

Test Report

E4064161901KY

Type / Model Name: AD-105, AD-106

Brand Name: SKYLINK

Product Description: AUTO DIALER

Applicant: Capital Prospect Limited

FCC ID: KUTAD105

FCC --- T E S T R E P O R T

Test Report No. : E4064161901KY	26-07-2010
	Date of issue

Type / Model Name: AD-105, AD-106

Brand Name : SKYLINK

Product Description : AUTO DIALER

Applicant : Capital Prospect Limited

Address : Room 03, 13/F., Block B,

Veristrong Ind. Centre, 34-36 Au Pui Wan Street,

Fo Tan, N.T.,

Hong Kong

Test Result according to the standards listed in clause 1 test standards:	POSITIVE
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test results without the written permission of the test laboratory.

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1 TEST STANDARDS

The tests were performed according to following standards:

FCC Part 15:2007-9-20

Federal Communications Commission, Part 15 – Radio Frequency Device

ANSI C63.4:2003

Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

2 SUMMARY

GENERAL REMARKS:

The antenna of the EuT is fulfilled the FCC part 15.203.

The dialer model AD-105 or AD-106 provides the same feature to dial the pre-programmed phone numbers and sends a personalized pre-recorded message. The model number AD-105 or AD-106 is for different market strategy. The AD-105 is selected as representative model for testing.

FINAL ASSESSMENT:

The equipment under test fulfils the FCC requirements cited in test standard listed in section 1.

Date of receipt of test sample : 24-06-2010

Testing commenced on : 24-06-2010

Testing concluded on : 26-07-2010

Checked by:

Tested by:

Ivan Toa
Technical Manager

Kidd Yang
Engineer

3 EQUIPMENT UNDER TEST

3.1 Photo documentation of the EuT



AD-105 Front view



AD-105 Rear view

3.2 Power supply system utilised

Power supply voltage: AC 120V/60Hz or DC 9V Battery

3.3 Short description of the Equipment under Test (EuT)

The Equipment under test (EUT) is a 434.0MHz transceiver. The main function of the EUT is an automated device which when triggered will dial to pre-programmed telephone numbers for recorded message playback. when trigger signal is occurred, the EuT will transmit the signal to the corresponding receiver module to control the device dial to pre-programmed telephone numbers for recorded message playback. The EUT is powered by either 12V with AC adapter or 9V battery.

Tested samples: One Set (model: AD-105)

Serial number: Not Labelled

Dimensions: L: 20.3 cm W: 3.0cm H: 24.5 cm

EuT operation mode:

The equipment under test was operated during the measurement under the following conditions:

- Operation mode 1: Transimitting mode

- Operation mode 1: Receiving mode

- Operation mode 1: Dialing mode

EuT configuration:

The following interface cables and peripheral devices were connected during the measurements:

Interface cables:

Interface cable	Length [m]	Type	Line		Line termination
			shielded	unshielded	
Adapter cable	2.5	2-wires	☐	☒	LISN
RJ11 cable	2.5	2-wires	☐	☒	Phone
RJ11 cable	>3.0	2-Wires	☐	☒	Line

Peripheral devices:

Kind of equipment	Model and/or Manufacturer
Phone	TCL(provided by emitel)

4 TEST ENVIRONMENT

4.1 Address of the test laboratory

emitel (Shenzhen) Limited
Building 2, 171 Meihua Road,
Futian District, Shenzhen,
P.R. China

Laboratory registration numbers:

FCC Registration number: 746887

4.2 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature: 15-35 ° C

Humidity: 30-60 %

Atmospheric pressure: 860-1060 mbar

4.3 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16-4-2 /11.2003 "Uncertainties, statistics and limit modelling – Uncertainty in EMC measurements" and is documented in the quality system acc. to ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer does have the sole responsibility for the continued compliance of the device.

