SAGEMCOM

Sagemcom F@st 3896

VERY HIGH PERFORMANCE
TRIPLE-PLAY HOME GATEWAY

• DOCSIS 3.1 and DOCSIS 3.0 – 32x8
• High-end Wi-Fi connectivity - Wi-Fi 6
• 2.5G Ethernet port
• High performance home networking
• Compact form factor

model available in white or black color

Sagemcom F@st 3896 is a broadband gateway providing multi-gigabit broadband Internet access through DOCSIS 3.1 and 3.0 cable networks.
With Sagemcom F@st 3896 and the associated set-top-boxes, the user gets access to 3-play services with a high level of quality:
- **Up to 5Gbps Downlink and 2 Gbps Uplink throughput over DOCSIS**
- **Dual band dual concurrent Wi-Fi 6 Access Point in 2.4 and 5 GHz bands**
- **High quality Voice over IP communication based on the MGCP protocol as well as on SIP (option)**
- **Content sharing with embedded DLNA Server (option) and USB host 3.0 port (option)**
Sagemcom F@st 3896 software is available in two versions either in-house field proven Sagemcom SWAN™ solution either RDK-B well-known solution defined by cable industry for broadband gateways.

SEAMLESS MULTI DEVICE CONNECTION

With Sagemcom F@st 3896, end user can connect all its IT network devices (mobile phones, tablets, computers, printers, gaming devices, fixed or DECT phones, …) easily and simultaneously over all the available interfaces: Wi-Fi 6, 2.5 Gigabit Ethernet, Multi-Gigabit Ethernet, USB host 3.0, FXS. The F@st 3896 also optionally includes an integrated bonded MoCA 2.0 interface which enables the gateway to provide connectivity to STB and client devices connected within the home.

HIGH VOIP PERFORMANCE

Sagemcom F@st 3896 achieves multi-FXS management. It can manage up-to 2 VoIP lines. Advanced voice supplementary services offered by Sagemcom F@st 3896 are VMWI, call waiting, call transfer... (option)

ACCESS CONTENTS ANYWHERE ANYTIME

In order to access to their contents anywhere, anytime, on any device, the Sagemcom F@st 3896 integrates an embedded DLNA media server using Samba and UPnP protocols, thus allowing the end user to share contents (photos, video, music) across his digital network. Using USB host 3.0 connection, the user can access to new services like content sharing by connecting a HDD or a memory stick. Moreover the Sagemcom F@st 3896 provides secured remote access to shared contents remotely.

TOP CLASS WIRELESS INTERFACE

Sagemcom F@st 3896 offers a superfast "dual band dual concurrent" and reliable wireless LAN connection. It includes high efficient Wi-Fi 6 interfaces on both bands: 4x4 11ax for 5GHz, 4x4 11ax for 2.4GHz with advanced multi-user wireless technology. Thanks to its easy install program, a home network without in house cabling can be easily built. Sagemcom F@st 3896 also features the latest WPA3 security mechanism while being compatible with WPA/WPA2 older scheme. In addition, in order to facilitate the configuration it offers the automatic radio channel selection and WPS for security key exchange.

RELIABLE WI-FI COMMUNITY

Sagemcom F@st 3896 integrates a scalable, field proven solution of Wi-Fi community, with options at several levels:
- Traffic isolation: L2TP and GRE tunnels
- QoS: Minimum guaranteed bandwidth for Home user
- Priority on traffic (Home user: higher priority)
- Wi-Fi: Maximum number of connected Hotspot Users

FULLY FEATURED IP ROUTER

Sagemcom F@st 3896 supports the most up-to-date IP services applicable to residential gateway. It enables IPV6 network either in Dual Stack mode or in DS Lite mode.

EFFICIENT FIREWALL

Sagemcom F@st 3896 integrates the most up-to-date firewall tools:
- Stateful Packet Inspection
- Complete address/port/protocol filtering
- VPN pass through: PPTP or IPsec

REMOTE MANAGEMENT: TR-069 AND SNMP AGENTS

Sagemcom F@st 3896 offers a robust SNMP Agent ensuring full remote service provisioning and resilient upgrade. The home gateway also offers a field proven TR-069 agent.

MULTI-PLAY QUALITY OF SERVICE

Sagemcom F@st 3896 associates comprehensive QoS techniques for double and triple architectures achieving a complete management of the QoS with the guaranty to use simultaneous services with a good level of performance. Dedicated CPU cores for Networking & Voice and for Multimedia Applications enable to guarantee high performance.

SWAN™, A RICH AND AGILE MIDDLEWARE

With in-house SWAN™ middleware version, Sagemcom F@st 3896 benefits from a software solution largely deployed on the field. It does natively support IPv6. The fully featured dual stack IP v4/v6 of SWAN™ middleware ensures to the F@st 3896 its readiness for all major scenarios of IPv6 network migration. SWAN™ modular architecture allows easy third parties application integration for operator to easily differentiate: GUI, Web services or even new features developped over SWAN™ SDK.

