

More than a silicon provider Your Open HomePlug AV Solution Partner



SPC310 HomePlug AV SoC

SPC310 is the cost optimised version of the award winning SPC300 "No-limits" HomePlug AV System on Chip. Based on the same dual core and Linux open architecture, it enables innovative designs and complete product differentiation.

Features

- Advanced dual core architecture
 - 10/100 Ethernet MAC, RMII PHY Interface
 - Multimedia interfaces: PCM, I2S, MPEG TS
 - General purpose interfaces: GPIO, UART, SPI
-
- **20x20 mm 176-contact PQFP** RoHS compliant package
 - Low-power "green" standby mode
 - Supports "industry standard" AD9867 ADC/DAC front end
 - Open Architecture based on Linux V2.6
-
- HomePlug AV compliant MAC & PHY
 - Supports 1024/256/64/16/8-QAM, QPSK, BPSK and ROBO Modulation Schemes
 - 128-bit AES Link Encryption with easy plug&play key management
 - Co-existence with HomePlug 1.0 nodes
 - Advanced Turbo Code FEC (France Telecom patents license)
 - TDMA and CSMA/CA access protocols with ToS, CoS and IP Port Classifiers
 - IGMP managed multicast sessions
 - Interoperable with upcoming IEEE 1901 standard

Dual core architecture

The first processor is dedicated to the physical layer management and all real-time requirements. It enables the SPC310 SoC to adapt to the changes in the electrical power lines and to react accordingly in order to maintain the highest levels of performance possible. The second processor, an ARM926, is dedicated to applications.

Network interface

The SPC310 provides a fast Ethernet interface to allow high-speed powerline networking. The interfaces provided allow both 802.3 MAC-to-PHY and MAC-to-MAC connections at fast Ethernet speed.

Open Architecture

SPiDCOM provides partners with Linux source bundles and the complete tool chain to develop and customize added-value applications. Add support for VLANs, a full IP stack, router, TR-069, SNMP, and HTTP.

In addition, the multimedia and general purpose interfaces allow cost-effective solutions for HD/SD IPTV set-top boxes, home-gateways, DVRs, media centre PCs, whole house audio and VoIP. They also support traditional networking applications such as bridging to wireless 802.11 networks and xDSL/FTTH broadband.

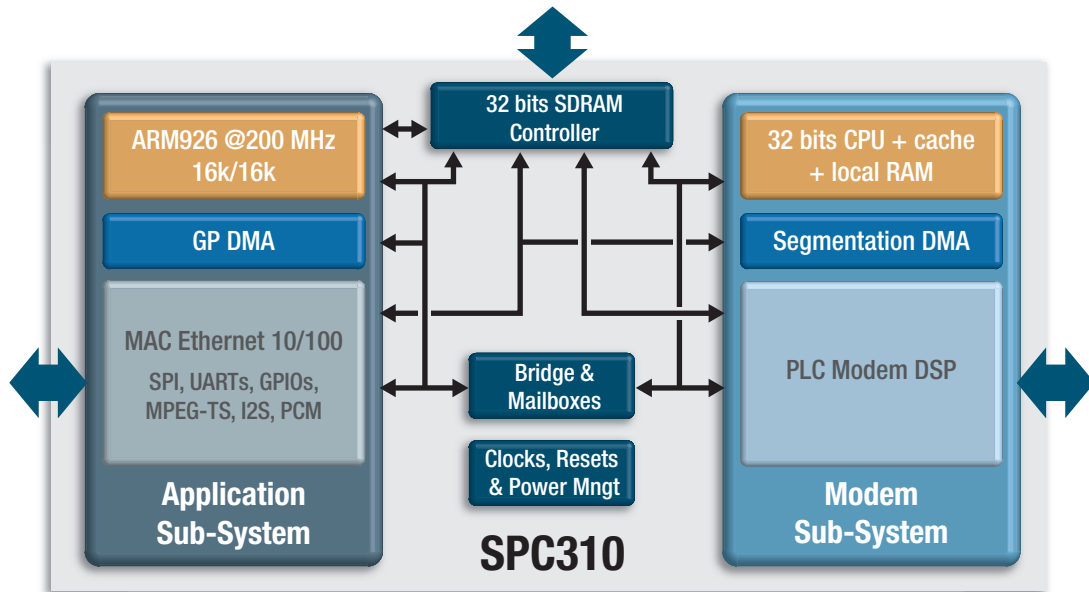
HomePlug AV Standard

The SPC310 implements HomePlug AV technology which is optimized for multimedia (e.g. HD IPTV) streaming applications. The SPC310 delivers up to 200 Mbps over difficult electrical power lines, using windowed OFDM, advanced Turbo Code FEC, and dynamic line-cycle synchronized channel adaptation.

Flexible QoS to ensure your QoE

To ensure efficient and reliable streaming of broadcast quality HD and SD video, the SPC310 implements both prioritised and parameterized QoS. Prioritised QoS is useful for efficient VoIP using CSMA/CA. Parameterized QoS is needed for guaranteed bandwidth reservation, latency/jitter control and effective error free delivery.

SPC310 Bloc Diagram



SPC310 based applications include:

- HD & SD video streaming, Over-The-Top video
- Broadband Internet
- VoIP services
- Audio
- Gaming

SPC310 package includes:

- SPC310 Datasheet and Technical Reference Manual
- Schematics, BoM and Gerber files of the Reference Designs
- Firmware
- SPiDCOM Development Kit and Software Bundle Documentation
- Application Notes

About SPiDCOM Technologies

SPiDCOM Technologies is a fabless semiconductor company.

We provide open System-on-Chips and Linux based software bundles for “no-limits” developments offering complete OEM/ODM product differentiation (hardware, software, system).

Thanks to its unique mix of communication technologies, networking and system expertise, SPiDCOM Powerline Communication solutions can convert any wire into a broadband communications network. Applications include HomePlug AV Home Networking, EoC (Ethernet over Coax), Access BPL, Smart Grid and Smart Energy.

SPiDCOM headquarters are located in Paris, France, with subsidiaries in Beijing, China, and Belgrad, Serbia.

SPiDCOM, much more than a silicon provider, your “no-limits” solution partner.



Headquarters

137 Avenue General Leclerc
92340 Bourg La Reine
FRANCE
Phone: +33 1 41 87 91 90
Fax: +33 1 41 87 91 91

SPiDCOM Beijing

RM.709
VanPalace, Chaoyang District
Beijing 100020 - CHINA
Phone: +86-10-6561 0909
Fax: +86-10-6561 0505

SPiDCOM Eastern Europe

Omladinskih Brigada 88
B1500
11070 Belgrade
SERBIA



info@spidcom.com
www.spidcom.com