



Sense

Position sensors
Current sensors
Temperature sensors
Pressure sensors
Time-of-Flight
Environmental sensors



Store

Industrial Flash products
Industrial DRAM
Flash Controllers



Connect

Ethernet
RJ45 Jacks | Transformers
Antennas
Bluetooth | WiFi | Zigbee | RFID | ISM | GPS
Industrial modems + routers
Mobile network analysers

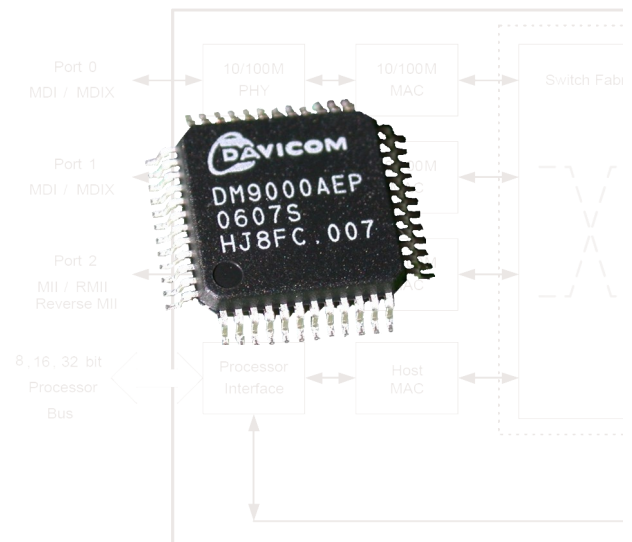




Networking and communication IC's

About Davicom

In 1989, United Microelectronics Corporation (UMC), one of the largest semiconductor manufacturers in Taiwan, set up the Communication Product Division to develop Networking products. Later in May of 1996 Davicom Semiconductor Inc. was founded. Today Davicom has successfully become one of the leading IC design houses in Taiwan. They aim to manufacture the most professional technique of Communication and Network ICs. By way of mixing signal design and IC integration, Davicom provides customers with the best solutions of SoC chipsets in Local Area Network (LAN), Wide Area Network (WAN), Personal Computing (PC), and internet areas.



MAC/PHY Controller

The single-port embedded ethernet controller chips support SPI/8/16/32-Bit parallel and PCI Bus Interfaces. They integrate a Fast Ethernet MAC+PHY and 4k Dword SRAM in a low lower and high performance process that supports 3.3V with 5V IO tolerance. All controllers are fully compliant to IEEE802.3 and support HP's Auto MDI-X feature.

All controllers support generation and validation of TCP/IP and UDP checksum to reduce application controller load. Early TX minimizes the latency of the device.

Drivers for Windows CE, VX Works and Linux are available for quick and easy integration.

MAC/PHY Controller										
Product	Interface			External Interface	Speed (copper)	MDI-X	Max. Current	Temperature Range		Package
	8/16-bit	32-bit	PCI					MII/RMII	Mbit/s	
DM9000B	✓				10/100	✓	130 + 40*	✓	✓	LQFP 48
DM9010B	✓	✓		✓	10/100	✓	130 + 40*		✓	LQFP 100
DM9102H			✓	✓	10/100	✓	130 + 40*	✓	✓	LQFP 128

* with transformer

Networking and communication IC's



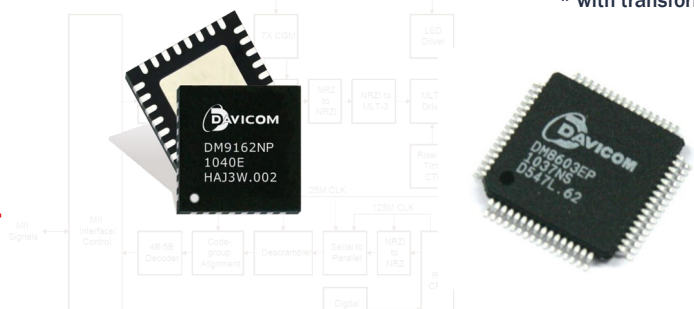
Single PHY Transceiver

Davicom's single-port PHY series are low power Physical Layer Transceiver in LQFP-48 and QFN-32/24 packages. They are fully compliant to IEEE 802.3, IEEE 802.3u 10Base-T / 100 Base-TX and ANSI X3T12 TP-PMD 1995 standards.

