



HONEYWELL INTERNATIONAL INC. TEST REPORT

FOR THE

TPL-100A, PN: 940-0530-001

FCC PART 87 RADIATED SPURIOUS EMISSIONS

COMPLIANCE

DATE OF ISSUE: NOVEMBER 30, 2006

PREPARED FOR:

Honeywell International Inc.
15001 NE 36th Street
Redmond, WA 98052

P.O. No.: 3966918
W.O. No.: 85922

PREPARED BY:

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

Date of test: November 16, 2006

Report No.: FC06-073

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ADMINISTRATIVE INFORMATION

DATE OF TEST: November 16, 2006

DATE OF RECEIPT: November 16, 2006

FREQUENCY RANGE TESTED: 10 kHz-11 GHz

MANUFACTURER: Honeywell International Inc.
15001 NE 36th Street
Redmond, WA 98052

REPRESENTATIVE: Keith Peavler

TEST LOCATION: CKC Laboratories, Inc.
22116 23rd Drive S.E., Suite A
Bothell, WA 98021-4413

TEST METHOD: FCC Part 87 Radiated Spurious Emissions

PURPOSE OF TEST: To demonstrate the compliance of the TPL-100A,
PN: 940-0530-001 with the requirements for FCC
Part 87 Radiated Spurious Emissions devices.



FCC TO CANADA STANDARD CORRELATION MATRIX

CONDITIONS FOR COMPLIANCE

No modifications to the EUT were necessary to comply.

APPROVALS

Steve Behm, Director of Engineering Services

QUALITY ASSURANCE:

A handwritten signature in black ink that reads 'Joyce Walker'.

Joyce Walker, Quality Assurance Administrative Manager

TEST PERSONNEL:

A handwritten signature in black ink that reads 'Ryan Rutledge'.

Ryan Rutledge, Test Technologist

A handwritten signature in black ink that reads 'Katie Molina'.

Katie Molina, Senior EMC Engineer/Lab Manager

EQUIPMENT UNDER TEST (EUT) DESCRIPTION

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

At the time of testing, the following model was tested by CKC Laboratories: **TCAS, PN: 940-0530-001**

Since the time of testing the manufacturer has chosen to use the following model name in its place. Any differences between the names does not affect their EMC characteristics and therefore complies to the level of testing equivalent to the tested model name shown on the data sheets: **TPL-100A**

EQUIPMENT UNDER TEST

TPL-100A

Manuf: Honeywell International Inc.
Model: TPL-100A
Part No: 940-0530-001
Serial: TPL00210

PERIPHERAL DEVICES

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

Antenna Simulator

Manuf: Honeywell
Model: PN: 727-0016-001
Serial: 0025

Antenna Simulator

Manuf: Honeywell
Model: PN: 727-0016-001
Serial: 0074

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)(14)/2.1053/87.139 - FIELD STRENGTH OF SPURIOUS RADIATION

Test Location: CKC Laboratories • 22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Honeywell International Inc.**

Specification: **2.1053/87.139 Spurious**

Work Order #: **85922**

Date: 11/16/2006

Test Type: **Radiated Scan**

Time: 11:25:29

Equipment: **TCAS**

Sequence#: 3

Manufacturer: Honeywell

Tested By: Ryan Rutledge

Model: PN: 940-0530-001

S/N: TPL00210

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A	S/N: US44300437	05/27/2006	05/27/2008	AN02673
Bothell 5m Cable Set	S/N: P05444	11/28/2005	11/28/2007	ANP05444
EMCO 6502 Active Loop	S/N: 2156	02/20/2006	02/20/2008	AN00052

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
TCAS*	Honeywell	PN: 940-0530-001	TPL00210

Support Devices:

Function	Manufacturer	Model #	S/N
Antenna Simulator	Honeywell	PN: 727-0016-001	0025
Antenna Simulator	Honeywell	PN: 727-0016-001	0074

Test Conditions / Notes:

Device is placed on wooden table 80 cm above a ground plane. Table will be rotated and antenna height varied when maximizing emissions. RF output is terminated with antenna simulators that are placed under the table, on the conductive surface of the turntable. Transmitter operating under normal conditions, terminated with antenna simulators. Customer states that lowest operating frequency in device is 20 MHz, and highest frequency is 1090 MHz. We will measure radiated spurious emissions from 10 MHz to 11 GHz. Frequency ranges tested: 10 - 30 MHz @ 9 kHz RBW, 9 kHz VBW. Measurement distance: 3 meters.

