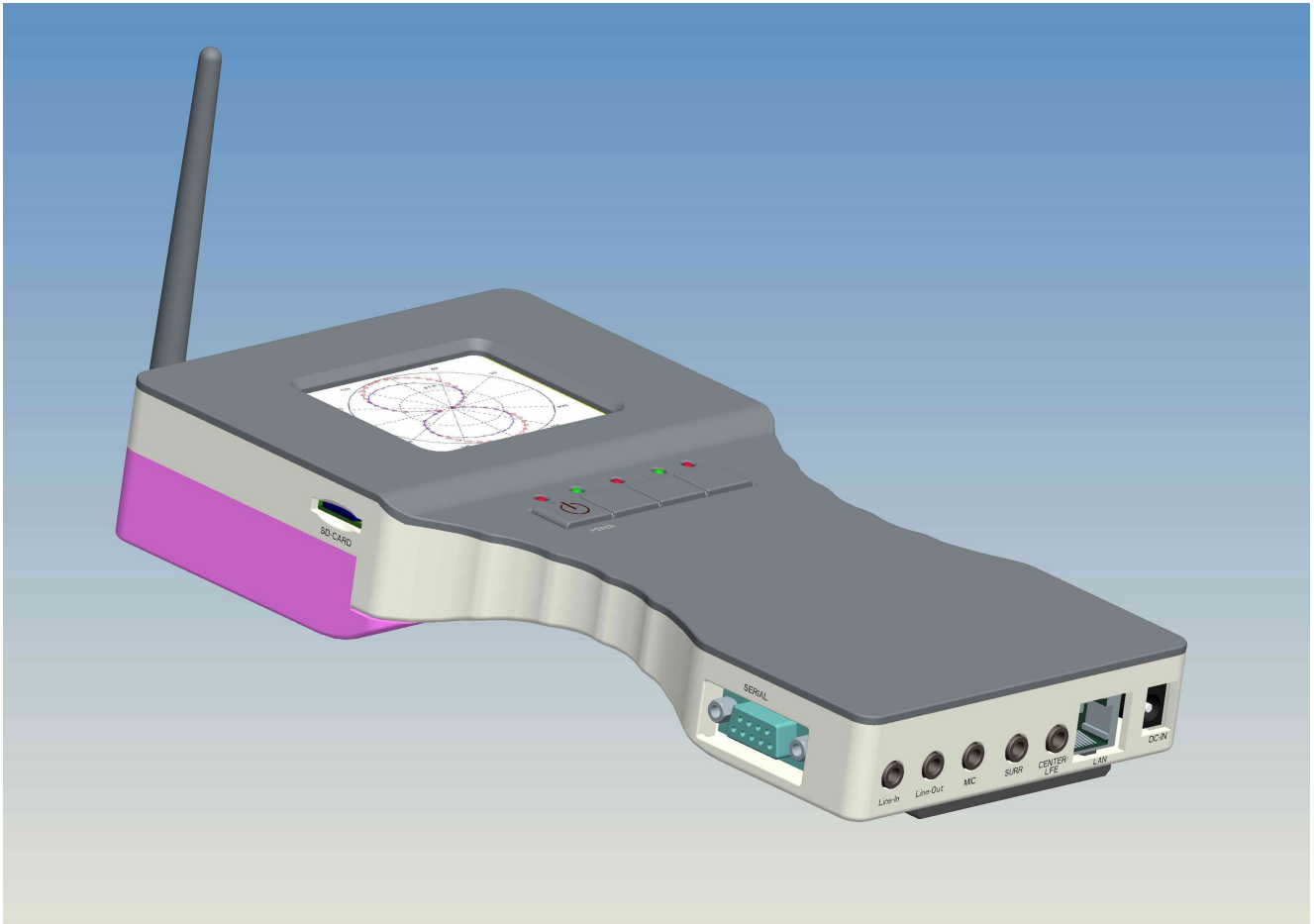




RF40: RFID Guardian



<ul style="list-style-type: none"> • Analog Blackfin BF547 Processor, Core Speed 533Mhz, External Bus Speed up to 133Mhz 	<ul style="list-style-type: none"> • User Replaceable AFE Board (135KHz, 13.56MHz, 868MHz, 2.4GHz)
<ul style="list-style-type: none"> • 512Mbits DDR 400 SDRAM & 4Gbits SLC NAND Flash 	<ul style="list-style-type: none"> • 10/100M Fast Ethernet MAC/PHY
<ul style="list-style-type: none"> • Altera EP3C16 Cyclone III FPGA 	<ul style="list-style-type: none"> • SD/MMC/SDIO Card Slot
<ul style="list-style-type: none"> • 2.8" TFT LCD with Touch Screen, 262K Color 	<ul style="list-style-type: none"> • Single Cell Li Ion Battery Charger
<ul style="list-style-type: none"> • 1 High Speed USB OTG 	<ul style="list-style-type: none"> • 4V to 18V DC Supply Range
<ul style="list-style-type: none"> • AC97 Sound Max Codec 	<ul style="list-style-type: none"> • Internal / External Antenna Options
<ul style="list-style-type: none"> • Class 1 Bluetooth SPP Module 	<ul style="list-style-type: none"> • Optional Internal Expansion Board
<ul style="list-style-type: none"> • OS Support: uClinux, Fusion RTOS, RTXC RuC/OS-II, ThreadX, INTEGRITY, velOSity 	<ul style="list-style-type: none"> • Handheld Portable Form Factor

RFID Guardian

The RFID Guardian is a mobile battery-powered device that offers personal RFID security and privacy management for people. The RFID Guardian monitors and regulates RFID usage, on the behalf of consumers.

