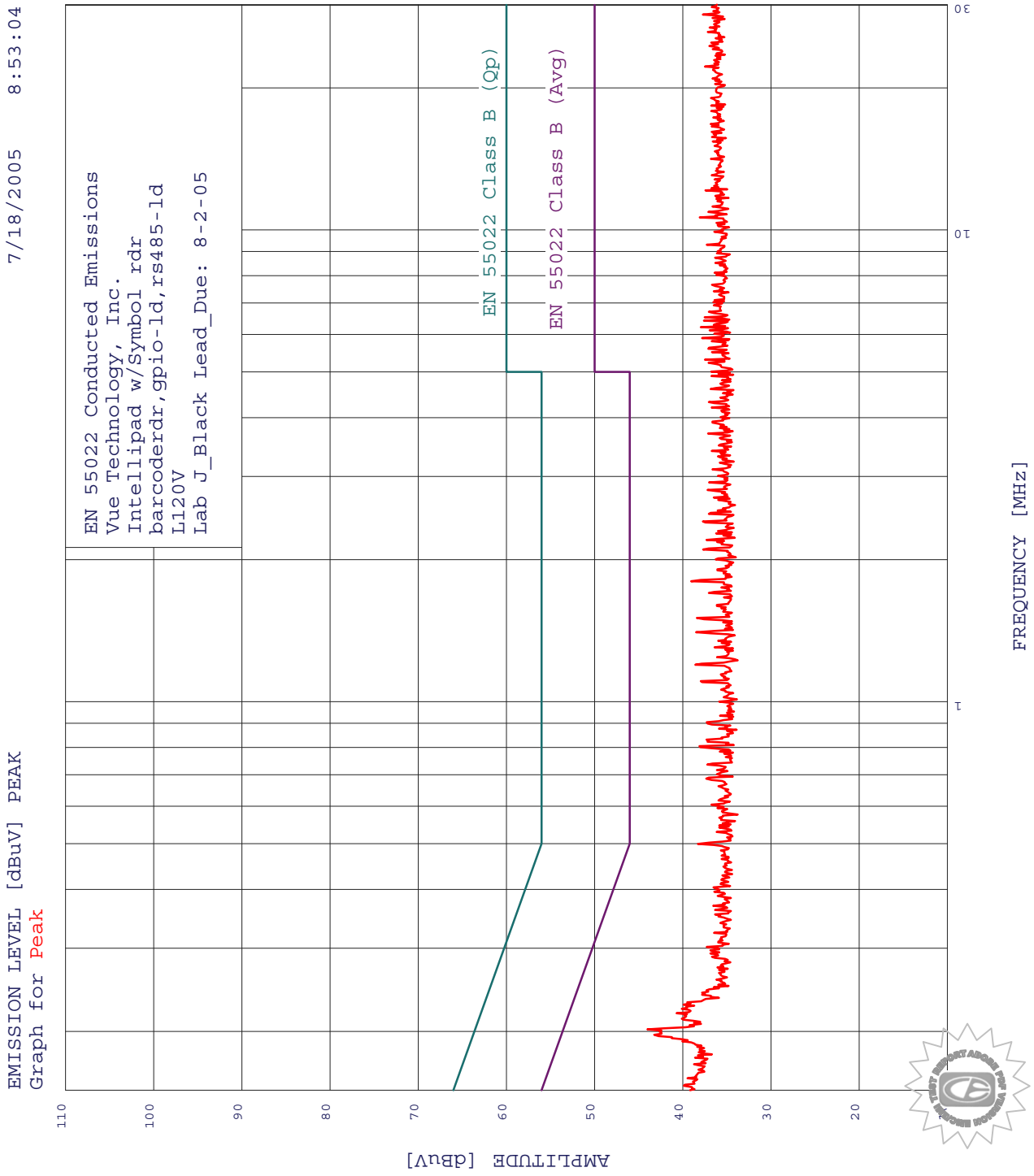
RADIATED & CONDUCTED EMISSIONS

DATA SHEETS

Test Location : Compatible Electronics **Page** : 1/1
Customer : Steve Trivelpiece **Date** : 07/14/2005
Manufacturer : MeadWestVaco **Time** : 02:35:36 PM
Eut name : IntelliPad w/ Symbol rdr (0099) **Lab** : J
Model : barcode rdr attch,eth-33% **Test Distance** : 3.00 Meters
Serial # : ext-pwr-load,gpio-load, rs485-load
Specification : FCC Pt. 15 - Class B
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : 10MHz, (25clk) 100/3.68MHz & 125MHz
SDRAM-OFF_,RS232-OFF_,Ethernet-ON
9kHz-9280MHz test range
Qualification scan, J.Madlangbayan

