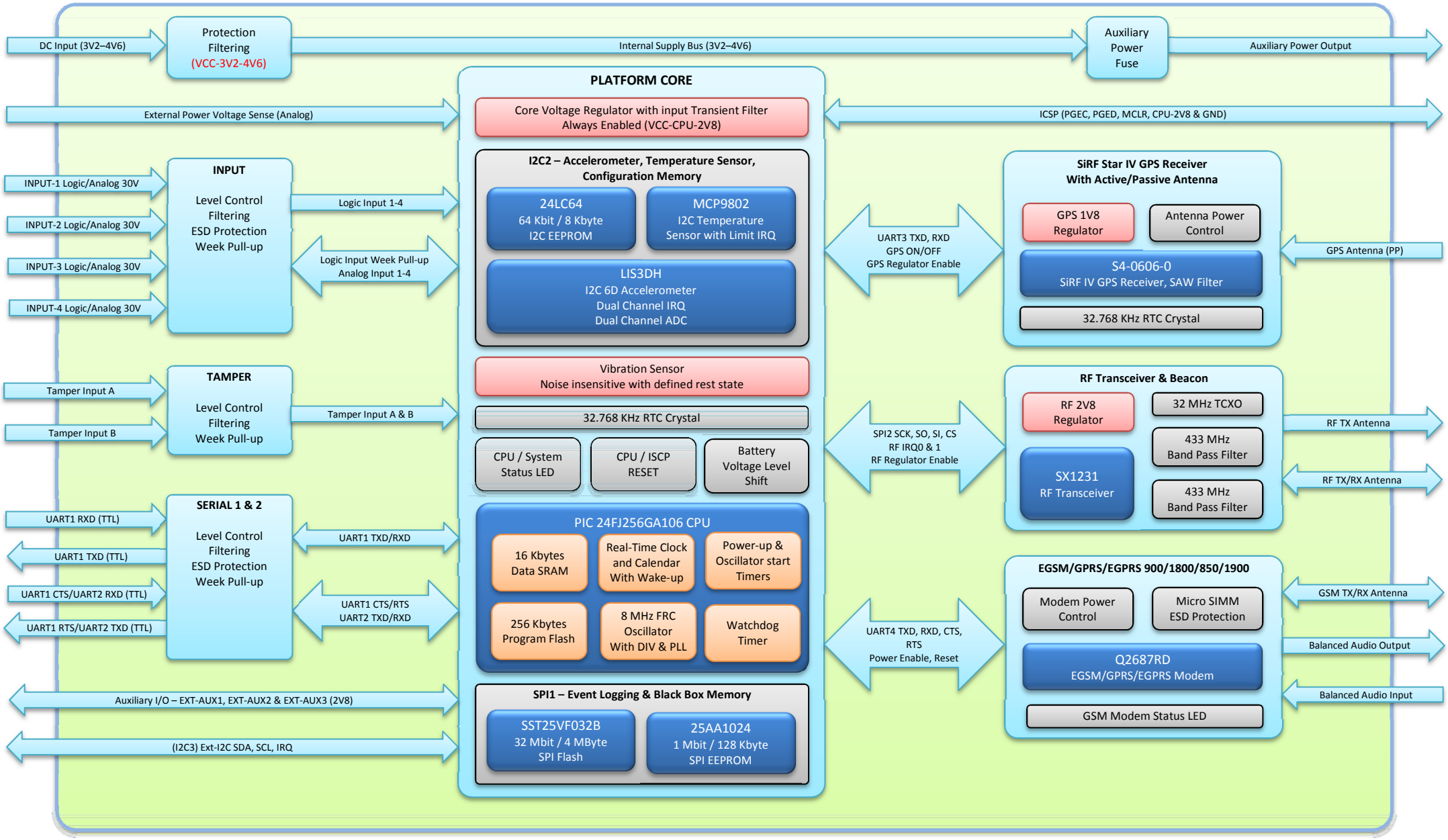
DC Input (3V2–4V6)
Protection Filtering (VCC-3V2-4V6)
Internal Supply Bus (3V2–4V6)
Auxiliary Power Fuse
Auxiliary Power Output
External Power Voltage Sense (Analog)
PLATFORM CORE
Core Voltage Regulator with input Transient Filter Always Enabled (VCC-CPU-2V8)
ICSP (PGEC, PGED, MCLR, CPU-2V8 & GND)
INPUT-1 Logic/Analog 30V
INPUT-2 Logic/Analog 30V
INPUT-3 Logic/Analog 30V
INPUT-4 Logic/Analog 30V
INPUT
Level Control
Filtering
ESD Protection
Week Pull-up
Logic Input 1-4
Logic Input Week Pull-up Analog Input 1-4
I2C2 – Accelerometer, Temperature Sensor, Configuration Memory
24LC64
64 Kbit / 8 Kbyte
I2C EEPROM
MCP9802
I2C Temperature
Sensor with Limit IRQ
LIS3DH
I2C 6D Accelerometer
Dual Channel IRQ
Dual Channel ADC
UART3 TXD, RXD
GPS ON/OFF
GPS Regulator Enable
SiRF Star IV GPS Receiver With Active/Passive Antenna
GPS 1V8 Regulator
Antenna Power Control
S4-0606-0
SiRF IV GPS Receiver, SAW Filter
32.768 KHz RTC Crystal
GPS Antenna (PP)
Tamper Input A
Tamper Input B
TAMPER
Level Control
Filtering
Week Pull-up
Tamper Input A & B
Vibration Sensor
Noise insensitive with defined rest state
32.768 KHz RTC Crystal
CPU / System Status LED
CPU / ISCP RESET
Battery Voltage Level Shift
SPI2 SCK, SO, SI, CS
RF IRQ0 & 1
RF Regulator Enable
RF Transceiver & Beacon
RF 2V8 Regulator
32 MHz TCXO
433 MHz Band Pass Filter
SX1231
RF Transceiver
433 MHz Band Pass Filter
RF TX Antenna
RF TX/RX Antenna
UART1 RXD (TTL)
UART1 TXD (TTL)
UART1 CTS/UART2 RXD (TTL)
UART1 RTS/UART2 TXD (TTL)
SERIAL 1 & 2
Level Control
Filtering
ESD Protection
Week Pull-up
UART1 TXD/RXD
UART1 CTS/RTS
UART2 TXD/RXD
PIC 24FJ256GA106 CPU
16 Kbytes Data SRAM
Real-Time Clock and Calendar With Wake-up
Power-up & Oscillator start Timers
256 Kbytes Program Flash
8 MHz FRC Oscillator With DIV & PLL
Watchdog Timer
UART4 TXD, RXD, CTS, RTS
Power Enable, Reset
EGSM/GPRS/EGPRS 900/1800/850/1900
Modem Power Control
Micro SIMM ESD Protection
Q2687RD
EGSM/GPRS/EGPRS Modem
GSM Modem Status LED
GSM TX/RX Antenna
Balanced Audio Output
Balanced Audio Input
Auxiliary I/O – EXT-AUX1, EXT-AUX2 & EXT-AUX3 (2V8)
(I2C3) Ext-I2C SDA, SCL, IRQ
SPI1 – Event Logging & Black Box Memory
SST25VF032B
32 Mbit / 4 MByte
SPI Flash
25AA1024
1 Mbit / 128 Kbyte
SPI EEPROM