Transducer Legend:

T1=ANT- AN00052-022006	T2=Bothell 5 meter cable set
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Measurement Data:

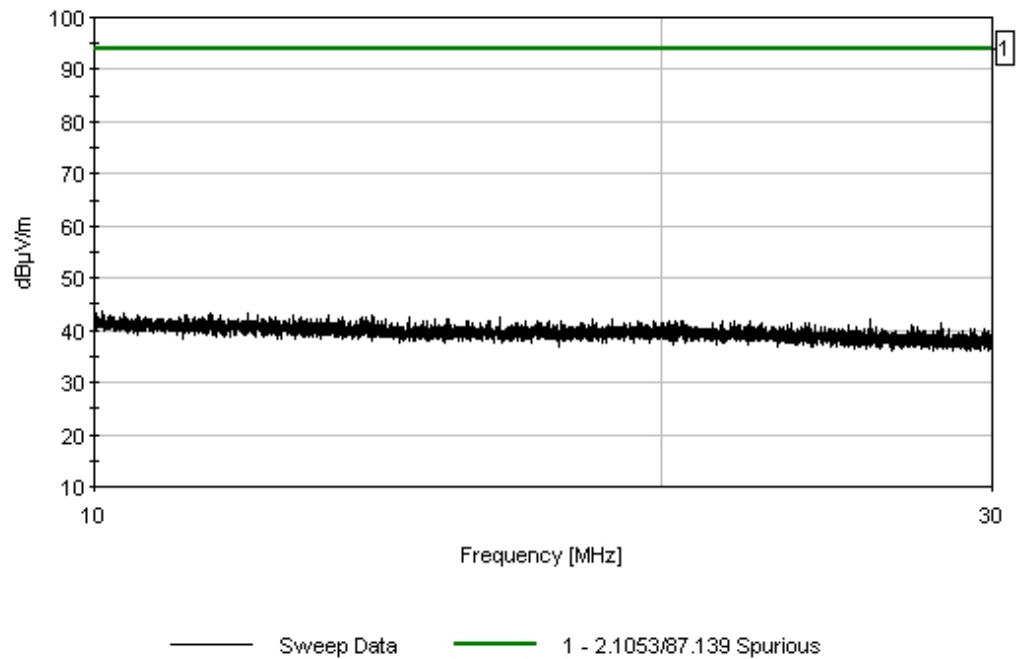
Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	dB		Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	10.000M	15.3	+9.3	+0.4			+19.0 360	44.0	94.0	-50.0	Vert 100
2	10.097M	14.9	+9.3	+0.4			+19.0 360	43.6	94.0	-50.4	Vert 100
3	11.526M	14.9	+9.0	+0.4			+19.0 360	43.3	94.0	-50.7	Vert 100
4	10.374M	14.6	+9.2	+0.4			+19.0 360	43.2	94.0	-50.8	Vert 100

5	12.068M	14.7	+8.9	+0.5	+19.0 360	43.1	94.0	-50.9	Vert 100
6	10.192M	14.3	+9.3	+0.4	+19.0 360	43.0	94.0	-51.0	Vert 100
7	11.563M	14.6	+9.0	+0.4	+19.0 360	43.0	94.0	-51.0	Vert 100
8	10.113M	14.2	+9.3	+0.4	+19.0 360	42.9	94.0	-51.1	Vert 100
9	10.533M	14.3	+9.2	+0.4	+19.0 360	42.9	94.0	-51.1	Vert 100
10	11.212M	14.5	+9.0	+0.4	+19.0 360	42.9	94.0	-51.1	Vert 100
11	12.200M	14.5	+8.9	+0.5	+19.0 360	42.9	94.0	-51.1	Vert 100
12	11.165M	14.3	+9.1	+0.4	+19.0 360	42.8	94.0	-51.2	Vert 100
13	11.510M	14.4	+9.0	+0.4	+19.0 360	42.8	94.0	-51.2	Vert 100
14	11.654M	14.4	+9.0	+0.4	+19.0 360	42.8	94.0	-51.2	Vert 100
15	12.755M	14.5	+8.8	+0.5	+19.0 360	42.8	94.0	-51.2	Vert 100
16	13.335M	14.6	+8.7	+0.5	+19.0 360	42.8	94.0	-51.2	Vert 100
17	14.038M	14.8	+8.5	+0.5	+19.0 360	42.8	94.0	-51.2	Vert 100
18	13.562M	14.6	+8.6	+0.5	+19.0 360	42.7	94.0	-51.3	Vert 100
19	13.887M	14.6	+8.6	+0.5	+19.0 360	42.7	94.0	-51.3	Vert 100
20	16.425M	14.7	+8.5	+0.5	+19.0 360	42.7	94.0	-51.3	Vert 100

CKC Laboratories Date: 11/16/2006 Time: 11:25:29 Honeywell International Inc. WO#: 85922
 2.1053/87.139 Spurious Test Distance: 3 Meters Sequence#: 3 Polarity: Vert
 Notes: Device is placed on wooden table 80 cm above a ground plane. Table will be rotated and antenna height varied w/





Test Location: CKC Laboratories • 22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Honeywell International Inc.**
 Specification: **2.1053/87.139 Spurious**
 Work Order #: **85922**
 Test Type: **Radiated Scan**
 Equipment: **TCAS**
 Manufacturer: Honeywell
 Model: PN: 940-0530-001
 S/N: TPL00210

Date: 11/16/2006
 Time: 11:29:57
 Sequence#: 4
 Tested By: Ryan Rutledge

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A	S/N: US44300437	05/27/2006	05/27/2008	AN02673
Bothell 5m Cable Set	S/N: P05444	11/28/2005	11/28/2007	ANP05444
EMCO 6502 Active Loop	S/N: 2156	02/20/2006	02/20/2008	AN00052

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
TCAS*	Honeywell	PN: 940-0530-001	TPL00210

