

# SAGEM F@ST™ 3504

## 3-PLAY RESIDENTIAL GATEWAY HSI, VoIP, IPTV, MEDIA SERVER

- Advanced Routing for Home Networks
- Full speed integrated ADSL2+ or WAN Ethernet network interface
- Wi-Fi 802.11 b/g/n Access Point
- Fast Ethernet LAN interfaces
- Full routed IPTV distribution
- Phone ports and DECT offering VoIP services
- Life line
- VoIP to PSTN routing through FXO port
- USB Host for modular services distributed on the Home Network
- Automated Remote Management and software resiliency
- Intuitive self installation
- 3G Femto Cells and HSDPA back-up compatibility



# SAGEM F@ST™ 3504

## 3-PLAY RESIDENTIAL GATEWAY



The SAGEM F@ST™ 3504 Residential Gateways provides High Speed Internet, IP Television and Voice over IP services through your ADSL line. Those services are delivered by the gateway on your Home network to the PC's as well as Set-top-boxes, phones, gaming devices, printers through the integrated interfaces : Ethernet, Wi-Fi, USB, phone ports. SAGEM F@ST™ gateways offer cutting-edge performances even with the highest load of data, thanks to a unique combination: a hardware based on a distributed-architecture chipset and our open and evolutive software suite.

### Voice Services

The SAGEM F@ST™ 3504 integrates a SIP user agent offering several lines on the 2 phone ports available on the generic gateway. Each phone may offer a life-line, i.e. PSTN back-up in case of SIP network unavailability. Alternatively, the gateway can integrate a FXO interface allowing to re-route phone calls to/from PSTN upon configurable criteria : prefix, emergency numbers. The SIP UA is IMS evolutive.

The gateway may offer key exchange services such as call waiting, call hold, conditional call forward services, 3 party conference.

The gateway offers a DECT interface, either integrated or using a USB DECT dongle. The DECT interface supports HD sound based on G.722 codec.

### Multi-device connection

The SAGEM F@ST™ 3504 gateway has been designed to support heterogeneous connectivity : voice devices connected to FXS or SIP phones on LAN/WLAN, IP Set-Top-Boxes as well as Home Communication screens.

Thanks to the very flexible routing architecture of the gateway, those devices can be connected to their network using specific and adapted QoS rules. They can also interact in a Full Routed mode.

### USB services

The SAGEM F@ST™ 3504 can integrate up to 2 USB Host interfaces. The ports can host a printer, a hard drive or a memory stick. The gateway is able to detect them automatically and make the peripherals available to the LAN, the Wireless network and possibly to the WAN depending on protection policy.

Additionally, the gateway can integrate a DLNA server for dynamic multimedia exchange on the LAN. Alternatively, one USB interface can host an HSDPA adapter for WAN back-up.

### Wi-Fi

Two versions are available : IEEE 802.11 b/g, IEEE 802.11 b/g/n. The evolutive distributed architecture of the SAGEM F@ST™ 3504 allows cutting edge Wi-Fi throughput and coverage, even in heavy CPU load conditions.

The Wi-Fi interface offers state-of-the-art security up to WPA2 AES. Legacy WEP/WPA are also supported. Mac filtering is also available. The configuration of the WLAN network is greatly eased up by the WPS feature : the Wi-Fi Easy Pairing.

### Firewall

Despite the heterogeneity of the streams routed by the SAGEM F@ST™ 3504, the Home network is fully secured by a configurable firewall able to analyse all incoming traffic : Stateful Packet Inspection, complete address / port / protocol scan, intrusion detection, HTTP proxy.

### QoS features

The Quality of Service policy is a key to support multi-play services. The SAGEM F@ST™ 3504 includes :

- ATM service classes management : UBR/CBR/VBR
- IP Diffserv based routing : upstream and downstream
- Ethernet 802.1p based priority management
- Multiple VLAN management on LAN

### Remote management

The remote management is a key for end-user experience and operational cost savings. The SAGEM F@ST™ 3504 gateway supports TR-069, including the following : TR-098 data model, TR-104 voice provisioning, TR-111 home network provisioning. Additionally, back-door access to CLI and HTTP can be authorised.

### Zero touch configuration

All SAGEM F@ST™ gateways offer the most serene installation experience to end-users. The gateways can be largely pre-configured in our manufacturing facilities according to Service Provider network setup. Additional features make any remaining configuration really easy : Wi-Fi WPS Easy-Pairing, intuitive and evolutive GUI

### Eco design

We take particular care in minimising the impact of our gateways on the global environment. A minimum of plastic material have been used. The case is designed to be easily dismantled and recycled. We avoid mixing different materials. The SAGEM F@ST™ 3504 gateway can be equipped with a power controller that can be configured to switch power off according to the configured policy. Additionally, we design simple green packages as compact as possible to reduce CO2 emissions during transport.

## FEATURES SUMMARY

### NETWORK INTERFACE

- Multimode ADSL2+ (Annex A or B depending on model)
- Configurable WAN ETH interface

### USER INTERFACES

- 4 Ethernet 10/100BT
- 2 USB Host
- Wi-Fi 802.11b/g or n (depends on model)
- 2 FXS
- Optional FXO
- Optional DECT HD base
- Optional FXS re-injection

### WIRELESS FEATURES

- WMM 802.11e
- WEP/WPA/WPA2
- Mac ACL
- WPS Easy Pairing

### LAYER 2 NETWORKING

- ATM AAL5 UBR/CBR/VBR VC (up to 16)
- Encapsulations RFC2684, 2364, 2516
- Multiple session PPPoE / PPPoA
- 802.1q VLAN support
- 802.1p priority support

### ROUTING

- IPv4 / IPv6 support
- NATP N to M with evolutive ALG
- UPnP
- DHCP client / relay / server
- DNS Relay / Server / DynDNS
- IGMP V3 proxy / snooping
- IP Diffserv

### VOICE

- SIP/MGCP protocols
- SIP User Agent IMS-evolutive
- PSTN to FXS routing
- Codecs G.711 / G.729 / G.722
- DTMF in & out of band
- Customised tones
- MWI / Call Hold / Forward / Transfert
- 3 party call
- T.38 fax support

### USB SERVICES

- DLNA
- IPP
- File sharing Samba / Webdav

### REMOTE MANAGEMENT

- TR-069 / TR-098 / TR-104 / TR-111
- FTP / HTTPS resilient upgrade

### ENVIRONMENT & CERTIFICATIONS

- Operating conditions 0°C to 45°C
- CE compliant :
  - EN 60950
  - EN 50371
  - EN 300 328
  - EN 301 489
- Wi-Fi bg certified

### PHYSICAL FEATURES

- Size 230 x 175 x 34 mm
- Weight 800 g
- External power supply
- 200/240V~50/60Hz
- Output 12V – 1.5A
- Generic packaging size 250 x 193 x 100 mm

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## SAGEM COMMUNICATIONS

### Broadband and Residentials Terminals Business Unit

Headquarters: Le Ponant de Paris

27, rue Leblanc - 75015 Paris - FRANCE

Tel: +33 1 53 23 72 73 - Fax: +33 1 53 23 28 95

[www.sagem-communications.com](http://www.sagem-communications.com)

