

FCC ID: MBPUTRUST3700F-01

Test Report # 4035-2
Dated: 11/11/2014

Intentional Radiator Test Report

Test Standards:
FCC Part 15.225 (Subpart C – Intentional Radiators)
Industry Canada RSS-210, Issue 8

Prepared For:
Identive Group, Inc.
1900 Carnegie Ave, Bldg B
Santa Ana, CA 92705

Product Name :
Contactless RFID Smartcard Reader

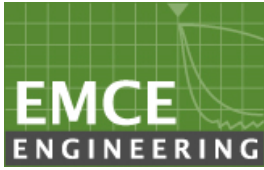
Model Name :
uTrust 3700F

Application Purpose : Original

Prepared by:

EMCE Engineering, Inc.
44366 S. Grimmer Blvd.
Fremont, CA 94538
USA

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Test Report # 4035-2
Dated: 11/11/2014

Revision History

Rev.	Issue Date	Description
1	5/26/2014	Initial Issue
2	11/11/2014	Changed Model and ID

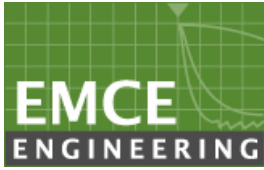
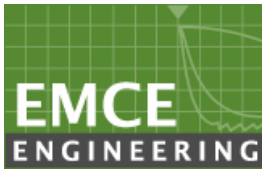


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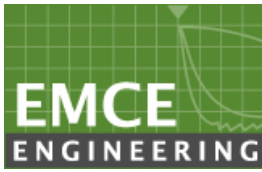
1.0 GENERAL INFORMATION

Test Laboratory:	EMCE Engineering 44366 S. Grimmer Blvd. Fremont, CA 94538 USA Tel: 510-490-4307, Fax: 510-490-3441 bob@universalcompliance.com FCC registration number : 743299 Test Site : FCC : US5291, IC : 3324A
Applicant Name :	Identive Group, Inc. 1900 Carnegie Ave, Bldg B Santa Ana, CA 92705 Tel: 925-217-3257 Contact Person: Robert Poddar
Application Purpose :	Original
EUT Description	RFID
Product Name	Contactless RFID Smartcard Reader
Model Name :	uTrust 3700F
Applied Standards :	47 CFR §15.207, 15.209, 15.225: 2010 & Canadian Standards RSS-GEN Issue 3, RSS-210 Issue 8
FCC ID :	MBPUTRUST3700F-01
IC :	7485A-UTRUST3700F-01
RF Operating Frequency (ies)	13.56MHz
Modulation	ASK
Emission Designator	13K6K1D
Receipt of EUT :	4/10/14
Date of Testing :	4/10/14 – 5/21/14
Date of Report :	11/11/14

The tests listed in this report have been completed to demonstrated compliance to the CFR 47 Section 15.225, as well as Industry Canada Radio Standard RSS-210, Issue 8.

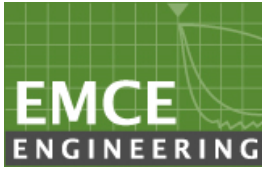
Contents approved:


Name: Bob Cole Title: President



2.0 EUT AND ACCESSORY INFORMATION

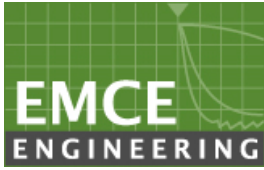
EUT				
Model name:	uTrust 3700F			
Description:	Contactless RFID Smartcard Reader			
Manufacturer:	Identive Group, Inc.			
Support Equipment				
Description	Model Number	Serial Number	Manufacturer	Power Cable Description
Netbook PC	Acer Aspire	NUSH6AA0012410 25337600	Acer	Unshielded / 1.5 Meter
Cable Description				
From	To	Length (Meters)	Shielded (Y/N)	Ferrite Loaded (Y/N)
EUT	Netbook	0.5	Y	N



3.0 SUMMARY OF TEST RESULTS

Test Standard		Description	Pass / Fail
47 CFR Part 15.225: 2010	RSS 210 Issue 8		
15.203		Antenna Requirement	Pass
15.207(a)	RSS Gen(7.2.2)	Conducted Emissions Voltage	Pass
15.225(a)	RSS210(A2.6)	Limit in the band of 13.553 – 13.567 MHz	Pass
15.225(b)	RSS210(A2.6)	Limit in the band of 13.410 – 13.553 MHz and 13.567 – 13.710 MHz	Pass
15.225(c)	RSS210(A2.6)	Limit in the band of 13.110 – 13.410 MHz and 13.710 – 14.010 MHz	Pass
15.225(d), 15.209	RSS210(A2.6)	Limit outside the band of 13.110 – 14.010 MHz	Pass
15.225(e)	RSS210(A2.6)	Frequency Stability	Pass
	RSS-210(5.9.1)	Occupied Bandwidth	Pass
ANSI C63.4: 2009/ RSS-Gen Issue 3			
PS: All measurement uncertainties are not taken into consideration for all presented test result.			

PASS The EUT passed that particular test.
FAIL The EUT failed that particular test.
008 Not Applicable due to product type.

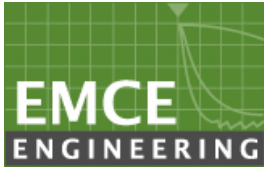


FCC ID: MBPUTRUST3700F-01

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Dated: 11/11/2014

4.0 MODIFICATIONS

There were no modifications.