Support Devices:

Function	Manufacturer	Model #	S/N
Antenna Simulator	Honeywell	PN: 727-0016-001	0025
Antenna Simulator	Honeywell	PN: 727-0016-001	0074

Test Conditions / Notes:

Device is placed on wooden table 80 cm above a ground plane. Table will be rotated and antenna height varied when maximizing emissions. RF output is terminated with antenna simulators that are placed under the table, on the conductive surface of the turntable. Transmitter operating under normal conditions, terminated with antenna simulators. Customer states that lowest operating frequency in device is 20 MHz, and highest frequency is 1090 MHz. We will measure radiated spurious emissions from 10 MHz to 11 GHz. Frequency ranges tested: 10 - 30 MHz @ 9 kHz RBW, 9 kHz VBW. Measurement distance: 3 meters.

Transducer Legend:

T1=ANT- AN00052-022006	T2=Bothell 5 meter cable set
------------------------	------------------------------

Measurement Data:

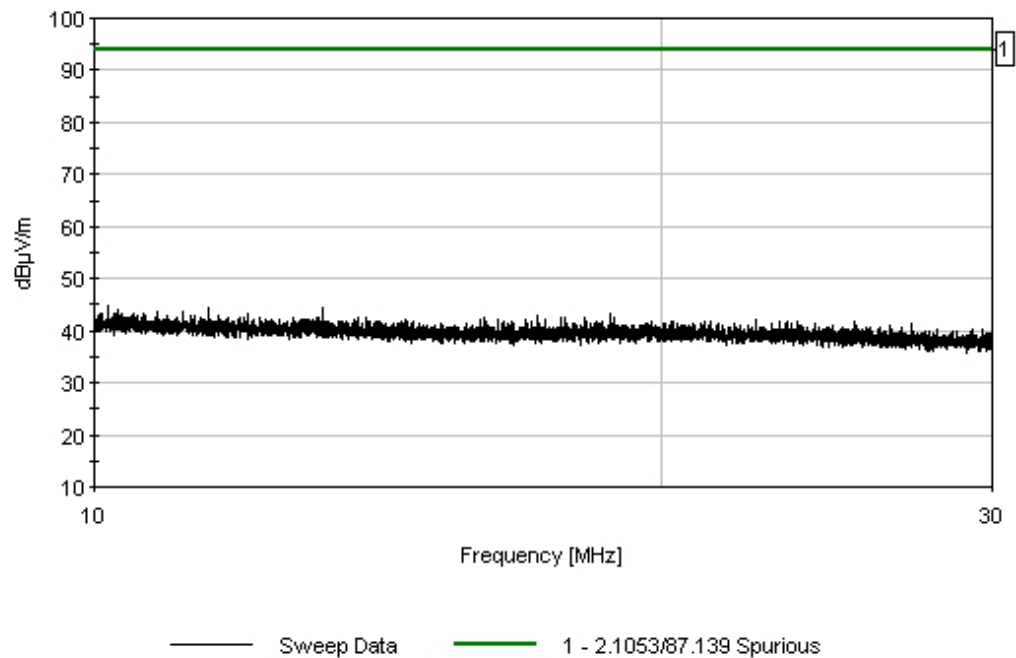
Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	Dist dB	Corr dB	Spec dBμV/m	Margin dB	Polar Ant
1	10.161M	16.2	+9.3	+0.4	+19.0	44.9	94.0	-49.1	Horiz 100
2	13.233M	16.2	+8.7	+0.5	+19.0	44.4	94.0	-49.6	Horiz 100
3	11.497M	15.9	+9.0	+0.4	+19.0	44.3	94.0	-49.7	Horiz 100
4	10.283M	15.5	+9.2	+0.4	+19.0	44.1	94.0	-49.9	Horiz 100
5	10.805M	15.2	+9.1	+0.4	+19.0	43.7	94.0	-50.3	Horiz 100

6	11.134M	15.1	+9.1	+0.4	+19.0	43.6	94.0	-50.4	Horiz 100
7	10.000M	14.7	+9.3	+0.4	+19.0	43.4	94.0	-50.6	Horiz 100
8	10.272M	14.8	+9.2	+0.4	+19.0	43.4	94.0	-50.6	Horiz 100
9	10.624M	14.8	+9.2	+0.4	+19.0	43.4	94.0	-50.6	Horiz 100
10	10.069M	14.6	+9.3	+0.4	+19.0	43.3	94.0	-50.7	Horiz 100
11	10.088M	14.5	+9.3	+0.4	+19.0	43.2	94.0	-50.8	Horiz 100
12	10.495M	14.6	+9.2	+0.4	+19.0	43.2	94.0	-50.8	Horiz 100
13	12.065M	14.8	+8.9	+0.5	+19.0	43.2	94.0	-50.8	Horiz 100
14	18.782M	15.0	+8.6	+0.6	+19.0	43.2	94.0	-50.8	Horiz 100
15	10.248M	14.5	+9.2	+0.4	+19.0	43.1	94.0	-50.9	Horiz 100
16	10.175M	14.2	+9.3	+0.4	+19.0	42.9	94.0	-51.1	Horiz 100
17	10.650M	14.3	+9.2	+0.4	+19.0	42.9	94.0	-51.1	Horiz 100
18	11.641M	14.5	+9.0	+0.4	+19.0	42.9	94.0	-51.1	Horiz 100
19	17.216M	14.8	+8.5	+0.6	+19.0	42.9	94.0	-51.1	Horiz 100
20	10.935M	14.3	+9.1	+0.4	+19.0	42.8	94.0	-51.2	Horiz 100

