



**IP MOBILENET TEST REPORT**

**FOR THE**

**BASE STATION RADIO, BSR P25**

**FCC PART 90, FCC PART 15 SUBPART B SECTIONS 15.107 CLASS A,  
15.109 CLASS A & 15.111 AND RSS-119**

**TESTING**

**DATE OF ISSUE: FEBRUARY 18, 2008**

**PREPARED FOR:**

IP MobileNet  
16842 Von Karman Avenue  
Irvine, CA 92606

P.O. No.: 005459-00  
W.O. No.: 87564

**PREPARED BY:**

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

Date of test: February 4-12, 2008

<b>Report No.: FC08-015</b>
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## ADMINISTRATIVE INFORMATION

**DATE OF TEST:** February 4-12, 2008

**DATE OF RECEIPT:** February 4, 2008

**REPRESENTATIVE:** Behruz Rezvani

**MANUFACTURER:**  
TELTRONIC S.A.U.  
Poligono Malpica, Calle F-Oeste  
50057 Zaragoza, Spain

**TEST LOCATION:**  
CKC Laboratories, Inc.  
110 Olinda Place  
Brea, CA 92823

**FREQUENCY RANGE TESTED:** 9 kHz -9 GHz

**TEST METHOD:** TIA/EIA 603, FCC Part 90, RSS-119 and RSS-GEN

**PURPOSE OF TEST:** To perform the testing of the Base Station Radio, BSR P25 with the requirements for FCC Part 90, FCC Part 15 Subpart B Sections 15.107 Class A, 15.109 Class A & 15.111, and RSS-119 devices.

## APPROVALS

### QUALITY ASSURANCE:

Steve Behm, Director of Engineering Services

### TEST PERSONNEL:

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Shamnderjit Hundal, Test Technologist

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Stuart Yamamoto, EMC Engineer

## SUMMARY OF RESULTS

Test	Specification/Method	Results
Mains Conducted Emissions	FCC Part 15 Subpart B Section 15.107 Class A	Pass
Radiated Emissions	FCC Part 15 Subpart B Section 15.109 Class A	Pass
Antenna Port Test for Receivers	FCC Part 15 Subpart B Section 15.111	Pass
RF Power Output	FCC 2.1046/90.205(j)	Pass
Bandwidth Limitations	FCC 2.1049/90.209(b)(5)	Pass
Emissions Mask	FCC 2.1049/90.210	Pass
Antenna Conducted Spurious Emissions	FCC2.1051/90.210(g)	Pass
Field Strength Spurious Emissions	FCC 2.1053/90.210(g)	Pass
Frequency Stability	FCC 2.1055(a) & (d)/90.213(a)	Pass
99% Bandwidth	RSS-119	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**

### **Base Station Radio**

Manuf: TELTRONIC S.A.U.  
Model: BSR P25 806-870  
Serial: 820978  
FCC ID: MI7-BSRP25 (pending)

## **PERIPHERAL DEVICES**

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

### **Power Supply**

Manuf: Astron  
Model: VLS-35M  
Serial: 208010009

### **Laptop Computer**

Manuf: Dell Corporation  
Model: Inspiron 4100  
Serial: 8J6H711



#### **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**

F1W

#### **FCC 2.1033 (c)(5) FREQUENCY RANGE**

851-869 MHz transmitter, 806-824 MHz receive.

#### **FCC 2.1033 (c)(6) OPERATING POWER**

120 Watts.

#### **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**

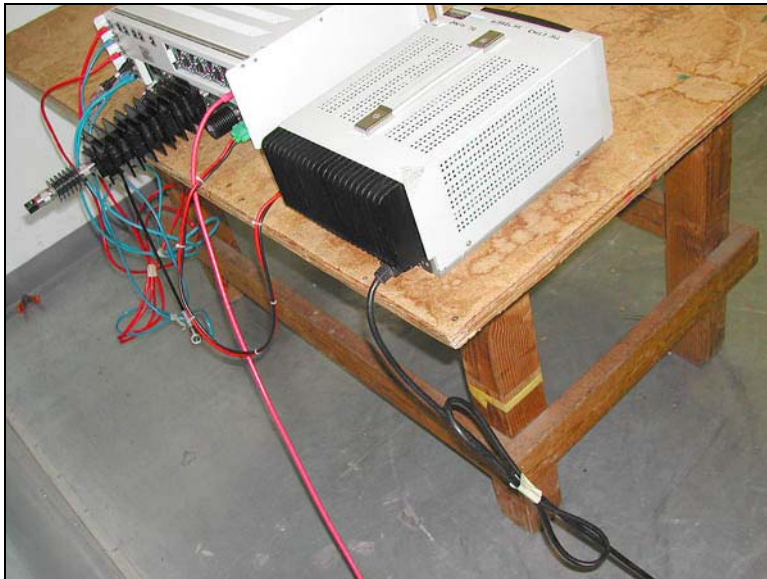
The necessary information is contained in a separate document.

#### **FCC 2.1033 (c)(13) MODULATION INFORMATION**

C4FM

## **FCC 15.107 – AC CONDUCTED EMISSIONS**

### **Test Setup Photos**



## Test Data Sheets

Test Location: CKC Laboratories, Inc. • 110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **IP MobileNet**  
 Specification: **FCC 15.107 Class A COND QP**  
 Work Order #: **87564** Date: 2/7/2008  
 Test Type: **Conducted Emissions** Time: 5:06:54 PM  
 Equipment: **Base Station Radio** Sequence#: 2  
 Manufacturer: **TELTRONIC S.A.U.** Tested By: **Shaminderjit Hundal**  
 Model: **BSR P25 806-870** 120V 60Hz  
 S/N: **820978**

### Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
LISN	1102	05/11/2007	05/11/2009	00848
High Pass Filter	D5201	01/31/2007	01/31/2009	02343
6dB Attenuator		11/21/2006	11/21/2008	P05613
Coaxial Cable	Cable #8	05/31/2006	05/31/2008	P01910
Quasi Peak Adapter	3303A01884	09/14/2006	09/14/2008	01437
Spectrum Analyzer	3001A18430	09/14/2006	09/14/2008	02472
Display Section				
Spectrum Analyzer	2928A04874	09/14/2006	09/14/2008	02462
RF Section				

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
Base Station Radio*	TELTRONIC S.A.U.	BSR P25 806-870	820978

### Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Dell Corporation	Inspiron 4100	8J6H711
Power Supply	Astron	VLS-35M	208010009

### Test Conditions / Notes:

The equipment under test (EUT) is a base station radio. The EUT and support equipment are located on the table top. The EUT VT100\_RCPU port is connected to a remote laptop computer via shielded ethernet cable. Once the EUT is configured, this cable is removed from the EUT since it is a maintenance port. The EUT RF\_IN1 port is connected to a coaxial cable terminated into a fifty ohm load. The EUT RF\_OUT port is connected to high power attenuators terminated into a fifty ohm load. The following ports are connected in loopback using shielded cat. 5 cables: Ethernet A to Ethernet B, Synchronous out 1 to Synchronous in 2, Synchronous out 2 to Synchronous in 1. The power supply is providing 26.4Vdc to the EUT. The test is performed with the EUT receiving on its low (851MHz) channel. The frequency range covered on this data sheet is 150kHz to 30MHz. The receive range of the EUT is 806MHz to 824MHz. Bandwidth used: 9kHz to 150kHz 200Hz, 150kHz to 30MHz 9kHz.

### Transducer Legend:

T1=(L1) Insertion Loss 00848 EMCO 3816/2	T2=HP Filter AN 02343_013108
T3=6dB Attenuator P05613	T4=Cable #8 Conducted Site D

### Measurement Data: Reading listed by margin. Test Lead: Black

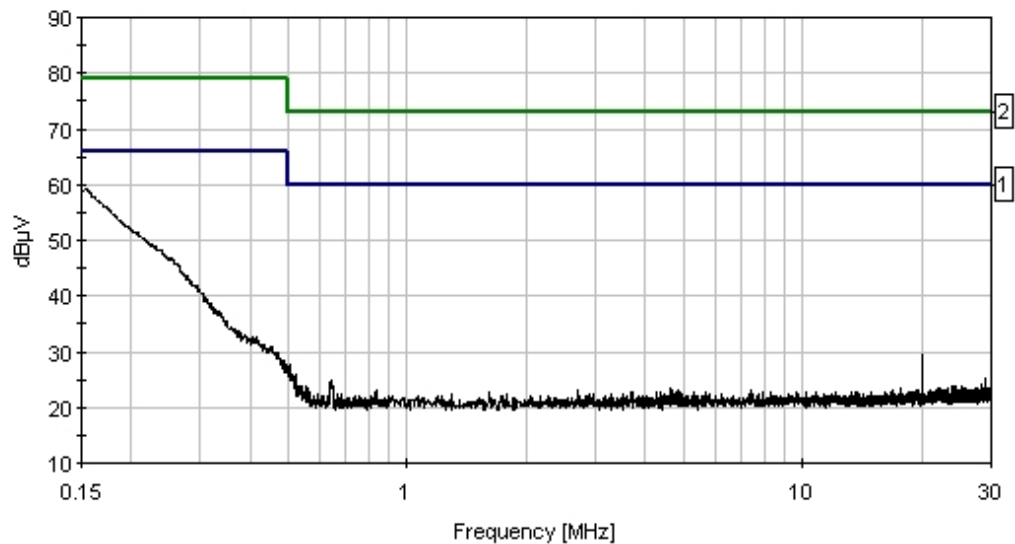
#	Freq MHz	Rdng dB $\mu$ V	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dB $\mu$ V	Spec dB $\mu$ V	Margin dB	Polar Ant
1	153.636k	50.7	+0.0	+2.4	+6.1	+0.0	+0.0	59.2	79.0	-19.8	Black



2	20.022M	22.0	+0.8	+0.1	+6.1	+0.4	+0.0	29.4	73.0	-43.6	Black
3	504.146k	21.2	+0.0	+0.3	+6.2	+0.1	+0.0	27.8	73.0	-45.2	Black
4	521.599k	19.4	+0.0	+0.3	+6.2	+0.1	+0.0	26.0	73.0	-47.0	Black
5	524.508k	18.9	+0.0	+0.3	+6.2	+0.1	+0.0	25.5	73.0	-47.5	Black
6	517.963k	18.8	+0.0	+0.3	+6.2	+0.1	+0.0	25.4	73.0	-47.6	Black
7	29.089M	17.1	+1.0	+0.3	+6.2	+0.5	+0.0	25.1	73.0	-47.9	Black
8	643.042k	18.1	+0.1	+0.3	+6.1	+0.1	+0.0	24.7	73.0	-48.3	Black
9	28.253M	16.3	+0.9	+0.3	+6.2	+0.4	+0.0	24.1	73.0	-48.9	Black
10	533.234k	17.4	+0.0	+0.3	+6.1	+0.1	+0.0	23.9	73.0	-49.1	Black
11	23.840M	16.5	+0.8	+0.2	+6.1	+0.3	+0.0	23.9	73.0	-49.1	Black
12	25.224M	16.4	+0.8	+0.3	+6.1	+0.3	+0.0	23.9	73.0	-49.1	Black
13	541.234k	17.3	+0.0	+0.3	+6.1	+0.1	+0.0	23.8	73.0	-49.2	Black
14	555.778k	17.2	+0.1	+0.3	+6.1	+0.1	+0.0	23.8	73.0	-49.2	Black
15	24.094M	16.4	+0.8	+0.2	+6.1	+0.3	+0.0	23.8	73.0	-49.2	Black
16	24.320M	16.2	+0.8	+0.3	+6.1	+0.3	+0.0	23.7	73.0	-49.3	Black
17	4.641M	16.8	+0.1	+0.3	+6.2	+0.2	+0.0	23.6	73.0	-49.4	Black
18	21.923M	16.0	+0.8	+0.3	+6.1	+0.4	+0.0	23.6	73.0	-49.4	Black
19	22.166M	16.0	+0.8	+0.3	+6.1	+0.4	+0.0	23.6	73.0	-49.4	Black
20	24.429M	16.1	+0.8	+0.3	+6.1	+0.3	+0.0	23.6	73.0	-49.4	Black
21	553.596k	16.9	+0.1	+0.3	+6.1	+0.1	+0.0	23.5	73.0	-49.5	Black
22	17.689M	16.1	+0.7	+0.3	+6.1	+0.3	+0.0	23.5	73.0	-49.5	Black
23	22.283M	16.0	+0.8	+0.2	+6.1	+0.4	+0.0	23.5	73.0	-49.5	Black
24	27.246M	15.8	+0.9	+0.3	+6.1	+0.4	+0.0	23.5	73.0	-49.5	Black
25	559.414k	16.8	+0.1	+0.3	+6.1	+0.1	+0.0	23.4	73.0	-49.6	Black

26	23.285M	16.0	+0.8	+0.2	+6.1	+0.3	+0.0	23.4	73.0	-49.6	Black
27	25.512M	15.9	+0.8	+0.3	+6.1	+0.3	+0.0	23.4	73.0	-49.6	Black
28	25.841M	15.9	+0.8	+0.3	+6.1	+0.3	+0.0	23.4	73.0	-49.6	Black
29	24.272M	15.8	+0.8	+0.3	+6.1	+0.3	+0.0	23.3	73.0	-49.7	Black
30	27.602M	15.6	+0.9	+0.2	+6.2	+0.4	+0.0	23.3	73.0	-49.7	Black

CKC Laboratories, Inc. Date: 2/7/2008 Time: 5:06:54 PM IP MobileNet WVO#: 87564  
FCC 15.107 Class A COND QP Test Lead: Black 120V 60Hz Sequence#: 2  
IP MobileNet, BSR P25 806-870





Test Location: CKC Laboratories, Inc. • 110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **IP MobileNet**  
 Specification: **FCC 15.107 Class A COND QP**  
 Work Order #: **87564** Date: 2/7/2008  
 Test Type: **Conducted Emissions** Time: 5:11:40 PM  
 Equipment: **Base Station Radio** Sequence#: 3  
 Manufacturer: **TELTRONIC S.A.U.** Tested By: **Stuart Yamamoto**  
 Model: **BSR P25 806-870** 120V 60Hz  
 S/N: **820978**

**Test Equipment:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
LISN	1102	05/11/2007	05/11/2009	00848
High Pass Filter	D5201	01/31/2007	01/31/2009	02343
6dB Attenuator		11/21/2006	11/21/2008	P05613
Coaxial Cable	Cable #8	05/31/2006	05/31/2008	P01910
Quasi Peak Adapter	3303A01884	09/14/2006	09/14/2008	01437
Spectrum Analyzer	3001A18430	09/14/2006	09/14/2008	02472
Display Section				
Spectrum Analyzer	2928A04874	09/14/2006	09/14/2008	02462
RF Section				

**Equipment Under Test (\* = EUT):**

Function	Manufacturer	Model #	S/N
Base Station Radio*	TELTRONIC S.A.U.	BSR P25 806-870	820978

**Support Devices:**

Function	Manufacturer	Model #	S/N
Laptop Computer	Dell Corporation	Inspiron 4100	8J6H711
Power Supply	Topward	6306D	988614

**Test Conditions / Notes:**

The equipment under test (EUT) is a base station radio. The EUT and support equipment are located on the table top. The EUT VT100\_RCPU port is connected to a remote laptop computer via shielded ethernet cable. Once the EUT is configured, this cable is removed from the EUT since it is a maintenance port. The EUT RF\_IN1 port is connected to a coaxial cable terminated into a fifty ohm load. The EUT RF\_OUT port is connected to high power attenuators terminated into a fifty ohm load. The following ports are connected in loopback using shielded cat. 5 cables: Ethernet A to Ethernet B, Synchronous out 1 to Synchronous in 2, Synchronous out 2 to Synchronous in 1. The power supply is providing 26.4Vdc to the EUT. The test is performed with the EUT receiving on its low (851MHz) channel. The frequency range covered on this data sheet is 150kHz to 30MHz. The receive range of the EUT is 806MHz to 824MHz. Bandwidth used: 9kHz to 150kHz 200Hz, 150kHz to 30MHz 9kHz.

**Transducer Legend:**

T1=(L2) Insertion Loss 00848 EMCO 3816/2	T2=HP Filter AN 02343_013108
T3=6dB Attenuator P05613	T4=Cable #8 Conducted Site D

**Measurement Data:**

Reading listed by margin.