5.0 TEST RESULTS

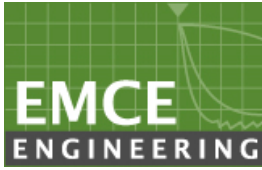
5.1 Antenna Requirement

Requirement(s): 47 CFR §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

Antenna requirement must meet at least one of the following:

- a) Antenna must be permanently attached to the device.
 - b) Antenna must use a unique type of connector to attach to the device.
 - c) Device must be professionally installed. Installer shall be responsible for ensuring that the correct antenna is employed with the device.
-
- 1) The RFID antenna is integral to the main board permanently to the device which meets the requirement (See Internal Photographs submitted as another Exhibit).



5.2 Conducted Emissions Voltage

Requirement(s): 47 CFR §15.207

Requirement:

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15–0.5	66 to 56*	56 to 46*
0.5–5	56	46
5–30	60	50

*Decreases with the logarithm of the frequency.

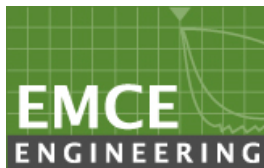
Procedures:

1. All possible modes of operation were investigated. Only the 6 worst case emissions measured, using the correct CISPR and Average detectors, are reported. All other emissions were relatively insignificant.
2. "Ave" margin indicates a PASS as it refers to the margin present below the limit line at the particular frequency.
3. Conducted Emissions Measurement Uncertainty
All test measurements carried out are traceable to national standards. The uncertainty of measurement at a confidence level of approximately 95% (in the case where distributions normal), with a coverage factor of 2, in the range 9kHz – 30MHz (Average & Quasi-peak) ±3.5dB.
4. Environmental Conditions Temperature 24°C
 Relative Humidity 45%
 Atmospheric Pressure 1010mbar

Test Date : 4/13/2014

Tested By : Bob Cole

Results: Pass



FCC ID: MBPUTRUST3700F-01

Test Report # 4035-2
Dated: 11/11/2014

FCC Part 15.207 Line Conducted Emissions
120V / 60 Hz - Line 1
150kHz – 30 MHz

Test Location: EMCE Engineering • 44366 S. Grimmer Blvd • Fremont, CA 94538 •

Customer: **Identiv GmbH**
Specification: **EN55022 B COND [QP]**Work Order #: **4031**

Date: 4/13/2014

Test Type: **Conducted Emissions**

Time: 2:35:33 PM

Equipment: **RFID USB Smartcard Reader**

Sequence#: 3

Manufacturer: Identiv GmbH

Tested By: Bob Cole

Model: uTrust 3700F

120V/600Hz

S/N: 008

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
EMITest	v4.01 Build 195	05/01/2012	05/01/2014	610
Measurement				
Software				
HP 8566B Spectrum	3014A06947	05/02/2012	05/02/2014	598
Analyzer				
HP 85650A Quasi	3145A01673	05/02/2013	05/02/2014	003
Peak Adapter				
EMCO 3810-2 LISN	4576	05/17/2012	05/17/2014	007

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
RFID USB Smartcard Reader*	Identiv GmbH	CLOUD 3700F	008

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop PC	Acer	Aspire One725-0687	NUSH6AA001241025337600

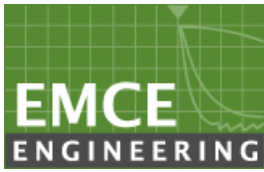
Test Conditions / Notes:

Host Laptop Acer Aspire One725-0687
EUT USB Cable connected to LEFT side of Lap Top
NO Ferrite on EUT USB Cable

Transducer Legend:

T1=25' LMR #001 T2=EMCO 3810-2 LISN S/N 9807-1988

Ext Attn: 0 dB



FCC ID: MBPUTRUST3700F-01

Test Report # 4035-2
Dated: 11/11/2014

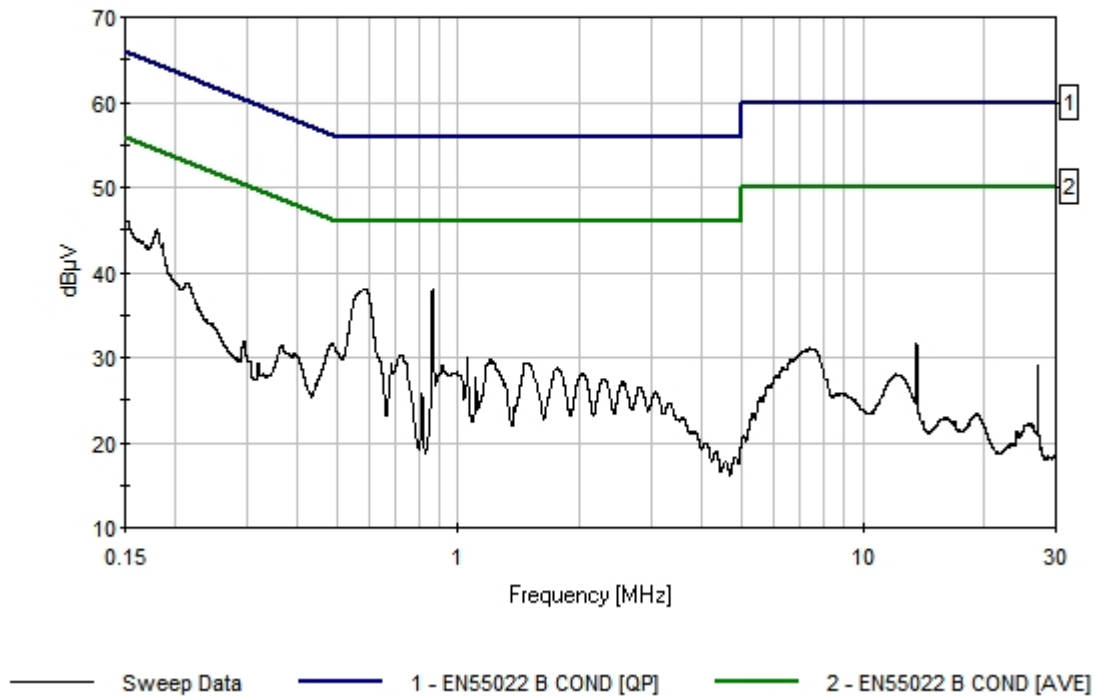
Measurement Data:

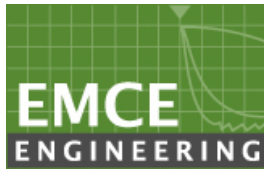
Reading listed by margin.

