Infineon® TANTOS

L2 Seven Port 10/100Mbps Ethernet Switch Controller

The Infineon® TANTOS is the next generation of high performance, high integration five-port Ethernet Switch Controller especially designed for digital home applications such as ADSL/VDSL router, wireless router, EPON/GPON router, IAD, IP set top box, HomePNA/HomePlug, VoIP and video applications.

The TANTOS provides most advanced Ethernet Swich Controller functions including priority features by Port-Base, VLAN, UDP/TCP destination port number, ranged UDP/TCP port and IP TOS field checking. With its 802.1p (QoS), Layer4 QoS, 802.1q (VLAN), security, bandwidth control/guarantee, port mirror, IGMP and management functions, the TANTOS meets perfectly customer requirements on multimedia applications. Each output port comprises of four queues in the way of programmable rate fairness queuing, strictly and assign bandwidth to fit the bandwidth demand on various packet types such as voice, video and data. In addition, F 802.1Q, Tag/Untag and up to 16 groups of VLAN are also part of the TANTOS feature set.

To build internet access and to prevent un-authorize or multiple users sharing one port traffic, the TANTOS performs security and port locking functions.

Applications

- ADSL2+, VDSL2, wireless, wire and gateway
- IP set top box and IPTV
- FTTH PON, voice, video, NAS applications
- HomePlug/HomePNA/MoCA router
- Web management switch for cyber home

Features

- Five 10M/100M ports with TX/FX interfaces and three RGMII/GMII/TMII/MII MAC port
- 2K MAC address tables
- Four queues for QoS priority features by Port-Base, TCP/UDP destination port application-based, diffserv, 802.1p, IP TOS of packets and ranged TCP/UDP port
- Four queues mechanism include Weight Round Robin, strictly & assign bandwidth
- Supports packet lengths up to 1518/1522 (Default)/1536 bytes in maximum
- Scalable ingress per port bandwidth control (Step = 64K, up to 100M)
- Broadcast/Multicast storm suppression

- 802.1Q VLAN: Up to 16 VLAN groups are implemented by full 12 bits
- PPPoE Video Packet Processing
- Support management RMON counter
- IGMP V1/V2/V3 & IPv6 MLD 1/2
- 32 hardware IGMP table (multicast table) with HW join and fast leave
- Support ACL: MAC address, Ether Type, Reserved 802.1D address, TCP/UDP SA/DA Port, protocol ID
- Supports 802.1x security function
- Support quick spanning tree protocol, port mirror
- Support special tag for easy packet control
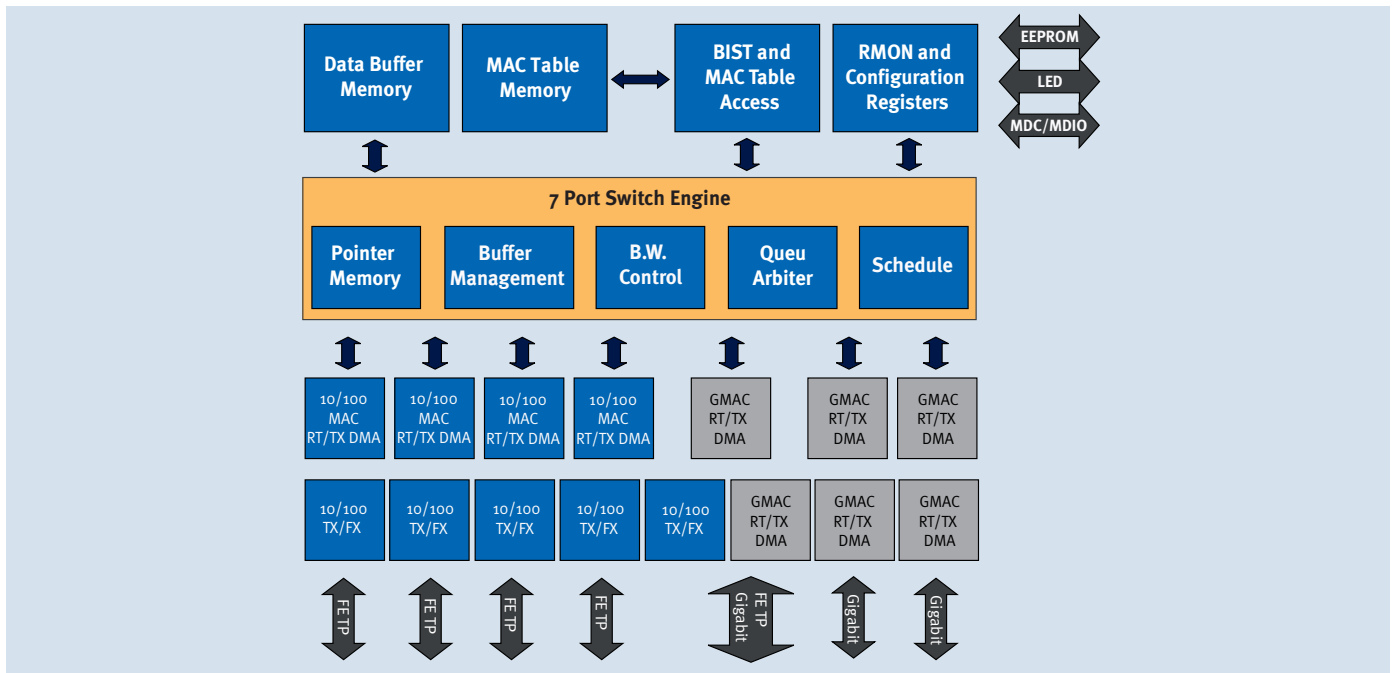- 100 pins/225 pins, 1.5V/1.8V/3.3V power source