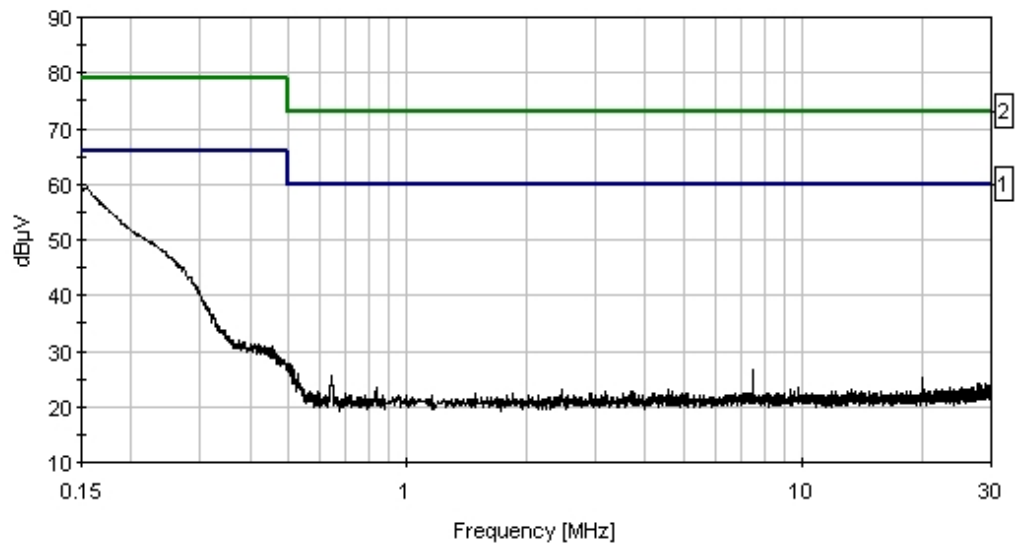
Test Lead: White

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	154.363k	51.1	+0.1	+2.2	+6.1	+0.0	+0.0	59.5	79.0	-19.5	White
2	500.510k	21.0	+0.0	+0.3	+6.2	+0.1	+0.0	27.6	73.0	-45.4	White

3	504.874k	21.0	+0.0	+0.3	+6.2	+0.1	+0.0	27.6	73.0	-45.4	White
4	7.481M	19.6	+0.4	+0.2	+6.2	+0.3	+0.0	26.7	73.0	-46.3	White
5	517.963k	19.9	+0.0	+0.3	+6.2	+0.1	+0.0	26.5	73.0	-46.5	White
6	527.417k	19.4	+0.0	+0.3	+6.2	+0.1	+0.0	26.0	73.0	-47.0	White
7	643.042k	18.9	+0.1	+0.3	+6.1	+0.1	+0.0	25.5	73.0	-47.5	White
8	20.022M	18.0	+0.6	+0.1	+6.1	+0.4	+0.0	25.2	73.0	-47.8	White
9	28.054M	16.2	+1.1	+0.3	+6.2	+0.4	+0.0	24.2	73.0	-48.8	White
10	29.123M	16.0	+1.2	+0.3	+6.2	+0.5	+0.0	24.2	73.0	-48.8	White
11	27.581M	16.2	+1.1	+0.2	+6.2	+0.4	+0.0	24.1	73.0	-48.9	White
12	27.917M	16.1	+1.1	+0.3	+6.2	+0.4	+0.0	24.1	73.0	-48.9	White
13	29.068M	16.0	+1.1	+0.3	+6.2	+0.5	+0.0	24.1	73.0	-48.9	White
14	28.917M	15.7	+1.1	+0.3	+6.2	+0.5	+0.0	23.8	73.0	-49.2	White
15	29.472M	15.6	+1.2	+0.3	+6.2	+0.5	+0.0	23.8	73.0	-49.2	White
16	29.753M	15.5	+1.2	+0.4	+6.2	+0.5	+0.0	23.8	73.0	-49.2	White
17	28.232M	15.7	+1.1	+0.3	+6.2	+0.4	+0.0	23.7	73.0	-49.3	White
18	25.395M	16.0	+0.9	+0.3	+6.1	+0.3	+0.0	23.6	73.0	-49.4	White
19	29.164M	15.4	+1.2	+0.3	+6.2	+0.5	+0.0	23.6	73.0	-49.4	White
20	28.006M	15.5	+1.1	+0.3	+6.2	+0.4	+0.0	23.5	73.0	-49.5	White
21	29.815M	15.2	+1.2	+0.4	+6.2	+0.5	+0.0	23.5	73.0	-49.5	White
22	836.477k	16.9	+0.0	+0.3	+6.1	+0.1	+0.0	23.4	73.0	-49.6	White
23	23.696M	16.0	+0.8	+0.2	+6.1	+0.3	+0.0	23.4	73.0	-49.6	White
24	29.767M	15.1	+1.2	+0.4	+6.2	+0.5	+0.0	23.4	73.0	-49.6	White
25	9.788M	16.0	+0.5	+0.3	+6.2	+0.3	+0.0	23.3	73.0	-49.7	White
26	26.656M	15.5	+1.0	+0.3	+6.1	+0.4	+0.0	23.3	73.0	-49.7	White

27	26.958M	15.5	+1.0	+0.3	+6.1	+0.4	+0.0	23.3	73.0	-49.7	White
28	22.400M	15.8	+0.8	+0.2	+6.1	+0.3	+0.0	23.2	73.0	-49.8	White
29	26.046M	15.5	+1.0	+0.3	+6.1	+0.3	+0.0	23.2	73.0	-49.8	White
30	26.273M	15.4	+1.0	+0.3	+6.1	+0.4	+0.0	23.2	73.0	-49.8	White

CKC Laboratories, Inc. Date: 2/7/2008 Time: 5:11:40 PM IP MobileNet WVO#: 87564  
FCC 15.107 Class A COND QP Test Lead: White 120V 60Hz Sequence#: 3  
IP MobileNet, BSR P25 806-870



— Sweep Data  
— 1 - FCC 15.107 Class A COND AVE  
— 2 - FCC 15.107 Class A COND QP



Test Location: CKC Laboratories, Inc. • 110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **IP MobileNet**  
 Specification: **FCC 15.107 Class A COND QP**  
 Work Order #: **87564**  
 Test Type: **Conducted Emissions**  
 Equipment: **Base Station Radio**  
 Manufacturer: **TELTRONIC S.A.U.**  
 Model: **BSR P25 806-870**  
 S/N: **820978**

Date: 2/7/2008  
 Time: 5:16:53 PM  
 Sequence#: 4  
 Tested By: Shaminderjit Hundal  
 120V 60Hz

**Test Equipment:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
LISN	1102	05/11/2007	05/11/2009	00848
High Pass Filter	D5201	01/31/2007	01/31/2009	02343
6dB Attenuator		11/21/2006	11/21/2008	P05613
Coaxial Cable	Cable #8	05/31/2006	05/31/2008	P01910
Quasi Peak Adapter	3303A01884	09/14/2006	09/14/2008	01437
Spectrum Analyzer	3001A18430	09/14/2006	09/14/2008	02472
Display Section				
Spectrum Analyzer	2928A04874	09/14/2006	09/14/2008	02462
RF Section				

**Equipment Under Test (\* = EUT):**

Function	Manufacturer	Model #	S/N
Base Station Radio*	TELTRONIC S.A.U.	BSR P25 806-870	820978

**Support Devices:**

Function	Manufacturer	Model #	S/N
Laptop Computer	Dell Corporation	Inspiron 4100	8J6H711
Power Supply	Topward	6306D	988614

**Test Conditions / Notes:**

The equipment under test (EUT) is a base station radio. The EUT and support equipment are located on the table top. The EUT VT100\_RCPU port is connected to a remote laptop computer via shielded ethernet cable. Once the EUT is configured, this cable is removed from the EUT since it is a maintenance port. The EUT RF\_IN1 port is connected to a coaxial cable terminated into a fifty ohm load. The EUT RF\_OUT port is connected to high power attenuators terminated into a fifty ohm load. The following ports are connected in loopback using shielded cat. 5 cables: Ethernet A to Ethernet B, Synchronous out 1 to Synchronous in 2, Synchronous out 2 to Synchronous in 1. The power supply is providing 26.4Vdc to the EUT. The test is performed with the EUT receiving on its middle (860MHz) channel. The frequency range covered on this data sheet is 150kHz to 30MHz. The receive range of the EUT is 806MHz to 824MHz. Bandwidth used: 9kHz to 150kHz 200Hz, 150kHz to 30MHz 9kHz.

**Transducer Legend:**

T1=HP Filter AN 02343_013108	T2=6dB Attenuator P05613
T3=Cable #8 Conducted Site D	

**Measurement Data:**

Reading listed by margin.

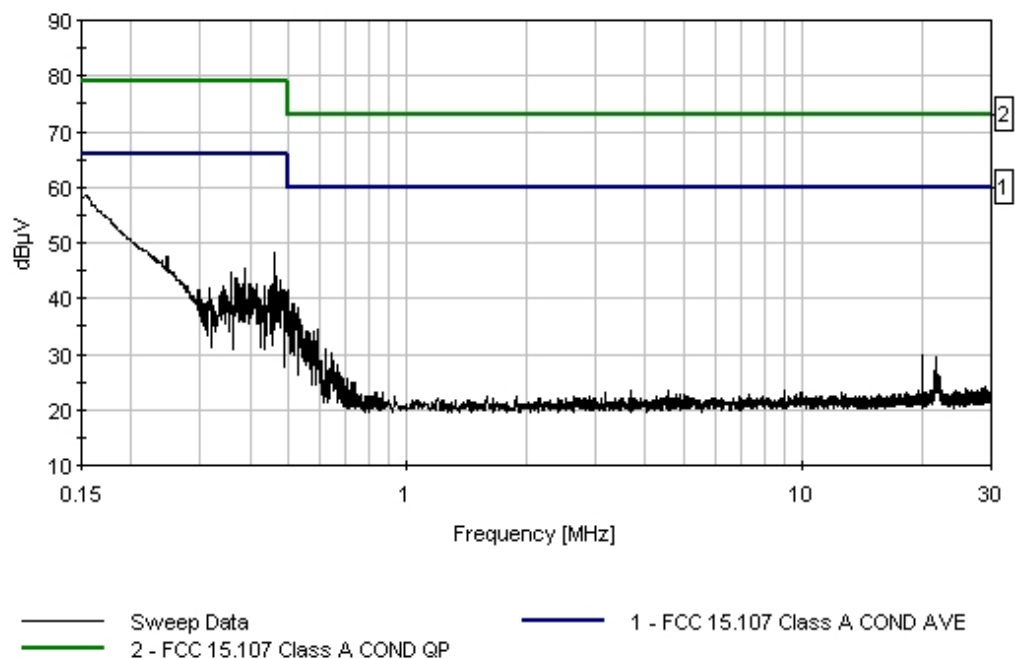
Test Lead: Black

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	Dist dB	Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	153.636k	50.0	+2.4	+6.1	+0.0	+0.0		58.5	79.0	-20.5	Black
2	464.150k	41.5	+0.3	+6.2	+0.1	+0.0		48.1	79.0	-30.9	Black

3	389.976k	38.8	+0.2	+6.2	+0.1	+0.0	45.3	79.0	-33.7	Black
4	514.327k	32.3	+0.3	+6.2	+0.1	+0.0	38.9	73.0	-34.1	Black
5	359.434k	38.1	+0.2	+6.2	+0.1	+0.0	44.6	79.0	-34.4	Black
6	532.507k	31.9	+0.3	+6.1	+0.1	+0.0	38.4	73.0	-34.6	Black
7	467.786k	37.5	+0.3	+6.2	+0.1	+0.0	44.1	79.0	-34.9	Black
8	367.433k	37.2	+0.2	+6.2	+0.1	+0.0	43.7	79.0	-35.3	Black
9	372.523k	37.1	+0.2	+6.2	+0.1	+0.0	43.6	79.0	-35.4	Black
10	502.692k	30.9	+0.3	+6.2	+0.1	+0.0	37.5	73.0	-35.5	Black
11	520.872k	30.8	+0.3	+6.2	+0.1	+0.0	37.4	73.0	-35.6	Black
12	528.144k	30.8	+0.3	+6.2	+0.1	+0.0	37.4	73.0	-35.6	Black
13	475.058k	36.6	+0.3	+6.2	+0.1	+0.0	43.2	79.0	-35.8	Black
14	365.251k	36.4	+0.2	+6.2	+0.1	+0.0	42.9	79.0	-36.1	Black
15	396.521k	36.2	+0.2	+6.2	+0.1	+0.0	42.7	79.0	-36.3	Black
16	386.340k	36.1	+0.2	+6.2	+0.1	+0.0	42.6	79.0	-36.4	Black
17	414.701k	36.1	+0.2	+6.2	+0.1	+0.0	42.6	79.0	-36.4	Black
18	454.697k	36.0	+0.3	+6.2	+0.1	+0.0	42.6	79.0	-36.4	Black
19	383.431k	36.0	+0.2	+6.2	+0.1	+0.0	42.5	79.0	-36.5	Black
20	403.066k	36.0	+0.2	+6.2	+0.1	+0.0	42.5	79.0	-36.5	Black
21	341.981k	35.7	+0.2	+6.2	+0.1	+0.0	42.2	79.0	-36.8	Black
22	435.062k	35.6	+0.2	+6.2	+0.1	+0.0	42.1	79.0	-36.9	Black
23	437.971k	35.6	+0.2	+6.2	+0.1	+0.0	42.1	79.0	-36.9	Black
24	451.788k	35.5	+0.3	+6.2	+0.1	+0.0	42.1	79.0	-36.9	Black
25	536.870k	29.6	+0.3	+6.1	+0.1	+0.0	36.1	73.0	-36.9	Black
26	317.256k	35.3	+0.2	+6.2	+0.1	+0.0	41.8	79.0	-37.2	Black

27	377.614k	35.3	+0.2	+6.2	+0.1	+0.0	41.8	79.0	-37.2	Black
28	408.883k	35.3	+0.2	+6.2	+0.1	+0.0	41.8	79.0	-37.2	Black
29	509.964k	29.1	+0.3	+6.2	+0.1	+0.0	35.7	73.0	-37.3	Black
30	296.167k	35.0	+0.2	+6.2	+0.1	+0.0	41.5	79.0	-37.5	Black

CKC Laboratories, Inc. Date: 2/7/2008 Time: 5:16:53 PM IP MobileNet WVO#: 87564  
FCC 15.107 Class A COND QP Test Lead: Black 120V 60Hz Sequence#: 4  
IP MobileNet, BSR P25 806-870





Test Location: CKC Laboratories, Inc. • 110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **IP MobileNet**  
 Specification: **FCC 15.107 Class A COND QP**  
 Work Order #: **87564**  
 Test Type: **Conducted Emissions**  
 Equipment: **Base Station Radio**  
 Manufacturer: **TELTRONIC S.A.U.**  
 Model: **BSR P25 806-870**  
 S/N: **820978**

Date: 2/7/2008  
 Time: 5:20:11 PM  
 Sequence#: 5  
 Tested By: Shaminderjit Hundal  
 120V 60Hz

**Test Equipment:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
LISN	1102	05/11/2007	05/11/2009	00848
High Pass Filter	D5201	01/31/2007	01/31/2009	02343
6dB Attenuator		11/21/2006	11/21/2008	P05613
Coaxial Cable	Cable #8	05/31/2006	05/31/2008	P01910
Quasi Peak Adapter	3303A01884	09/14/2006	09/14/2008	01437
Spectrum Analyzer	3001A18430	09/14/2006	09/14/2008	02472
Display Section				
Spectrum Analyzer	2928A04874	09/14/2006	09/14/2008	02462
RF Section				

**Equipment Under Test (\* = EUT):**

Function	Manufacturer	Model #	S/N
Base Station Radio*	TELTRONIC S.A.U.	BSR P25 806-870	820978

**Support Devices:**

Function	Manufacturer	Model #	S/N
Laptop Computer	Dell Corporation	Inspiron 4100	8J6H711
Power Supply	Topward	6306D	988614

**Test Conditions / Notes:**

The equipment under test (EUT) is a base station radio. The EUT and support equipment are located on the table top. The EUT VT100\_RCPU port is connected to a remote laptop computer via shielded ethernet cable. Once the EUT is configured, this cable is removed from the EUT since it is a maintenance port. The EUT RF\_IN1 port is connected to a coaxial cable terminated into a fifty ohm load. The EUT RF\_OUT port is connected to high power attenuators terminated into a fifty ohm load. The following ports are connected in loopback using shielded cat. 5 cables: Ethernet A to Ethernet B, Synchronous out 1 to Synchronous in 2, Synchronous out 2 to Synchronous in 1. The power supply is providing 26.4Vdc to the EUT. The test is performed with the EUT receiving on its middle (860MHz) channel. The frequency range covered on this data sheet is 150kHz to 30MHz. The receive range of the EUT is 806MHz to 824MHz. Bandwidth used: 9kHz to 150kHz 200Hz, 150kHz to 30MHz 9kHz.