The front-end can drive 10Base-T, 100Base-TX TP-transformer and FX-transceiver. Available Interfaces for connection to MAC layer chips, switches or microcontrollers with integrated MAC are MII, RMII and SMI/GPSI. An integrated wave filter saves external filters for the signal forwarding in 100Base-TX or 10Base-T modes.

Single PHY Transceiver									
Product	Interface	Speed (copper)	Speed (fiber)	MDI-X	50 MHz RMII Clock	Max. Current	Temperature Range		Package
		Mbit/s	Mbit/s			mA	0°C–70°C	-40°C–85°C	
DM9161A	MII/RMII	10/100		✓		52 + 40*	✓		LQFP 48
DM9162	MII/RMII	10/100	100FX	✓	✓	90 + 40*	✓	✓	LQFP 48 QFN-32
DM9119	GMI/RGMII	10/100/1000		✓	✓	100	✓	✓	QFN-64

* with transformer



Switch Controller

Davicom's fully integrated switch controllers are a cost-effective solution for multiple situations. Providing several interfaces from 8-bit to PCI, they offer the flexibility for almost any architecture. Equipped with up to six ports and an extended temperature range, the switch controllers fit to most applications.

Switch Controller													
Product	Interface					Speed (copper)	MDI-X PHY	Ports	STP	Temperature Range		Max. Current	Package
	8/16-bit	32-bit	PCI	MII/RMII	RGMII					Mbit/s	0°C–70°C		
DM8603				✓		10/100	2	2	✓ +RSTP	✓	✓	280 + 80*	LQFP 64
DM9006	✓					10/100	2	2	✓	✓	✓	280 + 80*	LQFP 64
DM9016	✓	✓		✓		10/100	2	3	✓	✓	✓	280 + 80*	LQFP 128
DM9106			✓	✓		10/100	2	3	✓	✓	✓	350 + 80*	LQFP 128
DM8806				✓	✓	10/100/1000	5	6	✓ +RSTP +MSTP	✓	✓	510 + 240*	QFP 128

* with transformer



Siretta

Enabling the Industrial IoT

Cellular Network Analysers

Due to the high demand of application specific solutions in the IoT marketplace, Siretta has designed a range of industrial products which satisfy many of these key areas.

Siretta offer everything from embedded industrial modems which can be integrated directly into customers applications to signal analysers which offer a complete breakdown of network availability. Sirettas industrial routers offer a stable, robust and fast network connection for your connected equipment which allow you to offer additional services and enhanced solutions to many different industry sectors.

Cellular Network Analysers

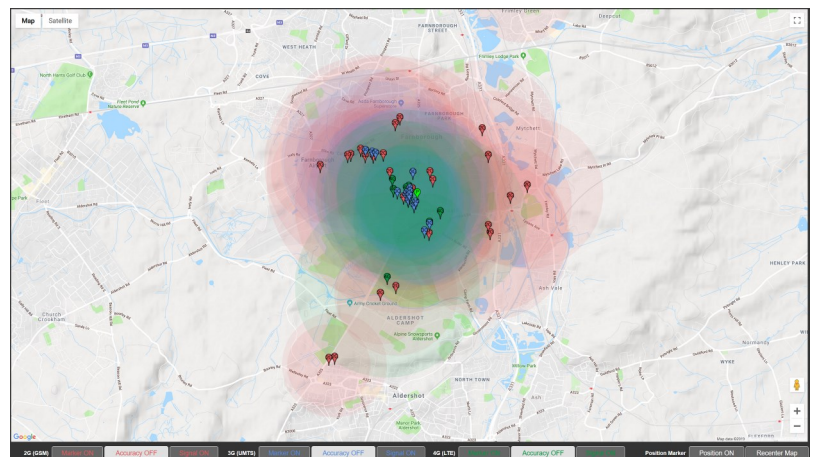
The SNYPER family of signal analysers is sophisticated yet easy to use with a large and bright, full colour display. The range is offered in both 2G/3G and 2G/3G/LTE cellular technologies to cover all network cell towers in use today. The SNYPER is a hand held, battery operated unit and can operate for several hours between charges (depending on use). It analyses all cellular signals from any network at any particular site being surveyed and displays the results in a simple and easy to understand format.



