Exhibit 3

SmartICE/MOBITEX

Point of Sale Device

Hypercom

FCC ID: NVA010164-004A

Technical Descriptions and Tune-up Procedure
Ref: FCC Parts 2 paragraph 2.983(d)

TECHNICAL DESCRIPTION OF THE EQUIPMENT
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Hypercom
Point of Sale Device SmartICE

With a

Research in Motion R902M-2-0 Transmitter, Mobitex

Tune-up Procedure at Nominal Operating Power:

Limiting Power:
The unit integrates the RIM Mobitex module that complies with part 90 under FCCID L6AR902M-2-0 which will not allow us to exceed the max allowable limit.

Circuitry and Devices for Determining and Stabilizing Frequency:

Frequency Stabilization:
The unit integrates the RIM Mobitex module that complies with part 22 under FCCID L6AR902M-2-0 which has demonstrated a stability of 1.5 PPM.

Suppression of Spurious Radiation:

Spurious and harmonic suppression is achieved by proper board layout, power distribution among ground planes and good filtering. We have demonstrated continuous compliance in our factory.

Limiting Modulation:

The unit integrates the RIM Mobitex module which complies with part 90 under FCCID L6AR902M-2-0 which will not allow us to alter modulation from the GMSK.

Hypercom Smart ICE

Main Power Supply:

The main power supply for the Smart ICE consists of an LTC1143 controller IC along with bipolar drivers, FET switches and a Schottky commutation diode. The chip is able to control two (2) buck mode regulators at different output voltages. Both regulators are similar except for the voltage setpoint, only one circuit will be described. An on chip linear regulator supplies chip power with an input voltage of 6 – 16VDC. The regulator senses voltage at the output of the regulator, and current being fed to the load. The voltage is controlled by pulse width modulation of the drive pulses in a constant off time configuration so the frequency of operation varies around 150 kHz. The drive pulses are current boosted by the driver transistors and applied to the gate of a p-channel FET switch. The drain of the FET is tied to the commutating diode and the energy storage inductor. The output of the inductor is tied to a current sense resistor, then to the filter capacitor and out to the powered circuitry.

Battery Charger:

The battery charger consists of a single chip charger IC (BQ2000) which runs as a current controlled buck mode regulator at a frequency of approximately 120 kHz. The width of the output pulses is controlled to give a constant charge current of 1/3 amp. Once the battery has reached approximately 90% charge the mode is changed to a burst mode holding a constant voltage and the battery is topped off to about 98-100% charge level. The charge can also be stopped by a timer built into the chip or by sensing the battery temperature via a thermistor built in to the battery pack.

Magnetic Card Reader:

The F/2F Read/Decode IC will recover clock and data signals from an F/2F data stream generated from a magnetic head. The IC will function for data rates from 150 to more than 12,000 bits per second.

Display and Display Driver:

The system display consists of a 160 x 160 pixel FSTN LCD module, driven by an Epson SED1335 graphic LCD controller IC. The 9.83 MHz system clock drives the SED1335.
The LCD display is powered by an LT1303 DC/DC converter, which boosts the 5-volt system power up to 22 VDC. The DC/DC converter switches at approximately 150 kHz.
The LCD display has an EL backlight. A DUREL D355A driver IC drives the backlight. It produces an AC voltage of approximately 75 Volts RMS at a frequency of approximately 220 Hz.

Touchscreen Controller:

The display's touchscreen is controlled by a Burr Brown ADS7843. The ADS7843 runs from a 1.2 MHz clock. The ADS7843 samples the touch screen at a rate of 1000 points per second (500 X-Y pairs per second).

System FPGA:

The system FPGA is a Xilinx Spartan 10XL. It acts as glue logic for the system. It is connected to the 9.8 MHz system clock, which it divides down in to the 1.22 MHz touchscreen controller clock, and also produces the 1.2 kHz, 1.6 kHz, and 2.4kHz clocks to drive the piezo buzzer.

System ASIC:

The system ASIC performs memory and I/O decoding functions for the Z80 microcontroller. It protects the SRAM from being written to during power up and power down, and contains a 16-bit timer for the Z80's operating system. It also contains registers that identify the amount of system memory and system clock frequency. It also performs serial to parallel conversion for one track of magnetic card data.

System Processor and Memory:

The main system processor is a Zilog Z84C15. It is a member of the Z80 family, and runs with a system clock of 9.83 MHz. It can access up to 1.5 MB of static RAM memory plus 128 KB of FLASH memory.

RS232 / 485 Communications:

The TTL level serial communication ports on the Z80 are converted to RS232 / RS485 levels with an LTC1387 Multiprotocol Tranceiver I.C. with on board charge pump.

Mobitex Radio:

This radio consists of a Research In Motion (RIM) OEM Radio Module 902M, manufactured by RIM to support the Mobitex standard. The module supports a serial interface of 3.0 Vdc with data rates up to 9600 baud. The transmitter delivers from 62mW to 2.0 W into the 50-ohm antenna port. The transmit frequency band is 896 – 902 Mhz and receive band is 935 to 941 Mhz. The main power supply requires 4.1 to 4.75 Vdc. The current usage of the module is apx .2 mA in sleep mode, 5.4 mA in standby mode, up to 57mA in receive mode, and up to 1.7 A one-second burst when required by the transmitter. The Antenna connection is 50 Ohm impedance.

Printer:

The system prints using a Panasonic EPLZ2050 thermal printer. The printer is controlled by a PIC16C74, which is driven by the 9.83 MHz system clock. The printer's paper feed and cutter motors are driven by both Rohm BA6845 and Sanyo LB1836 stepper motor driver ICs, which are also controlled by the PIC16C74.

Antenna:

The Antenna consists of a ¼ Wavelength Retractable Helical over Whip Antenna. The SWR is less than 2.0 across the required bandwidth of 896 to 941MHz. The Antenna maintains a gain of 2 dBi in the extended position. Polarization of the antenna is Vertical and maintains an omni-directional radiation pattern.

Matching Board:

The RF enters the matching board via a OSMT connector and is routed through an RF switch to either a matching network that connects to the retractable antenna or to the external antenna jack.

The matching network supports various passive configurations of series and shunt components to tune the antenna. After the matching network, the RF is routed to a copper finger contact that connects to the retractable Antenna.