CKC Laboratories Date: 11/16/2006 Time: 11:29:57 Honeywell International Inc. WO#: 85922
 2.1053/87.139 Spurious Test Distance: 3 Meters Sequence#: 4 Polarity: Horiz
 Notes: Device is placed on wooden table 80 cm above a ground plane. Table will be rotated and antenna height varied w/





Test Location: CKC Laboratories • 22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Honeywell International Inc.**

Specification: **2.1053/87.139 Spurious**

Work Order #: **85922**

Date: 11/16/2006

Test Type: **Radiated Scan**

Time: 10:10:17

Equipment: **TCAS**

Sequence#: 1

Manufacturer: Honeywell

Tested By: Ryan Rutledge

Model: PN: 940-0530-001

S/N: TPL00210

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A	S/N: US44300437	05/27/2006	05/27/2008	AN02673
Bothell 5m Cable Set	S/N: P05444	11/28/2005	11/28/2007	ANP05444
HP 8447D PreAmp	S/N: 2944A08601	07/10/2006	07/10/2008	AN01517
Chase BILOG	S/N: 2458	02/02/2005	02/02/2007	AN01993

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
TCAS*	Honeywell	PN: 940-0530-001	TPL00210

Support Devices:

Function	Manufacturer	Model #	S/N
Antenna Simulator	Honeywell	PN: 727-0016-001	0025
Antenna Simulator	Honeywell	PN: 727-0016-001	0074

Test Conditions / Notes:

Device is placed on wooden table 80 cm above a ground plane. Table will be rotated and antenna height varied to find maximum emissions. RF output is terminated with antenna simulators that are placed under the table, on the conductive surface of the turntable. Transmitter operating under normal conditions, terminated with antenna simulators. Frequency range tested: 30 - 1000 MHz @ 120 kHz RBW, 120 kHz VBW. Measurement distance: 3 meters.

Transducer Legend:

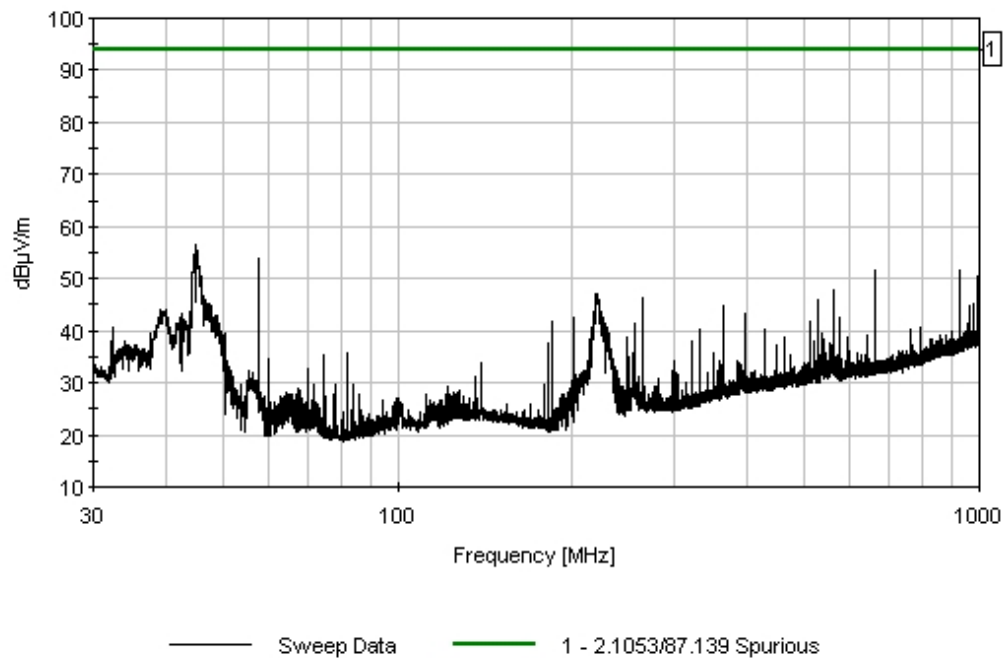
T1=Chase AN 1993 SN 2458 2/2/05-2/2/07	T2=Bothell 5 meter cable set
T3=AMP-AN01517-071006	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

Measurement Data			Reading noted by margin				Test Distance 5 meters				
#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB		Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	45.140M	58.7	+14.3	+1.0	-27.6		+10.0	56.4	94.0	-37.6	Vert 100
2	44.874M	57.6	+14.5	+1.0	-27.6		+10.0	55.5	94.0	-38.5	Vert 100
3	57.817M Ambient	60.7	+9.8	+1.1	-27.6		+10.0	54.0	94.0	-40.0	Vert 100
4	659.978M	45.9	+20.3	+3.9	-28.6		+10.0	51.5	94.0	-42.5	Vert 100
5	924.015M	41.1	+23.5	+4.7	-27.8		+10.0	51.5	94.0	-42.5	Vert 100

