



JOBSIGHT SOLUTIONS TEST REPORT
FOR THE
JOB LINK SYSTEM
FCC PART 24
TESTING

DATE OF ISSUE: JUNE 30, 2008

PREPARED FOR:

JobSight Solutions
101 Parkshore Drive, Suite 100
Folsom, CA 95630

W.O. No.: 87823

PREPARED BY:

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CKC Laboratories, Inc.
5046 Sierra Pines Drive
Mariposa, CA 95338

Date of test: March 27 - June 13, 2008

Report No.: FC08-056

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ADMINISTRATIVE INFORMATION

DATE OF TEST: March 27 - June 13, 2008

DATE OF RECEIPT: March 27, 2008

REPRESENTATIVE: Mathew Kay

MANUFACTURER:

JobSight Solutions
101 Parkshore Drive, Suite 100
Folsom, CA 95630

TEST LOCATION:

CKC Laboratories, Inc.
5046 Sierra Pines Drive
Mariposa, CA 95338

FREQUENCY RANGE TESTED: 30 MHz-20 GHz

TEST METHOD: FCC Part 24

PURPOSE OF TEST: To perform the testing of the Job Link System, with the requirements for FCC Part 24 devices.

APPROVALS

QUALITY ASSURANCE:

Steve Behm, Director of Engineering Services

TEST PERSONNEL:

Mike Wilkinson, Senior EMC Engineer/Lab Manager

SITE FILE REGISTRATION NUMBERS

Location	Japan	Canada	FCC
Mariposa D	R-1827 & C-1960	IC 3082A-1	784962

SUMMARY OF RESULTS

Test	Specification	Results
RF Output Power	FCC 2.1033(c)(14)/2.1046/24.232	Pass
Occupied Bandwidth	FCC 2.1033(c)(14)/2.1049(i)	Pass
Spurious Emissions at Antenna Terminal	FCC 2.1033(c)(14)/2.1051/24.238	Pass
Field Strength of Spurious Radiation	FCC 2.1033(c)(14)/2.1051/24.238	Pass

CONDITIONS DURING TESTING

No modifications to the EUT were necessary during testing.



EQUIPMENT UNDER TEST (EUT) DESCRIPTION

The customer declares the EUT tested by CKC Laboratories was representative of a production unit.

EQUIPMENT UNDER TEST

Job Link System consists of:

Comvergics RTT Cartridge (3 each)

Manuf: JobSight Solutions
Model: CCK0001
Serial: F000019135113,
F000019135106,
F000019134972

Base Interface Unit

Manuf: JobSight Solutions
Model: JL1000
Serial: 032508

Comvergics EVDO Rev A Cartridge

Manuf: JobSight Solutions
Model: CSW0001
Serial: D26331701720

Power Supply

Manuf: Trim Power
Model: SA5A-150-2000
Serial: NA

PERIPHERAL DEVICES

The EUT was tested with the following peripheral device(s):

GPS Antenna

Manuf: NA
Model: NA
Serial: NA

Lap Top Computer

Manuf: HP
Model: nx5000
Serial: CNU4180X4R

Remote Computer

Manuf: Micron
Model: Client Pro Vxe
Serial: CKC Asset 00803

TEMPERATURE AND HUMIDITY DURING TESTING

The temperature during testing was within +15°C and + 35°C.
The relative humidity was between 20% and 75%.

FCC 2.1033(c)(3) USER'S MANUAL

The necessary information is contained in a separate document.

**FCC 2.1033 (c)(4) TYPE OF EMISSIONS
CDMA2000****FCC 2.1033 (c)(5) FREQUENCY RANGE**
1850-1990 MHz.**FCC 2.1033 (c)(6) OPERATING POWER**
937 mW.**FCC 2.1033 (c)(8) DC VOLTAGES**

The necessary information is contained in a separate document.

FCC 2.1033 (c)(9) TUNE-UP PROCEDURE

The necessary information is contained in a separate document.

FCC 2.1033(c)(10) SCHEMATICS AND CIRCUITRY DESCRIPTION

The necessary information is contained in a separate document.

FCC 2.1033(c)(11) LABEL AND PLACEMENT

The necessary information is contained in a separate document.

FCC 2.1033(c)(12) SUBMITTAL PHOTOS

The necessary information is contained in a separate document.