**Transducer Legend:**

T1=(L2) Insertion Loss 00848 EMCO 3816/2	T2=HP Filter AN 02343_013108
T3=6dB Attenuator P05613	T4=Cable #8 Conducted Site D

**Measurement Data:**

Reading listed by margin.

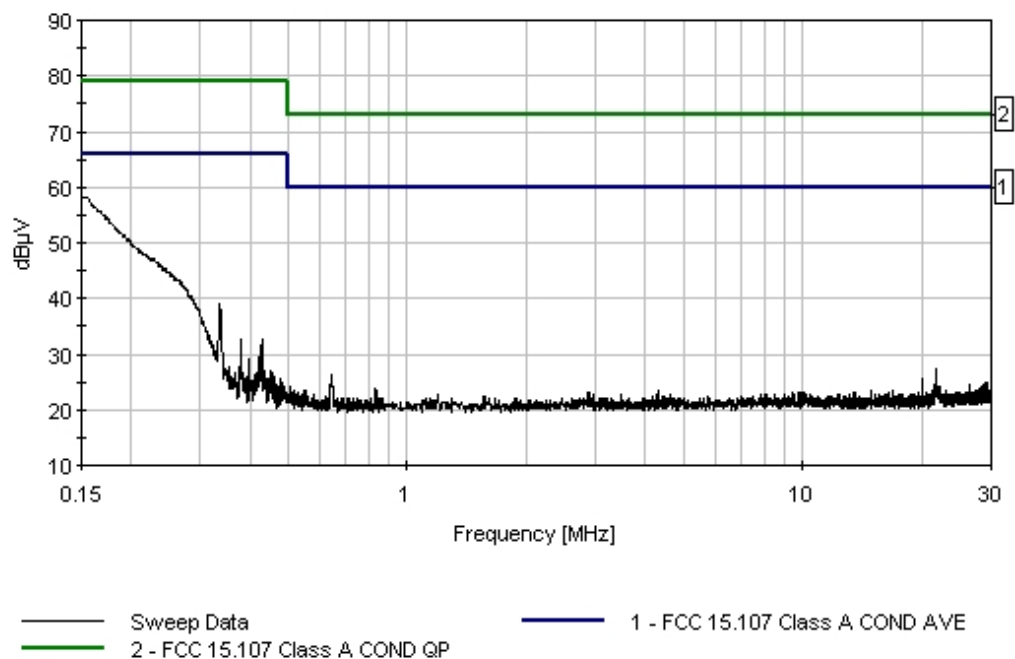
Test Lead: White

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	152.909k	49.5	+0.1	+2.6	+6.1	+0.0	+0.0	58.3	79.0	-20.7	White
2	336.163k	32.5	+0.1	+0.2	+6.2	+0.1	+0.0	39.1	79.0	-39.9	White

3	21.698M	20.1	+0.7	+0.2	+6.1	+0.4	+0.0	27.5	73.0	-45.5	White
4	21.779M	19.8	+0.7	+0.3	+6.1	+0.4	+0.0	27.3	73.0	-45.7	White
5	429.972k	26.2	+0.1	+0.2	+6.2	+0.1	+0.0	32.8	79.0	-46.2	White
6	378.341k	26.0	+0.1	+0.2	+6.2	+0.1	+0.0	32.6	79.0	-46.4	White
7	641.587k	19.6	+0.1	+0.3	+6.1	+0.1	+0.0	26.2	73.0	-46.8	White
8	426.336k	25.0	+0.1	+0.2	+6.2	+0.1	+0.0	31.6	79.0	-47.4	White
9	20.031M	18.4	+0.6	+0.1	+6.1	+0.4	+0.0	25.6	73.0	-47.4	White
10	29.308M	16.8	+1.2	+0.3	+6.2	+0.5	+0.0	25.0	73.0	-48.0	White
11	29.054M	16.6	+1.1	+0.3	+6.2	+0.5	+0.0	24.7	73.0	-48.3	White
12	28.520M	16.5	+1.1	+0.3	+6.2	+0.4	+0.0	24.5	73.0	-48.5	White
13	28.746M	16.4	+1.1	+0.3	+6.2	+0.5	+0.0	24.5	73.0	-48.5	White
14	29.884M	16.2	+1.2	+0.4	+6.2	+0.5	+0.0	24.5	73.0	-48.5	White
15	26.485M	16.6	+1.0	+0.3	+6.1	+0.4	+0.0	24.4	73.0	-48.6	White
16	22.256M	16.9	+0.7	+0.2	+6.1	+0.4	+0.0	24.3	73.0	-48.7	White
17	28.314M	16.3	+1.1	+0.3	+6.2	+0.4	+0.0	24.3	73.0	-48.7	White
18	29.911M	16.0	+1.2	+0.4	+6.2	+0.5	+0.0	24.3	73.0	-48.7	White
19	22.049M	16.5	+0.7	+0.3	+6.1	+0.4	+0.0	24.0	73.0	-49.0	White
20	29.986M	15.7	+1.2	+0.4	+6.2	+0.5	+0.0	24.0	73.0	-49.0	White
21	28.972M	15.8	+1.1	+0.3	+6.2	+0.5	+0.0	23.9	73.0	-49.1	White
22	21.499M	16.4	+0.7	+0.2	+6.1	+0.4	+0.0	23.8	73.0	-49.2	White
23	28.020M	15.7	+1.1	+0.3	+6.2	+0.4	+0.0	23.7	73.0	-49.3	White
24	28.691M	15.6	+1.1	+0.3	+6.2	+0.5	+0.0	23.7	73.0	-49.3	White
25	27.588M	15.6	+1.1	+0.2	+6.2	+0.4	+0.0	23.5	73.0	-49.5	White
26	14.896M	16.3	+0.6	+0.2	+6.1	+0.2	+0.0	23.4	73.0	-49.6	White

27	16.941M	16.2	+0.6	+0.2	+6.1	+0.3	+0.0	23.4	73.0	-49.6	White
28	22.319M	16.0	+0.7	+0.2	+6.1	+0.4	+0.0	23.4	73.0	-49.6	White
29	21.229M	15.9	+0.7	+0.2	+6.1	+0.4	+0.0	23.3	73.0	-49.7	White
30	23.049M	15.8	+0.8	+0.3	+6.1	+0.3	+0.0	23.3	73.0	-49.7	White

CKC Laboratories, Inc. Date: 2/7/2008 Time: 5:20:11 PM IP MobileNet WVO#: 87564  
FCC 15.107 Class A COND QP Test Lead: White 120V 60Hz Sequence#: 5  
IP MobileNet, BSR P25 806-870





Test Location: CKC Laboratories, Inc. • 110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **IP MobileNet**  
 Specification: **FCC 15.107 Class A COND QP**  
 Work Order #: **87564**  
 Test Type: **Conducted Emissions**  
 Equipment: **Base Station Radio**  
 Manufacturer: **TELTRONIC S.A.U.**  
 Model: **BSR P25 806-870**  
 S/N: **820978**

Date: 2/7/2008  
 Time: 5:25:00 PM  
 Sequence#: 6  
 Tested By: Shaminderjit Hundal  
 120V 60Hz

**Test Equipment:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
LISN	1102	05/11/2007	05/11/2009	00848
High Pass Filter	D5201	01/31/2007	01/31/2009	02343
6dB Attenuator		11/21/2006	11/21/2008	P05613
Coaxial Cable	Cable #8	05/31/2006	05/31/2008	P01910
Quasi Peak Adapter	3303A01884	09/14/2006	09/14/2008	01437
Spectrum Analyzer	3001A18430	09/14/2006	09/14/2008	02472
Display Section				
Spectrum Analyzer	2928A04874	09/14/2006	09/14/2008	02462
RF Section				

**Equipment Under Test (\* = EUT):**

Function	Manufacturer	Model #	S/N
Base Station Radio*	TELTRONIC S.A.U.	BSR P25 806-870	820978

**Support Devices:**

Function	Manufacturer	Model #	S/N
Laptop Computer	Dell Corporation	Inspiron 4100	8J6H711
Power Supply	Topward	6306D	988614

**Test Conditions / Notes:**

The equipment under test (EUT) is a base station radio. The EUT and support equipment are located on the table top. The EUT VT100\_RCPU port is connected to a remote laptop computer via shielded ethernet cable. Once the EUT is configured, this cable is removed from the EUT since it is a maintenance port. The EUT RF\_IN1 port is connected to a coaxial cable terminated into a fifty ohm load. The EUT RF\_OUT port is connected to high power attenuators terminated into a fifty ohm load. The following ports are connected in loopback using shielded cat. 5 cables: Ethernet A to Ethernet B, Synchronous out 1 to Synchronous in 2, Synchronous out 2 to Synchronous in 1. The power supply is providing 26.4Vdc to the EUT. The test is performed with the EUT receiving on its high (869MHz) channel. The frequency range covered on this data sheet is 150kHz to 30MHz. The receive range of the EUT is 806MHz to 824MHz. Bandwidth used: 9kHz to 150kHz 200Hz, 150kHz to 30MHz 9kHz.

**Transducer Legend:**

T1=(L1) Insertion Loss 00848 EMCO 3816/2	T2=HP Filter AN 02343_013108
T3=6dB Attenuator P05613	T4=Cable #8 Conducted Site D

**Measurement Data:**

Reading listed by margin.

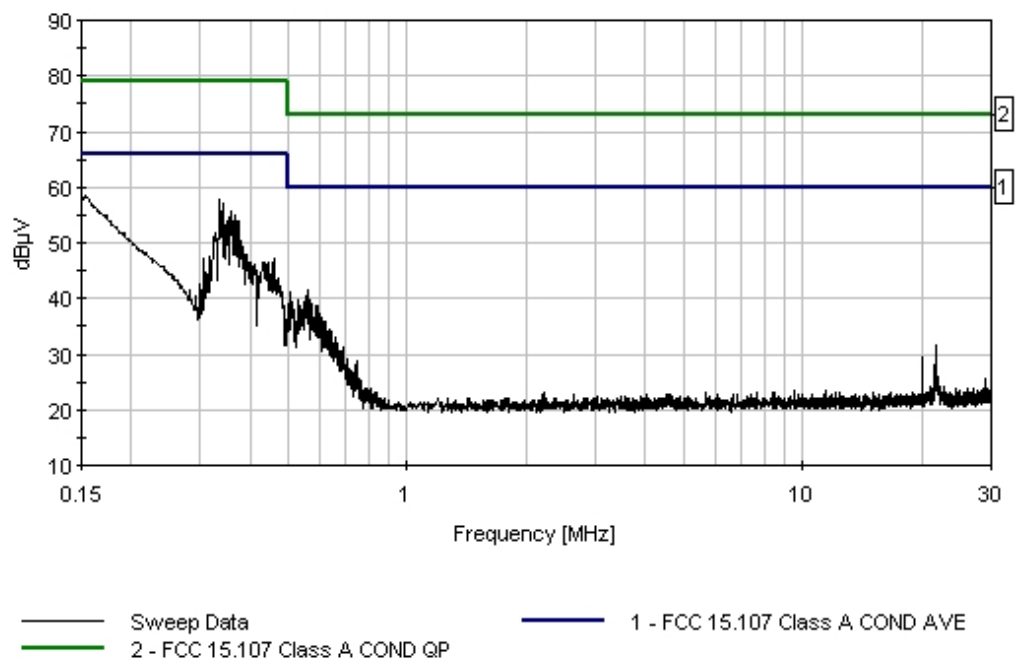
Test Lead: Black

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	152.909k	49.7	+0.0	+2.6	+6.1	+0.0	+0.0	58.4	79.0	-20.6	Black
2	335.436k	51.4	+0.0	+0.2	+6.2	+0.1	+0.0	57.9	79.0	-21.1	Black

3	341.981k	50.7	+0.0	+0.2	+6.2	+0.1	+0.0	57.2	79.0	-21.8	Black
4	357.252k	49.2	+0.0	+0.2	+6.2	+0.1	+0.0	55.7	79.0	-23.3	Black
5	365.251k	48.6	+0.0	+0.2	+6.2	+0.1	+0.0	55.1	79.0	-23.9	Black
6	359.434k	48.2	+0.0	+0.2	+6.2	+0.1	+0.0	54.7	79.0	-24.3	Black
7	352.162k	47.5	+0.0	+0.2	+6.2	+0.1	+0.0	54.0	79.0	-25.0	Black
8	373.250k	47.5	+0.0	+0.2	+6.2	+0.1	+0.0	54.0	79.0	-25.0	Black
9	363.797k	47.4	+0.0	+0.2	+6.2	+0.1	+0.0	53.9	79.0	-25.1	Black
10	346.344k	46.7	+0.0	+0.2	+6.2	+0.1	+0.0	53.2	79.0	-25.8	Black
11	328.164k	45.3	+0.0	+0.2	+6.2	+0.1	+0.0	51.8	79.0	-27.2	Black
12	381.250k	44.0	+0.0	+0.2	+6.2	+0.1	+0.0	50.5	79.0	-28.5	Black
13	560.141k	35.0	+0.1	+0.3	+6.1	+0.1	+0.0	41.6	73.0	-31.4	Black
14	315.074k	41.0	+0.0	+0.2	+6.2	+0.1	+0.0	47.5	79.0	-31.5	Black
15	317.256k	41.0	+0.0	+0.2	+6.2	+0.1	+0.0	47.5	79.0	-31.5	Black
16	505.601k	34.7	+0.0	+0.3	+6.2	+0.1	+0.0	41.3	73.0	-31.7	Black
17	307.075k	40.6	+0.0	+0.2	+6.2	+0.1	+0.0	47.1	79.0	-31.9	Black
18	459.060k	40.5	+0.0	+0.3	+6.2	+0.1	+0.0	47.1	79.0	-31.9	Black
19	431.426k	40.1	+0.0	+0.2	+6.2	+0.1	+0.0	46.6	79.0	-32.4	Black
20	443.789k	40.1	+0.0	+0.2	+6.2	+0.1	+0.0	46.6	79.0	-32.4	Black
21	564.504k	33.2	+0.1	+0.3	+6.1	+0.1	+0.0	39.8	73.0	-33.2	Black
22	530.326k	33.2	+0.0	+0.3	+6.1	+0.1	+0.0	39.7	73.0	-33.3	Black
23	513.600k	32.7	+0.0	+0.3	+6.2	+0.1	+0.0	39.3	73.0	-33.7	Black
24	573.958k	32.4	+0.1	+0.3	+6.1	+0.1	+0.0	39.0	73.0	-34.0	Black
25	537.598k	32.3	+0.0	+0.3	+6.1	+0.1	+0.0	38.8	73.0	-34.2	Black
26	547.051k	31.6	+0.0	+0.3	+6.1	+0.1	+0.0	38.1	73.0	-34.9	Black

27	500.510k	30.5	+0.0	+0.3	+6.2	+0.1	+0.0	37.1	73.0	-35.9	Black
28	519.418k	30.3	+0.0	+0.3	+6.2	+0.1	+0.0	36.9	73.0	-36.1	Black
29	299.076k	36.0	+0.0	+0.2	+6.2	+0.1	+0.0	42.5	79.0	-36.5	Black
30	618.317k	29.4	+0.1	+0.3	+6.1	+0.1	+0.0	36.0	73.0	-37.0	Black

CKC Laboratories, Inc. Date: 2/7/2008 Time: 5:25:00 PM IP MobileNet WVO#: 87564  
FCC 15.107 Class A COND QP Test Lead: Black 120V 60Hz Sequence#: 6  
IP MobileNet, BSR P25 806-870





Test Location: CKC Laboratories, Inc. • 110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **IP MobileNet**  
 Specification: **FCC 15.107 Class A COND QP**  
 Work Order #: **87564**  
 Test Type: **Conducted Emissions**  
 Equipment: **Base Station Radio**  
 Manufacturer: **TELTRONIC S.A.U.**  
 Model: **BSR P25 806-870**  
 S/N: **820978**

Date: 2/7/2008  
 Time: 5:29:10 PM  
 Sequence#: 7  
 Tested By: Shaminderjit Hundal  
 120V 60Hz

**Test Equipment:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
LISN	1102	05/11/2007	05/11/2009	00848
High Pass Filter	D5201	01/31/2007	01/31/2009	02343
6dB Attenuator		11/21/2006	11/21/2008	P05613
Coaxial Cable	Cable #8	05/31/2006	05/31/2008	P01910
Quasi Peak Adapter	3303A01884	09/14/2006	09/14/2008	01437
Spectrum Analyzer	3001A18430	09/14/2006	09/14/2008	02472
Display Section				
Spectrum Analyzer	2928A04874	09/14/2006	09/14/2008	02462
RF Section				

**Equipment Under Test (\* = EUT):**

Function	Manufacturer	Model #	S/N
Base Station Radio*	TELTRONIC S.A.U.	BSR P25 806-870	820978

**Support Devices:**

Function	Manufacturer	Model #	S/N
Laptop Computer	Dell Corporation	Inspiron 4100	8J6H711
Power Supply	Topward	6306D	988614

**Test Conditions / Notes:**

The equipment under test (EUT) is a base station radio. The EUT and support equipment are located on the table top. The EUT VT100\_RCPU port is connected to a remote laptop computer via shielded ethernet cable. Once the EUT is configured, this cable is removed from the EUT since it is a maintenance port. The EUT RF\_IN1 port is connected to a coaxial cable terminated into a fifty ohm load. The EUT RF\_OUT port is connected to high power attenuators terminated into a fifty ohm load. The following ports are connected in loopback using shielded cat. 5 cables: Ethernet A to Ethernet B, Synchronous out 1 to Synchronous in 2, Synchronous out 2 to Synchronous in 1. The power supply is providing 26.4Vdc to the EUT. The test is performed with the EUT receiving on its high (869MHz) channel. The frequency range covered on this data sheet is 150kHz to 30MHz. The receive range of the EUT is 806MHz to 824MHz. Bandwidth used: 9kHz to 150kHz 200Hz, 150kHz to 30MHz 9kHz.