Test Lead: Line 1

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB		Dist dB	Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	614.098k	39.0	+0.0	+0.7			+0.0	39.7	56.0	-16.3	Line
2	151.358k	46.1	+0.0	+1.1			+0.0	47.2	65.9	-18.7	Line
3	863.068k	36.1	+0.0	+0.5			+0.0	36.6	56.0	-19.4	Line
4	1.053M	32.4	+0.0	+0.5			+0.0	32.9	56.0	-23.1	Line
5	673.351k	32.1	+0.0	+0.6			+0.0	32.7	56.0	-23.3	Line
6	682.771k	32.1	+0.0	+0.6			+0.0	32.7	56.0	-23.3	Line

EMCE Engineering Date: 4/13/2014 Time: 2:15:32 PM Identive, Inc. WO#: 4031
EN55022 B COND [QP] Test Lead: Line 1 120V 60Hz Sequence#: 1 Ext ATTN: 0 dB





FCC ID: MBPUTRUST3700F-01

Test Report # 4035-2
Dated: 11/11/2014

FCC Part 15.207 Line Conducted Emissions
120V / 60 Hz - Line 2
150kHz – 30 MHz

Test Location: EMCE Engineering • 44366 S. Grimmer Blvd • Fremont, CA 94538 •

Customer:	Identiv GmbH	Date:	4/13/2014
Specification:	EN55022 B COND [QP]	Time:	2:24:18 PM
Work Order #:	4031	Sequence#:	2
Test Type:	Conducted Emissions	Tested By:	Bob Cole
Equipment:	RFID USB Smartcard Reader		120V 60Hz
Manufacturer:	Identiv GmbH		
Model:	uTrust 3700F		
S/N:	008		

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
EMITest Measurement Software	v4.01 Build 195	05/01/2012	05/01/2014	610
HP 8566B Spectrum Analyzer	3014A06947	05/02/2012	05/02/2014	598
HP 85650A Quasi Peak Adapter	3145A01673	05/02/2013	05/02/2014	003
EMCO 3810-2 LISN	4576	05/17/2012	05/17/2014	007

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
RFID USB Smartcard Reader*	Identiv GmbH	CLOUD 3700F	008

Support Devices:

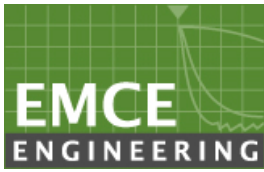
Function	Manufacturer	Model #	S/N
Laptop PC	Acer	Aspire One725-0687	NUSH6AA001241025337600

Test Conditions / Notes:

Host Laptop Acer Aspire One725-0687
EUT USB Cable connected to LEFT side of Lap Top
NO Ferrite on EUT USB Cable

Transducer Legend:

T1=25' LMR #001	T2=EMCO 3810-2 LISN S/N 9807-1988
Ext Attn: 0 dB	



FCC ID: MBPUTRUST3700F-01

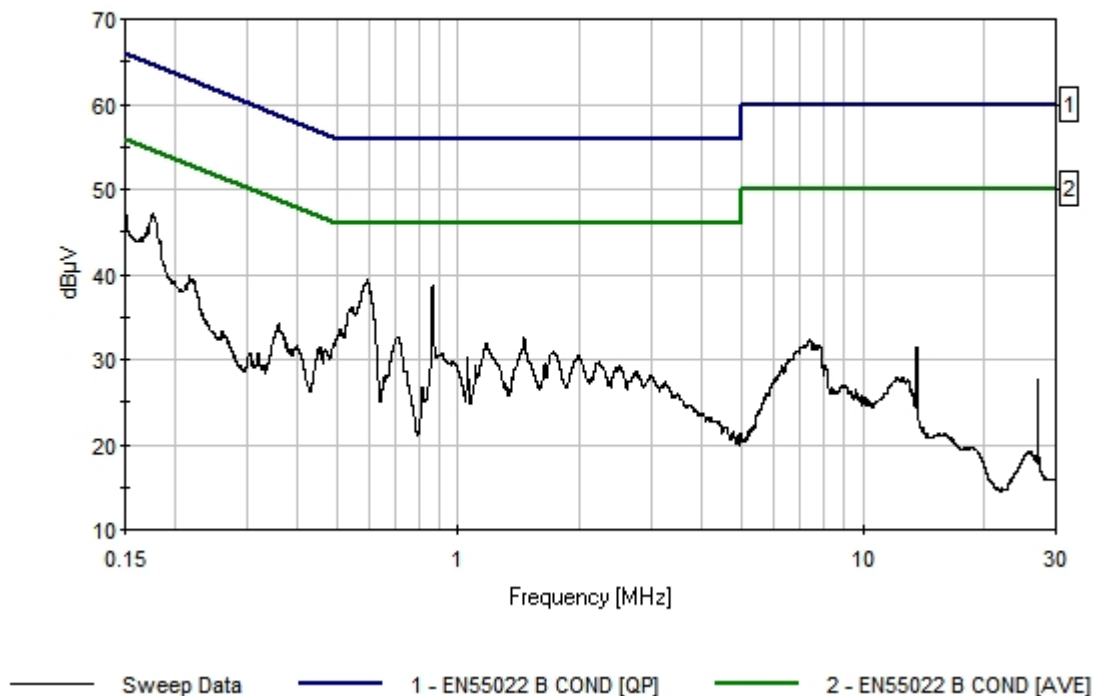
Test Report # 4035-2
Dated: 11/11/2014

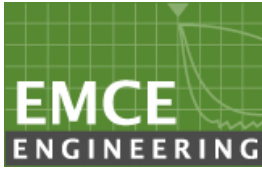
Measurement Data: Reading listed by margin.