**FCC 2.1033 (c)(13) MODULATION INFORMATION
EVDO and 1xRTT extensions of CDMA2000**

FCC 2.1033(c)(14)/2.1046/24.232 - RF POWER OUTPUT

Test Setup Photos



Test Data Sheets

Test Location: CKC Laboratories, Inc. • 4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)
 Customer: **JobSight Solutions**
 Specification: **FCC 24.232 Mobil**
 Work Order #: **87823**
 Test Type: **Radiated Scan**
 Equipment: **Job Link System**
 Manufacturer: JobSight Solutions
 Model: see list

Date: 6/12/2008
 Time: 10:41:10
 Sequence#: 6
 Tested By: Mike Wilkinson

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/03/2007	01/03/2009	02660
HP 8491A 10dB Attenuator	2708A47453	11/30/2006	11/30/2008	P01350
Cable 3' 40 GHz Astrolab	NA	01/15/2008	01/15/2010	AN03012

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Job Link System*	JobSight Solutions	see list	
Base Interface Unit	JobSight Solutions	JL1000	032508
Power Supply	Trim Power	SA5A-150-2000	none
Comvergies RTT Cartridge	JobSight Solutions	CCK0001	F000019135113
Comvergies RTT Cartridge	JobSight Solutions	CCK0001	F000019135106
Comvergies RTT Cartridge	JobSight Solutions	CCK0001	F000019134972
Comvergies EVDO Rev A Cartridge	JobSight Solutions	CSW0001	D26331701720

Support Devices:

Function	Manufacturer	Model #	S/N
GPS Antenna	unknown	unknown	none
Remote Computer	Micron	Client Pro Vxe	CKC Asset 00803
Lap Top Computer	HP	nx5000	CNU4180X4R

Test Conditions / Notes:

Standard used was FCC part 24.232 Wireless Cellular Network Adapter for providing phone capability to in-building remote locations. Equipment consists of up to 4 transmitter routed through a combiner to single antenna output. GPS antenna connected to the GPS port 50 Ohm terminations attached to Antenna 2 port. The EUT is connected directly to the Measurement equipment through appropriate attenuation. The 3 RTT cartridges are installed in the EUT Base slots 1 through 3 and the EVDO cartridge is installed in slot 4. The output of each RTT cartridge has been tuned to 19.0 dBm at the output of the EUT antenna port. The output of the EVDO cartridge is not adjustable and is reported and noted in this data sheet. Frequency range investigated was: Carrier. The temperature was 22.3°F and the humidity was 46%. RBW = 3 MHz VBW = 8 MHz. Combined cable and attenuator insertion loss accounted for in the measurements were: 10.1 dB for the frequency range of 1850 to 1990 MHz. Reported power levels are not corrected to ERP.

Conducted Output Power:

EVDO Cartridge Only.

Channel	Freq. MHz	dBm	mWatt	Mobile Limit (mW EIRP)	Max Ant. Gain (dBi)
Low	1851.110	29.7	933	2000	3.3
Mid	1880.070	29.2	832	2000	3.8
High	1908.820	28.9	776	2000	4.1

RTT Cartridge Only.

Channel	Freq. MHz	dBm	mWatt	Mobile Limit (mW EIRP)	Max Ant. Gain (dBi)
Low	1851.110	19.0		2000	14.0
Mid	1880.070	19.0		2000	14.0
High	1908.820	19.0		2000	14.0

Slots 1 & 2 Tx on (2 RTT Cartridges).

Channel	Freq. MHz	dBm	mWatt	Mobile Limit (mW EIRP)	Max Ant. Gain (dBi)
Low	1851.500	22.7	186	2000	10.3
Mid	1880.250	22.4	174	2000	10.6
High	1908.100	22.4	174	2000	10.6

Slots 2 & 4 (1 RTT & 1 EVDO Cartridge).

Channel	Freq. MHz	dBm	mWatt	Mobile Limit (mW EIRP)	Max Ant. Gain (dBi)
Low	1851.220	21.7	148	2000	11.3
Mid	1879.950	22.1	162	2000	10.9
High	1909.050	22.2	166	2000	10.8

The maximum net antenna gain including cable loss for satisfying mobile station limits in accordance with 24.232(c) and in this configuration of the equipment is 3.3 dBi.