Snyper Network Analysers										
Type	Frequency Coverage	2G GPRS	3G UMTS	4G LTE	LTE Cat.M NB IoT	Save 50 surveys	Scan Realtime	Autosave	RTC	Temperature Range
SNYPER-3G	Global	✓	✓							-10 °C to 50 °C
SNYPER-3G Spectrum	Global	✓	✓			✓	✓			-10 °C to 50 °C
SNYPER-LTE+	EU / US	EU	✓	✓						-10 °C to 50 °C
SNYPER-LTE+ Spectrum	EU	✓	✓	✓		✓	✓			-10 °C to 50 °C
SNYPER-LTE Graphyte	EU / US	EU	✓	✓		✓	✓	✓	✓	-10 °C to 50 °C
SNYPER-LTEM	Global	✓			✓				✓	-10 °C to 50 °C

CloudSURVEY Map Portal

The CloudSURVEY portal allows you to export and save all of your cellular survey results from a compatible SNYPER product to your account in the cloud. The CloudSURVEY software has a host of features, allowing you to view approximate base-station positions on a map and determine the most suitable network for your application. The CloudSURVEY portal simultaneously calculates the entire available network resources in the area where the survey was performed and displays the relative dominance of each mobile network operator. This allows you to make an informed decision about the optimal cellular network, taking into consideration network technology, network reliability, average signal strength, base-station position and network density.



Industrial Modems & Routers Antennas, RF Cables



The Siretta industrial modem & router solutions are a family of cellular enabled modems which have been designed to an industrial specification to allow an easy connection for remote devices over the internet. The family of products supports a standard set of features including a wide range and robust power supply, RS232 and USB serial connectivity and extended temperature spec as standard.

Each member of the family supports an embedded TCP/IP stack for simple network connectivity and an enhanced set of AT commands to support many advanced features such as FTP, email, SMS, CSD, direct socket connections and over the air software updates. As a result the units are designed to be used as a direct replacement for existing equipment and can be easily setup with the correct commands to operate out-of-the-box.

The industrial modem family can be configured to detect the cellular network provider, signal strength and can perform a complete network survey to establish the optimum network for the location.

Cellular Modems

Industrial Cellular Modems										
Type	Frequency Coverage	2G GPRS	3G UMTS	4G LTE	LTE Cat M LTE NB IoT	RS232	USB	Low Power	GPS	Temperature Range
ZETA_NLP-LTEM	Global / EU	✓			✓	✓	✓	✓		-40° C to 85° C
Zeta-N-LTE	EU	✓	✓	✓		✓	✓			-40° C to 85° C
ZETA-UMTS	Global	✓	✓			✓	✓		Optional	40° C to 85° C
ZETA-GPRS	Global	✓				✓			Optional	40° C to 85° C



Cellular Routers

Industrial Cellular Routers										
Type	Frequency Coverage	Mobile Band	WiFi	GPS	10/100 LAN -Ports	SIM Slots	Serial I/F	GPIOs	Temperature Range	
QUARTZ	EU	2G/3G or 3G/4G	Optional	Optional	2	2	RS232	3	-30° C to 70° C	
QUARTZ Gold	EU	3G/4G	2.4/5GHz	Optional	1 (Gbit/s)	1	RS232 RS485		-30° C to 75° C	

Antennas

The antennas from Siretta are available in different mounting types and cover either one, or — as combo antenna — several frequency ranges from the groups

- 2G/3G/4G/Wifi4/5/6 / ZigBee / Bluetooth
- GPS/GNSS
- ISM151-2450 / LoRa/Sigfox



IIoT communication modules

About REYAX

Established in 2008, REYAX Technology Co., Ltd is a total solutions provider of high quality modules, engineering designs and supply chain services to electronics manufacturers. Their portfolio includes MQTT IoT Cloud Platform-/Bluetooth-/Wi-Fi-/RFID-/GPS-/LoRa- and NB-IoT-modules that can be applied in fields of industrial electronics, security monitoring or Internet of things.

