FAVITE

FS-GF801
– EPC C1 Gen2 8-Port RFID Smart Reader

FS-GF801, one of FAVITE RFID reader family, is an Intel ATOM CPU based smart reader. The FS-GM801 is embedded with Impinj R2000 chip and compliant with EPC Class1 Gen2 Dense Reader mode (DRM) / ISO 18000-6C. The FS-GF801 is equipped with 8 SMA RF antenna ports which could support 8 mono-static antennas or 4 pairs of bi-static antennas, providing support for the richest enterprise applications. With the powerful combination of an Intel ATOM N270 1.6GHz CPU and up to 1GB memory, the FS-GF801 is the smartest RFID reader available, capable of running complex RFID applications, delivering faster processing and localized intelligence.

Features

- Intel ATOM N270 1.6GHz CPU with1GB DRAM/ 4GB Flash memory to run complex RFID applications
- Impinj Indy R2000 Reader chipset embedded, with more 12dbm sensitivity than R1000
- Compliant with EPC C1 Gen2 / ISO 18000-6C
- Support EPC Dense Reader Mode(DRM)
- Long reading distance, RF Output power up to 32 dbm
- Support 8 mono-static with 8 reading points or 4 bi-static antennas with 4 reading points
- Microsoft XP embedded, Hosts applications written in Java, Java Script or C# .Net
- Directly monitors and controls presence detectors

Applications

- Smart reader
- Logistic inventory
- Warehouse management
- Assets tracking
- Cargo tracking
- Baggage handling
- Access control
- Large-scale RFID system implement

RF System

Chipset	PHY: Impinj R2000
	MAC: ATMEL AT91SAM7S-256

Protocol

RFID Protocol Support	EPC C1 Gen 2
	ISO 18000-6C
Support EPC DRM	Yes (with DRM Filter) Switchable

RF

Frequency	US: 902 ~ 928MHz
	EU: 865 ~ 868MHz
Demodulation	ASK or PSK
Modulation Depth	90% nominal
Data Encoding	FM0 or Miller code
Bit Rate	Supports uplink data rates of up to 640 Kbps
TX Output power	5 ~ 32dBm in 1dB step
Antenna Type	8 Port Mono-static or 4 Port Bi-static
Antenna connector	8 SMA connectors

Regulatory and Environmental Compliance

EMC certification	FCC 47 CFG Ch.1 Part 15 (US)
	ETSI EN 302 208-1 (V1.1.1) (EU)
Certification	CE/FCC Class A, UL, CCC

General Characteristics

Dimensions	265 mm (W) x 194 mm (D) x 71mm (H)
Weight	2.5Kg
Base Material	Die-cast aluminum
Mounting	Wall mounting, vertical placement
Power Input	DC 10-30V, 2.55A, 30W with 3-pin connector
Power Consumption	30W (Typical), Isolation

System Architecture

Processor	Intel ATOM N270 1.6GHz
System Memory	1GB DDR2 SDRAM expandable to 2GB
Internal Storage	4GB Compact Flash expandable to 8GB
Display Port	VGA 640x480 up to 1600x1200
Keyboard / Mouse	USB port for Keyboard/Mouse

Communication

USB	4 x USB, Rev 2.0 compliant
Ethernet	10/100 Base-T (RJ-45)
COM Port	RS-232 (DB9 F)
GPIO	8 digital input, 8 digital output
Expansion	SD Card Reader port
	Expansion port for
	Bluetooth, WLAN, GPRS/3G, WiMax

Software

Operation System	Windows XP / Linux
Software SDK	Java, Java Script or C# .Net APIs

Environment

Humidity	10-85% non-condensing
Operating Temperature	0°C ~ 55°C @ 85% RH
Storage Temperature	-20°C ~ 85°C @ 85% RH