FCC 2.1033(c)(14)/2.1049(i)- OCCUPIED BANDWIDTH

OBW Tests Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/03/2007	01/03/2009	02660
HP 8491A 10dB Attenuator	2708A47453	11/30/2006	11/30/2008	P01350
Cable 3' 40 GHz Astrolab NA		01/15/2008	01/15/2010	AN03012

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Job Link System*	JobSight Solutions	see list	
Base Interface Unit	JobSight Solutions	JL1000	032508
Power Supply	Trim Power	SA5A-150-2000	none
Comvergics RTT Cartridge	JobSight Solutions	CCK0001	F000019135113
Comvergics RTT Cartridge	JobSight Solutions	CCK0001	F000019135106
Comvergics RTT Cartridge	JobSight Solutions	CCK0001	F000019134972
Comvergics EVDO Rev A Cartridge	JobSight Solutions	CSW0001	D26331701720

Support Devices:

Function	Manufacturer	Model #	S/N
GPS Antenna	unknown	unknown	none
Remote Computer	Micron	Client Pro Vxe	CKC Asset 00803
Lap Top Computer	HP	nx5000	CNU4180X4R

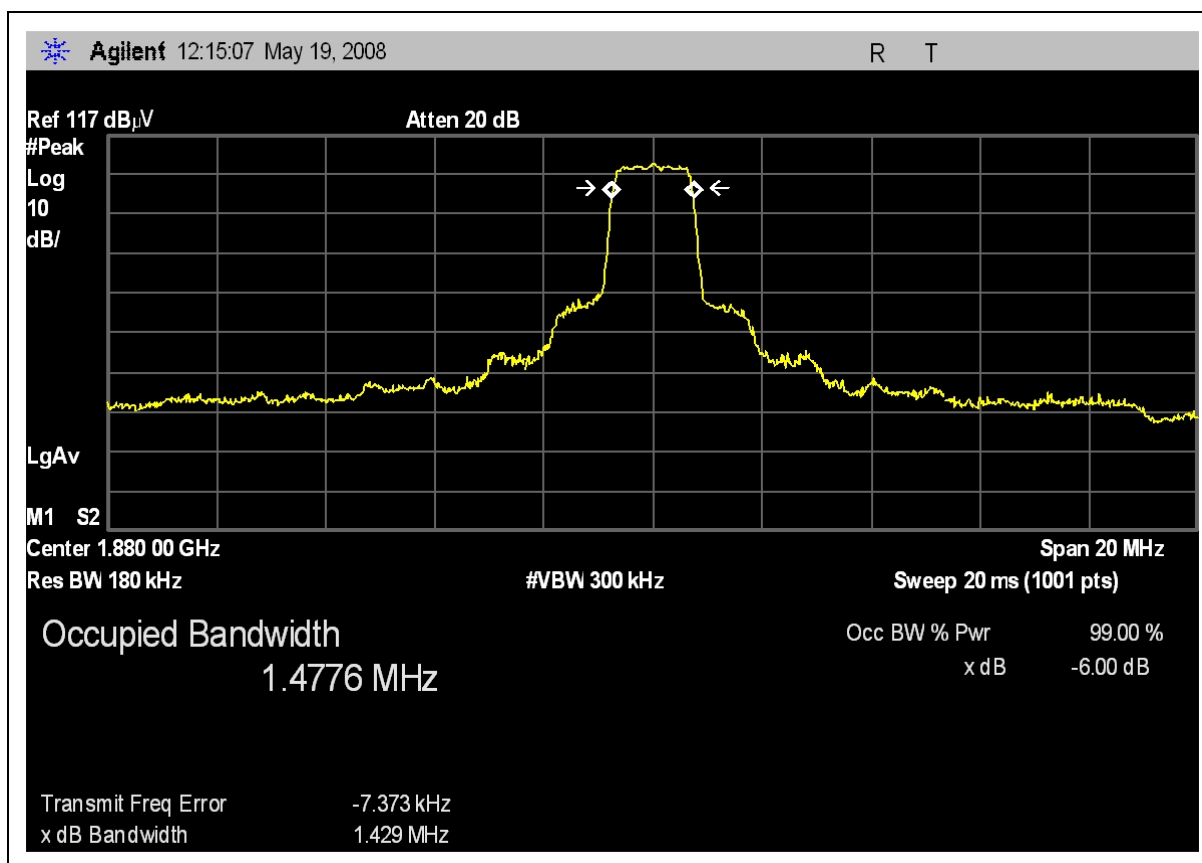
Test Conditions / Notes:

Standard used was FCC 2.1033©(14)/2.1049(i) Wireless Cellular Network Adapter for providing phone capability to in-building remote locations. Equipment consists of up to 4 transmitter routed through a combiner to single antenna output. GPS antenna connected to the GPS port 50 Ohm terminations attached to Antenna 2 port. EUT is connected directly to the Measurement equipment through appropriate attenuation. The 3 RTT cartridges are installed in the EUT Base slots 1 through 3 and the EVDO cartridge is installed in slot 4. The output of each RTT cartridge has been tuned to 19.0 dBm at the output of the EUT antenna port. The output of the EVDO cartridge is not adjustable and is reported and noted in this data sheet. Frequency range investigated was: Carrier. The temperature was 22.3°F and the humidity was 46%.

