# Wi-Fi 6 ETHERNET ROUTER

i4880-series
Residential Wi-Fi 6 Router

The i4880 ethernet gateway takes performance to the next level with 2.5 Gbps IPv4 and IPv6 routing engine and premium Wi-Fi 6 with a configuration of 8x8 + 4x4. Special attention has been put into creating a beautiful, minimalistic yet fully flexible design, which fully matches the modern home. Full backward compatibility for both WAN/LAN, VoIP and Wi-Fi makes the i4880 the obvious choice for a high-end residential router for all serious service providers.

• Premium Wi-Fi 6 configuration
• Non-blocking 2.5 Gbps architecture
• Modern Scandinavian design
• Fully managed
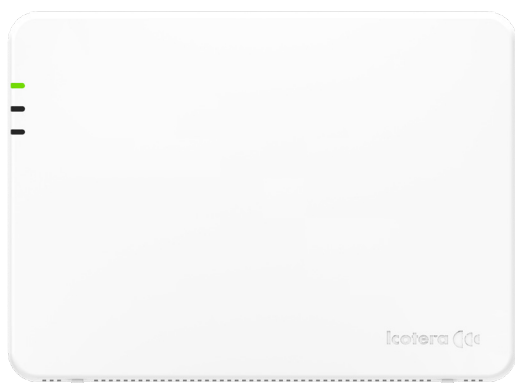
Model: i4883

Flexible installation
The i4880 is designed for all types of installations, both wallmount and free standing. In any installation the i4880 allows for practical cable management, easy access to user-configurable buttons and intuitive LEDs for easy troubleshooting.

Easy cable management
With all interfaces hidden practically on the back of the i4880, all cables can be managed in an easy way regardless of the installation method. Ports are coloured for intuitive installation for first-time users.

Icotera

i4880 Residential Wi-Fi 6 Router

FEATURES

- Possibility to run ISP own applications
- Enterprise 8x8+4x4 Wi-Fi 6 configuration
- Vendor-independent
- Non-blocking 2.5 Gbps architecture
- Wi-Fi Data Link speed above 8Gbps
- Low power consumption
- Possibility of operator branding
- Extensive IPv6 support
- Customized firmware
- IPv6 only operations

NETWORK COMMUNICATION

WAN INTERFACE

- 1 x RJ45 10/100/1000/2500 BaseT(x)
- Full-duplex transmission
- Auto-negotiation for speed and duplex
- Auto MDI/MDX

LAN INTERFACE

- 2 x RJ45 10/100/1000 BaseT(x) + 1 x RJ45 10/100/1000/2500 BaseT(x)
- Auto-negotiation for speed and duplex
- Auto MDI/MDX
- Jumbo packets
- 802.1x
- Integrated cable tester, detects:
  - Short
  - Open
  - Impedance mismatch
  - Cable length

LAYER 2

- 16 bridge instances
- 64 byte forwarding at line rate
- Jumbo 9k packets
- IGMP v1/v2/v3 snooping
- 802.1p marking
- VLAN support
- Wi-Fi support
- Transparent IPv6 forwarding
- DHCP relay with option 82
- 2k address entries
- Multicast analyzer
- Flexible L1-3 Access Control List

Wi-Fi INTERFACES

- Authentication methods - Open - 802.1x - WPA2 - WPA3
- Up to 8 SSIDs
- EasyMesh™ Agent and Controller
- MAC filtering
- Airtime management
- Beamforming
- 802.11kvr band steering and client roaming
- Neighbour scanning
- Advanced channel selection
- Software Tx power control
- Extensive monitoring
- Wireless Client Isolation

802.11ax Wi-Fi

- 802.11AX 8x8:8 5 GHz + 4x4:4 2.4GHz
- BW support: 20 MHz, 40 MHz, 80 MHz
- Modulation support: MCS 0-11
- Downlink MU-MIMO and OFDMA
- Up to 1024QAM modulation
- Support for unequal MCS
- Support for LDPC, STBC
- Support for Dual Channel, Dual Concurrent Mode
- Support Target Wake Time
- HW Support for Singular Value Decomposition (SVD) for explicit Transmit Beamforming

802.11ac Wi-Fi

- 802.11AC Wave-2 8x8:8
- BW support: 20 MHz, 40 MHz, 80 MHz, 80+80 MHz, 160 MHz
- MU-MIMO
- TurboMAC for optimized legacy performance
- Support for LDPC, STBC
- Modulation support: MCS 0-11
- Up to 1024QAM modulation

802.11bgn Wi-Fi

- 802.11B/G/N 4x4:4
- MIMO
- Modulation support: MCS 0-76

LAYER 3

- Virtual interfaces
- Multiple WAN interfaces in one router
- 64 byte forwarding at line rate with routing/NAT
- IGMP v1/v2/v3 proxy with fast-leave and monitoring