5 TEST CONDITIONS AND RESULTS

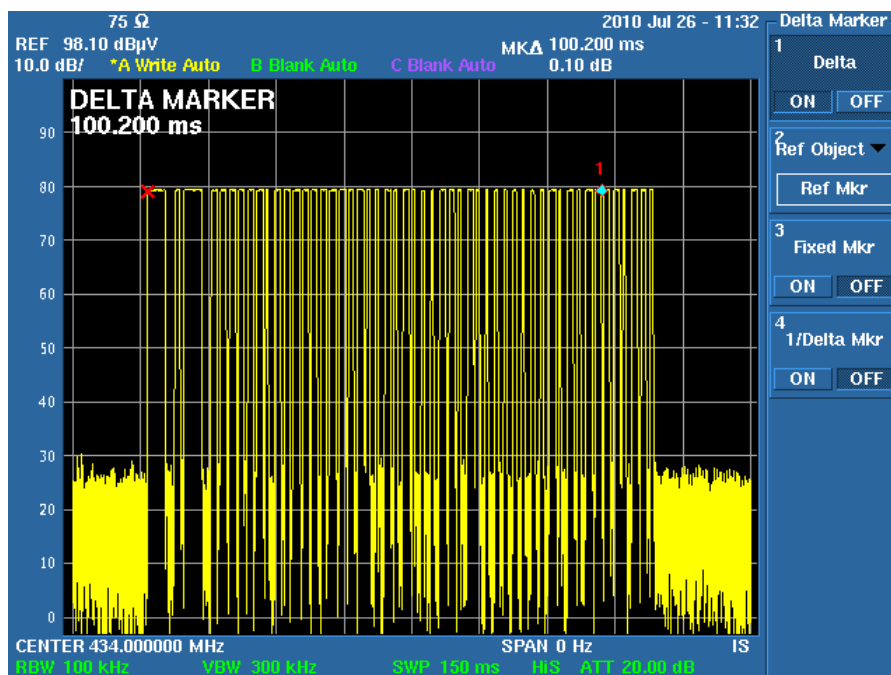
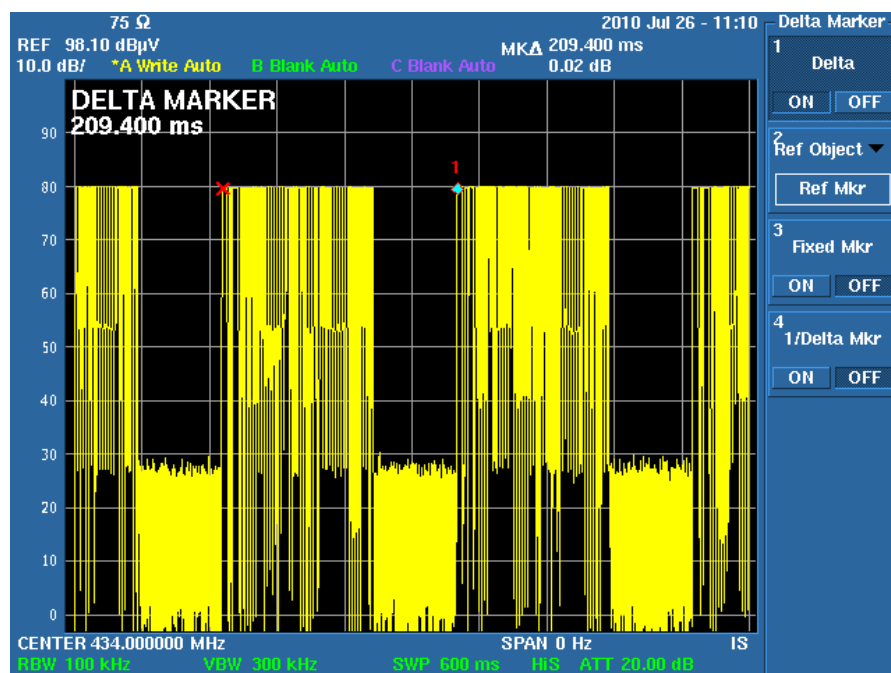
5.1 Average Factor