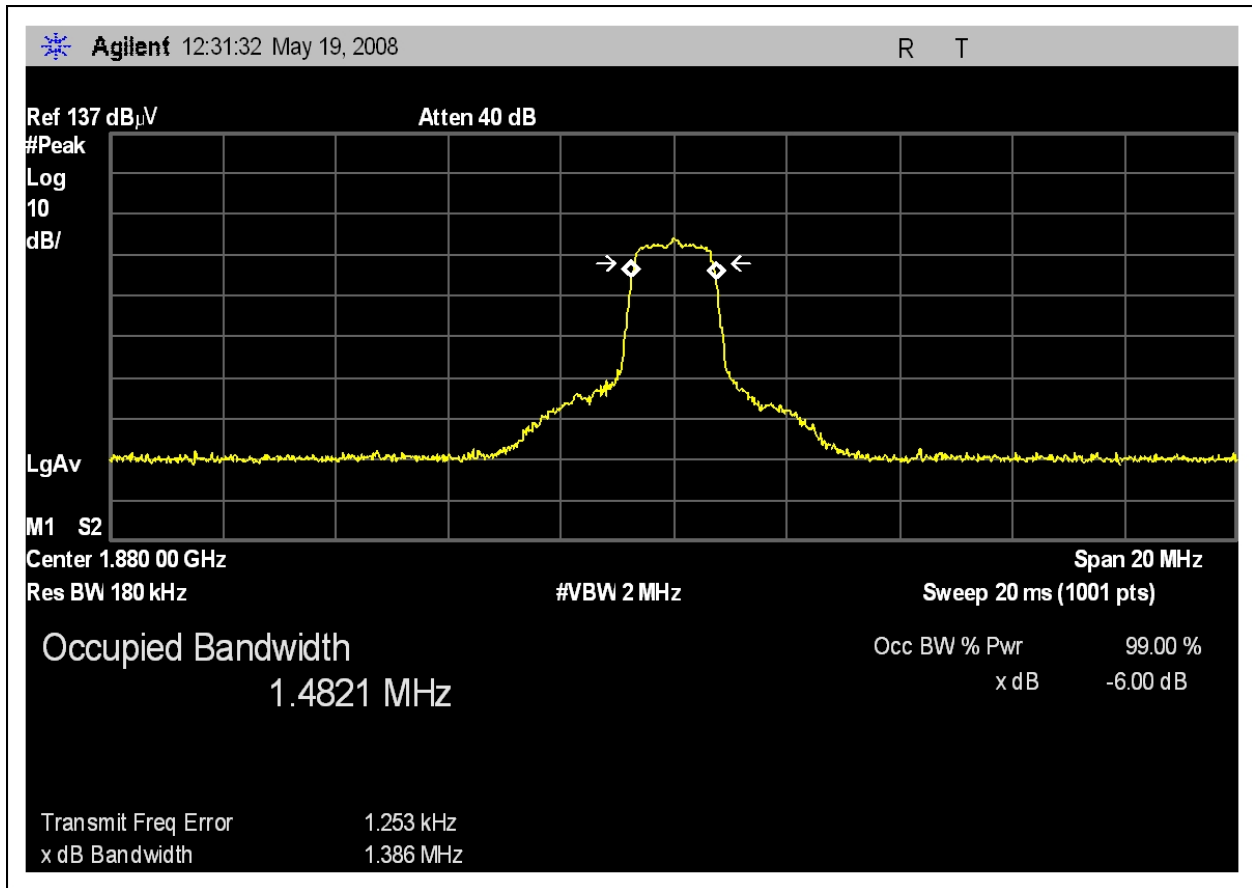
Test Setup Photos



Test Plots



RTT Cartridge



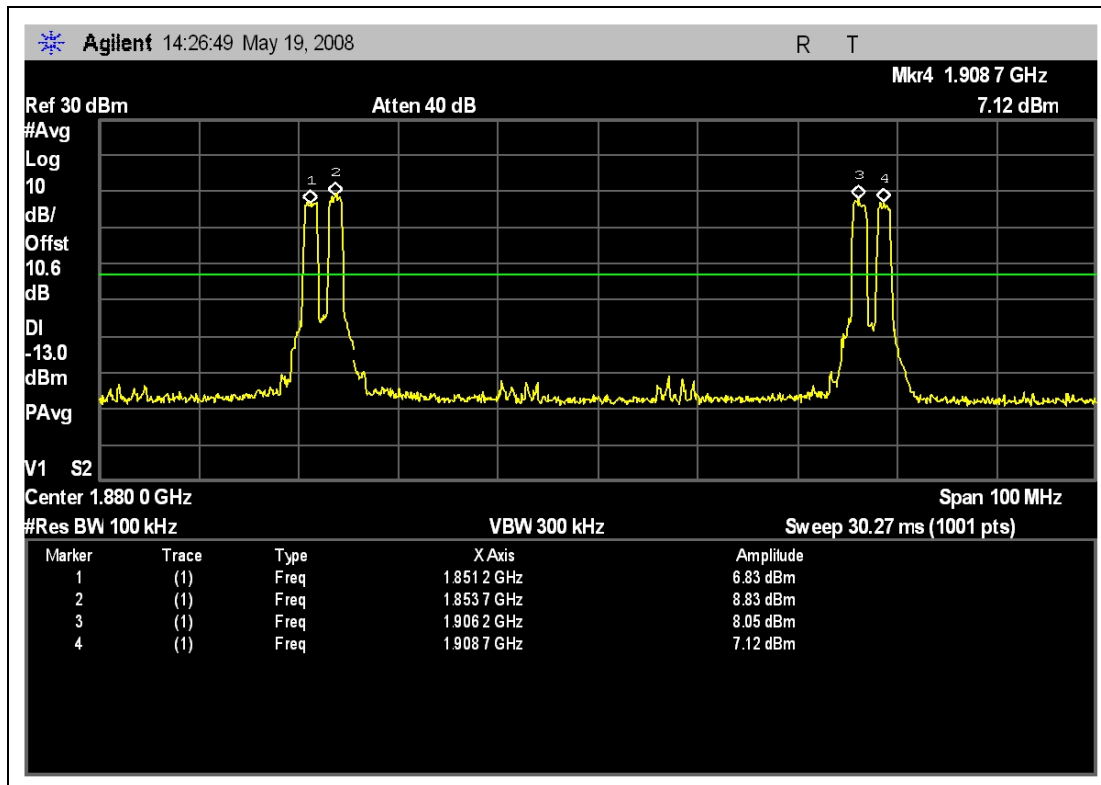
EVDO Cartridge

FCC 2.1033(c)(14)/2.1051/24.238 - SPURIOUS EMISSIONS AT ANTENNA TERMINAL

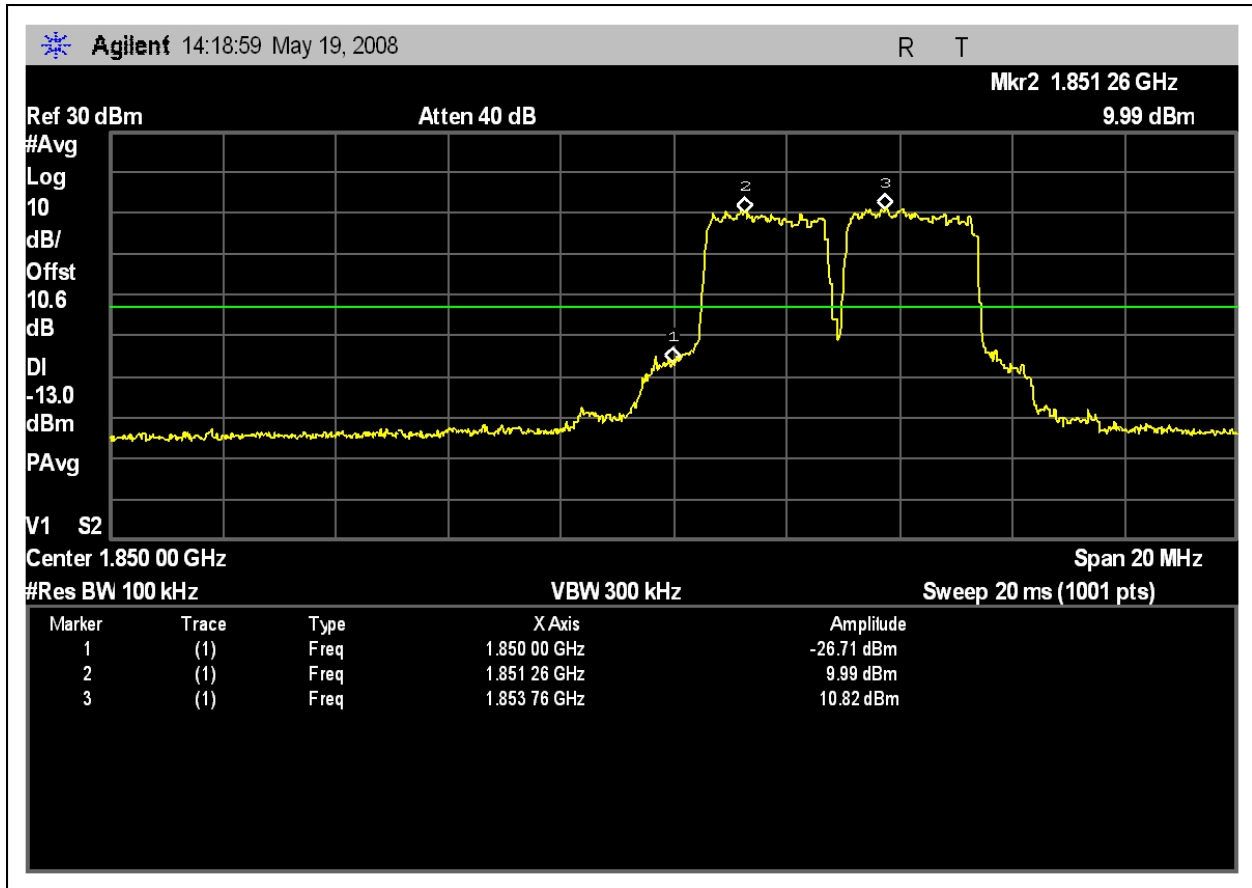
Test Setup Photos



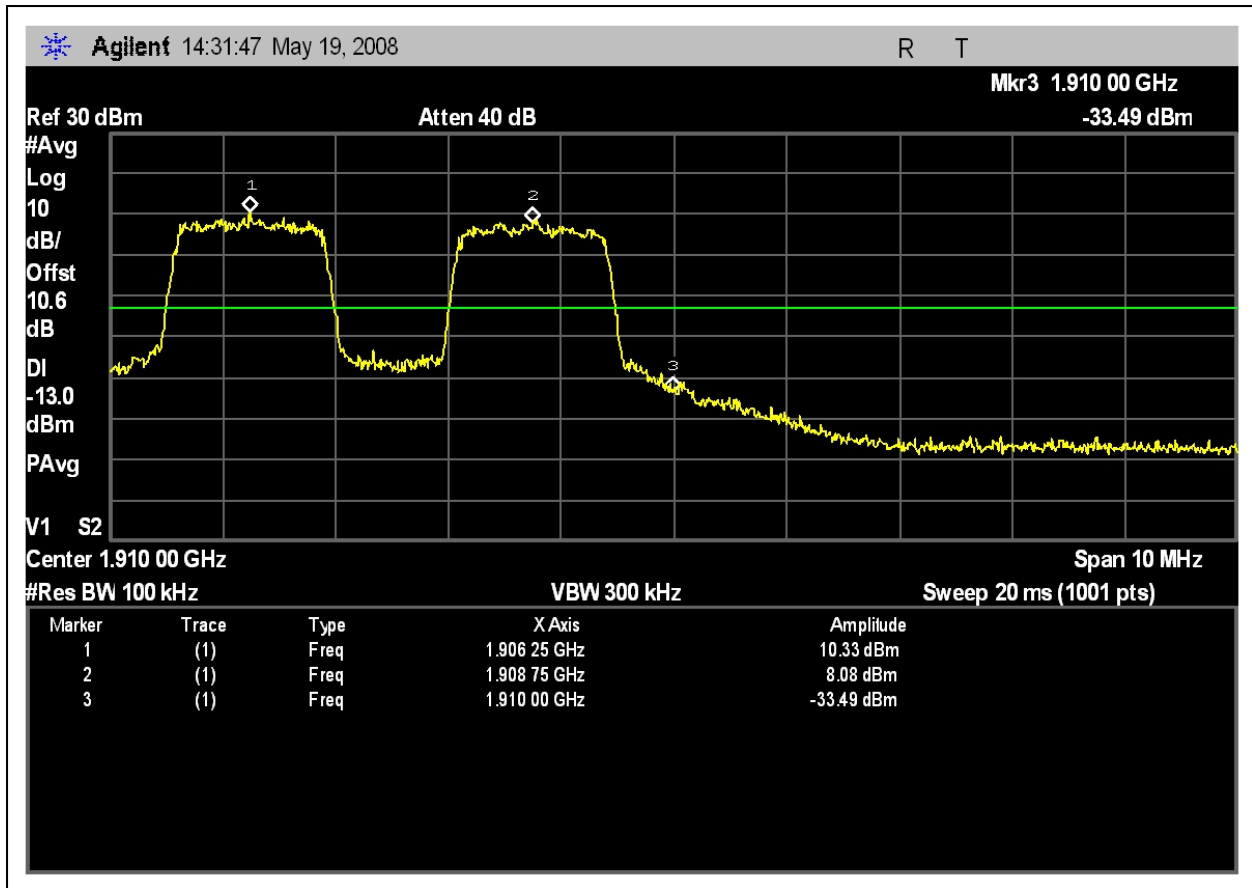
Test Data



Full Band



Low End Expanded



High End Expanded



Test Location: CKC Laboratories, Inc. • 4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **JobSight Solutions**

Specification: **24.238**

Work Order #: **87823**

Test Type: **Radiated Scan**

Equipment: **Job Link System**

Manufacturer: **JobSight Solutions**

Model: **see list**

S/N:

Date: 6/12/2008

Time: 14:29:59

Sequence#: 7

Tested By: Mike Wilkinson

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/03/2007	01/03/2009	02660
