# **@Web Software TCP/IP PSTN/GPRS Modem Solution**

# **Evaluation Kit**

# GET YOUR APPLICATION CONNECTED



The @Web PSTN51S kit allows the user to evaluate the full range of options available for integrating TCP/IP software into Atmel® C51 Flash Microcontrollers.

# **Key Features**

- On-chip Full TCP/IP Stack
- Direct or PSTN & GPRS Modem
   Connectivity
- Internet to CAN Gateway
- Internet Services: HTTP, FTP, SMTP
- Flash MCU Supported:
  - T89C51CC01: with CAN Controller
  - T89C51AC2: with A/D Converter
  - AT89C51RC2/AT89C51RD2

## **Applications**

- Embedded Industrial Control
- Building Automation
- Remote Control
- Home Appliances
- Vending Machines
- Smart Card Readers
- Alarm Systems



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Atmel has developed the @Web PSTN51S TCP/IP protocol stack for its C51 Flash Microcontrollers to enable easy and cost-effective implementation of any Internet services

such as HTTP, FTP or SMTP to run on customer applications like data storage, e-mail services and on-line software updates.

Thanks to the optimized size of the TCP/IP stack, it can be implemented together with the application program, avoiding the use of expensive external modules.

### **Product Features**

- Internet Services
  - HTTP server enables direct Web browser access
  - FTP server to download files into on-chip MCU Flash memory
- FTP client for uploading files from anywhere on the Internet
- SMTP support for sending e-mail

# CAN Network FLIP, Modem, PC Provider CAN Full UART Modem Phone Speaker Human External Power Temperature 'C Human

- Internet Protocols
  - PPP, LCP, IPCP, PAP, SLIP, TCP/IP, UDP, ICMP protocols
  - Low Level Dial-up or direct connectivity interface drivers

### **Communication Ports**

- Direct connectivity through RS232
- Baudrate up to 115 Kbits/sec (or 38400 bps at 11.059 MHz)
- DB9 connector
- Null or external modem connection type
- V.34bis Analog Modem PSTN Line Connection
- Cermetek Modem chip (Hayes)

- Speed up to 33.6-Kbit/sec
- Toll-free call back system
- Standard RJ-11C Jack
- CAN 2.0B Interface (with T89C51CC01 only)
  - On-board CAN transceiver
  - 1-Mbit/sec transfer rate
  - 3-pin connector

### **Application Microcontroller**

- 32-Kbyte C51 on-chip Flash MCUs:
- T89C51AC2: with on-chip A/D converter
- T89C51CC01: with on-chip CAN bus and A/D
- 3V or 5V In-System Programming (ISP)
- 1-Mbit External Optional RAM
- 0°C 70°C Temperature Sensor

### **@Web Evaluation Kit Software**

- @Web TCP/IP Stack Library for Keil V 6.20C
- FLIP Software (FLexible In-system Programming)
- Quick Start Examples
- Demonstration Software Source Code
- User Guide and Application Notes

# Cables and Power Supply

- Null-modem Cable
- 9V Battery

# Ordering Information

Two versions of the kit are available:

- @Web Flash Configuration Monitor
  - Hayes commands and ISP dial string
  - ISP login and password
- e-mail address
- IP address for the SMTP server
- 9V 12V Power Supply Connector (no supply unit included)

Kits Part Numbers
ATWebEVK-01 (including T89C51AC2)
ATWebEVK-02 (including T89C51CC01)