Test Lead: Line 2

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	594.949k	38.8	+0.0	+0.7		+0.0	39.5	56.0	-16.5	Line
2	863.068k	38.1	+0.0	+0.5		+0.0	38.6	56.0	-17.4	Line
3	176.304k	46.1	+0.0	+1.1		+0.0	47.2	64.7	-17.5	Line
4	150.339k	46.7	+0.0	+1.1		+0.0	47.8	66.0	-18.2	Line
5	704.345k	32.0	+0.0	+0.6		+0.0	32.6	56.0	-23.4	Line
6	1.453M	31.9	+0.0	+0.6		+0.0	32.5	56.0	-23.5	Line

EMCE Engineering Date: 4/13/2014 Time: 2:24:18 PM Identive, Inc. WO#: 4031
EN55022 B COND [QP] Test Lead: Line 2 120V 60Hz Sequence#: 2 Ext ATTN: 0 dB





5.3 Radiated Emission < 30MHz (9kHz - 30MHz, H-Field)

Requirement(s): 47 CFR §15.225 & RSS-210 (A2.6) & RSS-310 (3.7)

Procedures: **For < 30MHz,** Radiated emissions were measured according to ANSI C63.4. The EUT was set to transmit at the highest output power. The EUT was set 3 meter away from the measuring antenna. The loop antenna was positioned 1 meter above the ground from the centre of the loop. The measuring bandwidth was set to 10 kHz. (Note: During testing the receive antenna was rotated about its axis to maximize the emission from the EUT.)

The limit is converted from microvolt/meter to decibel microvolt/meter.

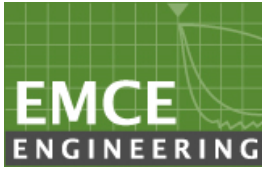
Sample Calculation: Corrected Amplitude = Raw Amplitude (dBμV/m) + ACF (dB) + Cable Loss (dB) – Distance Correction Factor

1. All possible modes of operation were investigated. Only the 6 worst case emissions measured, using the correct CISPR detectors, are reported. All other emissions were relatively insignificant.
2. A "-ve" margin indicates a PASS as it refers to the margin present below the limit line at the particular frequency.
3. Radiated Emissions Measurement Uncertainty
All test measurements carried out are traceable to national standards. The uncertainty of the measurement at a confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2, is +/-6dB.
4. Environmental Conditions Temperature 24°C
 Relative Humidity 45%
 Atmospheric Pressure 1010mbar

Test Date : 4/14/2014

Tested By : Bob Cole

Results: Pass



FCC ID: MBPUTRUST3700F-01

Test Report # 4035-2
Dated: 11/11/2014

FCC Part 15.209 Radiated Emissions 9 kHz – 30 MHz

Test Location: EMCE Engineering 44366 S. Grimmer Blvd Fremont, CA 94538

Customer: **Identiv GmbH**
Specification: **15.209 9k-30M FCC Limits 10M**
Work Order #: **4031**
Test Type: **Radiated Scan**
Equipment: **Contact/Contactless Card Reader**
Manufacturer: Identiv GmbH
Model: uTrust 3700F
S/N: 008

Date: 4/14/2014
Time: 9:18:45 AM
Sequence#: 1
Tested By: Bob Cole

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
HP 8593EM	3497A5703	05/01/2012	05/01/2014	609
HP 8447D PreAmp	2443A03587	05/01/2013	05/01/2014	008
Empire Devices Loop Antenna	000114	01/15/2014	01/15/2015	114
EMITest Measurement Software	v4.01 Build 195	05/01/2012	05/01/2014	610

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
RFID USB Smartcard Reader	Identiv GmbH	CLOUD 3700F	008

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop PC	Acer	Aspire One725-0687	NUSH6AA001241025337600

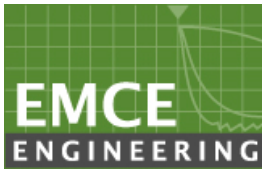
Test Conditions / Notes:

Host Laptop: Acer Aspire One725-0687
EUT: CLOUD 3700F RFID USB Smart Card Reader

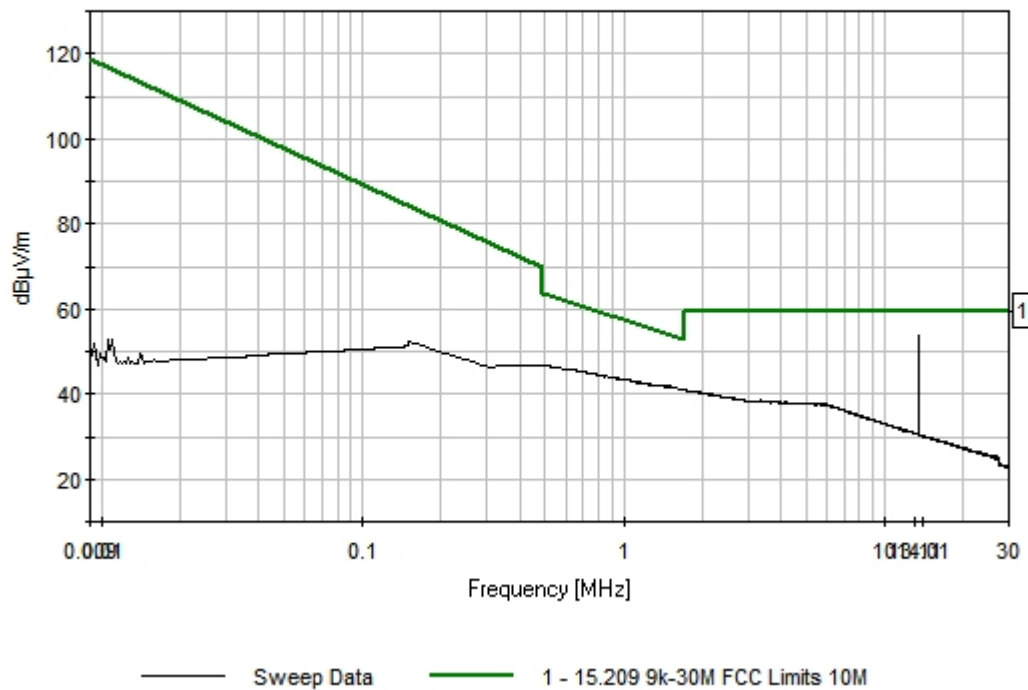
Transducer Legend:

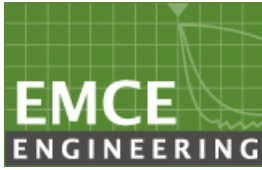
T1=8447 Pre-Amp Asset 377	T2=25' LMR #001
T3=LP-105 Loop Factors	

Ext Attn: 0 dB



Date: 4/14/2014 Time: 9:18:45 AM Identive, Inc. WO#: 4031
15.209 9k-30M FCC Limits 10M Test Distance: 3 Meters Sequence#: 1 Ext ATTN: 0 dB





5.4 Radiated Emissions > 30 MHz (30MHz – 1 GHz, E-Field)

Requirement(s): 47 CFR §15.209; 47 CFR §15.225(d) & RSS-210 (A2.6)

Procedures: For > 30MHz, Radiated emissions were measured according to ANSI C63.4. The EUT was set to transmit at the highest output power. The EUT was set 10 meter away from the measuring antenna. The Log periodic antenna was positioned 1 meter above the ground from the centre of the antenna. The measuring bandwidth was set to 120 kHz. (Note: During testing the receive antenna was raised from 1~4 meters to maximize the emission from the EUT.)

The limit is converted from microvolt/meter to decibel microvolt/meter.

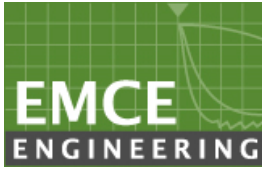
Sample Calculation: Corrected Amplitude = Raw Amplitude (dBμV/m) + ACF (dB) + Cable Loss(dB) – Distance Correction Factor

1. All possible modes of operation were investigated. Only the 6 worst case emissions measured, using the correct CISPR detectors, are reported. All other emissions were relatively insignificant.
2. A “-ve” margin indicates a PASS as it refers to the margin present below the limit line at the particular frequency.
3. Radiated Emissions Measurement Uncertainty
All test measurements carried out are traceable to national standards. The uncertainty of the measurement at a confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2, is +/-6dB.
4. Environmental Conditions Temperature 24°C
 Relative Humidity 45%
 Atmospheric Pressure 1010mbar

Test Date : 4/14/2014

Tested By : Bob Cole

Results: Pass



FCC ID: MBPUTRUST3700F-01

Test Report # 4035-2
Dated: 11/11/2014

FCC Part 15B Radiated Emissions 30 MHz – 1 GHz

Test Location: EMCE Engineering • 44366 S. Grimmer Blvd • Fremont, CA 94538 •

Customer: **Identiv GmbH**
Specification: **EN55022B RADIATED**
Work Order #: **4031**
Test Type: **Maximized Emissions**
Equipment: **RFID USB Smartcard Reader**
Manufacturer: **Identiv GmbH**
Model: **uTrust 3700F**
S/N: **008**

Date: 4/14/2014
Time: 10:30:00
Sequence#: 3
Tested By: Bob Cole

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
HP 8566B Spectrum Analyzer	3014A06947	05/02/2012	05/02/2014	598
HP 85650A Quasi Peak Adapter	3145A01673	05/02/2013	05/02/2014	003
HP 8447D PreAmp	2443A03587	05/01/2013	05/01/2014	008
Sunol Sciences JB6 Antenna	1090	08/14/2012	08/14/2014	701
EMITest Measurement Software	v4.01 Build 195	05/01/2012	05/01/2014	610

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
RFID USB Smartcard Reader*	Identiv GmbH	CLOUD 3700F	008

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop PC	Acer	Aspire One725-0687	NUSH6AA001241025337600

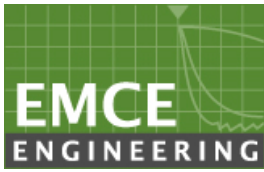
Test Conditions / Notes:

Host Laptop: Acer Aspire One725-0687
EUT: CLOUD 3700F RFID USB Smart Card Reader

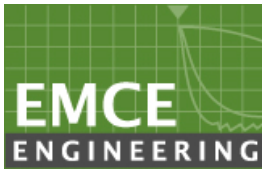
Transducer Legend:

T1=8447 Pre-Amp Asset 377	T2=Sunol JB6 S/N A42610 2012
T3=100' LMR 900 Rad Cable 12-2013	