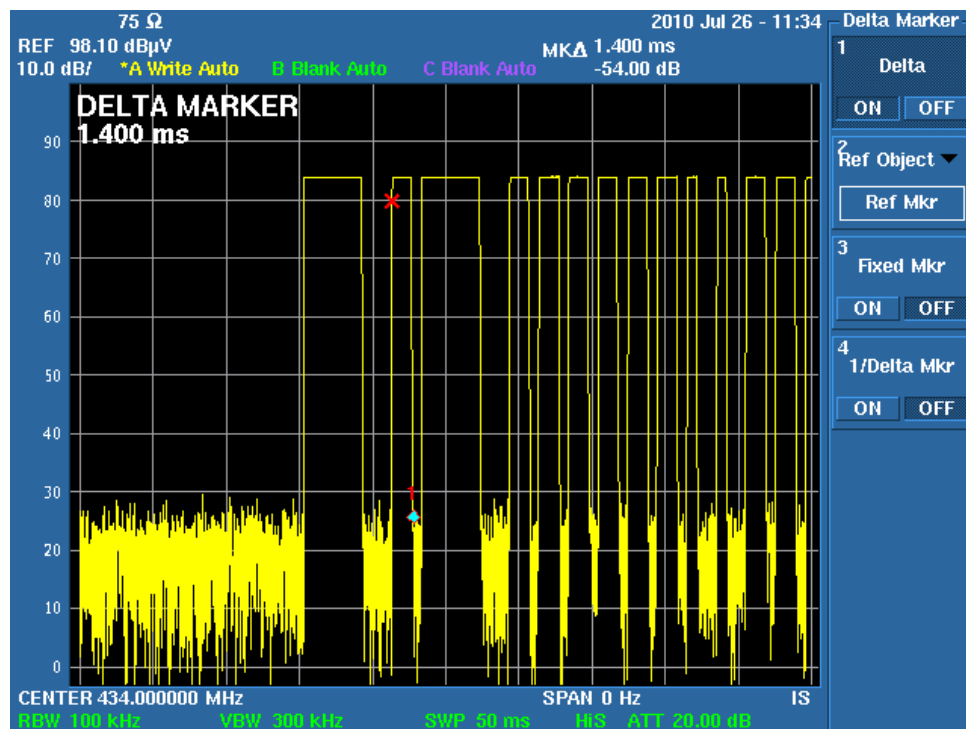
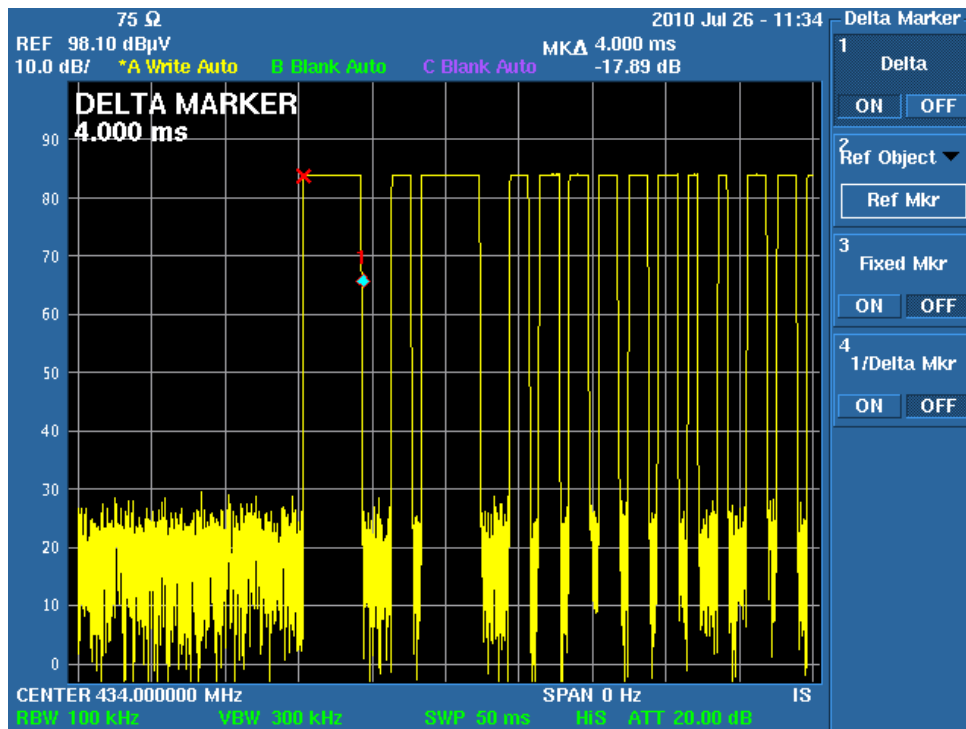
For test instruments and accessories used see section 6.