6	44.341M	53.1	+14.7	+0.9	-27.6	+10.0	51.1	94.0	-42.9	Vert 100
7	994.147M	38.6	+24.4	+5.1	-27.8	+10.0	50.3	94.0	-43.7	Vert 100
8	560.928M	43.5	+19.3	+3.5	-28.5	+10.0	47.8	94.0	-46.2	Vert 100
9	219.271M	51.1	+10.9	+2.1	-27.1	+10.0	47.0	94.0	-47.0	Vert 100
10	994.879M	35.1	+24.4	+5.1	-27.8	+10.0	46.8	94.0	-47.2	Vert 100
11	264.033M	47.9	+13.0	+2.4	-27.0	+10.0	46.3	94.0	-47.7	Vert 100
12	46.671M	49.0	+13.5	+1.0	-27.6	+10.0	45.9	94.0	-48.1	Vert 100
13	528.032M	41.9	+18.9	+3.4	-28.4	+10.0	45.8	94.0	-48.2	Vert 100
14	976.797M	33.7	+24.2	+5.0	-27.7	+10.0	45.2	94.0	-48.8	Vert 100
15	47.336M	48.6	+13.1	+1.0	-27.6	+10.0	45.1	94.0	-48.9	Vert 100
16	362.949M	43.3	+16.0	+2.9	-27.4	+10.0	44.8	94.0	-49.2	Vert 100
17	960.074M	33.5	+24.0	+4.9	-27.6	+10.0	44.8	94.0	-49.2	Vert 100
18	39.217M	43.8	+17.0	+0.9	-27.7	+10.0	44.0	94.0	-50.0	Vert 100
19	223.447M	47.4	+11.1	+2.1	-27.0	+10.0	43.6	94.0	-50.4	Vert 100
20	42.744M	44.6	+15.4	+0.9	-27.6	+10.0	43.3	94.0	-50.7	Vert 100
21	395.966M	40.8	+17.2	+3.0	-27.7	+10.0	43.3	94.0	-50.7	Vert 100
22	217.236M	47.2	+10.7	+2.1	-27.1	+10.0	42.9	94.0	-51.1	Vert 100
23	42.445M	44.0	+15.5	+0.9	-27.6	+10.0	42.8	94.0	-51.2	Vert 100
24	200.316M	48.4	+9.6	+2.1	-27.4	+10.0	42.7	94.0	-51.3	Vert 100
25	575.936M	38.0	+19.5	+3.6	-28.4	+10.0	42.7	94.0	-51.3	Vert 100
26	44.009M	44.5	+14.8	+0.9	-27.6	+10.0	42.6	94.0	-51.4	Vert 100
27	42.278M	43.6	+15.6	+0.9	-27.7	+10.0	42.4	94.0	-51.6	Vert 100
28	43.077M	43.6	+15.2	+0.9	-27.6	+10.0	42.1	94.0	-51.9	Vert 100
29	184.789M	47.5	+9.7	+2.0	-27.3	+10.0	41.9	94.0	-52.1	Vert 100
30	511.944M	38.0	+18.7	+3.3	-28.3	+10.0	41.7	94.0	-52.3	Vert 100

CKC Laboratories Date: 11/16/2006 Time: 10:10:17 Honeywell International Inc. WO#: 85922
2.1053/87.139 Spurious Test Distance: 3 Meters Sequence#: 1 Polarity: Vert
Notes: Device is placed on wooden table 80 cm above a ground plane. Table will be rotated and antenna height varied to





Test Location: CKC Laboratories • 22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Honeywell International Inc.**
 Specification: **2.1053/87.139 Spurious**
 Work Order #: **85922**
 Test Type: **Radiated Scan**
 Equipment: **TCAS**
 Manufacturer: Honeywell
 Model: PN: 940-0530-001
 S/N: TPL00210

Date: 11/16/2006
 Time: 10:33:02
 Sequence#: 2
 Tested By: Ryan Rutledge

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A	S/N: US44300437	05/27/2006	05/27/2008	AN02673
Bothell 5m Cable Set	S/N: P05444	11/28/2005	11/28/2007	ANP05444
HP 8447D PreAmp	S/N: 2944A08601	07/10/2006	07/10/2008	AN01517
Chase BILOG	S/N: 2458	02/02/2005	02/02/2007	AN01993

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
TCAS*	Honeywell	PN: 940-0530-001	TPL00210

Support Devices:

Function	Manufacturer	Model #	S/N
Antenna Simulator	Honeywell	PN: 727-0016-001	0025
Antenna Simulator	Honeywell	PN: 727-0016-001	0074

Test Conditions / Notes:

Device is placed on wooden table 80 cm above a ground plane. Table will be rotated and antenna height varied to find maximum emissions. RF output is terminated with antenna simulators that are placed under the table, on the conductive surface of the turntable. Transmitter operating under normal conditions, terminated with antenna simulators. Frequency range tested: 30 - 1000 MHz @ 120 kHz RBW, 120 kHz VBW. Measurement distance: 3 meters.

