



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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AT83C21GC with GemCore Software

PRE-CERTIFIED SMART CARD READER SOLUTION FOR SERIAL LINK

AT83C21GC is based on an Atmel C51 MCU and includes GemCore® Serial Lite Pro software. It is a single-chip ready-to-use solution that can be quickly and easily integrated into any serial smart card reader.



Key Features & Benefits

- Single-chip Solution
- Quick Time-to-Market
- Fast and Easy EMVCo Approval
- Supports All Smart Cards
- UART: Baudrate up to 115 Kbps

Compliance with:



PC/SC Workgroup

ISO 7816

Applications

- Set Top Box
- PDA, Mobile Phone
- Web Appliance
- EFT/POS Terminal
- PC Link Smart Card Reader
- Energy Meter



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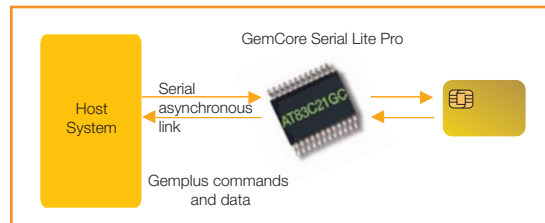
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The AT83C21GC is a highly integrated solution for smart card readers featuring GemCore Serial Lite Pro, a generic version of the GemCore software for any smart card reader using a serial link. With the expertise Gemplus™ has gained in smart card reader development, any application using AT83C21GC can quickly receive the EMVCo Level 1 approval.

To implement this ready-to-use solu-
tion, customers only have to include
the appropriate drivers (PC/SC,
Windows® CE, Linux®) or use the few
necessary commands from a host
microcontroller.

**Product Features**

- **Host Interface**
 - Serial: UART up to 115 Kbps
 - Communication Protocol: Gemplus Block Protocol (GBP)
- **Supported Smart Cards**
 - Asynchronous & Synchronous
- **Smart Card Power Supply**
 - 1.8, 3 or 5V; 60 mA
 - Short Circuit Current Limitation
 - Power Up/Power Down Management
- **Smart Card Management**
 - Presence and Insertion/Extraction Detection
- **4 kV ESD Protection on Card Pins**
- **One LED Management**
- **AT83C21GC Power Supply**
 - 2.85 to 5.4 Volts
 - 20 to 100 µA Stand By Mode
- **Temperature Range**
 - -40 to +85°C

AT83C21GC Reference Design (AT89RFD-05)

Technical Package Available on CD-ROM:

- GemCore Serial Lite Pro Technical Specifications
- GemCore Serial Lite Pro Reference Manual
- GemCore-based Reader Testing Guideline to prepare Production Test Benches
- GemCore Interface Library Kit (GILK) as Host API:
 - GILK Programmer's Guide,
 - API Source Codes
 - Software Sample Source Code



AT83C21GC Reference Design

Contact Information:

Technical Support: mcu@atmel.com

Ordering Information:

Part Numbers	Description
Development Tools	
AT89RFD-05	Reference Design with 3 samples
Devices	
AT83C21GC141-ICSIL	SSOP24 in stick
AT83C21GC141-ICRIL	SSOP24 in reel