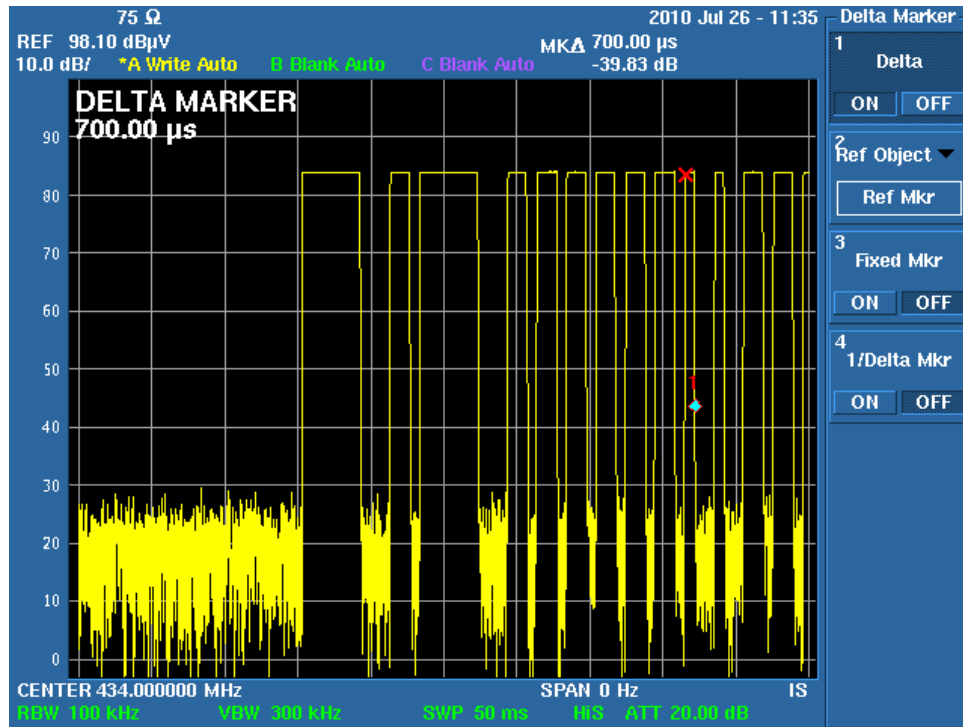
5.1.1 Description of the test location

Test location: Shield room

5.1.2 Photo documentation of test







5.1.3 Test result

whole period=209.4ms
Pulse 1= 4ms
Pulse 2= 1.4ms
Pulse 3= 0.7ms
$T_{on}=(4.0*2+1.4*28+0.7*16)ms=58.4ms$
Average factor= $20 \log(58.4ms/100ms)=20 \log(0.584)=-4.7dB$

Remarks: The red button can produce the signal of 434MHz.

5.2 Radiated Emission

For test instruments and accessories used see section 6.

5.2.1 Description of the test location

Test location: Semi-anecholic Chamber

Test distance: 3m

5.2.2 Photo documentation of test



5.2.3 Test result

Frequency range: 30MHz to 4340MHz

Min. limit margin: -1.9dB

The requirements of section 15.231(b) are **FULFILLED**.

Remarks:

5.2.4 Test protocol

Worst Case Operation mode: Transmitting mode

Result: PASS

Remarks:

Date: Jul. 26, 2010

Tested by: Kidd Yang

Start frequency [MHZ]	Stop frequency [MHZ]	Resolution bandwidth	Vedio bandwidth	step size	Measurement time	Detector
30	1000	120 KHz	1 MHz	40 KHz	100ms	Peak
1000	4340	1 MHz	3 MHz	400 KHz	100ms	Peak

Polarization	Frequency (MHz)	Read Value (dBuV/m)	Antenna Factor(dB)	Cable Loss(dB)	Measured Result (dBuV/m)	PK limit (dBuV/m)	margin (dB)
V	434.00	59.9	16.3	1.6	77.8	100.8	-23.0
H	434.00	52.1	16.6	1.6	70.3	100.8	-30.5
V	868.00	30.0	22.8	2.3	55.1	80.8	-25.7
H	868.00	29.9	22.7	2.3	54.9	80.8	-25.9
V	1302.00	29.3	25.0	2.8	57.1	74.0	-16.9
H	1302.00	26.1	25.8	2.8	54.7	74.0	-19.3
V	1736.00	10.5	27.9	3.2	41.6	80.8	-39.2
H	1736.00	7.4	28.3	3.2	38.9	80.8	-41.9