**Transducer Legend:**

T1=(L2) Insertion Loss 00848 EMCO 3816/2	T2=HP Filter AN 02343_013108
T3=6dB Attenuator P05613	T4=Cable #8 Conducted Site D

**Measurement Data:**

Reading listed by margin.

Test Lead: White

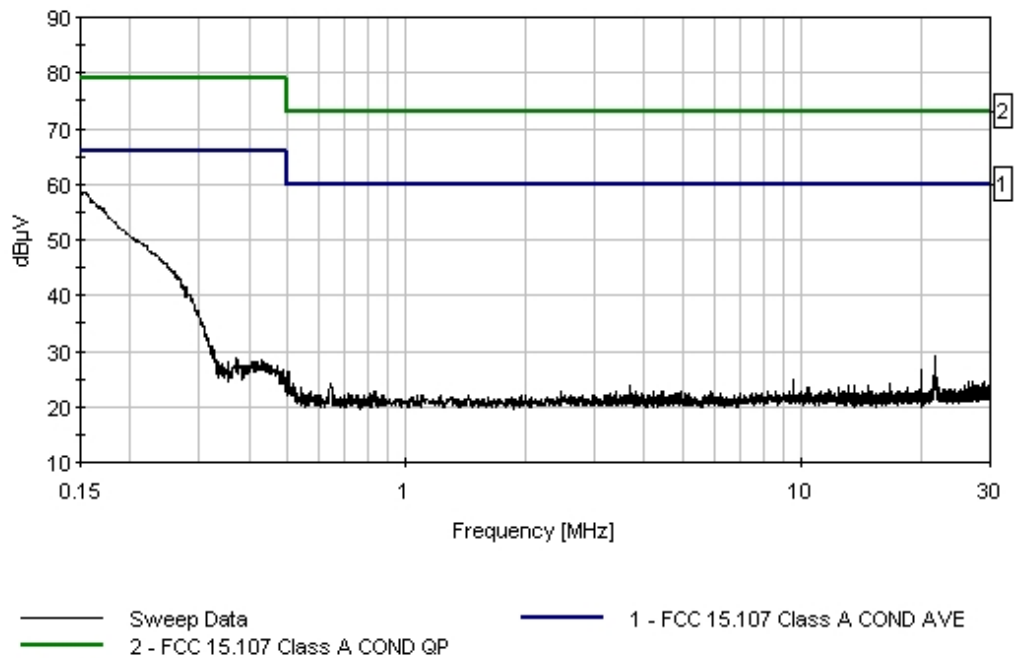
#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	152.182k	49.6	+0.1	+2.8	+6.1	+0.0	+0.0	58.6	79.0	-20.4	White
2	277.260k	35.2	+0.1	+0.2	+6.1	+0.0	+0.0	41.6	79.0	-37.4	White

3	21.680M	21.6	+0.7	+0.2	+6.1	+0.4	+0.0	29.0	73.0	-44.0	White
4	21.779M	20.7	+0.7	+0.3	+6.1	+0.4	+0.0	28.2	73.0	-44.8	White
5	21.716M	20.4	+0.7	+0.2	+6.1	+0.4	+0.0	27.8	73.0	-45.2	White
6	20.022M	19.3	+0.6	+0.1	+6.1	+0.4	+0.0	26.5	73.0	-46.5	White
7	502.692k	19.7	+0.0	+0.3	+6.2	+0.1	+0.0	26.3	73.0	-46.7	White
8	21.806M	18.8	+0.7	+0.3	+6.1	+0.4	+0.0	26.3	73.0	-46.7	White
9	9.544M	17.7	+0.5	+0.2	+6.2	+0.3	+0.0	24.9	73.0	-48.1	White
10	27.060M	16.7	+1.0	+0.3	+6.1	+0.4	+0.0	24.5	73.0	-48.5	White
11	505.601k	17.8	+0.0	+0.3	+6.2	+0.1	+0.0	24.4	73.0	-48.6	White
12	26.314M	16.6	+1.0	+0.3	+6.1	+0.4	+0.0	24.4	73.0	-48.6	White
13	29.048M	16.3	+1.1	+0.3	+6.2	+0.5	+0.0	24.4	73.0	-48.6	White
14	517.963k	17.6	+0.0	+0.3	+6.2	+0.1	+0.0	24.2	73.0	-48.8	White
15	515.054k	17.5	+0.0	+0.3	+6.2	+0.1	+0.0	24.1	73.0	-48.9	White
16	643.769k	17.5	+0.1	+0.3	+6.1	+0.1	+0.0	24.1	73.0	-48.9	White
17	16.644M	16.8	+0.6	+0.2	+6.1	+0.3	+0.0	24.0	73.0	-49.0	White
18	28.671M	15.9	+1.1	+0.3	+6.2	+0.5	+0.0	24.0	73.0	-49.0	White
19	3.663M	17.1	+0.2	+0.2	+6.2	+0.2	+0.0	23.9	73.0	-49.1	White
20	13.139M	16.8	+0.6	+0.2	+6.1	+0.2	+0.0	23.9	73.0	-49.1	White
21	13.635M	16.7	+0.6	+0.3	+6.1	+0.2	+0.0	23.9	73.0	-49.1	White
22	25.841M	16.2	+1.0	+0.3	+6.1	+0.3	+0.0	23.9	73.0	-49.1	White
23	14.689M	16.6	+0.6	+0.2	+6.1	+0.2	+0.0	23.7	73.0	-49.3	White
24	26.362M	15.9	+1.0	+0.3	+6.1	+0.4	+0.0	23.7	73.0	-49.3	White
25	27.088M	15.9	+1.0	+0.3	+6.1	+0.4	+0.0	23.7	73.0	-49.3	White
26	540.506k	17.1	+0.0	+0.3	+6.1	+0.1	+0.0	23.6	73.0	-49.4	White



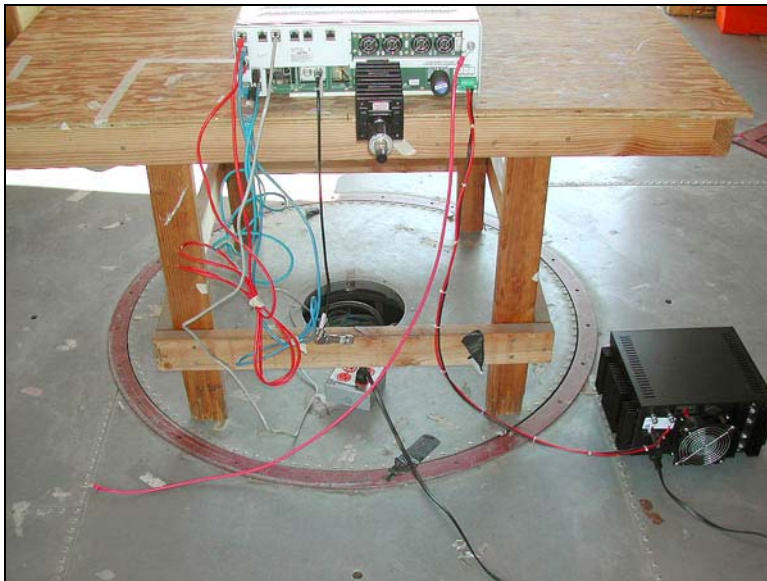
27	18.499M	16.3	+0.6	+0.2	+6.1	+0.3	+0.0	23.5	73.0	-49.5	White
28	10.382M	16.2	+0.5	+0.2	+6.2	+0.3	+0.0	23.4	73.0	-49.6	White
29	26.793M	15.6	+1.0	+0.3	+6.1	+0.4	+0.0	23.4	73.0	-49.6	White
30	16.752M	16.1	+0.6	+0.2	+6.1	+0.3	+0.0	23.3	73.0	-49.7	White

CKC Laboratories, Inc. Date: 2/7/2008 Time: 5:29:10 PM IP MobileNet VVO#: 87564  
FCC 15.107 Class A COND QP Test Lead: White 120V 60Hz Sequence#: 7  
IP MobileNet, BSR P25 806-870



**FCC 15.109 – RADIATED EMISSIONS**

**Test Setup Photos**



## Test Data Sheets

Test Location: CKC Laboratories, Inc. • 110 N Olinda Place • Brea, CA 92823 • 714-993-6112  
 Customer: **IP MobileNet**  
 Specification: **FCC 15.109 Class A**  
 Work Order #: **87564** Date: 2/7/2008  
 Test Type: **Maximized Emissions** Time: 09:49:31  
 Equipment: **Base Station Radio** Sequence#: 3  
 Manufacturer: **TELTRONIC S.A.U.** Tested By: Stuart Yamamoto  
 Model: **BSR P25 806-870**  
 S/N: **820978**

### Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Bilog Antenna	2629	01/21/2008	01/21/2010	00851
Antenna Cable	Cable #9	02/07/2006	02/07/2008	P01911
Preamplifier	2727A05392	06/06/2006	06/06/2008	00010
Preamplifier Cable	Cable #22	08/10/2006	08/10/2008	P05555
10m Position Cable	Cable #17	09/19/2006	09/19/2008	P04382
Quasi Peak Adapter	3303A01884	09/14/2006	09/14/2008	01437
Spectrum Analyzer Display	3001A18430	09/14/2006	09/14/2008	02472
Section				
Spectrum Analyzer RF Section	2928A04874	09/14/2006	09/14/2008	02462

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
Base Station Radio*	TELTRONIC S.A.U.	BSR P25 806-870	820978

### Support Devices:

Function	Manufacturer	Model #	S/N
Power Supply	Astron	VLS-35M	208010009
Laptop Computer	Dell Corporation	Inspiron 4100	8J6H711

### Test Conditions / Notes:

The equipment under test (EUT) is a base station radio. The EUT is stand alone on the table top. The EUT power supply is located beneath on the ground plane. The EUT VT\_100 RPCU port is connected to a remote laptop computer via shielded ethernet cable. Once the EUT is configured, this cable is removed since it is a maintenance port. The EUT RF\_IN1 port is connected to a coaxial cable terminated into a fifty ohm load. The EUT RF\_OUT port is connected to high power attenuators terminated into a fifty ohm load. The following ports are connected in loopback using shielded cat. 5 cables: Ethernet A to Ethernet B, Synchronous out 1 to Synchronous in 2, Synchronous out 2 to Synchronous in 1. The power supply is providing 26.4Vdc to the EUT. The remotely located laptop is running hyperterminal and is used to command the EUT to receive and is also used to change the EUT receive channels. The test is performed with the EUT receiving on its low (806MHz), middle (815MHz), and high (824MHz) channels. The frequency range covered on this data sheet is 30MHz to 1000MHz. The receive range of the EUT is 806MHz to 824MHz. Bandwidth used: 30MHz to 1000MHz 120kHz. Temperature: 20°C, Humidity: 41%, Pressure: 100kPa.

**Transducer Legend:**

T1=ANT-AN00851 BILOG	T2=84' Helix Cable P04382
T3=Cable #22 Preamp to SA 081008	T4=Preamp 8447D Asset 00010
T5=Cable #9 RG-214 41ft	T6=Active loop antenna 061408

**Measurement Data:**

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	779.002M QP	54.2	+21.6 +3.2	+3.1	+0.5	-27.6	-10.0	45.0	46.4	-1.4	Horiz
^	779.000M	54.6	+21.6 +3.2	+3.1	+0.5	-27.6	-10.0	45.4	46.4	-1.0	Horiz
3	760.986M QP	54.6	+21.4 +3.1	+3.0	+0.5	-27.7	-10.0	44.9	46.4	-1.5	Horiz
^	760.999M	55.4	+21.4 +3.1	+3.0	+0.5	-27.7	-10.0	45.7	46.4	-0.7	Horiz
5	778.985M QP	54.1	+21.6 +3.2	+3.1	+0.5	-27.6	-10.0	44.9	46.4	-1.5	Vert
^	779.000M	54.6	+21.6 +3.2	+3.1	+0.5	-27.6	-10.0	45.4	46.4	-1.0	Vert
7	769.993M QP	54.3	+21.5 +3.1	+3.0	+0.5	-27.7	-10.0	44.7	46.4	-1.7	Horiz
^	770.000M	55.3	+21.5 +3.1	+3.0	+0.5	-27.7	-10.0	45.7	46.4	-0.7	Horiz
9	760.988M QP	54.4	+21.4 +3.1	+3.0	+0.5	-27.7	-10.0	44.6	46.4	-1.8	Vert
^	760.982M	54.4	+21.4 +3.1	+3.0	+0.5	-27.7	-10.0	44.7	46.4	-1.7	Vert
11	769.982M	53.5	+21.5 +3.1	+3.0	+0.5	-27.7	-10.0	43.9	46.4	-2.5	Vert
12	69.989M	65.5	+6.3 +0.8	+0.9	+0.1	-27.1	-10.0	36.5	39.1	-2.6	Vert
13	99.976M QP	65.4	+9.9 +1.0	+1.0	+0.2	-27.1	-10.0	40.4	43.5	-3.1	Vert
^	99.984M	68.0	+9.9 +1.0	+1.0	+0.2	-27.1	-10.0	43.0	43.5	-0.5	Vert
^	100.000M	62.1	+9.9 +1.0	+1.0	+0.2	-27.1	-10.0	37.1	43.5	-6.4	Vert
16	120.027M	63.0	+11.4 +1.1	+1.1	+0.2	-27.0	-10.0	39.8	43.5	-3.7	Horiz
17	189.991M	64.4	+8.8 +1.5	+1.3	+0.2	-26.7	-10.0	39.5	43.5	-4.0	Horiz
18	49.992M	61.3	+8.4 +0.7	+0.8	+0.1	-27.2	-10.0	34.1	39.1	-5.0	Vert
19	80.003M	60.7	+7.4 +0.9	+1.0	+0.1	-27.1	-10.0	33.0	39.1	-6.1	Horiz
20	80.000M	60.7	+7.4 +0.9	+1.0	+0.1	-27.1	-10.0	33.0	39.1	-6.1	Vert
21	119.984M	60.4	+11.4 +1.1	+1.1	+0.2	-27.0	-10.0	37.2	43.5	-6.3	Vert