HP 8491A 10dB Attenuator	2708A47453	11/30/2006	11/30/2008	P01350
Cable 3' 40 GHz Astrolab	NA	01/15/2008	01/15/2010	AN03012

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Job Link System*	JobSight Solutions	see list	
Base Interface Unit	JobSight Solutions	JL1000	032508
Power Supply	Trim Power	SA5A-150-2000	none
Comvergics RTT Cartridge	JobSight Solutions	CCK0001	F000019135113
Comvergics RTT Cartridge	JobSight Solutions	CCK0001	F000019135106
Comvergics RTT Cartridge	JobSight Solutions	CCK0001	F000019134972
Comvergics EVDO Rev A Cartridge	JobSight Solutions	CSW0001	D26331701720

Support Devices:

Function	Manufacturer	Model #	S/N
GPS Antenna	unknown	unknown	none
Remote Computer	Micron	Client Pro Vxe	CKC Asset 00803
Lap Top Computer	HP	nx5000	CNU4180X4R

Test Conditions / Notes:

Standard used was FCC part 24.238/2.1051. Wireless Cellular Network Adapter for providing phone capability to in-building remote locations. Equipment consists of up to 4 transmitter routed through a combiner to single antenna output. GPS antenna connected to the GPS port 50 Ohm terminations attached to Antenna 2 port. The EUT is connected directly to the Measurement equipment through appropriate attenuation. The 3 RTT cartridges are installed in the EUT Base slots 1 through 3 and the EVDO cartridge is installed in slot 4. The output of each RTT cartridge has been tuned to 19.0 dBm at the output of the EUT antenna port. The output of the EVDO cartridge is not adjustable. Frequency range investigated was: 30 - 20000 MHz. Transmit frequencies set as follows: slot 1=1851.25 MHz, slot 2 = 1853.75, slot 3 = 1906.25 MHz, slot 4 = 