

Appendix A

Radiated Emissions Data Sheets

Fundamental Radiated Data Sheet

BancTec, Inc.
RFID System Assembly, Model 853223

SERIAL #: X11010074
 DATE: February 28, 2002
 PROJECT #: 02318-10

MEASUREMENT DISTANCE (m): 3
 DETECTOR FUNCTION: Quasi-Peak

$$\text{Corrected Level} = \text{Recorded Level} - \text{Amplifier Gain} + \text{Antenna Factor} + \text{Cable Loss}$$

Antenna Horizontal

Freq. (MHz)	EUT Dir (Deg.)	Antenna Elevation (Meters)	Recorded Level (dBuV)	Amplifier Gain (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
13.56	270	1	36.1	0.0	9.5	0.8	46.4	120	-73.6

Note: Above measurement was taken with a Loop antenna. Limit was adjusted 40 dB for 3-meter distance.

Antenna Vertical

Freq. (MHz)	EUT Dir (Deg.)	Antenna Elevation (Meters)	Recorded Level (dBuV)	Amplifier Gain (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
13.56	270	1	47.1	0.0	9.5	0.8	57.4	120	-62.6

Note: Above measurement was taken with a Loop antenna. Limit was adjusted 40 dB for 3-meter distance.

TEST ENGINEER: Bob Ripley

Appendix B

Spurious Radiated Emissions Data Sheets

Spurious Radiated Data Sheet

BancTec, Inc.
RFID System Assembly, Model 853223

SERIAL #: X11010074
 DATE: February 28, 2002
 PROJECT #: 02318-10

MEASUREMENT DISTANCE (m): 3
 ANTENNA POLARIZATION: Horizontal
 DETECTOR FUNCTION: Peak

Corrected Level = Recorded Level - Amplifier Gain + Antenna Factor + Cable Loss

Loop Antenna Horizontal

Freq. (MHz)	EUT Dir (Deg.)	Antenna Elevation (Meters)	Recorded Level (dBuV)	Amplifier Gain (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
27.12	0	1	67.5	26.6	8.1	1.1	50.1	69.	-19.4

COMMENT #1:

TEST ENGINEER: Bob Ripley

Spurious Radiated Data Sheet

BancTec, Inc.
RFID System Assembly, Model 853223

SERIAL #: X11010074
 DATE: February 28, 2002
 PROJECT #: 02318-10

MEASUREMENT DISTANCE (m): 3
 ANTENNA POLARIZATION: Vertical
 DETECTOR FUNCTION: Peak

Corrected Level = Recorded Level - Amplifier Gain + Antenna Factor + Cable Loss

Freq. (MHz)	EUT Dir (Deg.)	Antenna Elevation (Meters)	Recorded Level (dBuV)	Amplifier Gain (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
27.12	0	1	68.9	26.6	8.1	1.1	51.5	69.5	-18.0
40.68	Noise	Floor	33.5	26.6	11.5	2.9	21.3	40	-18.7
54.24	0	1	41.4	26.6	10.6	3.2	28.6	40	-11.4
67.8	0	1	34.4	26.6	6.9	3.6	18.3	40	-21.7
81.36	0	1	45.1	26.5	8.1	3.9	30.6	40	-9.4
94.92	Noise	Floor	34.9	26.5	10.8	4.2	23.5	43.5	-20.0
108.48	0	1	32.9	26.5	12.0	4.7	23.2	43.5	-20.3
122.04	45	1	28.5	26.5	12.2	5.0	19.2	43.5	-24.3
135.6	340	1	48.4	26.6	11.3	5.7	38.8	43.5	-4.7

COMMENT #1: 27.12 Measured with loop antenna at 3-meters. Limit adjusted 40 dB for distance.

TEST ENGINEER: Bob Ripley