

# Samurai

ADM6996M/I/LC/FC and ADM6995LCL2  
Ethernet Switch Controllers



Samurai is a high performance, low cost, integrated (Controller, PHY and Memory) six-port Ethernet switch controller with all ports supporting 10/100 Mb/s Full/Half duplex operation.

Advanced features such as Layer 4 QoS, 802.1p(QoS.), 802.1q(VLAN), bandwidth control and switch management functions make the Samurai one of the most innovative and economical low-port switches available in the market.

Some of the Samurai's benefits include low temperature and a small footprint for complete design flexibility, advanced network monitoring functions using the Port Mirror feature, Hardware and Software IGMP for VOD and excellent L4 Quality of Service (QoS) performance for Multimedia applications.

The Samurai was designed using a New Design Application (NDA) making it one of the most economical solutions available. With five different packaging options: Samurai 6M, 6I, 6LC, 6FC & 5LC and pin compatibility with the legacy ADM6996/5L/F series, the Samurai offers smooth migration as well as new design flexibility for Infineon's system vendors.

## Applications

- ADSL Routers
- Wireless/Wired Routers
- Home Gateways
- Cable Modems
- Web DVDs

## Product Features

- 10/100 Mbps MDIX TX/FX transceivers with five/six-port 10/100M Ethernet L2 switch controller
- Hardware and Software IGMP, MAC Table Access and Port Mirror functions
- L4 Ethernet Q.O.S.; Security Functions: 802.1x, MAC Address and "Accept/Reject" address control
- dScalable Ingress/Egress Bandwidth Control- 64K~100M with 64K/Scale.
- Port Mirror, Spanning Tree, Special Tag
- PPPoE Identification- Receive PPPoE packet only
- 16 VLANs. Learn 12 Bits VLAN ID.
- Supports MDC/MDIO applications
- 128-pin LQFP package
- New features only available in the ADM6996M/I packages:
  - IPv4/v6 DiffServ priority
  - TAG PRI Replacement- IGMP snooping
  - Spanning Tree
  - 802.1x, Port Mirroring and special Tag
  - PPPoE and SNAP/ARP/RARP
- New features unavailable in the ADM6996L/F and ADM6995L legacy products:
  - 2K, 4-layer hashing, accessible address table
  - TCP/UDP destination port MAC Address DA priorities
  - Maximum packet length support: 1784bytes
  - RMII MAC interface
  - Low power (1.0W)
  - Advanced filter support such as TCP/UDP Destination Port, IP Protocol ID and Ethernet Type
  - Multicast Broadcast Storm protection
  - 16 and 32bit SDC/SDIO ADSL Routers

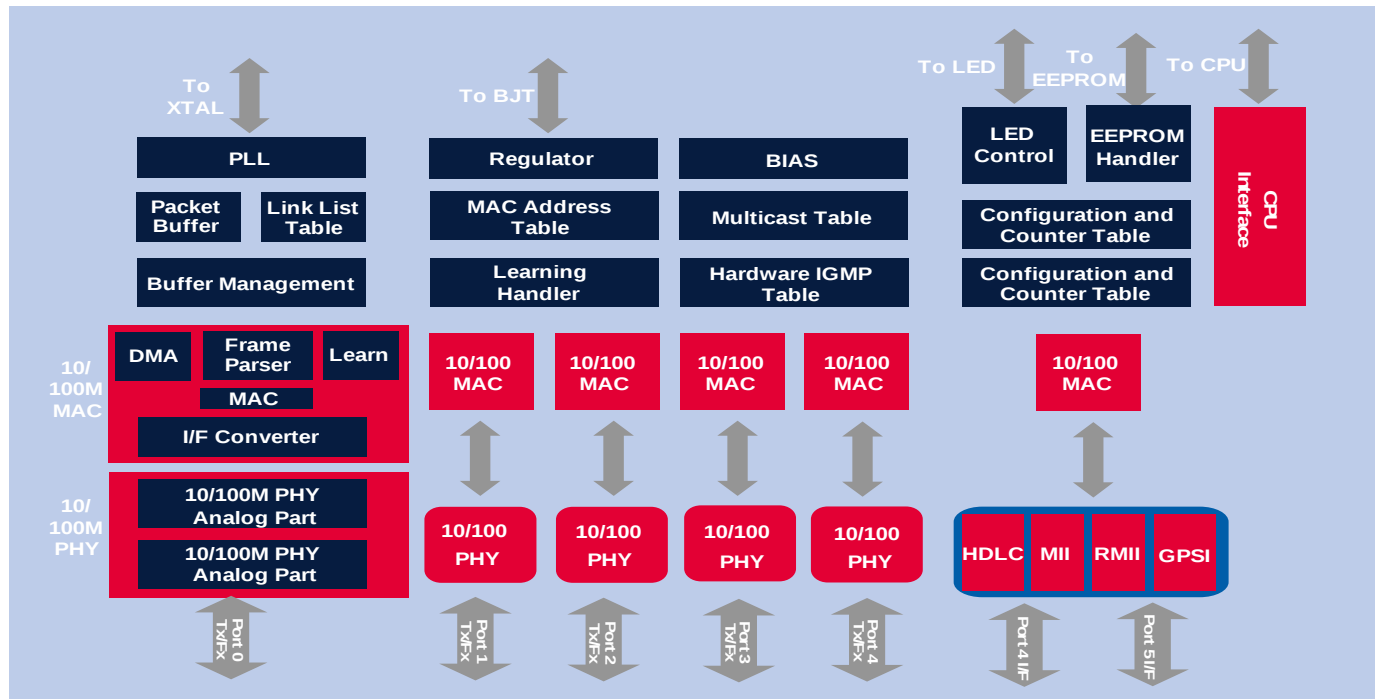
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Communications Solutions



