

Overview

UdpStack is a set of VHDL cores implementing UDP stack for FPGA applications, UdpStack is the ultimate Offload Engine. UdpStack allows users to reach high throughput (1Gbit/sec full duplex) with or **without processor**.

UdpStack is directly connectable to **Xilinx TEMAC** or we can add our own MAC if your FPGA does not include one.

UdpStack_SOC software interface is directly compatible with the Xilinx “EthernetLite”, and we provide drivers for standalone and **LINUX** applications.

UdpStack is always provided with one or more application examples, some demo boards are directly supported by our application examples.

UdpStack is available under three versions :

	Lite	Multi	SoC
Speed	Up to 40% of Phy capacity	Up to 1Gb	Up to 1Gb
10/100/1000 select	Manual	Auto	Auto
Socket UDP	1	Multi	Multi
ARP-PING	Limited	Full	Full
Dedicated MAC @	16	256	256
Targeted design type	Hardware	Hardware	Hardware/Software

Features

High performances but low resources :

- “**Easy To Use**”, a real plug and play module
- High speed, user can reach the full link bandwidth
- Protocols : UDP, IP, ARP*, ICMP* * : *can be removed if handled by the software*
- Support Jumbo frames
- Handle clock domain crossing, for direct connection to user clock domain
- Provided with 256 dedicated MAC addresses

Applications

- Video Over IP, MPEG-TS over UDP/IP (RTP)
- Voice Over IP, SIP/RTP over UDP/IP (RTP)
- High throughput connectivity with or without processor
- Embedded OS application : Linux, uC-Linux
- WEB2.0 mixed High throughput data transfer