Polarization	Frequency (MHz)	Detector	Measured Result (dBuV/m)	Average Factor (dB)	Calculated Average Value (dBuV/m)	AV limit (dBuV/m)	margin (dB)
V	434.00	Peak	77.8	-4.7	73.1	80.8	-7.7
H	434.00	Peak	70.3	-4.7	65.6	80.8	-15.2
V	868.00	Peak	55.1	-4.7	50.4	60.8	-10.4
H	868.00	Peak	54.9	-4.7	50.2	60.8	-10.6
V	1302.00	Peak	57.1	-4.7	52.1	54.0	-1.9
H	1302.00	Peak	54.7	-4.7	50.0	54.0	-4.0
V	1736.00	Peak	41.6	-4.7	36.9	60.8	-23.9
H	1736.00	Peak	38.9	-4.7	34.2	60.8	-26.6

Remarks: 1) The emissions lower than 20dB below the limit are not measured.

2) Testing is include the rotation of the EUT through three orthogonal axes to determine the maximum emission.

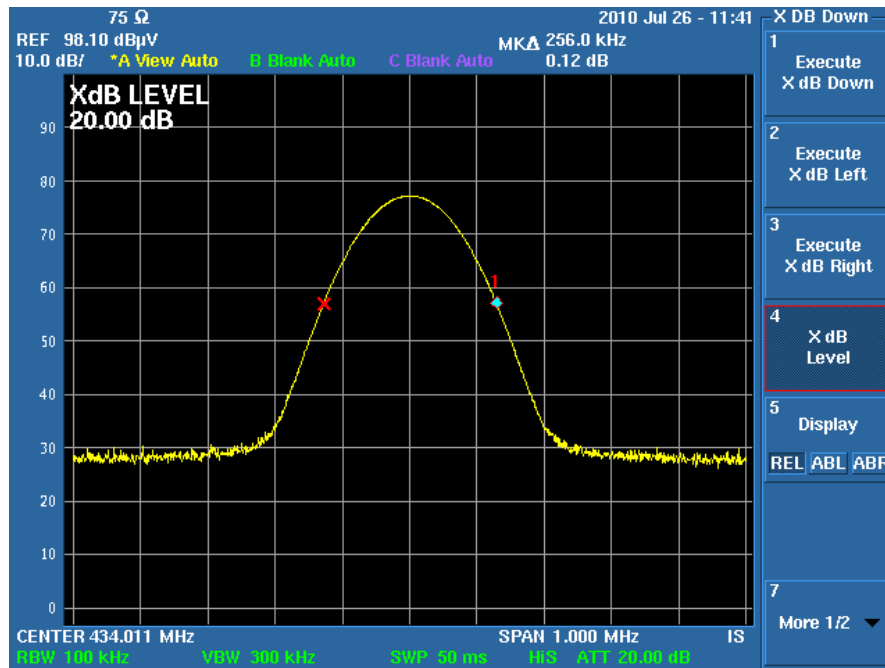
5.3 Bandwidth

For test instruments and accessories used see section 6.

5.3.1 Description of the test location

Test location: Shielded Room

5.3.2 Photo documentation of the test



5.3.3 Test result

Measured Occupied Bandwidth (kHz)	Limit (kHz)
256	1085

The requirements of section 15.231(c) are **FULFILLED**

Remarks:

5.4 Conducted disturbance

For test instruments and accessories used see section 6.

