

Product Brief

iChipSec CO711AG Internet Controller

General Description:

iChipSecTM CO711AG is a high performance Internet ControllerTM and security offload chip that enables installed devices to connect to the Internet via 802.11b/g Wireless LANs, 10/100BaseT LANs, dial-up and wireless modems.

Packaged in a micro BGA form factor, CO711AG is a firmware-based, remotely updateable chip that stores the Internet protocol stack, security protocols, and Internet configuration parameters in updateable flash memory. iChipSec firmware can be remotely updated over the Internet via sockets, a Web browser or FTP, in addition to being locally updateable.

iChipSec CO711AG is designed for highbandwidth applications. Its host interface supports 230 kbits/second in Serial mode and will support up to 400 kBytes/second (3.2 Mbps) sustained throughput and 500 kBytes/second (4 Mbps) bursts with a Parallel mode (to be developed). CO711AG also features a Power Save mode for saving energy. The chip operates in the industrial temperature range.

Connect One's AT+iTM protocol eliminates the need for Internet programming and minimizes changes to the host application. When using SerialNET mode, no changes to the host application are required.

Application Program Interface:

- Connect One's AT+iTM protocol
- Hayes AT command set
- Connect One's SerialNET mode for transparent serial-to-Internet protocol conversion and routing

General Security Features:

- 3DES, AES-128, AES-256, ARC4, MD5 and SHA-1 Cipher suites.
- RSA public and private key encryption.



Internet Protocols:

- PPP, LCP, IPCP, PAP, CHAP, IP, ICMP, UDP, TCP, PING, DNS, DHCP, SMTP, POP3, MIME, HTTP, FTP, TELNET, NTP, ARP, SSL3/TLS1, FTPS
- Includes Web server / 64KB Web site

Hardware Description:

- Form Factor: 121-ball 10 x 10 x 1.2 mm BGA package with 0.8 mm ball pitch
- Core CPU: 32-bit RISC ARM7TDMI
- SRAM: 256KB
- Flash: 1MB
- I/O Operating Range: 2.7V to 3.6V
- External memory bus
- Core Operating Range: 1.65V to 1.95V
- Operating Humidity: 90% maximum (non-condensing)
- Operating Temperature Range: -40° to 85°C (-40° to 185° F)
- Power Consumption: 25 mA Operating mode, 10 µA Power Save mode
- Host Interface: RS-232 Serial or Parallel

Performance Specifications:

- Host Data Rate: up to 230,400 bps in Serial mode. Parallel mode up to 400 kBytes/second (3.2Mbps) sustained throughput and 500 kBytes/second (4 Mbps) bursts (to be implemented).
- Serial Data Format (AT+i mode): Asynchronous character, binary, 8 data bits, no parity, 1 stop bit.
- Serial Data Format (SerialNET mode): Asynchronous character, binary, 7 or 8 data bits, odd, even or no parity, 1 stop bit.
- Flow Control: hardware (DTR, RTS, CTS, DCD) and software flow control.

International: Connect One Ltd. 2 Hanagar Street Kfar Saba 44425, Israel Tel: +972-9-766-0456 Fax: +972-9-766-0461 E-mail: info@connectone.com http://www.connectone.com

USA:

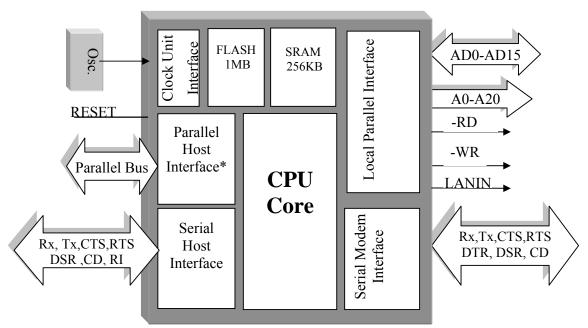
Connect One Semiconductors, Inc. 15818 North 9th Ave. Phoenix, AZ 85023 Tel: 408-986-9602 Fax: 602-485-3715 E-mail: info@connectone.com http://www.connectone.com



Product Brief

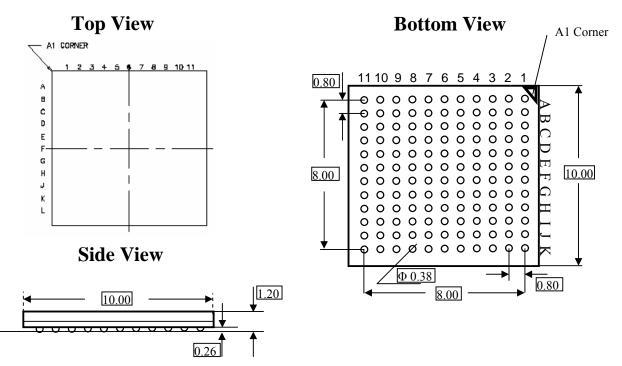
Publication Number 17-7200-00

Block Diagram:



* To be implemented

Mechanical Drawings:



Copyright © Connect One Ltd., July 2006. All rights reserved. iChip, iChipSec, Internet Controller, AT+i and Connect One are trademarks of Connect One Ltd. Specifications subject to change without notice.



International: Connect One Ltd. 2 Hanagar Street Kfar Saba 44425, Israel Tel: +972-9-766-0456 Fax: +972-9-766-0461 E-mail: info@connectone.com http://www.connectone.com

USA:

Connect One Semiconductors, Inc. 15818 North 9th Ave. Phoenix, AZ 85023 Tel: 408-986-9602 Fax: 602-485-3715 E-mail: info@connectone.com http://www.connectone.com