TECHNICAL FEATURES

INTERFACES
- Network:
  - DOCSIS 3.1 2x2
  - DOCSIS 3.0 with channel bonding up to 32x8
  - Switchable diplexer 85MHz / 204MHz (option)
  - Backward compatible with DOCSIS 1.0/2.0 and 2.0b
  - Compatible with EuroDOCSIS and US DOCSIS frequencies
- User:
  - 802.11b/g/n/ax, Wi-Fi 6 access point in 2.4GHz 4x4
  - 802.11a/n/ac/ax, Wi-Fi 6 access point in 5GHz 4x4
  - Wi-Fi pairing button
  - 1 Eth 100/1000/2500 Base-T
  - 3 Eth 10/100/1000 Base-T
  - MoCA (optional)
    * Bonded MoCA 2.0
    * Full backward compatibility to MoCA 1.1 ; Support for up to 16 MoCA network nodes ; Throughput up to 800 Mbps
    * Expanded range of operating frequencies – 1150 MHz to 1650 MHz
    * Supports both parameterized and prioritized QoS
  - 1 USB host 3.0 for Accessories (option)
  - 2 FXS (option)

WIRELESS SECURITY
- WPA3/WPA2/WPA
- WPS
- Wi-Fi Alliance certified

IP FONCTIONS
- General:
  - NAT/PAT
  - DHCP client and server
  - DNS relay
- IPv6:
  - Dual stack
  - DSLite
- Routing:
  - Static/dynamic routing

- IGMP Proxy/snooping
- Firewall:
  - Address, port and protocol filtering
  - State full Packets Inspection
- Quality of service: DiffServ
- L2TP

VOICE OVER IP (VOIP)
- Protocol NCS, MGCP or SIP (PacketCable 1.5 and PacketCable 2.0 supported)
- Voice coding:
  - G711 (64 kbps)
  - G729 (8 kbps)

REMOTE MANAGEMENT
- Firmware upgrade by TFTP or HTTP
- Auto provisioning and remote configuration
- SNMP
- TR-069

ELECTRICITY SAFETY
- Compliant with EN 60 950, EN 41003

ENVIRONMENT
- Operating temperature: 5°C to 45 °C
- EMC: 89/336EEC, EN 55022 Class B, EN 55024
- Support IEEE 11b/g/n/ax main features (2.4 GHz)
- Support IEEE 11a/n/ac/ax main features (5 GHz)
- CE

PHYSICAL FEATURES
- External Power supply
- Size (L x D x H in mm): 190 x 65 x 222 to 235 (with foot)
- Weight (g): 950g

WHOLE HOME WI-FI AGENT INTEGRATED

Sagemcom F@st 3896 embeds Sagemcom Whole Home Wi-Fi agent ensuring the following services:
- 802.11k/v support
- Bandsteering 2.4 GHz / 5 GHz
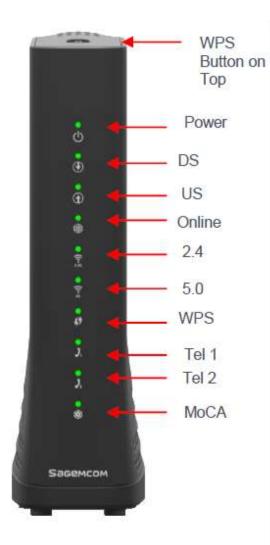- Wi-Fi performances reporting to cloud
- Troubleshooting report

SAGEMCOM

WPS
Button on
Top

Power

DS

US

Online

2.4

5.0

WPS

Tel 1

Tel 2

MoCA

Power
- ON: DC power present
- OFF: No DC power

Downstream
- OFF: no DOCSIS connection
- AMBER: DOCSIS 3.0 up
- GREEN: DOCSIS 3.1 up

Upstream
- OFF: no DOCSIS connection
- AMBER: DOCSIS 3.0 up
- GREEN: DOCSIS 3.1 up

Online
- ON: internet connection available
- OFF: internet connection unavailable

WLAN 2.4 GHz
- ON: 2.4GHz radio active
- OFF: 2.4GHz radio disabled

WLAN 5 GHz
- ON: 5GHz radio active
- OFF: 5GHz radio disabled

WPS
- ON: WPS active
- OFF: WPS not active

TEL 1
- ON: enabled and phone connected
- OFF: line disabled or no phone connected

TEL 2
- ON: enabled and phone connected
- OFF: line disabled or no phone connected

MoCA
- OFF: MoCA is disabled
- Blinking: MoCA is enabled
- ON: MoCA enabled with client connected

3x 1GE

1x 2.5GE

2x FXS

LAN 1000 Base-T (x3)
- ON: Ethernet link up
- OFF: Ethernet link down
- Blinking: Ethernet activity

LAN 2.5G Base-T
- ON: Ethernet link up
- OFF: Ethernet link down
- Blinking: Ethernet activity