22	869.004M	46.8	+22.7 +3.3	+3.2	+0.5	-27.6	-10.0	38.9	46.4	-7.5	Horiz
23	209.983M	59.9	+9.6 +1.5	+1.4	+0.2	-26.7	-10.0	35.9	43.5	-7.6	Horiz
24	80.030M	59.0	+7.4 +0.9	+1.0	+0.1	-27.1	-10.0	31.3	39.1	-7.8	Horiz
25	150.002M	58.0	+10.9 +1.3	+1.1	+0.2	-27.0	-10.0	34.5	43.5	-9.0	Horiz
26	869.013M	44.9	+22.7 +3.3	+3.2	+0.5	-27.6	-10.0	37.0	46.4	-9.4	Vert
27	69.983M	57.3	+6.3 +0.8	+0.9	+0.1	-27.1	-10.0	28.3	39.1	-10.8	Horiz
28	199.989M	57.4	+8.8 +1.5	+1.4	+0.2	-26.7	-10.0	32.6	43.5	-10.9	Horiz
29	140.012M	55.4	+11.5 +1.2	+1.1	+0.2	-27.0	-10.0	32.4	43.5	-11.1	Horiz
30	70.001M	56.5	+6.3 +0.8	+0.9	+0.1	-27.1	-10.0	27.5	39.1	-11.6	Horiz
31	239.988M	56.2	+11.7 +1.7	+1.6	+0.3	-26.7	-10.0	34.8	46.4	-11.6	Horiz
32	859.984M	42.3	+22.6 +3.3	+3.2	+0.5	-27.5	-10.0	34.4	46.4	-12.0	Horiz
33	959.990M	40.3	+23.8 +3.6	+3.4	+0.5	-27.5	-10.0	34.1	46.4	-12.3	Horiz
34	99.997M	55.6	+9.9 +1.0	+1.0	+0.2	-27.1	-10.0	30.6	43.5	-12.9	Horiz
35	899.991M	40.6	+23.0 +3.4	+3.3	+0.5	-27.7	-10.0	33.1	46.4	-13.3	Horiz
36	900.000M	39.7	+23.0 +3.4	+3.3	+0.5	-27.7	-10.0	32.2	46.4	-14.2	Vert
37	689.980M	43.0	+20.4 +3.0	+2.9	+0.5	-27.9	-10.0	31.9	46.4	-14.5	Vert
38	469.982M	46.5	+17.4 +2.3	+2.3	+0.4	-27.4	-10.0	31.5	46.4	-14.9	Horiz
39	920.028M	37.9	+23.3 +3.5	+3.3	+0.5	-27.6	-10.0	30.9	46.4	-15.5	Vert
40	269.998M	50.5	+12.6 +1.7	+1.7	+0.3	-26.5	-10.0	30.3	46.4	-16.1	Horiz
41	400.013M	47.0	+15.7 +2.1	+2.1	+0.4	-27.1	-10.0	30.2	46.4	-16.2	Horiz
42	680.015M	41.4	+20.3 +2.9	+2.9	+0.5	-27.9	-10.0	30.1	46.4	-16.3	Vert
43	219.987M	53.0	+10.3 +1.6	+1.5	+0.2	-26.6	-10.0	30.0	46.4	-16.4	Horiz
44	449.999M	45.2	+16.9 +2.3	+2.3	+0.4	-27.2	-10.0	29.9	46.4	-16.5	Horiz
45	279.985M	49.3	+12.8 +1.8	+1.7	+0.3	-26.5	-10.0	29.4	46.4	-17.0	Horiz
46	730.025M	39.7	+20.9 +3.1	+3.0	+0.5	-27.8	-10.0	29.4	46.4	-17.0	Vert



Test Location: CKC Laboratories, Inc. • 110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **IP MobileNet**  
 Specification: **FCC 15.109 Class A**  
 Work Order #: **87564**  
 Test Type: **Maximized Emissions**  
 Equipment: **Base Station Radio**  
 Manufacturer: **TELTRONIC S.A.U.**  
 Model: **BSR P25 806-870**  
 S/N: **820978**

Date: 2/7/2008  
 Time: 11:59:39  
 Sequence#: 2  
 Tested By: Stuart Yamamoto

**Test Equipment:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Horn Antenna	9603-4683	06/29/2006	06/29/2008	01646
Antenna Cable	L1-PNMNM-48	09/18/2006	09/18/2008	P05563
10m Position Cable	Cable #17	09/19/2006	09/19/2008	P04382
1GHz High Pass Filter		03/07/2006	03/07/2008	02749
Spectrum Analyzer	MY46186290	02/12/2007	02/12/2009	02869
40GHz cable		09/18/2007	09/18/2009	02946
Amplifier HP	3123A00282	06/05/2007	06/05/2009	00787

**Equipment Under Test (\* = EUT):**

Function	Manufacturer	Model #	S/N
Base Station Radio*	TELTRONIC S.A.U.	BSR P25 806-870	820978

**Support Devices:**

Function	Manufacturer	Model #	S/N
Power Supply	Astron	VLS-35M	208010009
Laptop Computer	Dell Corporation	Inspiron 4100	8J6H711

**Test Conditions / Notes:**

The equipment under test (EUT) is a base station radio. The EUT is stand alone on the table top. The EUT power supply is located beneath on the ground plane. The EUT VT\_100 RPCU port is connected to a remote laptop computer via shielded ethernet cable. Once the EUT is configured, this cable is removed since it is a maintenance port. The EUT RF\_IN1 port is connected to a coaxial cable terminated into a fifty ohm load. The EUT RF\_OUT port is connected to high power attenuators terminated into a fifty ohm load. The following ports are connected in loopback using shielded cat. 5 cables: Ethernet A to Ethernet B, Synchronous out 1 to Synchronous in 2, Synchronous out 2 to Synchronous in 1. The power supply is providing 26.4Vdc to the EUT. The remotely located laptop is running hyperterminal and is used to command the EUT to receive and is also used to change the EUT receive channels. The test is performed with the EUT receiving on its low (806MHz), middle (815MHz), and high (824MHz) channels. The frequency range covered on this data sheet is 1GHz to 9GHz. The receive range of the EUT is 806MHz to 824MHz. Bandwidth used: 1GHz to 9GHz 1MHz. Temperature: 20°C, Humidity: 41%, Pressure: 100kPa.

**Transducer Legend:**

T1=Horn 01646_062908	T2=Filter 1GHz HP AN02749
T3=Preamplifier 83017A 00787	T4=84' Helix Cable P04382
T5=48' Helix Cable 091808 P05563	T6=CAB-ANP02946091807

**Measurement Data:**

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	3079.996M	54.5	+30.6 +3.8	+0.4 +0.6	-39.1	+6.6	-10.0	47.4	49.5	-2.1	Vert
2	1558.014M	63.2	+25.1 +2.5	+0.5 +0.5	-38.8	+4.4	-10.0	47.4	49.5	-2.1	Vert
3	1540.000M	63.3	+25.0 +2.5	+0.6 +0.5	-38.8	+4.3	-10.0	47.4	49.5	-2.1	Horiz
4	2336.990M	58.3	+28.1 +3.2	+0.4 +0.5	-39.0	+5.6	-10.0	47.1	49.5	-2.4	Vert
5	3115.937M	54.0	+30.7 +3.8	+0.4 +0.6	-39.1	+6.6	-10.0	47.0	49.5	-2.5	Horiz
6	1539.999M	62.8	+25.0 +2.5	+0.6 +0.5	-38.8	+4.3	-10.0	46.9	49.5	-2.6	Vert
7	3079.779M	53.9	+30.6 +3.8	+0.4 +0.6	-39.1	+6.6	-10.0	46.8	49.5	-2.7	Horiz
8	3044.001M	54.0	+30.5 +3.8	+0.3 +0.6	-39.0	+6.6	-10.0	46.8	49.5	-2.7	Vert
9	3115.999M	53.5	+30.7 +3.8	+0.4 +0.6	-39.1	+6.6	-10.0	46.5	49.5	-3.0	Horiz
10	2337.067M	56.7	+28.1 +3.2	+0.4 +0.5	-39.0	+5.6	-10.0	45.5	49.5	-4.0	Horiz
11	2309.999M	56.6	+27.9 +3.2	+0.4 +0.5	-39.0	+5.6	-10.0	45.2	49.5	-4.3	Vert
12	3044.032M	51.5	+30.5 +3.8	+0.3 +0.6	-39.0	+6.6	-10.0	44.3	49.5	-5.2	Horiz
13	3849.955M	48.3	+32.3 +4.4	+0.4 +0.7	-39.5	+7.5	-10.0	44.1	49.5	-5.4	Vert
14	1521.896M	59.8	+25.0 +2.4	+0.6 +0.5	-38.8	+4.3	-10.0	43.8	49.5	-5.7	Horiz
15	1521.948M	58.0	+25.0 +2.4	+0.6 +0.5	-38.8	+4.3	-10.0	42.0	49.5	-7.5	Vert
16	2310.000M	53.3	+27.9 +3.2	+0.4 +0.5	-39.0	+5.6	-10.0	41.9	49.5	-7.6	Horiz
17	3850.056M	45.8	+32.3 +4.4	+0.4 +0.7	-39.5	+7.5	-10.0	41.6	49.5	-7.9	Horiz
18	1557.870M	57.2	+25.1 +2.5	+0.5 +0.5	-38.8	+4.4	-10.0	41.4	49.5	-8.1	Horiz
19	2283.000M	52.5	+27.8 +3.2	+0.4 +0.5	-39.0	+5.6	-10.0	41.0	49.5	-8.5	Horiz
20	2283.003M	52.1	+27.8 +3.2	+0.4 +0.5	-39.0	+5.6	-10.0	40.6	49.5	-8.9	Vert

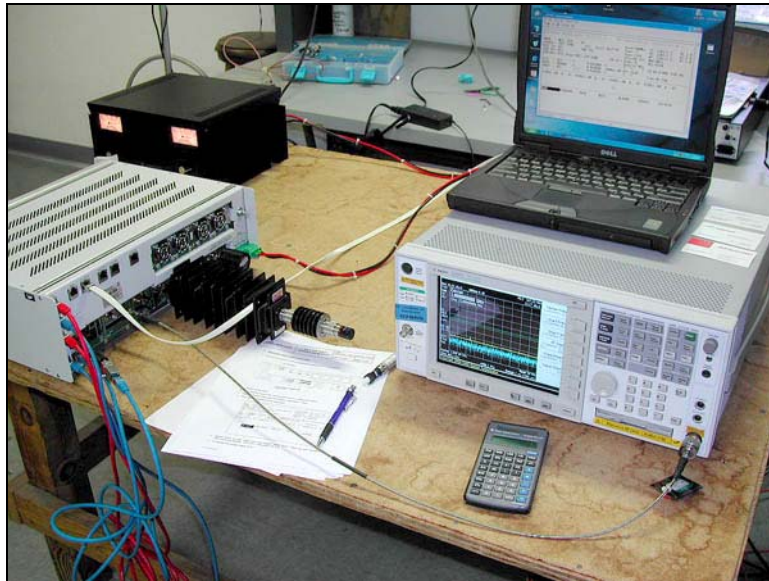


21	3895.060M	44.3	+32.4 +4.4	+0.4 +0.7	-39.5	+7.5	-10.0	40.2	49.5	-9.3	Horiz
22	3895.167M	42.9	+32.4 +4.4	+0.4 +0.7	-39.5	+7.5	-10.0	38.8	49.5	-10.7	Horiz
23	6231.947M	37.1	+34.1 +5.6	+0.5 +0.9	-39.5	+9.8	-10.0	38.5	49.5	-11.0	Vert
24	3895.002M	42.1	+32.4 +4.4	+0.4 +0.7	-39.5	+7.5	-10.0	38.0	49.5	-11.5	Vert
25	2127.540M	50.5	+27.1 +3.0	+0.3 +0.5	-38.9	+5.5	-10.0	38.0	49.5	-11.5	Vert
26	4673.916M	39.6	+32.8 +4.7	+0.2 +0.8	-39.4	+8.3	-10.0	37.0	49.5	-12.5	Horiz
27	6160.045M	35.4	+34.1 +5.6	+0.5 +0.9	-39.5	+9.8	-10.0	36.8	49.5	-12.7	Vert
28	2457.795M	46.8	+28.6 +3.2	+0.4 +0.6	-39.0	+5.8	-10.0	36.4	49.5	-13.1	Vert
29	5452.783M	36.5	+34.1 +5.2	+0.2 +0.8	-39.4	+9.0	-10.0	36.4	49.5	-13.1	Vert
30	3805.000M	40.7	+32.2 +4.4	+0.5 +0.7	-39.5	+7.4	-10.0	36.4	49.5	-13.1	Horiz
31	4674.122M	38.3	+32.8 +4.7	+0.2 +0.8	-39.4	+8.3	-10.0	35.7	49.5	-13.8	Vert
32	2127.476M	47.8	+27.1 +3.0	+0.3 +0.5	-38.9	+5.5	-10.0	35.3	49.5	-14.2	Horiz
33	4566.000M	37.4	+32.6 +4.7	+0.2 +0.8	-39.4	+8.3	-10.0	34.6	49.5	-14.9	Horiz
34	2127.492M	47.1	+27.1 +3.0	+0.3 +0.5	-38.9	+5.5	-10.0	34.6	49.5	-14.9	Horiz
35	1350.000M	45.8	+24.8 +2.3	+0.5 +0.4	-39.3	+4.1	-10.0	28.6	49.5	-20.9	Horiz



## FCC 15.111 – AC CONDUCTED EMISSIONS

### Test Setup Photos



### Test Data Sheets

Test Location: CKC Laboratories, Inc. • 110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **IP MobileNet**

Specification: **FCC15.111 Antenna Power Conduction limits for Receiver**

Work Order #: **87564** Date: 2/7/2008

Test Type: **Conducted Emissions** Time: 16:07:15

Equipment: **Base Station Radio** Sequence#: 4

Manufacturer: **TELTRONIC S.A.U.** Tested By: **Stuart Yamamoto**

Model: **BSR P25 806-870** 26.4Vdc

S/N: **820978**

#### ***Test Equipment:***

Function	S/N	Calibration Date	Cal Due Date	Asset #
40GHz cable		09/18/2007	09/18/2009	02946
Spectrum Analyzer	MY46186290	02/12/2007	02/12/2009	02869

#### ***Equipment Under Test (\* = EUT):***

Function	Manufacturer	Model #	S/N
Base Station Radio*	TELTRONIC S.A.U.	BSR P25 806-870	820978

#### ***Support Devices:***

Function	Manufacturer	Model #	S/N
Power Supply	Astron	VLS-35M	208010009
Laptop Computer	Dell Corporation	Inspiron 4100	8J6H711

**Test Conditions / Notes:**

The equipment under test (EUT) is a base station radio. The EUT, support equipment, and test equipment are located on the table top. The EUT VT\_100 RPCU port is connected to the laptop computer via shielded ethernet cable. The EUT RF\_IN1 port is connected to a high frequency coaxial cable and then to a spectrum analyzer. The EUT RF\_OUT port is connected to high power attenuators terminated into a fifty ohm load. The power supply is providing 26.4Vdc to the EUT. The laptop is running hyperterminal and is used to command the EUT to transmit and receive and is also used to change the EUT between transmit and receive channels. The test is performed with the EUT receiving on its low (806MHz), middle (815MHz), and high (824MHz) channels. The frequency range covered on this data sheet is 9kHz to 9GHz. The receive range of the EUT is 806MHz to 824MHz. Bandwidth used: 9kHz to 150kHz 200Hz, 150kHz to 30MHz 9kHz, 30MHz to 1000MHz 120kHz, 1GHz to 9GHz 1MHz. Temperature: 21°C, Humidity: 43%, Pressure: 100kPa.

