

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:



Applications

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



Atmel Corporation

2325 Orchard Parkway
San Jose, CA 95131
USA
TEL.: (1)(408) 441-0311
FAX.: (1)(408) 487-2600

Regional Headquarters:

Europe

Atmel Sarl
Route des Arsenaux 41
Case Postale 80
CH-1705 Fribourg
Switzerland
TEL.: (41) 26-426-5555
FAX.: (41) 26-426-5500

Asia

Room 1219
Chinachem Golden Plaza
77 Mody Road Tsimshatsui
East Kowloon
Hong Kong
TEL.: (852) 2721-9778
FAX.: (852) 2722-1369

Japan

9F, Tonetsu Shinkawa Bldg.
1-24-8 Shinkawa
Chuo-ku, Tokyo 104-0033
Japan
TEL.: (81) 3-3523-3551
FAX.: (81) 3-3523-7581

Products Contact

La Chantierie
BP 70602
44306 Nantes Cedex 3
France
TEL.: (33) 2 40 18 18 18
FAX.: (33) 2 40 18 19 60

e-mail

literature@atmel.com

Web Site

http://www.atmel.com

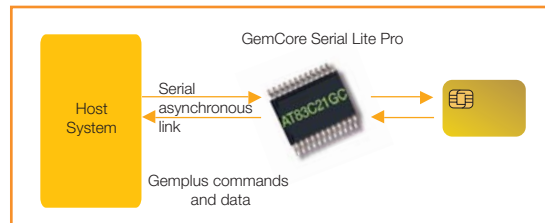


© Atmel Corporation 2003.
All rights reserved. Atmel, the Atmel logo, and combinations thereof are registered trademarks of Atmel Corporation or its subsidiaries.
Gemplus™ is a trademark of Gemplus S.A., Gemcore® is a registered trademark of Gemplus S.A., Linux® is a registered trademark of Linux Torvalds, Windows® is a registered trademark of Microsoft Corporation.
Other terms and product names in this document may be the trademarks of others.

4031A-8051-04/03/10M

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 solution, 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