Ext Attn: 0 dB



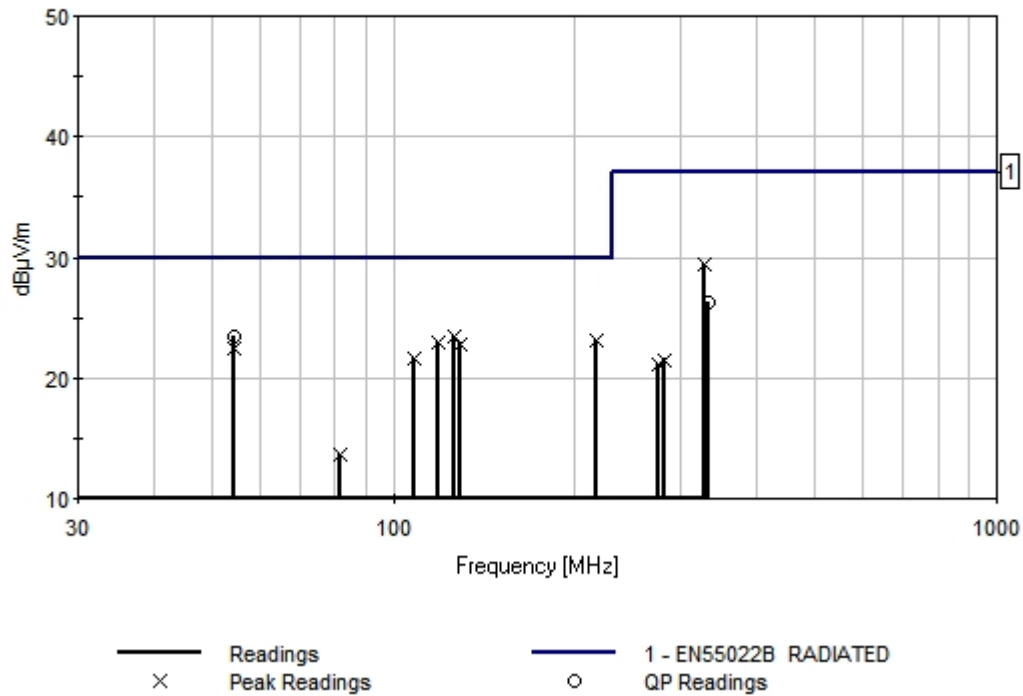
Measurement Data:		Reading listed by margin.					Test Distance: 10 Meters				
#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	54.361M	42.5	+26.8	+7.8	+0.0		+0.0	23.5	30.0	-6.5	Vert
	QP						250				140
^	54.359M	48.6	+26.8	+7.8	+0.0		+0.0	29.6	30.0	-0.4	Vert
							250				140
3	125.978M	36.1	+26.7	+14.2	-0.1		+0.0	23.5	30.0	-6.5	Vert
4	216.945M	38.1	+26.9	+11.7	+0.2		+0.0	23.1	30.0	-6.9	Horiz
5	118.276M	36.7	+26.7	+13.0	-0.1		+0.0	22.9	30.0	-7.1	Vert
							109				152
6	129.012M	35.4	+26.7	+14.1	-0.1		+0.0	22.7	30.0	-7.3	Vert
							153				162
7	328.500M	40.9	+27.0	+15.0	+0.5		+0.0	29.4	37.0	-7.6	Vert
							142				109
8	54.349M	41.4	+26.8	+7.8	+0.0		+0.0	22.4	30.0	-7.6	Horiz
9	108.473M	37.6	+26.8	+10.9	+0.0		+0.0	21.7	30.0	-8.3	Vert
							214				103
10	332.410M	37.7	+27.0	+15.1	+0.5		+0.0	26.3	37.0	-10.7	Vert
	QP						140				115
^	332.413M	42.5	+27.0	+15.1	+0.5		+0.0	31.1	37.0	-5.9	Vert
							140				115
12	280.482M	34.2	+27.0	+13.9	+0.4		+0.0	21.5	37.0	-15.5	Horiz
13	275.347M	33.9	+27.0	+13.8	+0.4		+0.0	21.1	37.0	-15.9	Horiz
14	81.402M	33.3	+27.0	+7.4	-0.1		+0.0	13.6	30.0	-16.4	Horiz

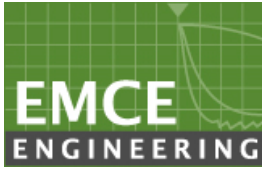


FCC ID: MBPUTRUST3700F-01

Test Report # 4035-2
Dated: 11/11/2014

EMCE Engineering Date: 4/14/2014 Time: 10:30:00 Identive, Inc. WO#: 4031
EN55022B RADIATED Test Distance: 10 Meters Sequence#: 3 Ext ATTN: 0 dB





5.5 Frequency Stability

Requirement(s): 47 CFR §15.225(e) & RSS-210 (A2.6)

Procedures: Frequency Stability was measured according to 47 CFR §2.1055. Measurement was taken with spectrum analyzer. The spectrum analyzer bandwidth and span was set to read in hertz. A voltmeter was used to monitor when varying the voltage.

Limit: $\pm 0.01\%$ of 13.5589 MHz = 1355 Hz

Environmental Conditions	Temperature	24°C
	Relative Humidity	45%
	Atmospheric Pressure	1010mbar

Test Date : 4/17/2014

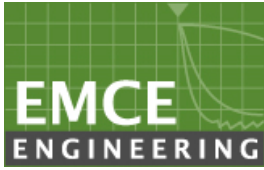
Tested By : Bob Cole

Results: Pass

Frequency Stability versus Temperature: The Frequency tolerance of the carrier signal shall be maintained within $\pm 0.01\%$ of the operating frequency over a temperature variation of -20°C to +50°C at normal supply voltage.