**Transducer Legend:**

T1=CAB-ANP02946091807

**Measurement Data:** Reading listed by margin.

Test Lead: RF\_IN1

#	Freq MHz	Rdng dBμV	T1 dB				Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	2337.010M	47.5	+0.5				+0.0	48.0	50.0	-2.0	RF_IN
									824MHz High Channel		
2	779.040M	45.5	+0.3				+0.0	45.8	50.0	-4.2	RF_IN
									824MHz High Channel		
3	770.020M	43.2	+0.3				+0.0	43.5	50.0	-6.5	RF_IN
									815MHz Middle Channel		
4	2310.060M	42.2	+0.5				+0.0	42.7	50.0	-7.3	RF_IN
									815MHz Middle Channel		
5	2283.030M	39.6	+0.5				+0.0	40.1	50.0	-9.9	RF_IN
									806MHz Low Channel		
6	760.990M	37.4	+0.3				+0.0	37.7	50.0	-12.3	RF_IN
									806MHz Low Channel		
7	1558.060M	35.8	+0.5				+0.0	36.3	50.0	-13.7	RF_IN
									824MHz High Channel		
8	3849.950M	33.3	+0.7				+0.0	34.0	50.0	-16.0	RF_IN
									815MHz Middle Channel		
9	3804.930M	32.9	+0.7				+0.0	33.6	50.0	-16.4	RF_IN
									806MHz Low Channel		
10	1539.980M	30.7	+0.5				+0.0	31.2	50.0	-18.8	RF_IN
									815MHz Middle Channel		
11	1521.980M	30.2	+0.5				+0.0	30.7	50.0	-19.3	RF_IN
									806MHz Low Channel		

12	4620.050M	29.5	+0.8	+0.0	30.3	50.0	-19.7	RF_IN
						815MHz Middle Channel		
13	5389.900M	28.8	+0.8	+0.0	29.6	50.0	-20.4	RF_IN
						815MHz Middle Channel		
14	3116.500M	28.5	+0.6	+0.0	29.1	50.0	-20.9	RF_IN
						824MHz High Channel		
15	5326.880M	28.3	+0.8	+0.0	29.1	50.0	-20.9	RF_IN
						806MHz Low Channel		
16	5452.900M	27.9	+0.8	+0.0	28.7	50.0	-21.3	RF_IN
						824MHz High Channel		
17	6088.080M	27.4	+0.9	+0.0	28.3	50.0	-21.7	RF_IN
						806MHz Low Channel		
18	1974.000M	27.5	+0.5	+0.0	28.0	50.0	-22.0	RF_IN
						806MHz Low Channel		
19	4566.430M	27.0	+0.8	+0.0	27.8	50.0	-22.2	RF_IN
						806MHz Low Channel		
20	7609.880M	26.7	+1.0	+0.0	27.7	50.0	-22.3	RF_IN
						806MHz Low Channel		
21	4674.000M	26.7	+0.8	+0.0	27.5	50.0	-22.5	RF_IN
						824MHz High Channel		
22	6231.750M	26.2	+0.9	+0.0	27.1	50.0	-22.9	RF_IN
						824MHz High Channel		
23	3043.880M	26.3	+0.6	+0.0	26.9	50.0	-23.1	RF_IN
						806MHz Low Channel		
24	1974.260M	26.2	+0.5	+0.0	26.7	50.0	-23.3	RF_IN
						824MHz High Channel		
25	3895.000M	25.9	+0.7	+0.0	26.6	50.0	-23.4	RF_IN
						824MHz High Channel		
26	1720.100M	25.7	+0.5	+0.0	26.2	50.0	-23.8	RF_IN
						815MHz Middle Channel		
27	1720.055M	25.7	+0.5	+0.0	26.2	50.0	-23.8	RF_IN
						806MHz Low Channel		
28	1720.380M	25.5	+0.5	+0.0	26.0	50.0	-24.0	RF_IN
						824MHz High Channel		

29	1974.100M	25.3	+0.5	+0.0	25.8	50.0	-24.2	RF_IN
						815MHz Middle Channel		
30	8370.880M	23.9	+1.0	+0.0	24.9	50.0	-25.1	RF_IN
						806MHz Low Channel		
31	6020.490M	23.6	+0.9	+0.0	24.5	50.0	-25.5	RF_IN
						806MHz Low Channel		
32	1039.930M	23.6	+0.4	+0.0	24.0	50.0	-26.0	RF_IN
						806MHz Low Channel		
33	6849.080M	22.9	+0.9	+0.0	23.8	50.0	-26.2	RF_IN
						806MHz Low Channel		

## **FCC 2.1033(c)(14)/2.1046/90.205(j) - RF POWER OUTPUT**

### **Test Equipment**

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
High Frequency Cable	02948	Strolab Inc	32022-2-2909K-36TC	(none)	091807	091809
Spectrum Analyzer	02869	Agilent	E4440A	MY46186290	021207	021209

**Test Condition:** The equipment under test (EUT), support equipment and test equipment are located on the table top. The EUT VT\_100\_RTX port is connected to the laptop computer via shielded ethernet cable. The EUT RF\_OUT port is connected to high power attenuators and then a high frequency coaxial cable to a spectrum analyzer. The power supply is providing 26.4Vdc to the EUT. The laptop is running hyperterminal and is used to command the EUT to transmit and receive and is also used to change the EUT between transmit and receive channels. The test is performed with the EUT transmitting on its low (851MHz), middle (860MHz), and high (869MHz) channels. The transmit range of the EUT is 851MHz to 869MHz. Bandwidth used: 3 MHz. Temperature: 20°C, Humidity: 40%, Pressure: 100kPa. Date of test: February 4, 2008. Test performed by: S. Yamamoto.

### **Test Setup Photos**



### **Test Data Sheets**

#### **90.205(j)/2.1046 RF Output Power**

Frequency (MHz)	RF Power Output (Watts)
851.0	120.0
860.0	117.0
869.0	102.0



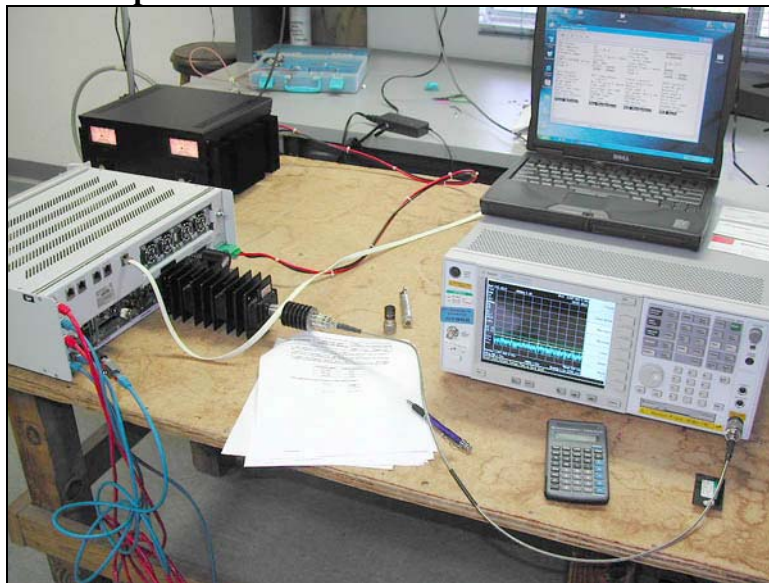
## FCC 2.1033(c)(14)/2.1049(i)/90.209(b)(5)- BANDWIDTH LIMITATIONS

### Test Equipment

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
High Frequency Cable	02948	Strolab Inc	32022-2-2909K-36TC	(none)	091807	091809
Spectrum Analyzer	02869	Agilent	E4440A	MY46186290	021207	021209

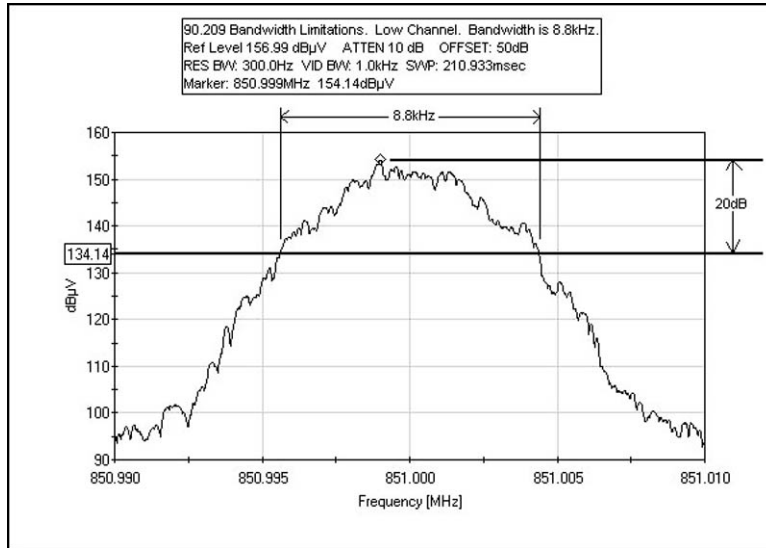
**Test Condition:** The equipment under test (EUT), support equipment and test equipment are located on the table top. The EUT VT\_100\_RTX port is connected to the laptop computer via shielded ethernet cable. The EUT RF\_OUT port is connected to high power attenuators and then a high frequency coaxial cable to a spectrum analyzer. The power supply is providing 26.4Vdc to the EUT. The laptop is running hyperterminal and is used to command the EUT to transmit and receive and is also used to change the EUT between transmit and receive channels. The test is performed with the EUT transmitting on its low (851MHz), middle (860MHz), and high (869MHz) channels. The transmit range of the EUT is 851MHz to 869MHz. Bandwidth used: 300Hz. Temperature: 21C, Humidity: 43%, Pressure: 100kPa. Date of test: February 6, 2008. Test performed by: S. Yamamoto.

### Test Setup Photos

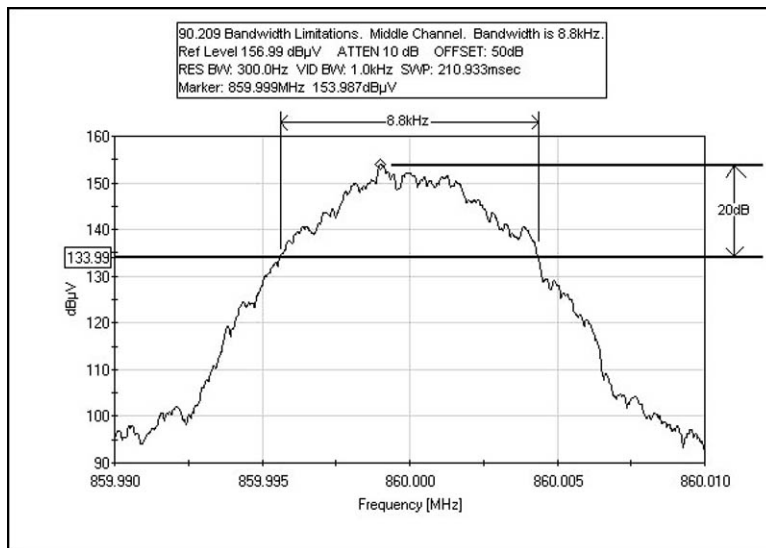


## Test Plots

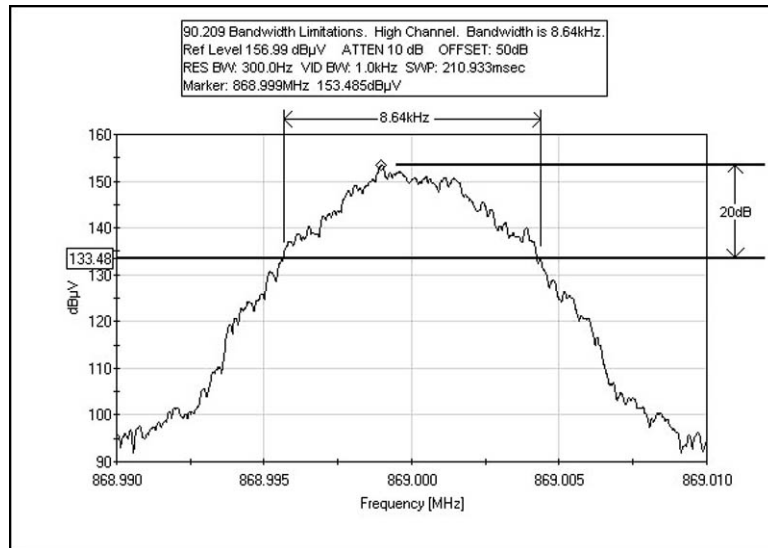
### FCC PART 90.209 BANDWIDTH LIMITATIONS - LOW CHANNEL



### FCC PART 90.209 BANDWIDTH LIMITATIONS - MIDDLE CHANNEL



## FCC PART 90.209 BANDWIDTH LIMITATIONS - HIGH CHANNEL





## FCC 2.1033(c)(14)/2.1049(i)/90.210(g) & (h) – EMISSIONS MASK

### Test Equipment

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
High Frequency Cable	02948	Strolab Inc	32022-2-2909K-36TC	(none)	091807	091809
Spectrum Analyzer	02869	Agilent	E4440A	MY46186290	021207	021209

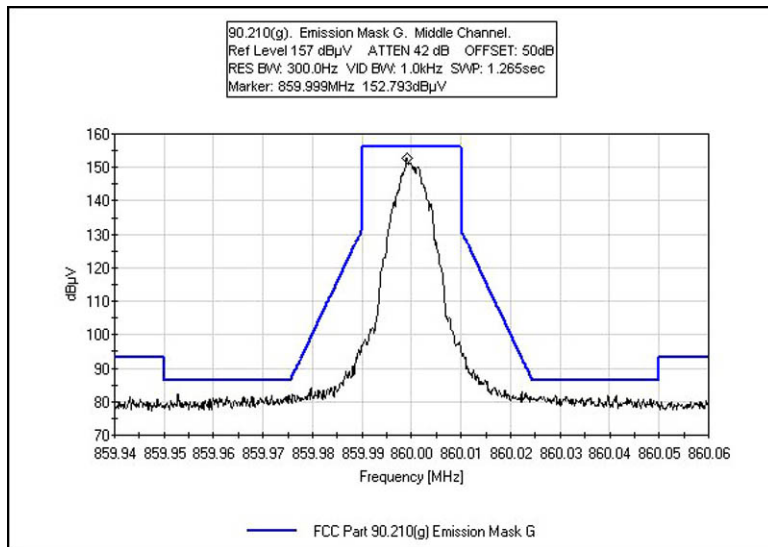
**Test Condition:** The equipment under test (EUT), support equipment and test equipment are located on the table top. The EUT VT\_100\_RTX port is connected to the laptop computer via shielded ethernet cable. The EUT RF\_OUT port is connected to high power attenuators and then a high frequency coaxial cable to a spectrum analyzer. The power supply is providing 26.4Vdc to the EUT. The laptop is running hyperterminal and is used to command the EUT to transmit and receive and is also used to change the EUT between transmit and receive channels. The test is performed with the EUT transmitting on its low (851MHz), middle (860MHz), and high (869MHz) channels. The transmit range of the EUT is 851MHz to 869MHz. Bandwidth used: 300Hz. Temperature: 21°C, Humidity: 43%, Pressure: 100kPa. Date of test: February 7, 2008. Test performed by: S. Yamamoto.