- Stateful IPv4 and IPv6 Firewall
- Supports routing for IPv4 and IPv6
- IPv4 - SNAT, DNAT, DMZ - DNS proxy - DHCP client and server
- IPv6 - Prefix delegation RFC3769 - DHCP client - DS-lite - Multicast
- PPPoE (termination)
- 32k HW connection tracking
- RTSP stateful proxy
- Protocol helpers for: SIP, RTSP, FTP, TFTP, PPTP, L2TP and IPSec
- DNS based Parental-Control
- Guest Access

QoS

- Advanced WMM designed for long-range and resilient video and voice delivery
- 8 queues
- Support SP and WFQ
- Layer 2 and 3 QoS features - Packet classification marking - Queuing - Scheduling - Rate-limiting
- Marking and Queuing w/ 802.1p, ToS,DiffServ classification
- Globally shared rate-limiting queues

USB

- 1 x USB 2.0 host for ISP own applications

VoIP - Optional

- 2 separate POTS lines SIP (RFC3261)
- 5 REN support
- DTMF signalling - SIP INFO - Inband - Auto - RFC 2833
- Caller ID support (DTMF/FSK)
- CLIR
- Advanced dialplan
- 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.729AB
- Codec negotiation
- Modem/Fax detection
- Auto gain control
- Adaptive jitter buffer 10-300ms
- Silence suppression
- G.165 Echo Cancellation
- LEC (Line Echo Cancellation) 2-128ms
- VAD (Voice Activity Detection)
- CNG (Comfort Noise Generation)
- PLC (Packet Loss Concealment)

MANAGEMENT & MONITORING

- IPv6 only operations
- Shared or separate IP interface for management
- Monitoring via Telemetry Streaming (ICONS)
- L1-L3 filters for all local services
- SSHv2 with key authentication
- Optional Telnet with authentication
- End-user oriented web interface (configurable) - Wi-Fi - Guest network - LAN network - Port forwarding, NAT loopback, DMZ, DynDNS, Status and monitoring
- TR-069 with TLS supporting - TR-104 (VoIP) - TR-181 (Network)
- SNMP v1/v2 (IF-MIB, ICOTERA private MIB)
- Multicast analyzer
  - Debugging of live Multicast streams
  - Provides detailed information from MPEG-TS and RTP layers
- Extensive debug possibilities
- Packet dumping
- All settings are stored locally in flash
- Zero-touch configuration initiated DHCP or DNS-SD supporting TFTP/HTTP/FTP or TR-069
- Automatic firmware and configuration update (polling)
- Dual bank firmware w/ fail-safe upgrading
- LED brightness configurable by the operator and/or End-User
- Hardware watchdog
- Wake-on-LAN for WebUI and CLI
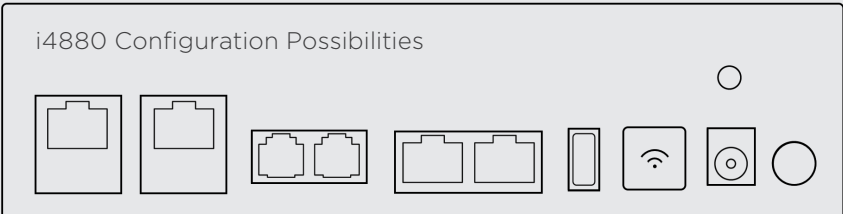
OPERATIONAL SPECIFICATIONS

- DC12V input ±10%
- Power consumption maximum: 40 W
- Operating temperature: 5 – 45°C
- Storage temperature: -20 – 85°C
- Humidity: 5% – 95% (non-condensing)

PHYSICAL SPECIFICATIONS

CASING

- Size: 220x160x60 mm (W x H x D)
- Weight: 1000 g
- Front LEDs configurable by operator and/or end-user: Power/WAN status (link/traffic/provisioning) - VoIP port 1 - VoIP port 2 - Wi-Fi
- LAN status LEDs (link-speed/traffic, duplex) per interface
- WPS button

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i4880 Configuration Possibilities

Gateway Interface Configurations:

Model	Uplink	LAN	USB	POTS	Wi-Fi	Antennas
i4882	100/1000/2500 BaseT(x)	2 x 10/100/1000 BaseT(x) + 100/1000/2500 BaseT(x)	1 x USB 2.0	N/A	Wi-Fi 6	8x8 + 4x4
i4883	100/1000/2500 BaseT(x)	2 x 10/100/1000 BaseT(x) + 100/1000/2500 BaseT(x)	1 x USB 2.0	2x	Wi-Fi 6	8x8 + 4x4

NOTE: Please contact Sales for further details on information listed and feature requests.