Transducer Legend:

T1=Chase AN 1993 SN 2458 2/2/05-2/2/07	T2=Bothell 5 meter cable set
T3=AMP-AN01517-071006	

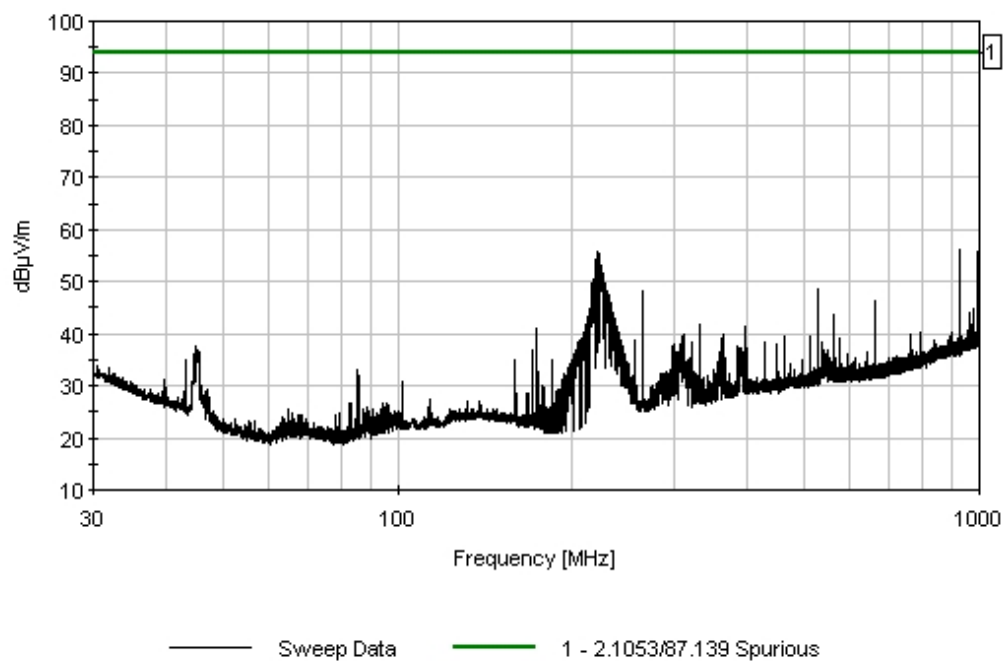
Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	924.015M	45.6	+23.5	+4.7	-27.8	+10.0 360	56.0	94.0	-38.0	Horiz 180
2	995.192M	44.0	+24.4	+5.1	-27.8	+10.0 360	55.7	94.0	-38.3	Horiz 180
3	221.413M	59.2	+11.0	+2.1	-27.1	+10.0 360	55.2	94.0	-38.8	Horiz 180
4	221.627M	59.2	+11.0	+2.1	-27.1	+10.0 360	55.2	94.0	-38.8	Horiz 180
5	220.877M	59.0	+11.0	+2.1	-27.1	+10.0 360	55.0	94.0	-39.0	Horiz 180

6	222.376M	58.5	+11.1	+2.1	-27.0	+10.0 360	54.7	94.0	-39.3	Horiz 180
7	223.019M	58.4	+11.1	+2.1	-27.0	+10.0 360	54.6	94.0	-39.4	Horiz 180
8	218.735M	57.5	+10.8	+2.1	-27.1	+10.0 360	53.3	94.0	-40.7	Horiz 180
9	218.307M	56.8	+10.8	+2.1	-27.1	+10.0 360	52.6	94.0	-41.4	Horiz 180
10	218.950M	55.7	+10.9	+2.1	-27.1	+10.0 360	51.6	94.0	-42.4	Horiz 180
11	226.124M	55.1	+11.3	+2.1	-27.0	+10.0 360	51.5	94.0	-42.5	Horiz 180
12	989.548M	39.0	+24.4	+5.1	-27.8	+10.0 360	50.7	94.0	-43.3	Horiz 180
13	217.022M	54.8	+10.7	+2.1	-27.1	+10.0 360	50.5	94.0	-43.5	Horiz 180
14	217.665M	54.5	+10.8	+2.1	-27.1	+10.0 360	50.3	94.0	-43.7	Horiz 180
15	216.165M	54.0	+10.7	+2.1	-27.1	+10.0 360	49.7	94.0	-44.3	Horiz 180
16	217.343M	53.8	+10.8	+2.1	-27.1	+10.0 360	49.6	94.0	-44.4	Horiz 180
17	225.696M	53.2	+11.3	+2.1	-27.0	+10.0 360	49.6	94.0	-44.4	Horiz 180
18	226.874M	53.1	+11.4	+2.1	-27.0	+10.0 360	49.6	94.0	-44.4	Horiz 180
19	227.731M	52.7	+11.4	+2.1	-27.0	+10.0 360	49.2	94.0	-44.8	Horiz 180
20	528.032M	44.5	+18.9	+3.4	-28.4	+10.0 360	48.4	94.0	-45.6	Horiz 180
21	228.587M	51.7	+11.5	+2.1	-27.0	+10.0 360	48.3	94.0	-45.7	Horiz 180
22	264.033M	49.9	+13.0	+2.4	-27.0	+10.0 360	48.3	94.0	-45.7	Horiz 180
23	230.194M	50.6	+11.6	+2.1	-27.0	+10.0 360	47.3	94.0	-46.7	Horiz 180
24	231.372M	50.5	+11.6	+2.2	-27.0	+10.0 360	47.3	94.0	-46.7	Horiz 180
25	229.658M	50.6	+11.5	+2.1	-27.0	+10.0 360	47.2	94.0	-46.8	Horiz 180
26	220.475M	50.9	+11.0	+2.1	-27.1	+10.0 95	46.9	94.0	-47.1	Horiz 200
^	220.492M	62.5	+11.0	+2.1	-27.1	+10.0 95	58.5	94.0	-35.5	Horiz 200
28	214.987M	50.7	+10.6	+2.1	-27.2	+10.0 360	46.2	94.0	-47.8	Horiz 180