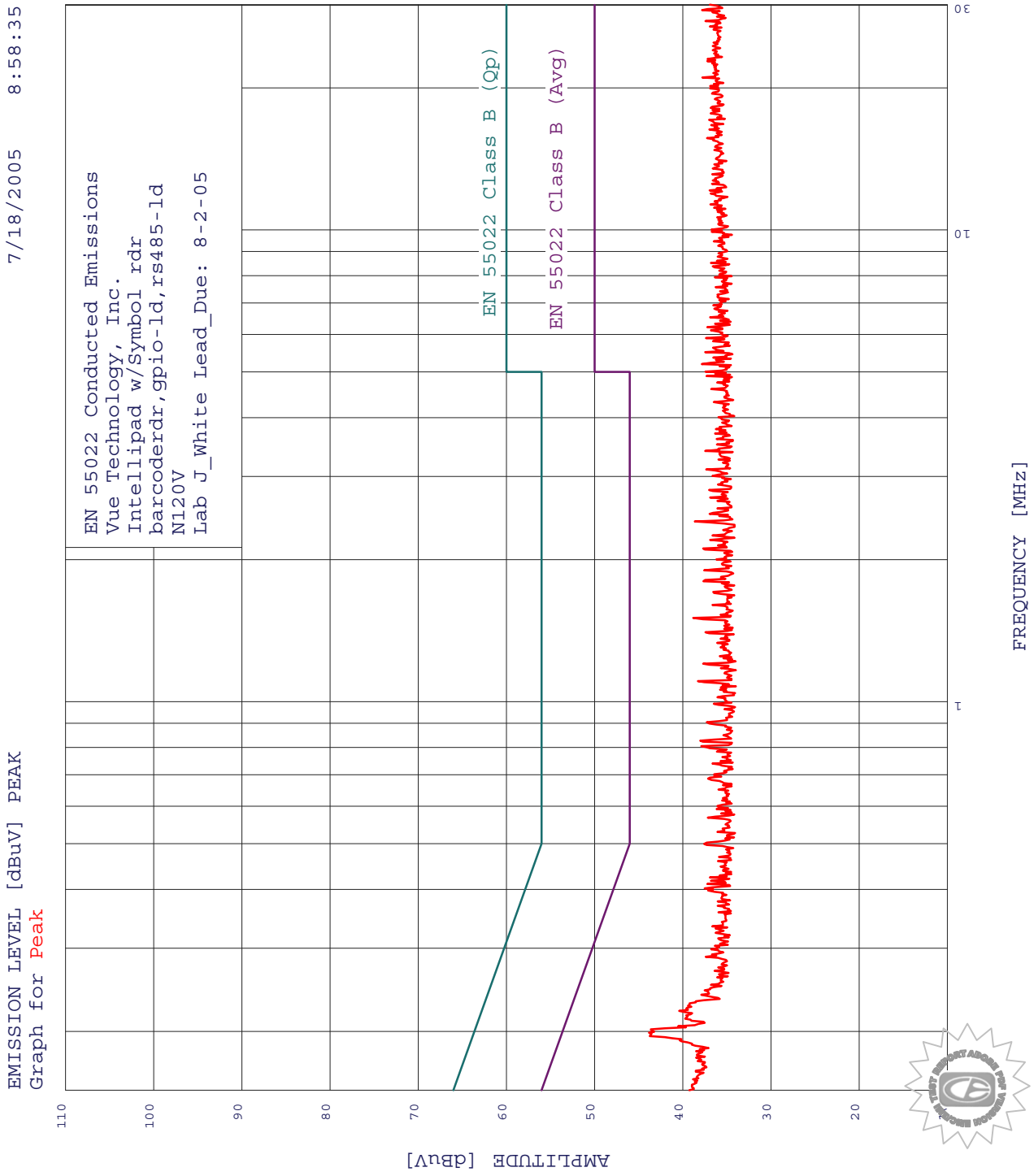
Pol	Freq	Reading	Cable loss	Antenna factor	Amplifier gain	Corr'd rdg = R	Limit = L	Delta R-L
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB
1V	125.084	47.90	1.40	12.80	28.71	33.39	43.50	-10.11
2V	150.082	50.40	1.50	12.50	30.30	34.10	43.50	-9.40
3V	200.065	53.50	1.80	17.00	31.00	41.30	43.50	-2.20
4V	200.065Qp	52.30	1.80	17.00	31.00	40.10	43.50	-3.40
5V	250.098	52.40	2.10	16.31	31.00	39.81	46.00	-6.19
6H	100.086	55.30	1.20	10.80	26.81	40.50	43.50	-3.00
7H	100.086Qp	53.31	1.20	10.80	26.81	38.51	43.50	-4.99
8H	125.095	51.50	1.40	12.80	28.71	36.99	43.50	-6.51
9H	200.091	53.70	1.80	17.00	31.00	41.50	43.50	-2.00
10H	200.091Qp	52.83	1.80	17.00	31.00	40.63	43.50	-2.87
11H	250.107	47.80	2.10	16.31	31.00	35.22	46.00	-10.78
12V	300.081	49.10	2.30	13.30	30.60	34.10	46.00	-11.90
13V	500.113	50.50	3.40	16.90	30.30	40.50	46.00	-5.50
14V	550.071	47.90	3.50	15.70	30.40	36.70	46.00	-9.30
15V	600.073	45.50	3.60	18.70	30.20	37.60	46.00	-8.40
16V	625.059	45.40	3.75	18.29	30.15	37.30	46.00	-8.70
17V	650.073	44.00	3.90	17.90	30.10	35.70	46.00	-10.30
18V	750.074	43.80	4.20	18.90	30.10	36.80	46.00	-9.20
19H	300.071	51.80	2.30	13.30	30.60	36.80	46.00	-9.20
20H	350.093	51.50	2.50	15.11	30.60	38.51	46.00	-7.49
21H	500.117	55.50	3.40	16.90	30.30	45.50	46.00	-0.50
22H	500.113Qp	54.14	3.40	16.90	30.30	44.14	46.00	-1.86
23H	625.069	45.00	3.75	18.29	30.15	36.90	46.00	-9.10
24H	750.115	46.00	4.20	18.90	30.10	39.01	46.00	-6.99