### Test Setup Photos

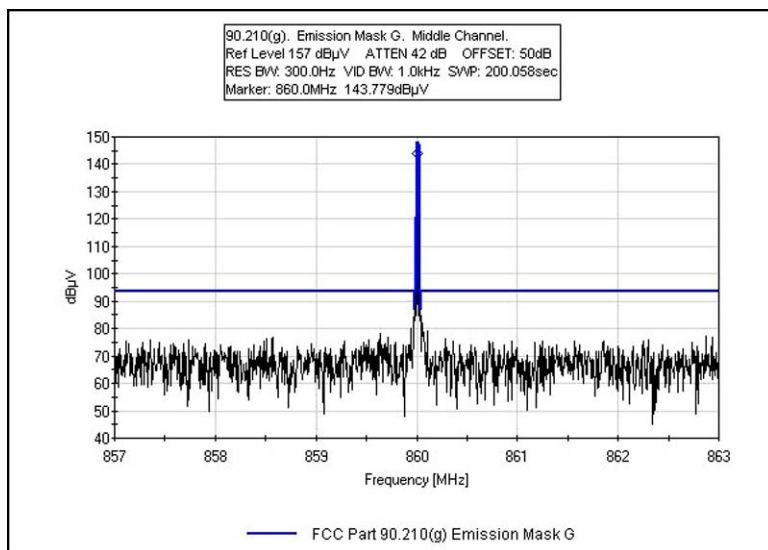


## Test Plots

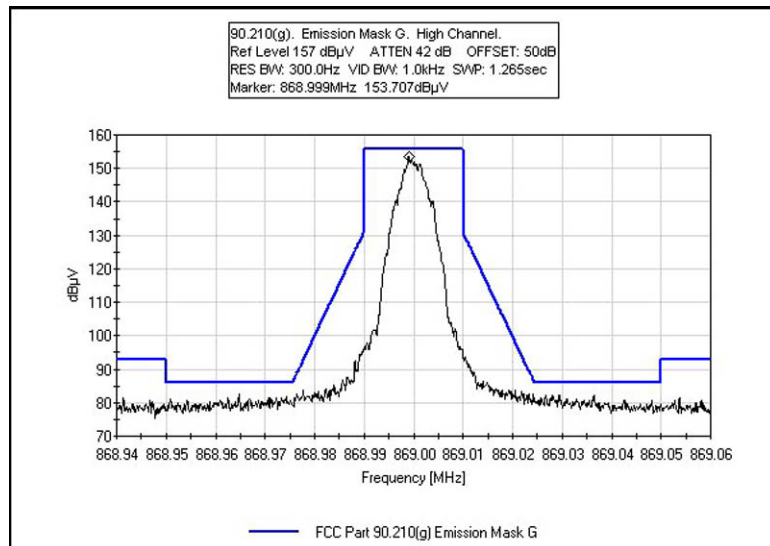
### FCC PART 90.210(g) EMISSIONS MASK G – MIDDLE CHANNEL SMALL SPAN



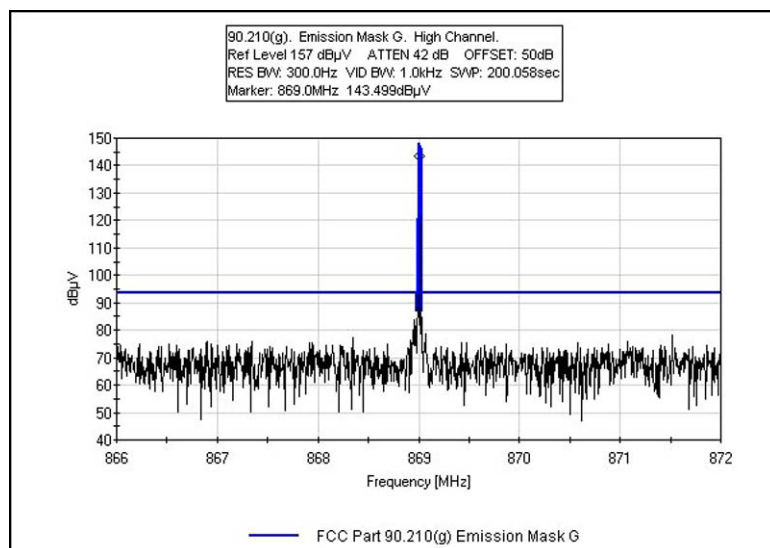
### EMISSIONS MASK G - MIDDLE CHANNEL LARGE SPAN



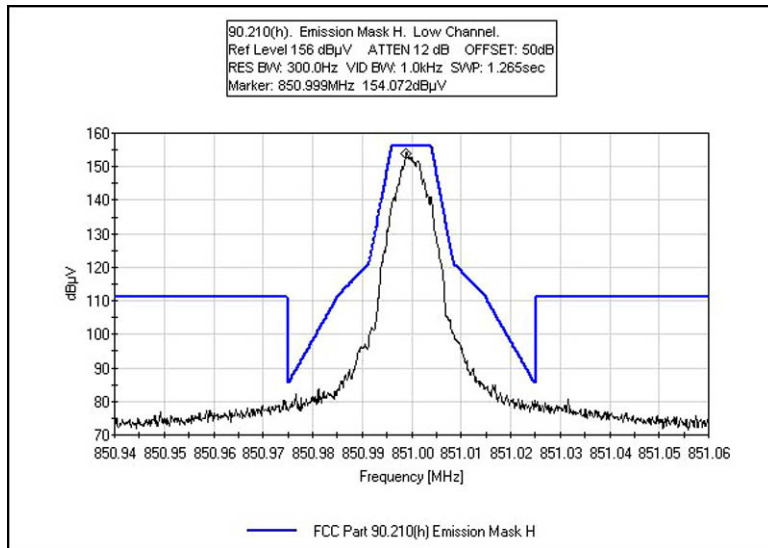
## EMISSIONS MASK G - HIGH CHANNEL SMALL SPAN



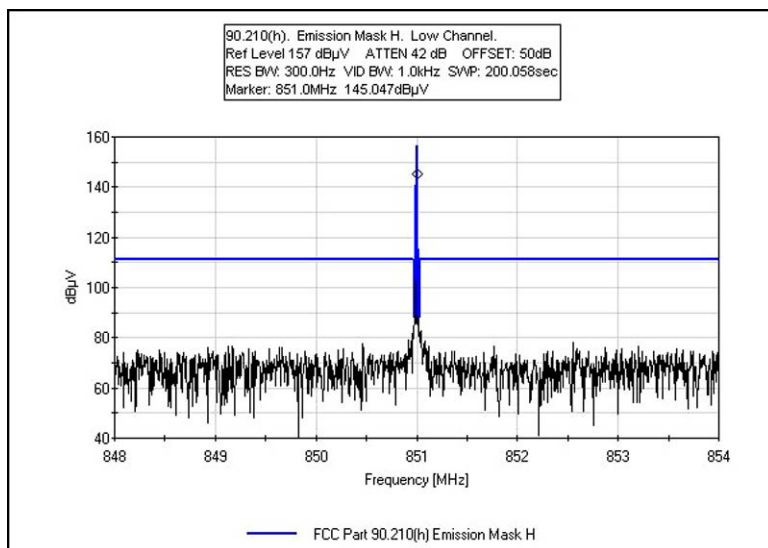
## FCC PART 90.210(g) EMISSIONS MASK G – HIGH CHANNEL LARGE SPAN



## FCC PART 90.210(h) EMISSIONS MASK H – LOW CHANNEL SMALL SPAN



## FCC PART 90.210(h) EMISSIONS MASK H – LOW CHANNEL LARGE SPAN



Tested By:

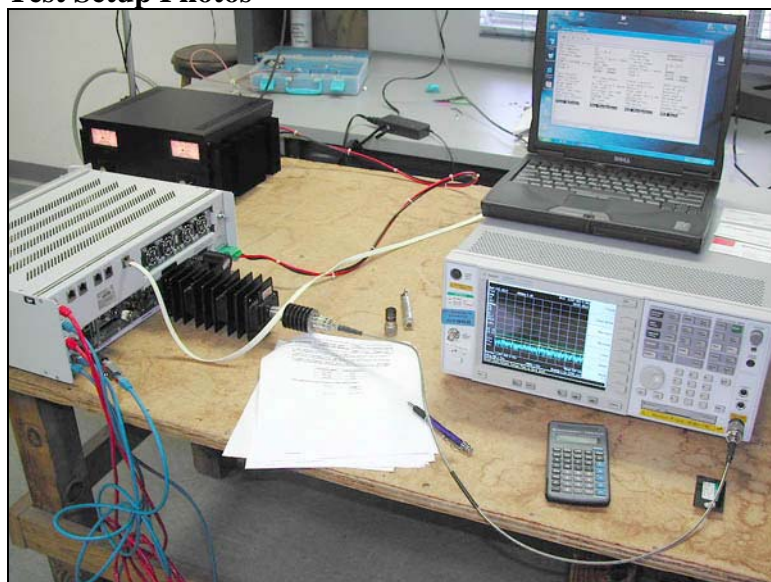
## FCC 2.1033(c)(14)/2.1049(i)- 99% BANDWIDTH

### Test Equipment

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
High Frequency Cable	02948	Strolab Inc	32022-2-2909K-36TC	(none)	091807	091809
Spectrum Analyzer	02869	Agilent	E4440A	MY46186290	021207	021209

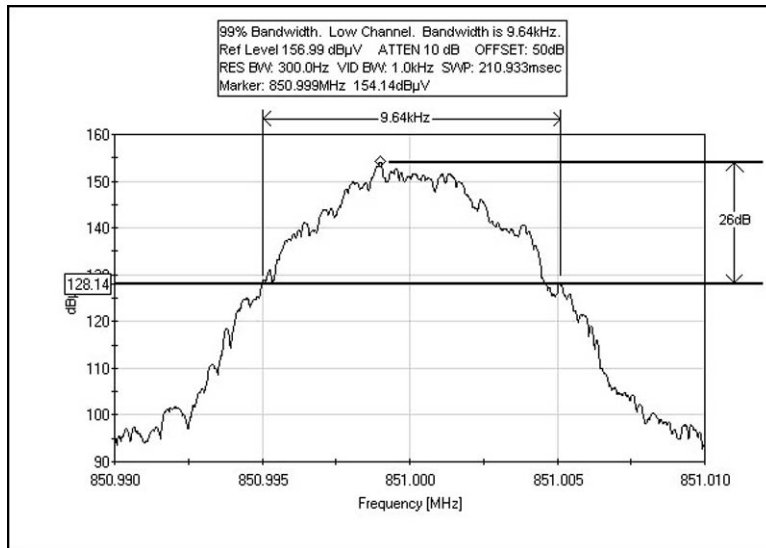
**Test Condition:** The equipment under test (EUT), support equipment and test equipment are located on the table top. The EUT VT\_100\_RTX port is connected to the laptop computer via shielded ethernet cable. The EUT RF\_OUT port is connected to high power attenuators and then a high frequency coaxial cable to a spectrum analyzer. The power supply is providing 26.4Vdc to the EUT. The laptop is running hyperterminal and is used to command the EUT to transmit and receive and is also used to change the EUT between transmit and receive channels. The test is performed with the EUT transmitting on its low (851MHz), middle (860MHz), and high (869MHz) channels. The transmit range of the EUT is 851MHz to 869MHz. Bandwidth used: 300Hz. Temperature: 21C, Humidity: 43%, Pressure: 100kPa. Date of test: February 6, 2008. Test performed by: S. Yamamoto.

### Test Setup Photos

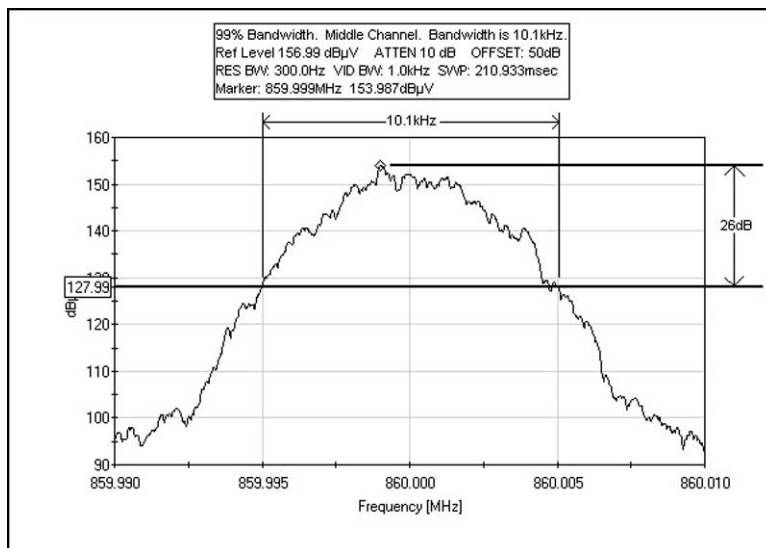


## Test Plots

### 99% BANDWIDTH - LOW CHANNEL

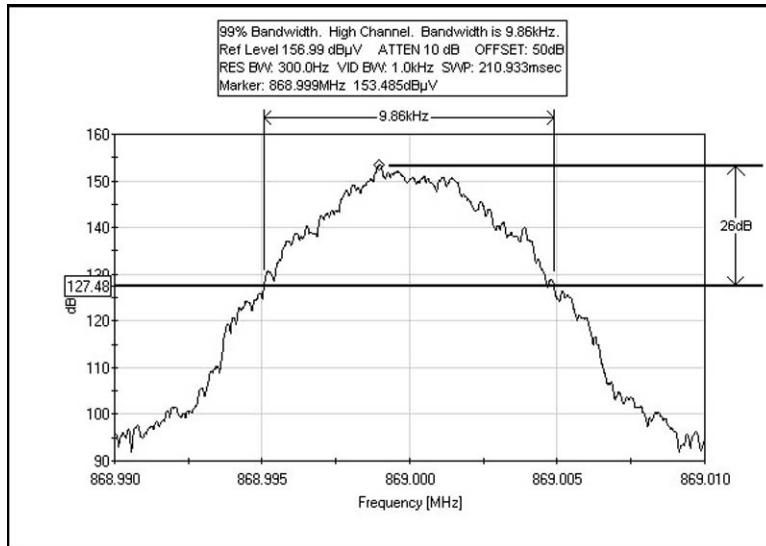


### 99% BANDWIDTH - MIDDLE CHANNEL





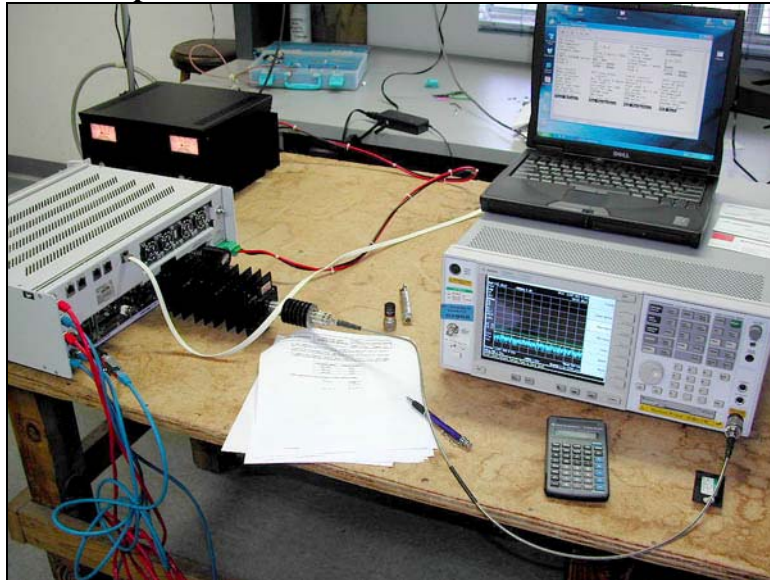
## 99% BANDWIDTH - HIGH CHANNEL



Tested By:

**FCC 2.1033(c)(14)/2.1051/90.210(g) - SPURIOUS EMISSIONS AT ANTENNA TERMINAL**

**Test Setup Photos**



**Test Data Sheets**

Test Location: CKC Laboratories, Inc. • 110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **IP MobileNet**

Specification: **FCC 90.210(g) Conducted Spurious Emissions**

Work Order #: **87564** Date: 2/6/2008

Test Type: **Conducted Emissions** Time: 11:27:07

Equipment: **Base Station Radio** Sequence#: 5

Manufacturer: **TELTRONIC S.A.U.** Tested By: **Stuart Yamamoto**

Model: **BSR P25 806-870** 26.4Vdc

S/N: **820978**

***Test Equipment:***

Function	S/N	Calibration Date	Cal Due Date	Asset #
1GHz High Pass Filter		03/07/2006	03/07/2008	02749
Spectrum Analyzer	MY46186290	02/12/2007	02/12/2009	02869
40GHz cable		09/18/2007	09/18/2009	02946

***Equipment Under Test (\* = EUT):***

Function	Manufacturer	Model #	S/N
Base Station Radio*	TELTRONIC S.A.U.	BSR P25 806-870	820978

***Support Devices:***

Function	Manufacturer	Model #	S/N
Power Supply	Astron	VLS-35M	208010009
Laptop Computer	Dell Corporation	Inspiron 4100	8J6H711



**Test Conditions / Notes:**

The equipment under test is a base station radio. The EUT, support and test equipment are located on the table top. The EUT VT\_100\_RTX port is connected to the laptop computer via shielded ethernet cable. The EUT RF\_OUT port is connected to high power attenuators and then a high frequency coaxial cable to a spectrum analyzer. The power supply is providing 26.4Vdc to the EUT. The laptop is running hyperterminal and is used to command the EUT to transmit and receive and is also used to change the EUT between transmit and receive channels. The test is performed with the EUT transmitting on its low (851MHz), middle (860MHz), and high (869MHz) channels. The EUT is transmitting at its rated output power. The frequency range covered on this data sheet is 9kHz to 9GHz. The transmit range of the EUT is 851MHz to 869MHz. Bandwidth used: 9kHz to 150kHz 200Hz, 150kHz to 30MHz 9kHz, 30MHz to 1000MHz 120kHz, 1GHz to 9GHz 1MHz. Temperature: 21°C, Humidity: 43%, Pressure: 100kPa. Since the limit for Mask G is stricter than the limit for Mask H, the limit line for Mask G is employed.