29	659.978M	40.6	+20.3	+3.9	-28.6	+10.0 360	46.2	94.0	-47.8	Horiz 180
30	232.550M	49.0	+11.7	+2.2	-27.0	+10.0 360	45.9	94.0	-48.1	Horiz 180
31	233.513M	47.9	+11.8	+2.2	-27.0	+10.0 360	44.9	94.0	-49.1	Horiz 180

CKC Laboratories Date: 11/16/2006 Time: 10:33:02 Honeywell International Inc. VVO#: 85922
2.1053/87.139 Spurious Test Distance: 3 Meters Sequence#: 2 Polarity: Horiz
Notes: Device is placed on wooden table 80 cm above a ground plane. Table will be rotated and antenna height varied to





Test Location: CKC Laboratories • 22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Honeywell International Inc.**

Specification: **2.1053/87.139 Spurious**

Work Order #: **85922**

Date: 11/16/2006

Test Type: **Radiated Scan**

Time: 12:43:17

Equipment: **TCAS**

Sequence#: 5

Manufacturer: Honeywell

Tested By: Ryan Rutledge

Model: PN: 940-0530-001

S/N: TPL00210

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A	S/N: US44300437	06/13/2005	06/13/2007	AN02673
60" Pasternack 40 GHz Coax	S/N: N/A	05/11/2006	05/11/2008	AN05422
20' Heliac Cable	S/N: 36	03/16/2006	03/16/2008	ANP05419
HP 83017A .5 - 26.5 GHz Pre-amp	S/N: 3123A00464	10/03/2005	10/03/2007	AN01271
36" Pasternack 40 GHz Coax	S/N: N/A	02/08/2005	02/08/2007	AN05206
EMCO 3115 Horn Ant	S/N: 9606-4854	12/13/2005	12/13/2007	AN01412

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
TCAS*	Honeywell	PN: 940-0530-001	TP00210

Support Devices:

Function	Manufacturer	Model #	S/N
Antenna Simulator	Honeywell	PN: 727-0016-001	0025
Antenna Simulator	Honeywell	PN: 727-0016-001	0074

Test Conditions / Notes:

Device is placed on wooden table 80 cm above a ground plane. Table will be rotated and antenna height varied when maximizing emissions. RF output is terminated with antenna simulators that are placed under the table, on the conductive surface of the turntable. Transmitter operating under normal conditions, terminated with antenna simulators. Customer states that lowest operating frequency in device is 20 MHz, and highest frequency is 1090 MHz. We will measure radiated spurious emissions from 10 MHz to 11 GHz. Frequency ranges tested: 1 - 11 GHz @ 1 MHz RBW, 1 MHz VBW. Measurement distance: 3 meters.

Transducer Legend:

T1=ANT-AN01412-121305	T2=P05206 40GHz
T3=AMP-AN01271-100305 - .5-26.5 GHz	T4=CAB-P05419-031506
T5=Cable ANP05422 - 60"	

Measurement Data:

Reading listed by margin.