7/18/2005 8:53:04
EN 55022 Conducted Emissions
Vue Technology, Inc.
Intellipad w/Symbol rdr
barcoderdr,gpio-ld,rs485-ld
L120V
Lab J_Black Lead_Due: 8-2-05
EN 55022 Class B (Qp)
EN 55022 Class B (Avg)
EMISSION LEVEL [dBuV] PEAK
Graph for Peak
AMPLITUDE [dBuV]
FREQUENCY [MHz]
110
100
90
80
70
60
50
40
30
20
30
10
1

EN 55022 Conducted Emissions 7/18/2005 8:53:04
Vue Technology, Inc.
Intellipad w/Symbol rdr
barcoderdr,gpio-ld,rs485-ld
L120V
Lab J_Black Lead_Due: 8-2-05
TEST ENGINEER : J. Madlangbayan

6 highest peaks above -50.00 dB of EN 55022 Class B (Avg) limit line
Peak criteria : 3.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	1.800	39.04	46.00	-6.96
2	1.197	38.57	46.00	-7.43
3	1.404	38.49	46.00	-7.51
4	1.504	38.41	46.00	-7.59
5	0.500	38.27	46.01	-7.74
6	0.805	38.10	46.00	-7.90


7/18/2005 8:58:35
EN 55022 Conducted Emissions
Vue Technology, Inc.
Intellipad w/Symbol rdr
barcoderdr,gpio-ld,rs485-ld
N120V
Lab J_White Lead_Due: 8-2-05
EN 55022 Class B (Qp)
EN 55022 Class B (Avg)
EMISSION LEVEL [dBuV] PEAK
Graph for Peak
AMPLITUDE [dBuV]
FREQUENCY [MHz]
110
100
90
80
70
60
50
40
30
20
30
10
1

EN 55022 Conducted Emissions 7/18/2005 8:58:35
Vue Technology, Inc.
Intellipad w/Symbol rdr
barcoderdr,gpio-ld,rs485-ld
N120V
Lab J_White Lead_Due: 8-2-05
TEST ENGINEER : J. Madlangbayan