The RFID Guardian is meant for personal use; it manages the RFID tags within physical proximity of a person (as opposed to managing RFID tags owned by the person, that are left at home). The RFID Guardian is PDA-sized portable device. The RFID Guardian is also battery powered. The RFID Guardian also performs 2-way RFID communications. It acts like an RFID reader, querying tags and decoding the tag responses, and it can also emulate an RFID tag, allowing it to perform direct in-band communications with other RFID readers.

The heart of the RFID Guardian is that it integrates four previously separate security properties into a single device:

- Auditing
- Key management
- Access control
- Authentication

HARDWARE SPECIFICATIONS

ELECTRICAL	
Processor	Analog Blackfin ADSP-BF547 Supports Triton 270 Module with PXA270 Xscale Intel CPU
RAM	Max. 512Mbits DDR 400
NAND Flash	Single 4Gbits NAND, SLC
FPGA	Single Altera EP3C16E Cyclone III series
Display	Single 2.8" inch, TFT LCD with resistive touch pad
Touch Screen Controller	Single 4 wire Touch Screen Digitizer
AC97 Codec	Single AC97 Sound Max Codec
LAN	Single 10/100M Fast Ethernet MAC/PHY Controller
Bluetooth Module	Class 1 Bluetooth SPP Module with On Board chip antenna
Li Ion Battery Charger	Single Cell Li-Ion Charger Controller with Ideal Diode
Serial	Two RS-232 Transceivers.
USB	Single High-Speed USB On-the-Go (OTG) Controller with Integrated PHY
SD/MMC/SDIO	Single SD/SDIO Controller
User Selectable Analog Front End	Low Freq 125/135KHz OR
	High Freq 13.56Mhz OR
	Ultra High Freq 868/928MHzOR
	Ultra High Freq 2.45GHz OR
INDICATORS	
Power	+5V LED, Color: Green
	+3.3V LED, Color: Red
LAN	Activity LED, Color: Green
	Speed LED, Color: Yellow
	Full/Col LED, Color: Orange
Battery	Charging LED, Color: Yellow
Bluetooth	Activity LED, Color: Orange
General Purpose	Debug Function1, Color: Red
	Debug Function1, Color: Green
	Debug Function1, Color: Green
MECHANICAL	
Dimensions (mm)	120 (W) x 220 (D) x 24.45 (H)
Construction	ABS
Weight	TBD
COMPLIANCE & CERTIFICATION	
FCC	
CE	
RoHS	
RU/UL	

USER INTERFACE	
Switches	SW1: Wakeup / Debug Tact Switch
	SW2: Debug Tact Switch
	SW3: Debug Tact Switch
	SW4: Debug Tact Switch
	SW5: Master Reset Tact Switch
Display	2.8" TFT LCD with Touch Screen, 262K Colors
CONNECTORS	
Back/Front Panel I/O (Accessible to user)	1 2.5mm DC Supply Jack
	1 RJ-45 LAN Port
	1 USB OTG Mini AB
	1 Line In L/R Stereo 3.5mm Jack
	1 Line Out L/R Stereo 3.5mm Jack
	1 MIC In L/R Stereo 3.5mm Jack
	1 SURR Out L/R Stereo 3.5mm Jack
	1 CEN/LFE Out Stereo 3.5mm Jack
	1 MICROSD/MMC/SDIO Card Slot
	1 Serial RS-232, DB9 (F) Connector
	1 SMA RF External ANT Connector
Other I/O (Accessible to user only after opening the door of enclosure)	1 MMCX RF Internal ANT Connector
	1 50pin (25x2), AFE B2B Connector (Proprietary Bus)
	2 100pin (50x2), Expansion B2B Connector
SCALABILITY OPTIONS	
Expansion Boards	1 Optional Internal Expansion Board 110 (W) x 70 (D) x 16 mm (H)
	1 Pluggable Analog Front End Board 85 (W) x 70 (D) x 12mm (H)
	1 Internal Antenna Board 115 (W) x 215 (D)
POWER	
Supply Voltage	External 4V to 18V
Battery	Std Li Ion with integrated NTC, 3.7V/1.23Ahr, 50 x 34 x 6.65 mm
	CR1225 Coin Cell RTC Backup
Power Rating	Operation: TBD
	Idle: TBD
	Standby: TBD
Operating Temp	0 ~ 50°C
Operating Humidity	0% ~ 93% (relative humidity; non-condensing)