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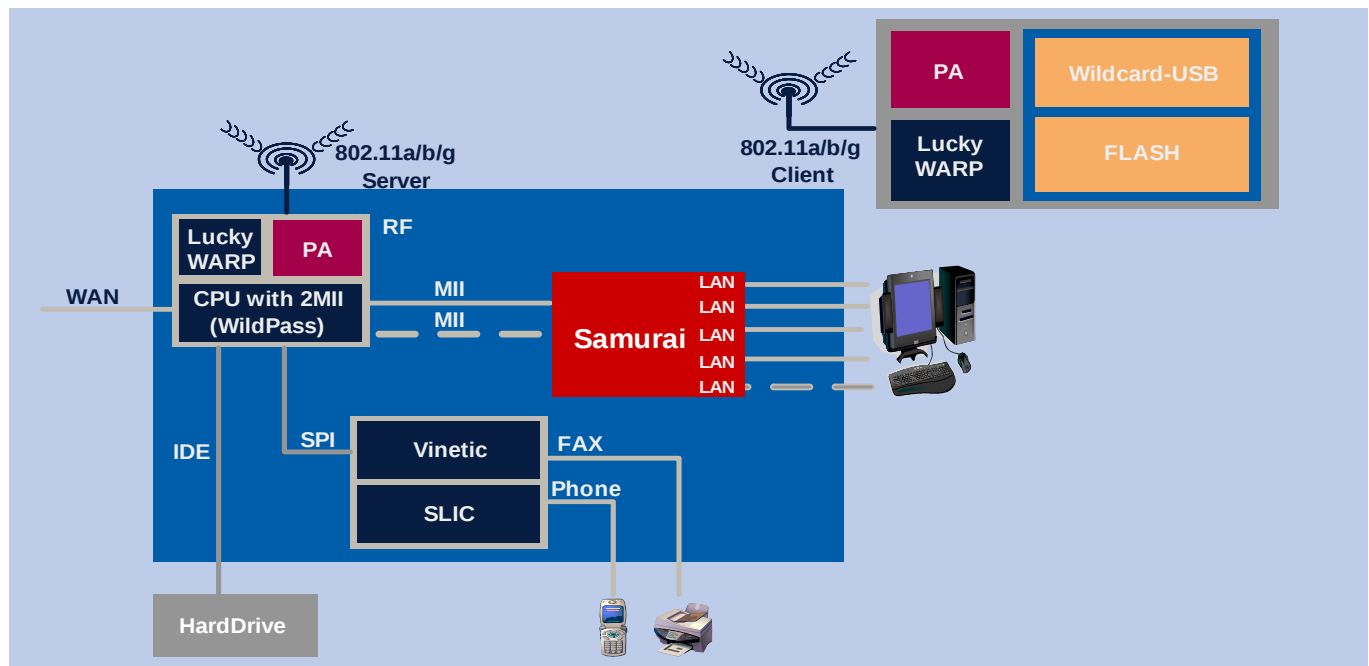
## Samurai Block Diagram



## Samurai Product Summary

| Product | Sales Code                    | Description                   | Package  |
|---------|-------------------------------|-------------------------------|----------|
| Samurai | ADM6996LC/FC/II/M & ADM6995LC | L2 Ethernet Switch Controller | 128-LQFP |

## Samurai Application Example



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