1908.75 MHz. All transmitters are on and transmitting. The temperature was 22.3° F and the humidity was 46%. RBW = 3 MHz VBW = 8 MHz.

Transducer Legend:

T1=ATT P01350-113006	T2=CAB-AN03012-40GHZ-3FT
----------------------	--------------------------

Measurement Data:		Reading listed by margin.				Test Distance: None					
#	Freq MHz	Rdng dB μ V	T1 dB	T2 dB			Dist Table	Corr dBm	Spec dBm	Margin dB	Polar Ant
1	1833.300M	-49.7	+10.1	+0.5			+0.0	-39.1	-13.0	-26.1	None
2	3818.000M	-51.5	+10.4	+0.7			+0.0	-40.4	-13.0	-27.4	None
3	7424.400M	-52.1	+10.2	+1.0			+0.0	-40.9	-13.0	-27.9	None
4	7633.000M	-52.3	+10.2	+1.0			+0.0	-41.1	-13.0	-28.1	None
5	3706.200M	-53.4	+10.4	+0.7			+0.0	-42.3	-13.0	-29.3	None
6	5725.500M	-55.6	+10.3	+0.9			+0.0	-44.4	-13.0	-31.4	None
7	5571.300M	-56.3	+10.2	+0.9			+0.0	-45.2	-13.0	-32.2	None

FCC 2.1033(c)(14)/2.1053/24.238 - FIELD STRENGTH OF SPURIOUS RADIATION

Test Setup Photos



Test Data

Test Location: CKC Laboratories, Inc. • 4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)
 Customer: **JobSight Solutions**
 Specification: **24.238**
 Work Order #: **87823** Date: 6/13/2008
 Test Type: **Radiated Scan** Time: 13:22:50
 Equipment: **Job Link System** Sequence#: 13
 Manufacturer: JobSight Solutions Tested By: Mike Wilkinson
 Model: see list
 S/N:

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/03/2007	01/03/2009	02660
Chase CBL6111C Bilog	2456	12/30/2006	12/30/2008	01991
EMCO 3115 Horn Antenna	9307-4085	03/17/2007	03/17/2009	00656
ARA MWH-1826/B Horn Antenna	1005	11/26/2006	11/26/2008	02046
HP 8447D Preamp	1937A02604	03/14/2007	03/14/2009	00099
HP 8449B Preamp	3008A00301	12/13/2006	12/13/2008	2010
3M SITE CABLE 20GHZ	NA	03/06/2008	03/06/2010	SITED3M1
Andrews Hardline (25')	CKC 1012	04/23/2007	04/23/2009	P01012
Cable 2' 40 GHz Astrolab	NA	01/15/2008	01/15/2010	AN03011
Cable 3' 40 GHz Astrolab	NA	01/15/2008	01/15/2010	AN03012

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Job Link System*	JobSight Solutions	see list	
Base Interface Unit	JobSight Solutions	JL1000	032508
Power Supply	Trim Power	SA5A-150-2000	none
Comvergics RTT Cartridge	JobSight Solutions	CCK0001	F000019135113
Comvergics RTT Cartridge	JobSight Solutions	CCK0001	F000019135106
Comvergics RTT Cartridge	JobSight Solutions	CCK0001	F000019134972
Comvergics EVDO Rev A Cartridge	JobSight Solutions	CSW0001	D26331701720

Support Devices:

Function	Manufacturer	Model #	S/N
GPS Antenna	unknown	unknown	none
Remote Computer	Micron	Client Pro Vxe	CKC Asset 00803
Lap Top Computer	HP	nx5000	CNU4180X4R

Test Conditions / Notes:

Standard used was FCC part 24.238/2.1051. Wireless Cellular Network Adapter for providing phone capability to in-building remote locations. Equipment consists of up to 4 transmitter routed through a combiner to single antenna output. GPS antenna connected to the GPS port 50 Ohm termination attached to Antenna 2 port. 50 Ohm termination attached to Antenna port. The 3 RTT cartridges are installed in the EUT Base slots 1 through 3 and the EVDO cartridge is installed in slot 4. The output of each RTT cartridge has been tuned to 19.0 dBm at the output of the EUT antenna port. The output of the EVDO cartridge is not adjustable. Frequency range investigated was: 30 - 10000 MHz. Transmit frequencies set as follows: slot 1=1851.25 MHz, slot 2 = 1853.75, slot 3 = 1906.25 MHz, slot 4 = 1908.75 MHz. All transmitters are on and transmitting. The temperature was 22.3°F and the humidity was 46% RBW=120kHz 30 to 1000 MHz, 1 MHz 1000 to 20000 MHz.

Operating Frequency: 1850-1990 MHz

Channels: 1851.25 MHz, 1853.75 MHz, 1906.25 MHz & 1908.75 MHz

Highest Measured Output Power: 29.72 ERP(dBm)= 0.937 ERP(Watts)

Distance: 3 meters

Limit: $43+10\log(P)$ 42.72 dBc

Freq. (MHz)	Reference Level (dBm)	Antenna Polarity (H/V)	dBc
3,818.32	-34	Horiz	63.72
3,817.36	-34.6	Vert	64.32
5,718.10	-38.8	Vert	68.52
5,718.48	-39.9	Horiz	69.62
3,706.90	-40.1	Horiz	69.82
3,707.86	-40.6	Vert	70.32
5,718.10	-40.8	Horiz	70.52
3,812.54	-41	Vert	70.72
3,812.82	-41.7	Horiz	71.42
5,554.55	-43.6	Vert	73.32
3,702.14	-45.1	Vert	74.82