**Transducer Legend:**

T1=CAB-ANP02946091807	T2=Filter 1GHz HP AN02749
-----------------------	---------------------------

**Measurement Data:**

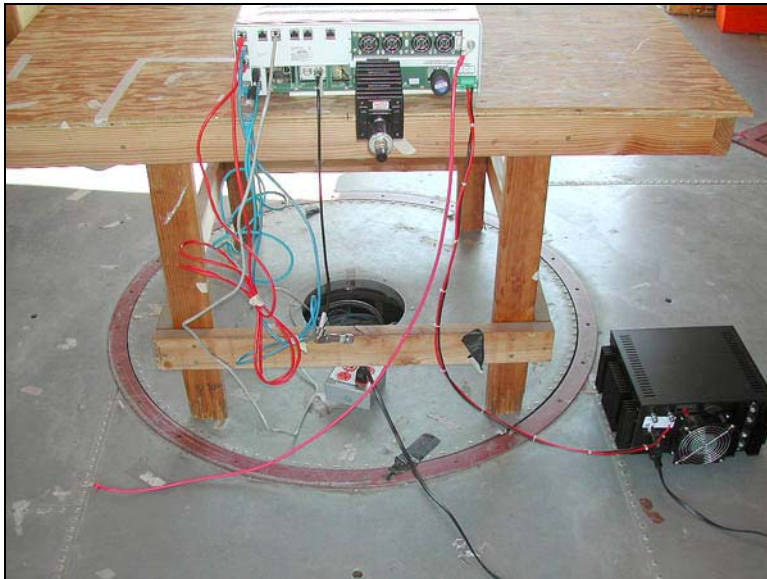
Reading listed by margin.

Test Lead: RF\_OUT

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB		Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1702.000M	82.5	+0.5	+0.4		+0.0	83.4	94.0	-10.6	RF_OU
2	3440.009M	81.5	+0.7	+0.4		+0.0	82.6	94.0	-11.4	RF_OU
3	2553.009M	81.3	+0.6	+0.4		+0.0	82.3	94.0	-11.7	RF_OU
4	1738.000M	80.6	+0.5	+0.4		+0.0	81.5	94.0	-12.5	RF_OU
5	2580.012M	80.2	+0.6	+0.4		+0.0	81.2	94.0	-12.8	RF_OU
6	2607.003M	80.1	+0.6	+0.4		+0.0	81.1	94.0	-12.9	RF_OU
7	1720.000M	80.0	+0.5	+0.4		+0.0	80.9	94.0	-13.1	RF_OU
8	840.300M	80.1	+0.3			+0.0	80.4	94.0	-13.6	RF_OU
9	849.320M	78.9	+0.3			+0.0	79.2	94.0	-14.8	RF_OU
10	858.290M	77.8	+0.3			+0.0	78.1	94.0	-15.9	RF_OU

**FCC 2.1033(c)(14)/2.1053/90.210(g) - FIELD STRENGTH OF SPURIOUS RADIATION**

**Test Setup Photos**



## Test Data Sheets

Test Location: CKC Laboratories, Inc. • 110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **IP MobileNet**  
 Specification: **90.210(g) Radiated Spurious Emissions**  
 Work Order #: **87564** Date: 2/4/2008  
 Test Type: **Maximized Emissions** Time: 13:20:36  
 Equipment: **Base Station Radio** Sequence#: 1  
 Manufacturer: **TELTRONIC S.A.U.** Tested By: Stuart Yamamoto  
 Model: **BSR P25 806-870**  
 S/N: **820978**

### Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
40GHz cable		09/18/2007	09/18/2009	02496
Horn Antenna	9603-4683	06/29/2006	06/29/2008	01646
Antenna Cable	L1-PNMNM-48	09/18/2006	09/18/2008	P05563
10m Position Cable	Cable #17	09/19/2006	09/19/2008	P04382
1GHz High Pass Filter		03/07/2006	03/07/2008	02749
Spectrum Analyzer	MY46186290	02/12/2007	02/12/2009	02869
Bilog Antenna	2629	01/21/2008	01/21/2010	00851
Antenna Cable	Cable #9	02/07/2006	02/07/2008	P01911
Loop Antenna	2014	06/14/2006	06/14/2008	00314
Preamplifier	2727A05392	06/06/2006	06/06/2008	00010
Preamplifier Cable	Cable #22	08/10/2006	08/10/2008	P05555

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
Base Station Radio*	TELTRONIC S.A.U.	BSR P25 806-870	820978

### Support Devices:

Function	Manufacturer	Model #	S/N
Power Supply	Astron	VLS-35M	208010009
Laptop Computer	Dell Corporation	Inspiron 4100	8J6H711

### Test Conditions / Notes:

The equipment under test (EUT) is a base station radio. The EUT is stand alone on the table top. The EUT power supply is located beneath on the ground plane. The EUT VT\_100 RTX port is connected to a remote laptop computer via shielded ethernet cable. This cable is used to configure the unit then disconnected since it is a maintenance port. The EUT RF\_IN1 port is connected to a coaxial cable terminated into a fifty ohm load. The EUT RF\_OUT port is connected to high power attenuators terminated into a fifty ohm load. The following ports are connected in loopback using shielded cat. 5 cables: Ethernet A to Ethernet B, Synchronous out 1 to Synchronous in 2, Synchronous out 2 to Synchronous in 1. The power supply is providing 26.4Vdc to the EUT. The remotely located laptop is running hyperterminal and is used to command the EUT to transmit and is also used to change the EUT transmit channels. The test is performed with the EUT transmitting on its low (851MHz), middle (860MHz), and high (869MHz) channels. The frequency range covered on this data sheet is 9kHz to 9GHz. The transmit range of the EUT is 851MHz to 869MHz. Bandwidth used: 9kHz to 150kHz 200Hz, 150kHz to 30MHz 9kHz, 30MHz to 1000MHz 120kHz, 1GHz to 9GHz 1MHz. Since the limit for Mask G is stricter than the limit for Mask H, the limit line for Mask G is employed.

Operating Frequency: 851 MHz - 869 MHz  
Channels: Low, Mid and High  
Highest Measured Output Power: 50.79 ERP(dBm)= 120 ERP(Watts)  
Distance: 3 meters  
Limit:  $43+10\log(P)$  63.79 dBc

Freq. (MHz)	Reference Level (dBm)	Antenna Polarity (H/V)	dBc
1,720.02	-24.7	Vert	75.49
3,404.00	-25.2	Vert	75.99
1,702.00	-25.8	Vert	76.59
1,702.00	-26.2	Horiz	76.99
2,553.00	-26.2	Horiz	76.99
2,606.96	-26.3	Vert	77.09
2,553.00	-26.5	Vert	77.29
3,476.00	-26.7	Horiz	77.49
3,404.00	-27.1	Horiz	77.89
1,719.98	-27.7	Horiz	78.49
2,579.93	-27.7	Vert	78.49
1,738.03	-28.1	Vert	78.89
2,607.01	-30.2	Horiz	80.99
3,476.04	-30.3	Vert	81.09
1,738.04	-30.5	Horiz	81.29
3,440.10	-31.1	Vert	81.89
4,254.88	-31.7	Horiz	82.49
3,439.97	-32.3	Horiz	83.09
6,880.07	-32.5	Vert	83.29
2,580.06	-33.1	Horiz	83.89
5,106.00	-33.7	Horiz	84.49
6,951.79	-34	Vert	84.79
5,106.00	-35	Vert	85.79
6,808.00	-35.2	Vert	85.99
5,214.10	-35.6	Vert	86.39
6,082.93	-35.8	Vert	86.59
6,019.97	-36	Vert	86.79
6,019.97	-36.4	Horiz	87.19
5,160.06	-37.1	Vert	87.89
5,159.96	-37.6	Horiz	88.39
6,083.10	-37.7	Horiz	88.49
5,213.94	-38	Horiz	88.79
4,345.07	-38.5	Vert	89.29
7,821.16	-38.6	Vert	89.39
4,255.00	-39.6	Vert	90.39
5,957.00	-40	Vert	90.79
3,044.03	-40.9	Vert	91.69
3,044.03	-40.9	Horiz	91.69

4,300.12	-41.1	Vert	91.89
3,080.00	-15.1	Vert	65.89
1,558.01	-15.1	Vert	65.89
1,540.00	-15.1	Horiz	65.89
2,336.99	-15.4	Vert	66.19
3,115.94	-15.5	Horiz	66.29
1,540.00	-15.6	Vert	66.39
3,079.78	-15.7	Horiz	66.49
3,044.00	-15.7	Vert	66.49
3,116.00	-16	Horiz	66.79
2,337.07	-17	Horiz	67.79
2,310.00	-17.3	Vert	68.09
3,044.03	-18.2	Horiz	68.99
3,849.96	-18.4	Vert	69.19
1,521.90	-18.7	Horiz	69.49
1,521.95	-20.5	Vert	71.29
2,310.00	-20.6	Horiz	71.39
3,850.06	-20.9	Horiz	71.69
1,557.87	-21.1	Horiz	71.89
2,283.00	-21.5	Horiz	72.29
2,283.00	-21.9	Vert	72.69
3,895.06	-22.3	Horiz	73.09
3,895.17	-23.7	Horiz	74.49
6,231.95	-24	Vert	74.79
3,895.00	-24.5	Vert	75.29
2,127.54	-24.5	Vert	75.29
4,673.92	-25.5	Horiz	76.29
6,160.05	-25.7	Vert	76.49
2,457.80	-26.1	Vert	76.89
5,452.78	-26.1	Vert	76.89
3,805.00	-26.1	Horiz	76.89
4,674.12	-26.8	Vert	77.59
2,127.48	-27.2	Horiz	77.99
4,566.00	-27.9	Horiz	78.69
2,127.49	-27.9	Horiz	78.69
1,350.00	-33.9	Horiz	84.69
779.00	-14.4	Horiz	65.19
779.00	-14	Horiz	64.79
760.99	-14.5	Horiz	65.29
761.00	-13.7	Horiz	64.49
778.99	-14.5	Vert	65.29
779.00	-14	Vert	64.79
769.99	-14.7	Horiz	65.49

770.00	-13.7	Horiz	64.49
760.99	-14.8	Vert	65.59
760.98	-14.7	Vert	65.49
769.98	-15.5	Vert	66.29
69.99	-15.6	Vert	66.39
99.98	-16.1	Vert	66.89
99.98	-13.5	Vert	64.29
100.00	-19.4	Vert	70.19
120.03	-16.7	Horiz	67.49
189.99	-17	Horiz	67.79
49.99	-18	Vert	68.79
80.00	-19.1	Horiz	69.89
80.00	-19.1	Vert	69.89
119.98	-19.3	Vert	70.09
869.00	-20.5	Horiz	71.29
209.98	-20.6	Horiz	71.39
80.03	-20.8	Horiz	71.59
150.00	-22	Horiz	72.79
869.01	-22.4	Vert	73.19
69.98	-23.8	Horiz	74.59
199.99	-23.9	Horiz	74.69
140.01	-24.1	Horiz	74.89
70.00	-24.6	Horiz	75.39
239.99	-24.6	Horiz	75.39
859.98	-25	Horiz	75.79
959.99	-25.3	Horiz	76.09
100.00	-25.9	Horiz	76.69
899.99	-26.3	Horiz	77.09
900.00	-27.2	Vert	77.99
689.98	-27.5	Vert	78.29
469.98	-27.9	Horiz	78.69
920.03	-28.5	Vert	79.29
270.00	-29.1	Horiz	79.89
400.01	-29.2	Horiz	79.99
680.02	-29.3	Vert	80.09
219.99	-29.4	Horiz	80.19
450.00	-29.5	Horiz	80.29
279.99	-30	Horiz	80.79
730.03	-30	Vert	80.79



## FCC 2.1033(c)(14)/2.1055/90.213(a)- FREQUENCY STABILITY

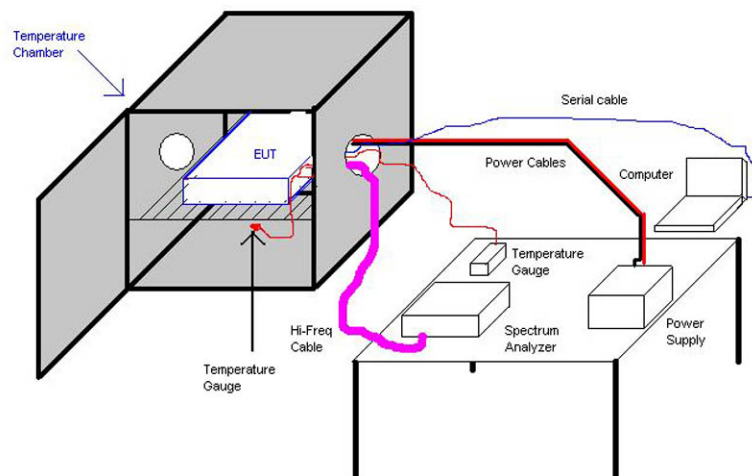
### Test Equipment

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02869	Agilent	E4440A	MY46186290	2/12/2007	2/12/2009
Thermometer	02242	Omega	HH-26K	T-202884	9/13/2007	9/13/2009
Digital Multimeter w/IEEE	01830	Fluke	45	6949042	2/14/2006	2/14/2008
Temperature Chamber	Customer Equipment	Test Equity	1000 series	NA	NCR	NCR

NCR = No Calibration Required. CKC temperature chamber was not used due to the size limitations. Powerwave's chamber was used in conjunction with CKC's thermometer listed above.

**Test Conditions:** The EUT is placed in the temperature chamber. RF signal is monitored from the antenna port. A spectrum analyzer is employed to measured the frequency stability of the EUT.

### Test Setup Diagram



## Test Data

Customer: IPMobileNet  
 WO#: 87564  
 Date: 8-Feb-08  
 Test Engineer: S.Hundal

Device Model #: BSR P25 806-870  
 Operating Voltage: 24 Vdc

Frequency Limit: 1.00E+00 ppm

### Temperature Variations

Channel Frequency:		Channel 1 (MHz)	Dev (ppm)
		851.000000000	
Temp (C)	Voltage		
-30	24	850.999780000	0.258519
-20	24	850.999780000	0.258519
-10	24	850.999840000	0.188014
0	24	850.999760000	0.282021
10	24	850.999910000	0.105758
20	24	850.999950000	0.058754
30	24	850.999890000	0.129260
40	24	850.999920000	0.094007
50	24	850.999870000	0.152761

Channel 2 (MHz)		Dev (ppm)
854.000000000		
853.999640000	0.421546	
853.999760000	0.281030	
853.999820000	0.210773	
853.999780000	0.257611	
853.999900000	0.117096	
853.999910000	0.105386	
853.999900000	0.117096	
853.999900000	0.117096	
853.999800000	0.140515	

Channel 3 (MHz)		Dev (ppm)
860.000000000		
859.999780000	0.255814	
859.999700000	0.348837	
859.999860000	0.162791	
859.999780000	0.255814	
859.999940000	0.069767	
859.999860000	0.162791	
859.999880000	0.139535	
859.999950000	0.058140	
859.999880000	0.139535	

### Voltage Variations (±15%)

Temp (C)	Voltage	Channel 1 (MHz)	Dev. (MHz)
20	20.4	850.999890000	0.129260
20	24.0	850.999960000	0.047004
20	27.6	850.999895000	0.123384

Channel 2 (MHz)	Dev. (MHz)
853.999870	0.152225
853.999970	0.035129
853.999800	0.234192

Channel 3 (MHz)	Dev. (MHz)
859.999880	0.139535
859.999960	0.046512
859.999880	0.139535

Max Deviation (ppm)	+	0.28202
Max Deviation (ppm)	-	-0.04700
PASS		

	+	0.42155
	-	-0.03513
PASS		

	+	0.34884
	-	-0.04651
PASS		