6 highest peaks above -50.00 dB of EN 55022 Class B (Avg) limit line
Peak criteria : 3.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	1.504	38.82	46.00	-7.18
2	2.410	38.64	46.00	-7.36
3	1.106	38.27	46.00	-7.73
4	0.826	38.00	46.00	-8.00
5	0.805	37.90	46.00	-8.10
6	2.111	37.69	46.00	-8.31

RADIATED EMISSIONS (FCC SECTION 15.247 AND 15.205)

COMPANY	**Vue Technology, Inc.**	**DATE**	**7/22/2005**
EUT	**UHF/HF Antenna RFID System**	**DUTY CYCLE**	**N/A %**
MODEL	**Intellipad**	**PEAK TO AVG**	**N/A dB**
S/N	**NONE**	**TEST DIST.**	**3 Meters**
TEST ENGINEER	**Joey Madlangbayan**	**LAB**	**J**

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
2706.0000	49.7	42.0 A	H	3.0	180			29.1	2.0	30.0			**43.1**	**-10.9**	**54.0**	
2706.0000	43.8	A	V	2.0	180			29.1	2.0	30.0			**44.9**	**-9.1**	**54.0**	
2745.0000	48.7	A	H	2.0	180			29.2	2.0	30.0		0.0	**49.9**	**-4.1**	**54.0**	
2745.0000	47.4	A	V	4.0	180			29.2	2.0	30.0		0.0	**48.6**	**-5.4**	**54.0**	
2784.0000	46.5	A	H	4.0	180			29.3	2.0	30.0		0.0	**47.9**	**-6.1**	**54.0**	
2784.0000	46.3	A	V	3.0	180			29.3	2.0	30.0		0.0	**47.7**	**-6.3**	**54.0**	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN
** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.247 AND 15.205)

COMPANY	**Vue Technology, Inc.**	**DATE**	**7/22/2005**
EUT	**UHF/HF Antenna RFID System**	**DUTY CYCLE**	**N/A %**
MODEL	**Intellipad**	**PEAK TO AVG**	**N/A dB**
S/N	**NONE**	**TEST DIST.**	**3 Meters**
TEST ENGINEER	**Joey Madlangbayan**	**LAB**	**J**

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
3608.0000	44.4	A	H	3.0	180			30.6	2.4	29.2			**48.2**	**-5.8**	**54.0**	
3608.0000	42.8	A	V	1.5	180			30.6	2.4	29.2			**46.6**	**-7.4**	**54.0**	
3660.0000		A	H					30.6	2.5	29.2					**54.0**	**no emission found**
3660.0000		A	V					30.6	2.5	29.2					**54.0**	**no emission found**
3712.0000	42.0	A	H	3.0	180			30.6	2.6	29.1		0.0	**46.1**	**-7.9**	**54.0**	
3712.0000	41.7	A	V	3.0	180			30.6	2.6	29.1		0.0	**45.8**	**-8.2**	**54.0**	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.247 AND 15.205)

COMPANY	**Vue Technology, Inc.**	**DATE**	**7/22/2005**
EUT	**UHF/HF Antenna RFID System**	**DUTY CYCLE**	**N/A %**
MODEL	**Intellipad**	**PEAK TO AVG**	**N/A dB**
S/N	**NONE**	**TEST DIST.**	**3 Meters**
TEST ENGINEER	**Joey Madlangbayan**	**LAB**	**J**

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
4510.0000		A	H					31.2	2.5	28.3					**54.0**	**no emission found**
4510.0000		A	V					31.2	2.5	28.3					**54.0**	**no emission found**
4575.0000		A	H					31.5	2.5	28.2					**54.0**	**no emission found**
4575.0000		A	V					31.5	2.5	28.2					**54.0**	**no emission found**
4640.0000		A	H					31.7	2.6	28.2					**54.0**	**no emission found**
4640.0000		A	V					31.7	2.6	28.2					**54.0**	**no emission found**

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.247 AND 15.205)

COMPANY	**Vue Technology, Inc.**	**DATE**	**7/22/2005**
EUT	**UHF/HF Antenna RFID System**	**DUTY CYCLE**	**N/A %**
MODEL	**Intellipad**	**PEAK TO AVG**	**N/A dB**
S/N	**NONE**	**TEST DIST.**	**3 Meters**
TEST ENGINEER	**Joey Madlangbayan**	**LAB**	**J**