Reference Frequency: 13.559948 MHz at -20°C and +50°C

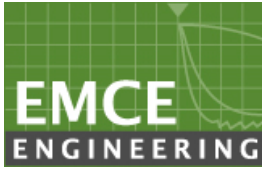
Temperature (°C)	Measured Freq. (MHz)	Freq. Drift (Hz)	Freq. Deviation (Limit: 0.01%)	Pass/Fail
50	13.559829	119	<0.01	Pass
40	13.559874	74	<0.01	Pass
30	13.559888	60	<0.01	Pass
20	Reference (13.56 MHz)			
10	13.559982	34	<0.01	Pass
0	13.559982	34	<0.01	Pass
-10	13.559910	37	<0.01	Pass
-20	13.559877	71	<0.01	Pass



Frequency Stability versus Input Voltage: The Frequency tolerance of the carrier signal shall be maintained within $\pm 0.01\%$, the frequency of the transmitter was measured at 85% and at 115% of the rated power supply voltage at 20°C environmental temperature.

Carrier Frequency: 13.55489 MHz at 20°C at 5VDC

Measured Voltage $\pm 15\%$ of nominal (DC)	Measured Freq. (MHz)	Freq. Drift (Hz)	Freq. Deviation (Limit: 0.01%)	Pass/Fail
4.25	13.559492	3	<0.01	Pass
5.75	13.559494	6	<0.01	Pass



5.6 Fundamental Field Strength Test Result

1. All possible modes of operation were investigated. Only the 6 worst case emissions measured, using the correct CISPR detectors, are reported. All other emissions were relatively insignificant.
2. A “-ve” margin indicates a PASS as it refers to the margin present below the limit line at the particular frequency.
3. Radiated Emissions Measurement Uncertainty
All test measurements carried out are traceable to national standards. The uncertainty of the measurement at a confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2, is +/-6dB.
4. Environmental Conditions

Temperature	24°C
Relative Humidity	45%
Atmospheric Pressure	1010mbar

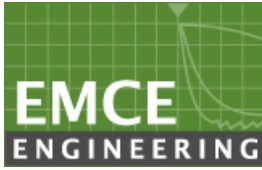
Test Date : 4/13/2014

Tested By : Bob Cole

Test Requirement:

13.56MHz

- (a) The field strength of any emissions within the band 13.553–13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.
- (b) Within the bands 13.410–13.553 MHz and 13.567–13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.
- (c) Within the bands 13.110–13.410 MHz and 13.710–14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.



FCC ID: MBPUTRUST3700F-01

Test Report # 4035-2
Dated: 11/11/2014

Peak Output Power Per CFR 47, Section 15.225 and RSS-210 Issue 8 A2.6

Test Location: EMCE Engineering • 44366 S. Grimmer Blvd • Fremont, CA 94538 •

Customer: **Identiv GmbH**
Specification: **RFID FCC Mask 3 Meter**
Work Order #: **4031**
Test Type: **Radiated Scan**
Equipment: **RFID USB Smartcard Reader**
Manufacturer: Identiv GmbH
Model: uTrust 3700F
S/N: 008

Date: 4/13/2014
Time: 3:05:45 PM
Sequence#: 1
Tested By: Bob Cole

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
HP 8593EM	3497A5703	02/17/2012	02/17/2014	609
HP 8447D PreAmp	2443A03587	05/01/2013	05/01/2014	008
Empire Devices Loop Antenna	000114	01/15/2014	01/15/2015	114

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
RFID USB Smartcard Reader*	Identiv GmbH	CLOUD 3700F	008

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop PC	Acer	Aspire One725-0687	NUSH6AA001241025337600

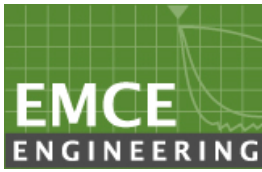
Test Conditions / Notes:

Host Laptop: Aspire One725-0687
EUT: CLOUD 3700F RFID USB Smart Card Reader

Transducer Legend:

T1=25' LMR #001
T2=8447 Pre-Amp Asset 377
T3=LP-105 Loop Factors

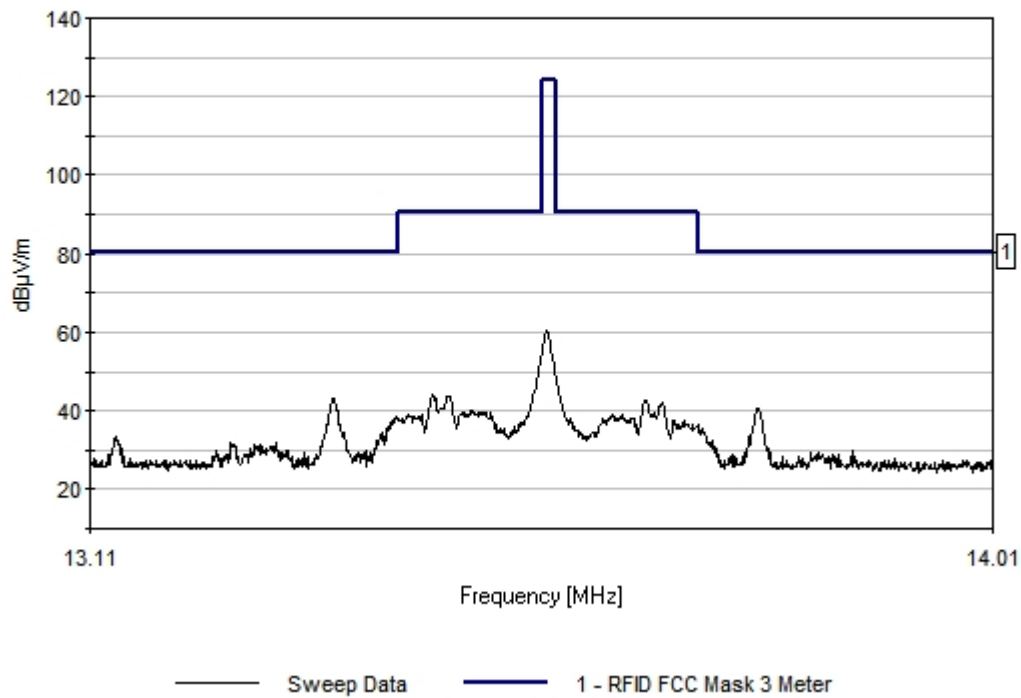
Ext Attn: 0 dB



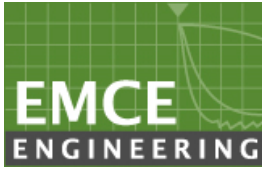
FCC ID: MBPUTRUST3700F-01

Test Report # 4035-2
Dated: 11/11/2014

EMCE Engineering Date: 4/13/2014 Time: 3:05:45 PM Identive, Inc. WO#: 4031
RFID FCC Mask 3 Meter Test Distance: 3 Meters Sequence#: 1 Ext ATTN: 0 dB