Under the background of profound electronic technology, Reyax establishes a solid foundation of professional technical services and provides customized services such as design and development, in order to help customers enter the target market and expand their business.

Wi-Fi modules

- Standard form factors available
 - USB M.2
 - PCIe M.2
 - solderable module
- Linux support
- 2.4GHz and 5GHz (802.11a/b/g/n)
- Additional integrated Bluetooth 5.0 module
- 40°C - +85°C
- Ultra low power versions available
- DVK's available



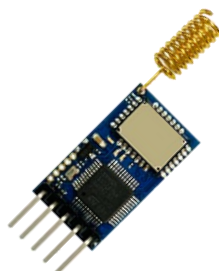
RFID/NFC

- 13.56MHz RFID & NFC systems
- ISO14443A/B, ISO15963
- ISO/IEC 18092, FeliCa
- Integrated Encoders & Decoders
- Active and passive target
- 40°C - +85°C
- Reader module available as miniPCIe



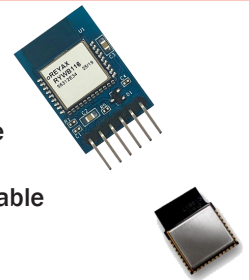
3G/4G

- 3G WCDMA 7.2Mbps & GNSS
- LTE Cat1 / Cat4 up to 150Mbps
- Optional WiFi / WiFi Hotspot
- 40°C - +85°C
- Mini PCIe Card (USB 2.0) and plug PCB versions available



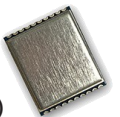
Bluetooth

- Bluetooth 4.2/5.0/5.1
- Long Range versions available
- 40°C - +85°C
- Ultra low power versions available
- DVK's available



ISM

- Sub-GHz RF Transceiver (433/868/915MHz)
- Ultra low RX current consumption (4.5mA)
- High RX sensitivity
- Programmable data rate (2Kb/s to 150kb/s)
- Programmable TX power (-40dBm to 12dBm)
- 3- or 4-wire SPI interface
- 40°C - +85°C



GPS/Glonass/BeiDou

- GPS/GLONASS/SBAS/QZSS/BeiDou and Galileo
- Ultra low power versions available
- Mini PCIe / M.2 / Module versions available
- 40°C - +85°C



LoRa

- Wide product range (426 to 915MHz)
- Transceiver modules and modems
- High sensitivity
- Controlled via AT commands
- Small size solderable or miniPCIe module
- 40°C - +85°C



Ethernet Transformers RJ45 Connectors



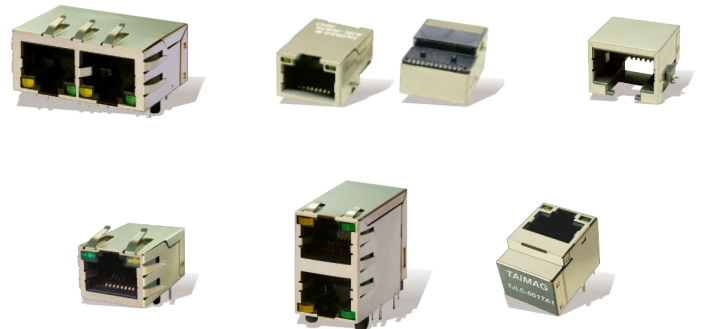
About Taimag

Taimag was founded in 1977 with its headquarters located in Kaohsiung, Taiwan. The first years of production were focused on transformer type designs. Learning from their initial transformer designs, Taimag now produces a diversified list of magnetic products, which include 10/100 Base to 1000 Base Transformers, ADSL, ISDN, and Home LAN components for high frequency applications. Additionally Taimag produces DC/DC converters, common mode EMI suppression components, chokes and filters.

As one of the worldwide leaders in supply and manufacturing, Taimag offers an extensive line of state-of-the-art catalog products at a cost effective rate. Taimag is a global supplier of components to OEMs, contract manufacturers and CEMs. Taimag is an ISO9001 certified company and their products are recognized and approved by UL (Underwriters Laboratory).

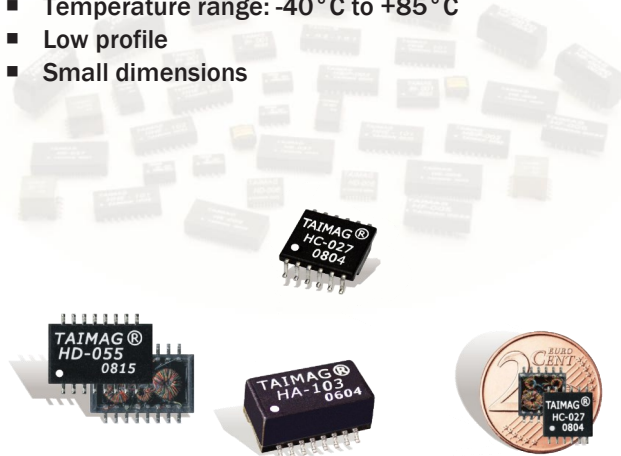
Features

- Low profile for space critical applications
- Extended temperature range (-40 °C to +85 °C)
- A variety of port combinations
- Versatile LED configuration possibilities
- Combined connector with USB
- Customized solutions available
- First and Second source w. cross-reference to competitors
- Samples available on request for evaluation



Transformers

- 1-, 2-, 4-port
- 10/100/1G/2.5G/10G Base-TX
- Auto MDI-X
- Power over Ethernet (PoE) - 350—700mA
- Temperature range: -40 °C to +85 °C
- Low profile
- Small dimensions



RJ45 Connectors

- With / Without:
 - 10/100/1000Base-TX Transformer
 - LEDs
 - Metal shield
 - EMI finger
 - USB ports
- THT / SMD
- Auto MDI-X
- Power over Ethernet (PoE)
- Tab up, Tab down
- 90° / 45° / 180°
- Multiport / Stacked Multiport
- USB-A Ports
- Extended temperature range: -40 °C to +85 °C
- Low Profile

About Ubec

Founded in 2002, Uniband Electronic Corporation (UBEC) is an international fabless semiconductor company specializing in the design and manufacture of ICs for wireless applications. With its headquarters in Hsin-Chu Taiwan, UBEC focuses on the development of the front-end devices and system solutions that utilize Radio Frequencies. UBEC offers various RF solutions and places a high priority to work closely with their BB, MAC, and micro-controller partners. Their mission is to develop high quality products with competitive price-/performance ratio and time-to-market advantages.

Product Range

- 2.4 GHz Transceiver ICs
- 2.4 GHz Modules
- Sub-GHz Transceiver ICs
- Sub-GHz Modules

Transceiver IC Features

2.4 GHz

- ISM Band 2.405 - 2.480 GHz operation
- IEEE 802.15.4
- Hardware CSMA-CA mechanism
- Dual RX FIFOs
- Hardware security engine
- optional ARM Cortex M0

Sub-GHz

- Regional operation bands (863–930MHz) for worldwide usage
- IEEE 802.15.4
- High RX sensitivity (-91dBm - 105dBm)
- Hardware CSMA-CA mechanism
- Automatic ACK response supported
- FCS check supported

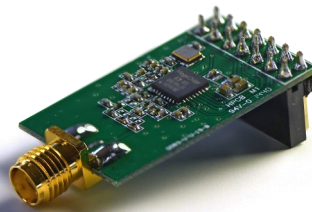
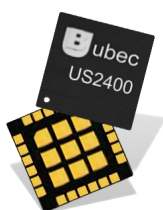
Module Features

2.4 GHz

- ISM Band 2.405 - 2.480 GHz operation
- IEEE 802.15.4
- 3V - 3.6V V_{CC} , 1.8V V_{CC} version available
- Low power/current consumption
- PCB antenna or SMA connector
- Small Dimensions
- Shielding case optional

Sub-GHz

- Regional operation bands (863–930MHz) for worldwide usage
- IEEE 802.15.4
- 2V - 3.6V V_{CC}
- GFSK/FSK/MSK Modulation
- Programmable output power
- SMA connector
- Small Dimensions
- Shielding case optional



Hardwired TCP/IP Chips



About WIZnet

WIZnet is a fabless IT company that provides internet processors for the IoT. They are the sole innovator to patent the hardwired TCP/IP technology into a microprocessor chip in 2001. Since then, a yearly average of 10 million WIZnet chips have been used in various embedded internet devices worldwide. WIZnet is the trend leader of open source hardware. Their TCP/IP hardwired Chips integrate Layers 1 (PHY) and 2 (MAC) and additionally Layers 3 and 4 (TCP/IP) of the Ethernet protocol on a gate level. The WIZnet solution is integrated in Arduino's Ethernet Shield and has been recognized as de facto standard for IoT.

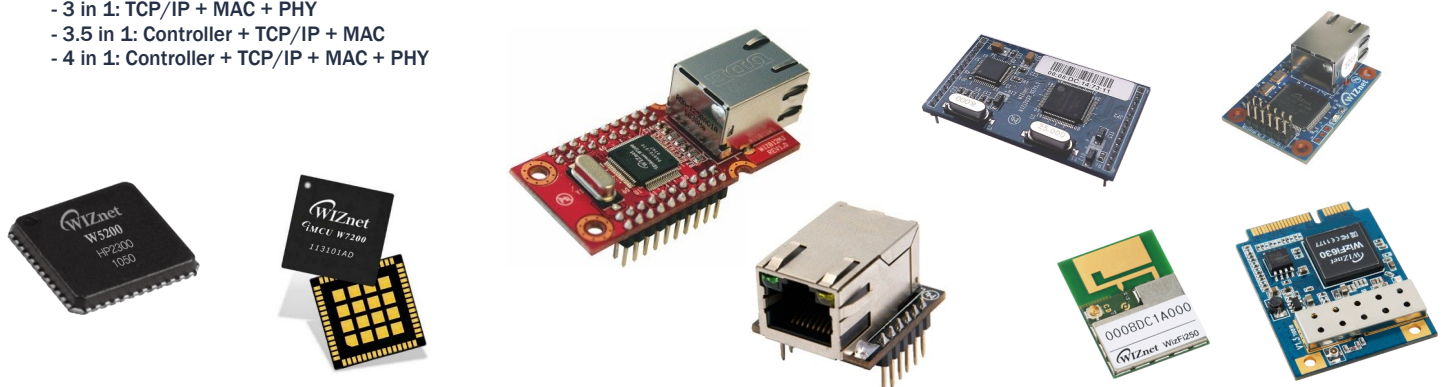
All products are available as IC or as several versions of modules with advanced features for applications to be connected to the networked world. The portfolio consists of I/O Modules, Serial-to-Ethernet Modules and wireless modules. Please contact us for more detailed information.

TCP/IP Hardwired Stack ICs

TCP/IP Hardwired Stack											
Product	Integration	Interface				Speed Mbit/s	PHY	Max. Sockets	Buffer	Temperature Range	Package
		SPI	8-bit	16-bit/DMA	MII / RMII						
W5100S	3 in 1*	✓	✓			10/100	MDI-X	4	2x8kB	-40°C - 85°C	LQFP 48 QFN 7x7
W5300	3 in 1*		✓	✓	✓	10/100	MDI-X	8	128kB	-40°C - 85°C	LQFP 100
W5500	3 in 1*	✓				10/100	✓	8	32kB	-40°C - 85°C	LQFP 48
W6100**	3 in 1*	✓	✓			10/100	MDI-X	8	32kB	-40°C - 85°C	LQFP 48 QFN 7x7
Internet Offload Processor											
		RAM	Flash	Controller	Ext. I/F						
W7100A	4 in 1*	64kB	64kB	8051	32 GPIO 19 GPIO	10/100	MDI-X	8	32kB	-40°C - 85°C	LQFP 100 QFN 64
W7500	3.5 in 1*	16kB- 48kB	128kB	Cortex M0	48 GPIO	10/100		8	32kB	-40°C - 85°C	TQFP 64
W7500P	4 in 1*	16kB- 48kB	128kB	Cortex M0	48 GPIO	10/100	MDI-X	8	32kB	0°C - 70°C	TQFP 64

- * - 2 in 1: TCP/IP + MAC
- 3 in 1: TCP/IP + MAC + PHY
- 3.5 in 1: Controller + TCP/IP + MAC
- 4 in 1: Controller + TCP/IP + MAC + PHY

** pin-compatible to W5100S





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