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
5412.0000		A	H					33.7	2.8	27.5					**54.0**	**no emission found**
5412.0000		A	V					33.7	2.8	27.5					**54.0**	**no emission found**
5490.0000		A	H					33.9	2.8	27.4					**54.0**	**no emission found**
5490.0000		A	V					33.9	2.8	27.4					**54.0**	**no emission found**
5568.0000		A	H					33.9	2.8	27.4					**54.0**	**no emission found**
5568.0000		A	V					33.9	2.8	27.4					**54.0**	**no emission found**

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.247 AND 15.205)

COMPANY	**Vue Technology, Inc.**	**DATE**	**7/22/2005**
EUT	**UHF/HF Antenna RFID System**	**DUTY CYCLE**	**N/A %**
MODEL	**Intellipad**	**PEAK TO AVG**	**N/A dB**
S/N	**NONE**	**TEST DIST.**	**3 Meters**
TEST ENGINEER	**Joey Madlangbayan**	**LAB**	**J**

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
6314.0000		A	H					34.4	3.1	28.0					**54.0**	**no emission found**
6314.0000		A	V					34.4	3.1	28.0					**54.0**	**no emission found**
6405.0000		A	H					34.5	3.1	28.0					**54.0**	**no emission found**
6405.0000		A	V					34.5	3.1	28.0					**54.0**	**no emission found**
6496.0000		A	H					34.7	3.2	28.1					**54.0**	**no emission found**
6496.0000		A	V					34.7	3.2	28.1					**54.0**	**no emission found**

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.247 AND 15.205)

COMPANY	**Vue Technology, Inc.**	**DATE**	**7/22/2005**
EUT	**UHF/HF Antenna RFID System**	**DUTY CYCLE**	**N/A %**
MODEL	**Intellipad**	**PEAK TO AVG**	**N/A dB**
S/N	**NONE**	**TEST DIST.**	**3 Meters**
TEST ENGINEER	**Joey Madlangbayan**	**LAB**	**J**

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
7216.0000		A	H					37.0	3.4	28.4					**54.0**	**no emission found**
7216.0000		A	V					37.0	3.4	28.4					**54.0**	**no emission found**
7320.0000		A	H					37.2	3.5	28.4					**54.0**	**no emission found**
7320.0000		A	V					37.2	3.5	28.4					**54.0**	**no emission found**
7424.0000		A	H					37.4	3.5	28.4					**54.0**	**no emission found**
7424.0000		A	V					37.4	3.5	28.4					**54.0**	**no emission found**

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.247 AND 15.205)

COMPANY	**Vue Technology, Inc.**	**DATE**	**7/22/2005**
EUT	**UHF/HF Antenna RFID System**	**DUTY CYCLE**	**N/A %**
MODEL	**Intellipad**	**PEAK TO AVG**	**N/A dB**
S/N	**NONE**	**TEST DIST.**	**3 Meters**
TEST ENGINEER	**Joey Madlangbayan**	**LAB**	**J**

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
8118.0000		A	H					37.7	3.7	28.2					**54.0**	**no emission found**
8118.0000		A	V					37.7	3.7	28.2					**54.0**	**no emission found**
8235.0000		A	H					37.8	3.9	28.2					**54.0**	**no emission found**
8235.0000		A	V					37.8	3.9	28.2					**54.0**	**no emission found**
8352.0000		A	H					38.0	3.9	28.2					**54.0**	**no emission found**
8352.0000		A	V					38.0	3.9	28.2					**54.0**	**no emission found**

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.247 AND 15.205)

COMPANY	**Vue Technology, Inc.**	**DATE**	**7/22/2005**
EUT	**UHF/HF Antenna RFID System**	**DUTY CYCLE**	**N/A %**
MODEL	**Intellipad**	**PEAK TO AVG**	**N/A dB**
S/N	**NONE**	**TEST DIST.**	**3 Meters**
TEST ENGINEER	**Joey Madlangbayan**	**LAB**	**J**

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
9020.0000		A	H					38.3	4.3	28.7					**54.0**	**no emission found**
9020.0000		A	V					38.3	4.3	28.7					**54.0**	**no emission found**
9150.0000		A	H					38.7	4.3	28.5					**54.0**	**no emission found**
9150.0000		A	V					38.7	4.3	28.5					**54.0**	**no emission found**
9280.0000		A	H					39.0	4.3	28.3					**54.0**	**no emission found**
9280.0000		A	V					39.0	4.3	28.3					**54.0**	**no emission found**

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING