Wi-Fi 7 PRODUCTS

Powered by Qualcomm Dragonwing

prpl

Sága

Residential Wi-Fi 7 routers and access points

The Icotera Sága triband routers and access points provide superior Wi-Fi 7 connectivity making them an ideal choice for building powerful home mesh systems. Designed with a focus on three main pillars: security, performance, and longevity, the Icotera Sága combines advanced features with a minimalistic and beautiful Danish design. Advanced Wi-Fi and CPU power-saving techniques minimise power consumption and carbon footprint. Powered by prplOS, the Sága provides a secure, standardised software platform that supports third-party container applications. You can choose a model with the 2+4+4, 2+4+2, or 2+4 radio chains, or an XGS-PON one-box solution.

- Triband Wi-Fi 7 platform
- Up to 20.9 Gbps combined Wi-Fi link rate (BE21000)
- Qualcomm Dragonwing™ N7 Platform featuring a quad-core A53 SoC

Security as a top priority

The Icotera Sága routers and access points support the Secure Boot technology to secure sensitive data and make the device run only on trusted software.

Designed to last a long time

Icotera manufactures Sága routers and access points with high-quality components and provides regular software updates.

Advanced technologies

The Sága routers and access points provide optional support for Bluetooth LE, Thread, and ZigBee. These low-power wireless mesh standards target embedded homes and help in building automation applications.

Get the most of Wi-Fi 7

Powered by the Dragonwing N7 Platform featuring a powerful CPU and 2 GB RAM, the Icotera Sága routers ensure top-level performance. With up to three dedicated radios and up to 10 spatial streams, users can achieve an impressive 20.9 Gbps combined link rate. The Wi-Fi-certified EasyMesh and Easy Connect technologies simplify wireless network setup and configuration for end users, while prplOS ensures high performance and stability.
The XGS-PON model becomes an ideal one-box solution for both fibre termination and creating a powerful local wireless network.
When your customers want to improve their gaming or streaming experience, provide them with an Icotera Sága router, designed to improve throughput, network performance, and data transfer rates.

Icotera

Sága Residential Wi-Fi 7 products

FEATURES

- Tri-band Wi-Fi 7 networking platform with up to 10-stream configuration
- Simultaneous operation in the 6 GHz, 5 GHz, and 2.4 GHz spectrum bands
- Low power consumption thanks to advanced power-saving techniques for Wi-Fi and CPU
- Optional operator branding
- Customised firmware based on prplOS
- Support for running third-party container applications
- Quad-core ARM Cortex-A53 1.5 GHz
- Up to 2 GB RAM
- Up to 1 GB flash memory
- Bluetooth Low Energy (optional)
- Thread IEEE 802.15.4 (optional)
- Zigbee IEEE 802.15.4 (optional)

NETWORK COMMUNICATION

WAN INTERFACE

- 10G WAN (RJ45) or 2.5G WAN (RJ45) or XGS-PON
- Energy-Efficient Ethernet (EEE)

LAN INTERFACE

- 1x 10G LAN (optional), 2x 2.5G LAN or 1x 2.5G LAN, 2x 1G LAN (optional)

Wi-Fi

- Advanced WMM designed for long-range and resilient video and voice delivery
- Authentication methods: WPA3 Personal, WPA3 Enhanced Open, WPA2 Personal
- Up to 8 SSIDs
- Up to 512 connected clients
- MAC address filtering
- Beamforming
- 802.11v band steering and client roaming
- Neighbour scanning
- Advanced channel selection
- EasyMesh R6 agent
- Software Tx power control
- Wireless client isolation
- MCS 15 for extended range (BPSK-DCM for Wi-Fi 7, DCM, ER_SU for Wi-Fi 6)
- Backwards compatible with previous Wi-Fi standards such as Wi-Fi 6E, Wi-Fi 6, Wi-Fi 5, and Wi-Fi 4

Wi-Fi 7

- 802.11be with up to 4+4+4 radio chains
- Bandwidth support: 320 MHz, 240 MHz, 160 MHz, 40 MHz, 20 MHz
- Downlink MU-MIMO and OFDMA
- Up to 4096-QAM modulation with full support for MCS 13 in all modes
- Support for LDPC, STBC
- Support for restricted target wake time (R-TWT)
- Full support for multi-link multi-radio MLO
- Static preamble puncturing

LAYER 2

- 16 bridge instances
- 64 byte forwarding at line rate
- Jumbo 9k packets
- IGMP v1/v2/v3 snooping
- MLD v1/v2
- 802.1p marking
- VLAN support
- Transparent IPv6 forwarding
- 32k address entries

LAYER 3

- Virtual interfaces
- Multiple WAN interfaces in one router
- 64 byte forwarding at line rate with routing/NAT
- IGMP v1/v2 proxy with fast-leave and monitoring
- DSCP marking for untagged WAN interfaces
- Stateful IPv4 and IPv6 firewall
- Supports routing for IPv4 and IPv6
- IPv4:
  - SNAT, DNAT, DMZ
  - DNS proxy
  - DHCP client and server
- DS-Lite
- MAP-T
- IPv6:
  - Prefix delegation
- PPPoE (termination)
- Tracking the connection status
- Protocol helpers for SIP, RTSP, FTP, TFTP, PPTP, L2TP, and IPSec
- Guest access

VoIP (optional)

- 2 separate POTS lines SIP (RFC3261)
- Up to 5 ringer equivalence numbers (REN)
- Caller ID support (DTMF/FSK)
- DTMF signalling
  - SIP INFO
  - Inband
  - Auto
  - RFC 2833
- CLIR
- SIP trunk
- Advanced dialplan
- Called party (B-Number) manipulation
- Class 5 services:
  - Forward all calls
  - Forward on busy
  - Forward on no answer
  - Call waiting
- Codecs:
  - G.711A a-law
  - G.711U μ-law
  - G.722
  - G.729
- Codec negotiation
- Modem or fax detection
- G.165 echo cancellation

MANAGEMENT AND MONITORING

- Integrated Wi-Fi EasyMesh R6 controller
- Wi-Fi management logic running on the router in addition to third-party applications running in the cloud
- Easy product hardening to a secure configuration
- Support for sensitive data encryption
- Secure Boot to ensure that the gateway boots using only trusted software
- Shared or separate IP interface for management
- Configurable web interface for end users:
  - PPPoE WAN
  - Wi-Fi
  - Guest network
  - LAN network
  - Port forwarding
  - NAT loopback
  - DMZ
  - Status and monitoring
- Standard monitoring telemetry solutions (Bulk data collection, USP)
- L1 and L3 filters for all local services
- SSHv2 with key authentication
- Zero-touch provisioning with DHCP, CWMP (TR-069), and USP (TR-369)
- Standardised data models for configuration and monitoring
  - TR-104 (VoIP)
  - TR-181 (Gateway)
- Extensive debug possibilities
- Packet dumping
- All settings are securely stored locally in flash memory
- Dual bank flash memory with fail-safe firmware upgrading
- Multilayer watchdog
- TR-143 for performance data and throughput diagnostics

PHYSICAL SPECIFICATIONS

CASING

- Size: 196 x 175 x 55 mm or 164 x 156 x 40 mm (W x H x D)
- LED indicators
  - Power or WAN status such as link or provisioning
  - VoIP
  - Wi-Fi
- Status LED indicators for link, traffic, and duplex for each LAN port
- Automatically turning off the LED indicators
- WPS button

OPERATIONAL SPECIFICATIONS

- DC 12 V input
- Operating temperature: 5°C – 45°C
- Storage temperature: -20°C – 85°C
- Humidity: 5% – 95% (noncondensing)

INCLUDED IN THE BOX

- Icotera Sága router
- 12 V power supply unit
- Additional label with credentials for Wi-Fi networks and web interface
- Ethernet cable

ESG and SUSTAINABILITY

Product data aligns with the European Sustainability Reporting Standards (ESRS).
Icotera CO2 reduction targets are approved by the Science Based Target initiative (SBTi).

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

By 2030, Icotera will reduce the scope 1 and 2 greenhouse gas (GHG) emissions by 42%.

Climate (ESRS E1)
- Product CO_2 footprint (cradle-to-gate) data is available on request

Pollution (ESRS E2)
- Less than 0.1% of hazardous substances in raw materials
- No flame retardants or plastic softeners in plastic parts
- Halogen-free printed circuit boards
- Available in up to 95% post-consumer recycled (PCR) materials
- Packaging: plastic-free, PE bag-free, 95% recycled cardboard
- Compliance with RoHS and the Swedish chemical tax rate for electrical equipment

Social (ESRS S2)
- Suppliers comply with the Icotera Supplier Code of Conduct: https://bit.ly/icotera-code

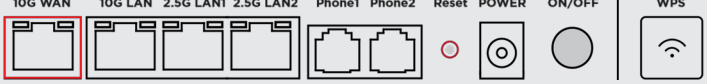
Distribution (ESRS E1)
- The CO_2 data on logistic solutions (ESRS E1) is available on request

Use
- Power consumption complies with the European Ecodesign Directive 2009/125/EC
- Power saving mode

Refurbishment (ESRS E5)
- Refurbishment service is available

End of life (ESRS E5)
- Built with high-quality components for 5 years expected lifetime
- Disassemblable for recycling
- WEEE producer and packaging responsibility is handled through Elretur and Emballageretur

Icotera Sága configuration options



Model	Uplink	LAN	POTS	Wi-Fi	Peak Wi-Fi link rate	Radio chains
rX715-00-EU	10G PON	1x 10G, 2x 2.5G	2*	Wi-Fi 7	20.9 Gbps (BE21000)	2 + 4 + 4
rX705-00-EU	10G WAN (RJ45)	1x 10G, 2x 2.5G	2*	Wi-Fi 7	20.9 Gbps (BE21000)	2 + 4 + 4
r2701-00-EU	2.5G WAN (RJ45)	1x 2.5G, 2x 1G	2*	Wi-Fi 7	20.9 Gbps (BE21000)	2 + 4 + 4
r2501-00-EU	2.5G WAN (RJ45)	1x 2.5G, 2x 1G	2*	Wi-Fi 7	15.1 Gbps (BE15100)	2 + 4 + 2
a2501-00-EU	Configurable 2.5G LAN port (RJ45)	2x 2.5G	N/A	Wi-Fi 7	15.1 Gbps (BE15100)	2 + 4 + 2
r2201-00-EU	2.5G WAN (RJ45)	1x 2.5G, 2x 1G	2*	Wi-Fi 7	9.3 Gbps (BE9300)	2 + 4

** — VoIP supported in selected models*

For more information, configuration options, and feature requests, contact our Sales department at sales@icotera.com.

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