.
Device Protection Against Theft and Misuse	The device can be customized for use with specific PLMNs, thereby protecting the rights and interests of operators. It supports 5G frequency band and cell locking functions. When the device is taken outside its designated area of use, it cannot be used; this ensures equipment security and prevents use for other purposes. The device supports different administrator accounts and authorization levels customizable to operator requirements.

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Hardware Features

CPU	Realtek Dual-core ARM Cortex-A55 @1.2 GHz and Tri-core RISC-V @800 MHz for WiFi Offload
Memory	DDR: 512MB Nand Flash: 128MB
Cellular Chip	Samsung S5300 (Fibocom FG550-EAU)
WiFi Chip	Realtek RTL8932AR / RTL8902A

Cellular Features

3GPP Compliance	Rel-16
Supported Technology	5G NR NSA & SA: Option 3x/3a/3 and Option 2 4G LTE: TDD & FDD 3G UMTS: WCDMA
UE Category	LTE DL Cat 20, UL Cat 18
MIMO	NR: DL 4x4, UL 2x2
Carrier Aggregation	NR CA: DL 5CC 200M; UL 2CC 200M LTE CA ： DL 6CC 120M; UL 2CC 40M
Theoretical Peak Speed	NR SA: 4.67Gbps DL/1.25Gbps UL NR NSA: 6.47Gbps DL/730Mbps UL LTE: 2.0Gbps DL/211Mbps UL
Cellular Antennas	4 built-in Omni-Directional antennas
SIM Support	1 * nano SIM 1 * eSIM (Optional)

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WiFi Features

WiFi Protocol	2.4 GHz: IEEE 802.11 b/g/n/ax/be 5G Hz: IEEE 802.11 a/n/ac/ax/be
MIMO	2.4 GHz: 2x2 MIMO 5 GHz: 2x2 MIMO
WiFi Bandwidth	2.4 GHz: 20/40 MHz 5 GHz: 20/40/80/160 MHz
Theoretical Throughput	Total theoretical WiFi throughput: 3600Mbps 2.4GHz: 688Mbps (2ss 40MHz) 5GHz: 3600Mbps (2ss 160MHz)
WiFi Antennas	2.4 GHz: 2 built-in Omni-Directional antennas 5 GHz: 2 built-in Omni-Directional antennas

Interfaces, Buttons and Indicator Features

WAN/LAN Port	1 * 2.5GE port, 100M/1000M/2500M adaptive, type: RJ45
LAN Port	3 * GE ports, 100M/1000M adaptive, type: RJ45
Voice Port	1 * FXS VoLTE/VoNR port, type: RJ11
USB Port	1* USB2.0
Power Supply Port	1 * DC-Jack port
Other Port	2 * TS9 ports, for external 5G antenna connection
pSIM Interface	1 * SIM slot 4FF (nano SIM)
Indicators	1 * 5G (Green / Yellow / Red) 1 * 4G (Green / Yellow / Red) 1 * WiFi (Green) 1 * Phone or Internet (Green) 1 * System (Green) 1 * Power (Green)
Buttons & Pinhole	1 * Power On/Off button 1 * Reset pinhole 1 * WPS button

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Physical Features

Dimensions	113.8mm*95.4mm*186mm (L*W*H)
Weight	685g
Material	ABS Housing IP30
Color	White
Installation	Tabletop
Box Contents	1 x S9055-5G-WIFI7 Router Hardware 1 x Power Adapter 1 x Ethernet cable

Power Module

Power Supply	Power adapter (Input: 100~240V, 50/60Hz)
Output Voltage	DC 12V
Output Current	DC 2A
Power Consumption	Max 24W

Environmental Parameters

Operating Temperature	-10℃ ~ +40℃
Storage Temperature	-20℃ ~ +70℃
Operating Humidity	5% - 95% (Non-condensing)
Storage Humidity	5% - 95% (Non-condensing)
Protection Class	IP30

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Software Features

Status Management	System Status/ Device Info Mobile Network Status WAN Status LAN Status WLAN Status TR069 Status Web GUI CLI / Telnet / SSH SNMPv2 SIM Lock, Band Lock, Operator Lock Traffic Statistics
Mobile Network	APN Management PIN Code Management Network Mode Selection Mobile Data Switch & Roaming Switch Short Message Service Band Lock Cell Lock VoLTE/ VoNR Mobile Network Self-Recovery
WAN Configuration	Operating Mode: Routing mode, Bridge mode IPv4, IPv6, IPv4/IPv6 PPPOE, DHCP Client/Server DNS, Dynamic DNS Uplink WAN mode: Cellular, Wired, Link-backup
LAN Configuration	DHCP Client/Server NAT/NAPT ALG Virtual Server (Port Forwarding) MAC Management IGMP Snooping* IGMP Proxy*
WiFi Configuration	Basic Settings (SSID, password, etc.) Advanced Settings (protocol, BW, channel, etc.) Cipher Mode (OPEN/WPA/WPA2/WPA3)

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	WiFi Protected Set-up Multiple SSID Band Steering Guest WiFi STA Management Mesh Settings
Routing	Static routing v4/v6
VPN Protocol	L2TP/PPTP IPSec VxLAN
Security & Firewall	Basic firewall Anti-attack (ARP, DDOS, etc.) Anti-scan Port filtering MAC filtering DMZ
Additional Functions	UPNP Parental Control
Device Management	Cloud Management (Optional) Language Management User Management Firmware Upgrade & Downgrade Remote Management: TR069/XMPP*/SNMP FOTA Reboot, Factory Reset NTP Management Configuration Export and Import Diagnostics

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Application Topology



Model Information

Model	S9055-5G-WIFI7
Chip	Samsung S5300 (Fibocom FG550-EAU)
Applicable Region	EMEA Asia Pacific
Supported Bands	5G NR：n1/n2/n3/n5/n7/n8/n20/n26/n28/n38/n40/n41/n66/n67/n71/n75/n76/n77/n78 LTE-FDD：B1/B2/B3/B4/B5/B7/B8/B20/B26/B28/B32/B66/B67/B71 LTE-TDD：B38/B40/B41/B42/B43/B46/B48 WCDMA：B1/B2/B3/B5/B8

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Product Views



Revision History

Version	V.3.03
Date	October 2026
Description	Preliminary version prepared for product definition only

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About Ricon

Ricon is a B2B technology company developing network technologies for the secure, uninterrupted and sustainable communication needs of businesses. With industry experience and a technology-driven approach, it delivers connectivity, communication and management solutions for mobile, fixed and cloud networks.

Helping service providers, businesses and partners build reliable and scalable network infrastructures, Ricon supports the development of strong and sustainable communication infrastructures with solutions that adapt to changing digital needs and requirements.

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