5.4.1 Description of the test location

Test location: Shield Room

5.4.2 Photo documentation of the test set-up



5.4.3 Test result

Frequency range: 0.15MHz – 30.00MHz

The test was carried out in the following operation mode(s):

- Transmitting mode(worst case)
- Receiving mode
- dialing mode

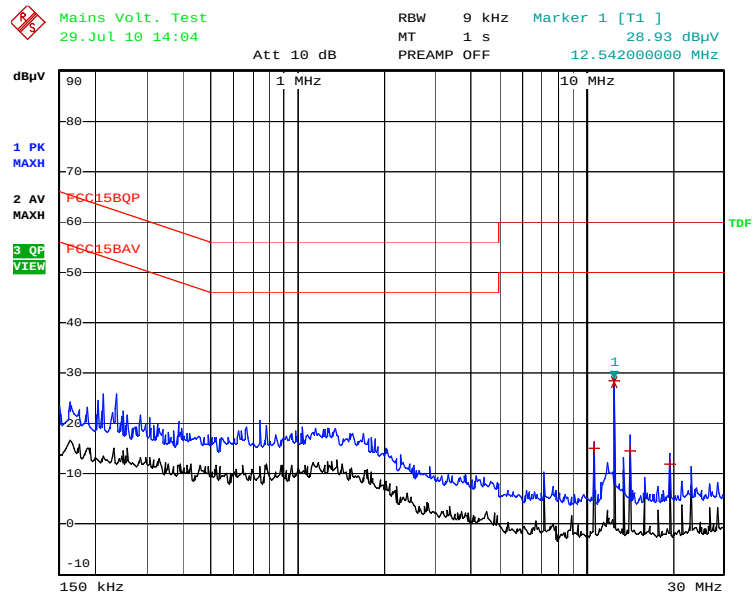
Min. limit margin -21.9dB at 12.538MHz.

The requirements of section 15.207 are **FULFILLED**

Remarks:

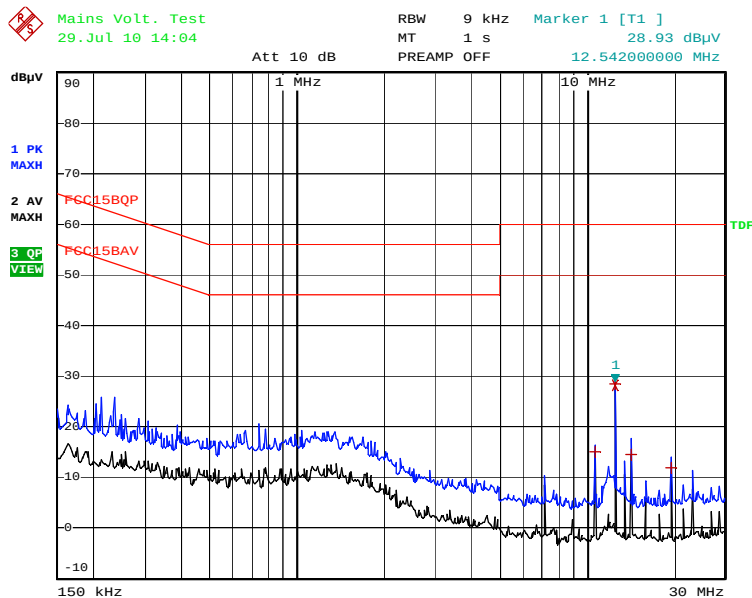
5.4.4 Test protocol

Product Description	: AUTO DIALER	Result: PASS
Model	: AD-105	
Test mode	: Transmitting mode(worst case)	
Date	: 29-07-2010	



Date: 29.JUL.2010 14:04:44

Line1



Date: 29.JUL.2010 14:04:44

FCC ID:KUTAD105

File No. **E4064161901KY**

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4_F510_25_Rev2_0 / Date of release: 05-01-2009 / Author: Kidd Yeung

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LINE	Frequency [MHz]	Neutral		Limit [dBμV/m]	Margin [dB]
		Measured	QP Value [dBμV]		
L1	10.750		15.1	60.0	-44.9
L1	12.542		28.6	60.0	-31.4
L1	14.334		14.5	60.0	-45.5
L1	19.702		12.0	60.0	-48.0
N	10.750		13.2	60.0	-46.8
N	12.538		27.0	60.0	-33.0
N	14.330		14.1	60.0	-45.9
N	19.702		12.3	60.0	-47.7

LINE	Frequency [MHz]	Measured AV Value		Limit [dBμV/m]	Margin [dB]
			[dBμV]		
L1	12.538		28.1	50	-21.9
N	12.538		26.1	50	-23.9

Remark: Other emission with more than 10dB margin below the limit is not measured.

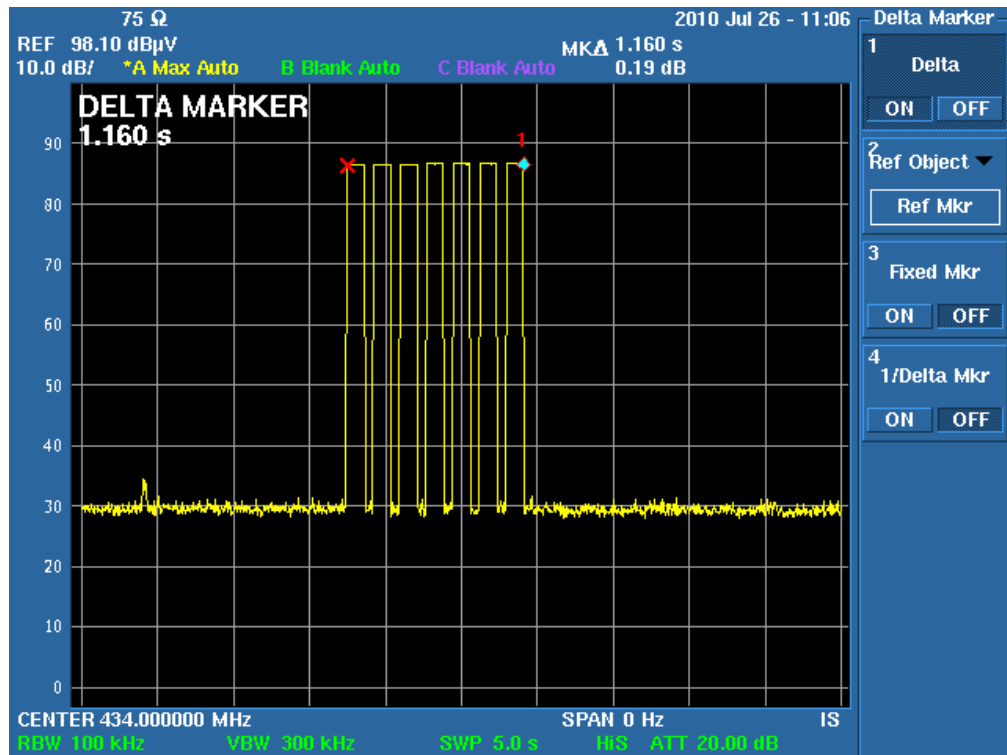
5.5 Provision of Momentary operation

For test instruments and accessories used see section 6.

5.5.1 Description of the test location

Test location: Shielded Room

5.5.2 Photo documentation of the test



5.5.3 Test result

The time of stopping transmission after switch releasing (s)	Limit (s)
1.16	5.00

The requirement of section 15.231(a)(1) is **FULFILLED**

Remarks:

6 USED TEST EQUIPMENT AND ACCESSORIES

All test instruments used, in addition to the test accessories, are calibrated and verified regularly.

Test Item	Model / Type	Kind of Equipment	Manufacturer	Last Cal. Date	Equipment No.
Radiated Emission	ESPI3	EMI Test Receiver	Rohde & Schwarz	Mar. 25,2010	04-02/03-06-002
	U3772	Spectrum Analyzer	Advantest	Mar. 25,2010	04-02/11-08-001
	3142C	Biconilog Antenna	EMCO	Jan. 08,2009	04-02/24-06-001
	3117	Horn Antenna	ETS Lindgren	Feb. 04,2009	04-02/24-07-001
Bandwidth	U3772	Spectrum Analyzer	Advantest	Mar. 25,2010	04-02/11-08-001
Momentary operation	U3772	Spectrum Analyzer	Advantest	Mar. 25,2010	04-02/11-08-001
Average Factor	U3772	Spectrum Analyzer	Advantest	Mar. 25,2010	04-02/11-08-001
Conducted emission	Test Receiver	ESPI3	Rohde & Schwarz	Mar. 25,2010	04-02/03-06-002
	LISN	ESH2-Z5	Rohde & Schwarz	Mar. 25,2010	04-02/20-06-001