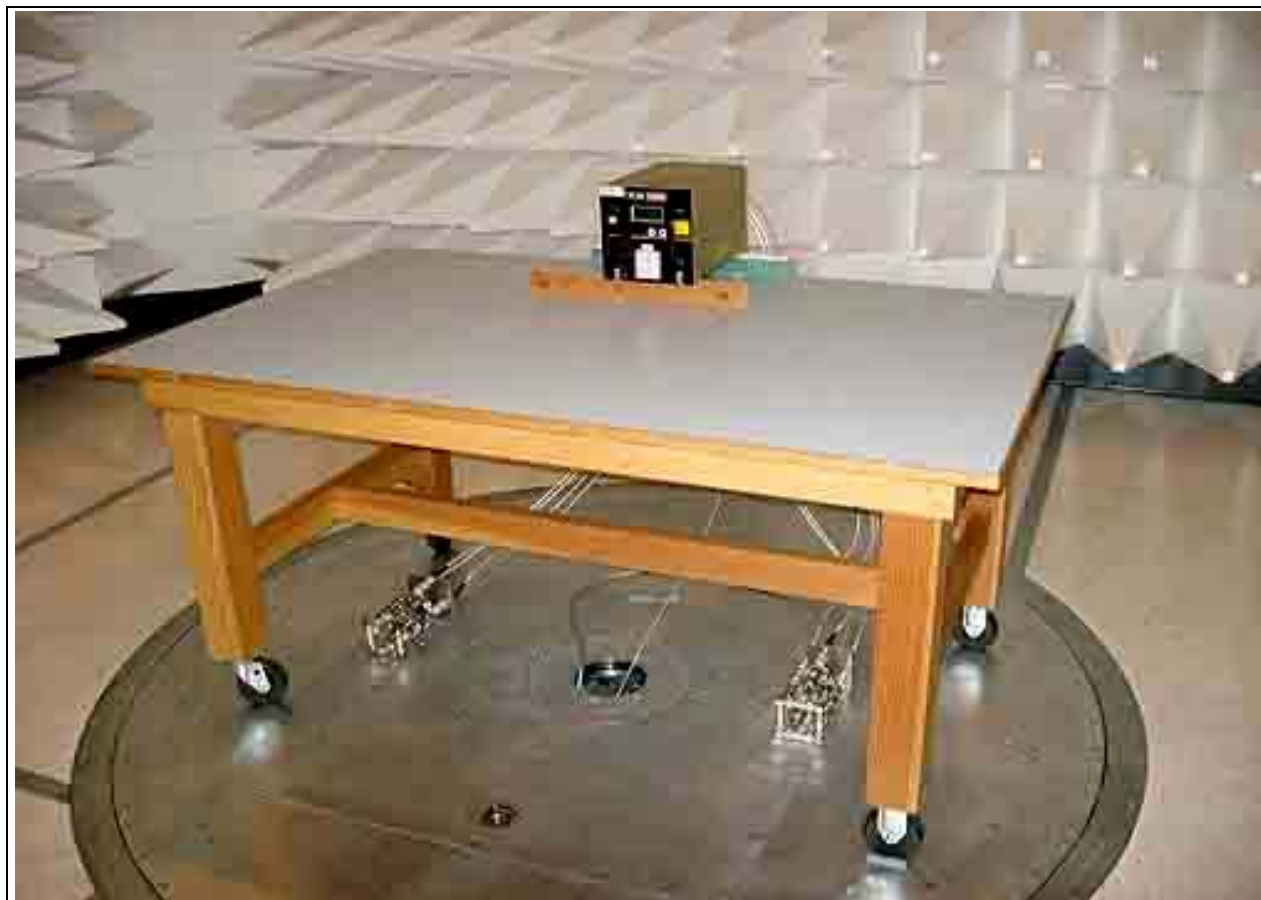
Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	dB	dB	dB	dB	Table	dBμV/m	dBμV/m	dB	Ant
1	1030.300M	102.7	+23.7	+0.7	-37.1	+1.2	+10.0	102.7	94.0	+8.7	Vert
	Ambient		+1.5						Fundamentals		100
2	1090.100M	92.9	+24.1	+0.7	-36.8	+1.2	+10.0	93.6	94.0	-0.4	Horiz
	Ambient		+1.5				20		Fundamentals		200

3	1030.400M Ambient	93.0	+23.7 +1.5	+0.7	-37.1	+1.2	+10.0 20	93.0	94.0 Fundamentals	-1.0	Horiz 200
4	1088.900M Ambient	78.7	+24.1 +1.5	+0.7	-36.8	+1.2	+10.0	79.4	94.0 Fundamentals	-14.6	Vert 100
5	1583.940M	67.8	+26.2 +1.9	+0.8	-35.0	+1.5	+10.0 20	73.2	94.0	-20.8	Horiz 200
6	1584.064M	65.0	+26.2 +1.9	+0.8	-35.0	+1.5	+10.0 342	70.4	94.0	-23.6	Vert 150
7	1583.919M	60.5	+26.2 +1.9	+0.8	-35.0	+1.5	+10.0 10	65.9	94.0	-28.1	Vert 211
8	2376.016M	52.1	+28.5 +2.3	+1.1	-34.0	+1.9	+10.0 43	61.9	94.0	-32.1	Horiz 190
9	1715.972M	55.4	+26.2 +1.9	+0.9	-34.8	+1.6	+10.0 25	61.2	94.0	-32.8	Horiz 190
10	1451.892M	51.3	+26.0 +1.8	+0.8	-35.4	+1.6	+10.0 10	56.1	94.0	-37.9	Vert 211
11	1452.100M	50.7	+26.0 +1.8	+0.8	-35.4	+1.6	+10.0 20	55.5	94.0	-38.5	Horiz 200
12	1848.100M	49.0	+26.2 +2.0	+0.9	-34.6	+1.7	+10.0 342	55.2	94.0	-38.8	Vert 150
13	1188.200M	46.9	+24.6 +1.6	+0.7	-36.3	+1.1	+10.0 360	48.6	94.0	-45.4	Vert 210

PHOTOGRAPHS

PHOTOGRAPH SHOWING RADIATED EMISSIONS



Radiated Emissions - Front View

PHOTOGRAPH SHOWING RADIATED EMISSIONS



Radiated Emissions - Back View