Frequency (MHz)	Corrected Amplitude Reading (dBuV/m @ 3M)
13.558	60.3



5.7 Occupied Bandwidth

Requirement(s): RSS-210 (5.9.1)

Procedures: Occupied Bandwidth was measured according to RSS-210 (5.9.1). Measurement was taken with spectrum analyzer. The spectrum analyzer bandwidth and span was set to read in hertz.

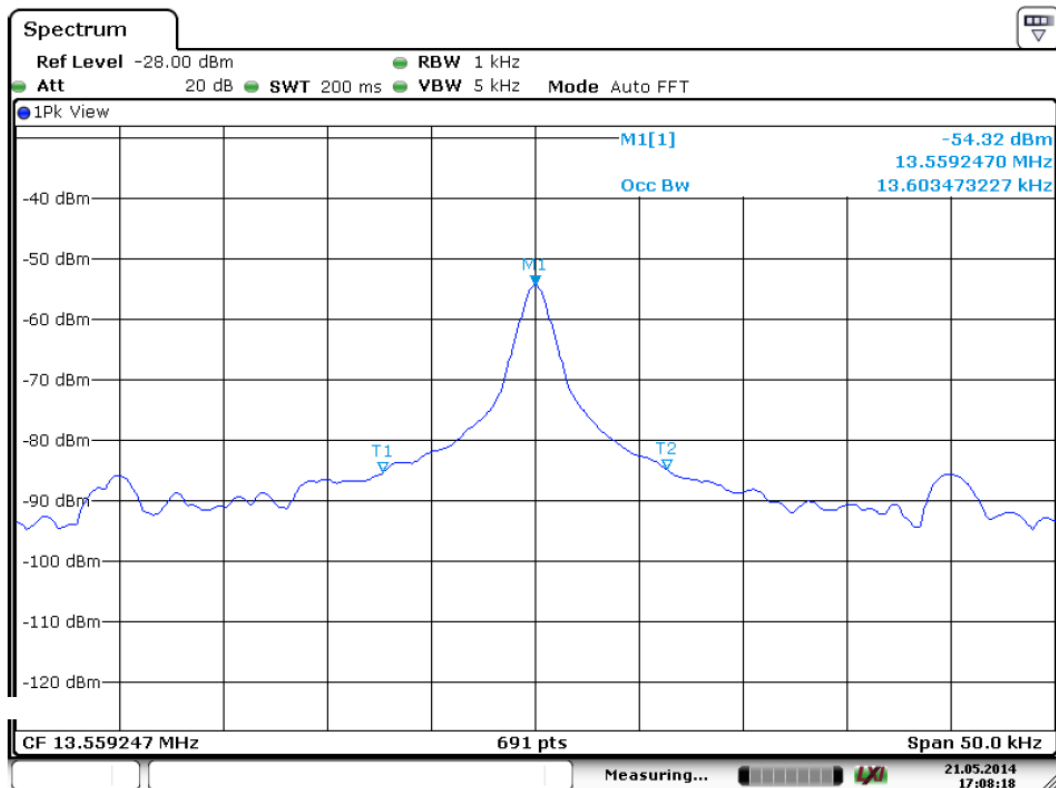
Environmental Conditions	Temperature	24°C
	Relative Humidity	45%
	Atmospheric Pressure	1010mbar

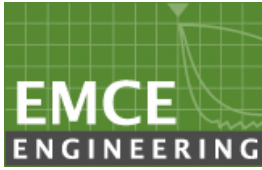
Test Date : 5/21/2014

Tested By : Bob Cole

Results: Pass

Frequency	Occupied Bandwidth (99%)
13.5589 MHz	13.60 KHz





6.0 TEST EQUIPMENT

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DATE	CAL. DUE DATE
Spectrum Analyzer Hewlett-Packard	8566B	3014A06947	5/2/12	5/2/14
Quasi-Peak Adapter Hewlett-Packard	85650A	3145A01673	5/2/13	5/2/15
EMI Analyzer System Hewlett-Packard	8593EM	3497A5703	5/17/12	5/17/14
Signal Analyzer Rohde-Schwarz	FSV7	1321.3008K7	3/10/14	3/10/16
HP 84125 EMI Measurement System	84125B	US36432003	5/1 /13	5/1/15
Pre-Amplifier(100KHz-1.3GHz) Hewlett-Packard	8447D	2443A03587	5/1/13	5/1/15
LISN(9KHz-30MHz) EMCO	3810-2	9807-1988	5/17/12	5/17/14
LISN(9KHz-30MHz) EMCO	3810-2	4576	5/17/12	5/17/14
BiConiLog Antenna Sunol Sciences	JB6	1090	8/14/12	8/14/14
Loop Antenna Empire Devices	LP105	000114	1/15/14	1/15/16
Webber Temperature Chamber	WE4-100- 200	3-60-32	8/15/13	8/15/15
RF Signal Cable Murata	25' LMR	N/A	5/10 /13	5/10 /15
RF Signal Cable EMCE	100' LMR	N/A	5/1 /13	5/1 /15