Communication Solutions

Never stop thinking
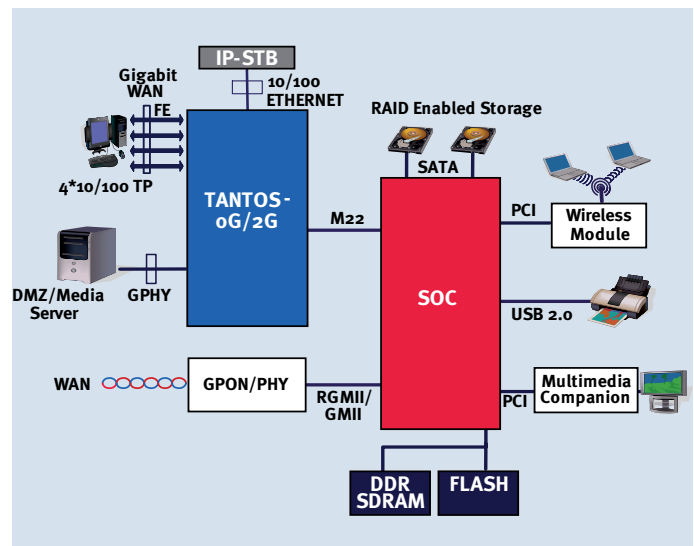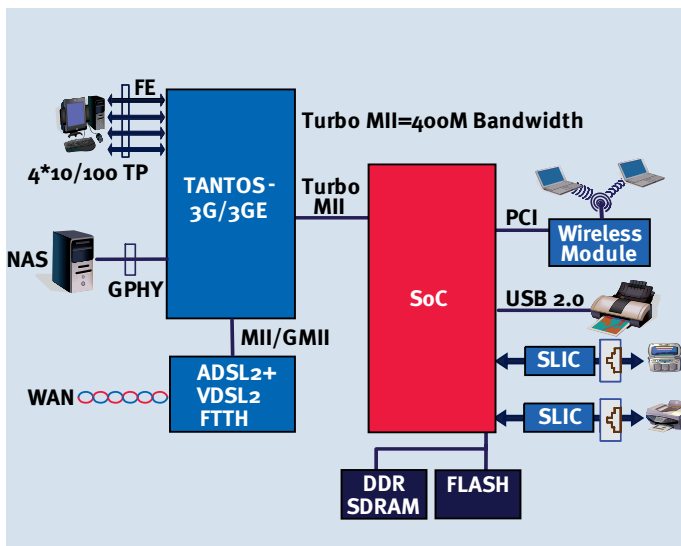
TANTOS Block Diagramm

Application Examples

Product Summary

Type	Sales Code	Description	Package
TANTOS-2G/0G	PSB 6972	Five 100/10 TP/FX plus two RGMII(2G)/TMII/MII	LQFP 100
TANTOS-3GE/3G	PSB 6973	Four/Five 100/10 TX/FX plus three/two RGMII/GMII/TMII/MII	LFBGA 225