Test Sample: Reader & Tag B

Report No.: P37R2952 Final
Issue: June 11, 2004

## APPENDIX A

Description provided by:

Scanpak

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## CLIENT SAMPLE DESCRIPTION

|                       |                        | New  |                    | Repeat             |  |  |  |  |
|-----------------------|------------------------|--|--------------------|--------------------|--|--|--|--|
| MPBT Personnel        |                        | Date   |                    | Project/Work Order |  |  |  |  |
| Janusz Lokaj          |                        |  |                    | 2952               |  |  |  |  |
|                       |                        |  |                    |                    |  |  |  |  |
| Contact               | Ewa Sok                | olowska  |                    |                    | Address                                      |  |  |  |
|                       |                        |  |                    | 2250 P             | 2250 P1. Transcanada, Dorval, Quebec H9P 2X5 |  |  |  |
| Company               | Scanpak                |  |                    |                    |  |  |  |  |
|                       |                        |  |                    |                    |  |  |  |  |
| Client Code           |                        |  |                    |                    |  |  |  |  |
|                       |                        |  |                    | Phone:             | Phone: 514-685-3505 Fax: 514-685-5484        |  |  |  |
|                       |                        |  |                    |                    |  |  |  |  |
| Product A             | pplication             |  | Product Categor    |                    | Product Type                                 |  |  |  |
| Military              |                        | Telecom □x Avioni  |                    |                    | Production Unit                              |  |  |  |
| Commercial            | $\square_{\mathrm{X}}$ |  | Info Tech.   Other |                    | Pre-production Unit $\square x$              |  |  |  |
|                       |                        |  | Space              |                    | Prototype                                    |  |  |  |
| <b>Product Name</b>   |                        | TTagB Transceiver Tag and TTB-434 Active Reader  |                    |                    |  |  |  |  |
| Part Number           |                        |  |                    |                    |  |  |  |  |
| Model Number          |                        | TTB-434-01 (for TTagB Transceiver Tag) and TTB-434 (for TTB-434 Active Reader)   |                    |                    |  |  |  |  |
| Serial Number         |                        | S/N for reader SR43000, S/N for tag ST43000  |                    |                    |  |  |  |  |
| Power Requires        |                        | TTagB Transceiver Tag: Two Lithium coin cells (e.g. CR- 2032)  |                    |                    |  |  |  |  |
| AC/DC, Curren         |                        | TTB-434 Active Reader: 6 to 48V DC supplied as POE (Power Over Ethernet)   |                    |                    |  |  |  |  |
| Operational Fr        | equency                | TTagB Transceiver Tag: transmit freq. 433.92 MHz, receive freq. 434.02 MHz   |                    |                    |  |  |  |  |
|                       |                        | TTB-434 Active Reader: transmit freq. 434.02 MHz, receive freq. 433.92 MHz   |                    |                    |  |  |  |  |
| Typical Installa      | ition                  | TTagB Transceiver Tag is a self-contained equipment, no installation required.   |                    |                    |  |  |  |  |
| Instructions or       |                        | TTB-434 Active Reader is connected with Ethernet cable to Power Over Ethernet  |                    |                    |  |  |  |  |
| Configuration         |                        | injector, to the port caring data and DC power. The DC power port of the injector is   |                    |                    |  |  |  |  |
|                       |                        | connected to a AC to DC wall adapter. The data port of the injector is connected with the  |                    |                    |  |  |  |  |
| C LEVE                |                        | Ethernet cable to LAN (PC, HUB, switch or router).   |                    |                    |  |  |  |  |
| Ground EUT            |                        | No Transfer of the second of t |                    |                    |  |  |  |  |
| # Interconnecti       | ng                     | None for TTagB Transceiver Tag.  |                    |                    |  |  |  |  |
| Leads                 |                        | Etherner cable for TTB-434 Active Reader   |                    |                    |  |  |  |  |
| <b>Internal Clock</b> |                        | TTagB Transceiver Tag: 32.768 kHz  |                    |                    |  |  |  |  |
| Frequency             |                        | TTB-434 Active Reader: 8 MHz and 20 MHz  |                    |                    |  |  |  |  |
| Peripheral Equ        | ipment                 | None for TTagB Transceiver Tag.  |                    |                    |  |  |  |  |
|                       |                        | PC, POE injector and AC to DC wall adapter for TTB-434 Active Reader.  |                    |                    |  |  |  |  |
| Cables                |                        | None for TTagB Transceiver Tag.  |                    |                    |  |  |  |  |
| 3541111111111         |                        | Ethernet cable for TTB-434 Active Reader.  |                    |                    |  |  |  |  |
| Functional or S       | elf-Test               |  |                    |                    |  |  |  |  |
| Duration              |                        |  |                    |                    |  |  |  |  |
| Brief Functional      |                        |  |                    |                    |  |  |  |  |
| Description           |                        | Transceiver tag operating in 434 MHz band, 433.92 MHz transmit and 434.02 MHz  |                    |                    |  |  |  |  |
| 2 Courpium            |                        | receive mode. The TtagB transmits only when interrogated by a reader device. This tag  |                    |                    |  |  |  |  |
|                       |                        | has a motion detector and brown out detection.   |                    |                    |  |  |  |  |
|                       |                        | TTB-434 Active Reader, equipped with a built-in Ethernet controller, connects directly   |                    |                    |  |  |  |  |
|                       |                        | to a LAN (10Base-T) and communicates with the server using TCP/IP protocol. It is  |                    |                    |  |  |  |  |
|                       |                        | receiving RF data in 433.92 MHz band, recognizing data from the tags and transmitting  |                    |                    |  |  |  |  |
|                       |                        | collected data to the server. TTB-434 Active Reader periodically sends an inquiry signal   |                    |                    |  |  |  |  |
|                       |                        | to the tags prompting them to answer.  |                    |                    |  |  |  |  |
|                       |                        | AND STATE OF THE S |                    |                    |  |  |  |  |

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| Other Remarks  |        |       |
|----------------|--------|-------|
| Prepared By:   | Title: | Date: |
| Ewa Sokolowska |        |       |

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## **APPENDIX B**

## TEST EQUIPMENT REPORT

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| Asset | Device                | Characteristics | Manufacturer          | Model      | Serial     | Cal. Date | Cal Due<br>date |
|-------|-----------------------|-----------------|-----------------------|------------|------------|-----------|-----------------|
| 4297  | Spectrum<br>Analyzer  | 100Hz-22GHz     | Hewlett Packard       | HP8566B    | 2747A05484 | 4-Aug-03  | 4-Aug-04        |
| 2316  | Preamplifier          | 10k-1000MHz     | Electrometrics        | BPA-1000   | 900710     | Monitored | Monitored       |
| 5078  | Biconilog<br>Antenna  | 20MHz - 2GHz    | Amplifier<br>Research | LPB-2520/A | 1173       | 5-Aug-03  | 5-Aug-04        |
| 2436  | Quasi Peak<br>Adapter |                 | Hewlett Packard       | 85650A     | 2811A01123 | 4-Aug-03  | 4-Aug-04        |
|       | Anechoic<br>Chamber   |                 |                       | -1         |            | Monitored | Monitored       |