

FCC ID: YMQ-8066000

# EMI - TEST REPORT

- FCC Part 15.225 -



<b>Test Report No. :</b>	<b>T35489-03-01KG</b>	29. November 2012 Date of issue
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**Type / Model Name** : Minicare Analyzer R1.0 / 8066000

**Product Description** : Laboratory Equipment with RFID

**Applicant** : LRE Medical GmbH Esterline Corporation

**Address** : Hofer Strasse 5  
86720 Nördlingen, Germany

**Manufacturer** : LRE Medical GmbH Esterline Corporation

**Address** : Hofer Strasse 5  
86720 Nördlingen, Germany

**Licence holder** : Philips Electronics Nederland B.V.

**Address** : High Tech Campus 29  
5656 AE Eindhoven, The Netherlands

<b>Test Result</b> according to the standards listed in clause 1 test standards:	<b>POSITIVE</b>
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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.

FCC ID: YMQ-8066000

# Contents

<b>1</b>	<b><u>TEST STANDARDS</u></b>	<b>3</b>
<b>2</b>	<b><u>SUMMARY</u></b>	<b>4</b>
<b>3</b>	<b><u>EQUIPMENT UNDER TEST</u></b>	<b>5</b>
3.1	Photo documentation of the EUT – See attachment A	5
3.2	Power supply system utilised	5
3.3	Short description of the equipment under test (EUT)	5
<b>4</b>	<b><u>TEST ENVIRONMENT</u></b>	<b>6</b>
4.1	Address of the test laboratory	6
4.2	Environmental conditions	6
4.3	Statement of the measurement uncertainty	6
4.1	Measurement Protocol for FCC, VCCI and AUSTEL	7
<b>5</b>	<b><u>TEST CONDITIONS AND RESULTS</u></b>	<b>8</b>
5.1	Conducted emissions	8
5.2	Field strength of the fundamental wave	12
5.3	Spurious emissions	14
5.4	Frequency tolerance	16
5.5	20 dB Bandwidth	18
5.6	Transmitter spectrum mask	21
5.7	Receiver radiated emissions	24
<b>6</b>	<b><u>USED TEST EQUIPMENT AND ACCESSORIES</u></b>	<b>25</b>
<b>7</b>	<b><u>Attachment A</u></b>	<b>26</b>
7.1	Photo documentation of the EUT – external photos	26
7.2	Photo documentation of the EUT – internal photos	29

FCC ID: YMQ-8066000

## 1 TEST STANDARDS

The tests were performed according to following standards:

### **FCC Rules and Regulations Part 15, Subpart A - General (September, 2011)**

Part 15, Subpart A, Section 15.31	Measurement standards
Part 15, Subpart A, Section 15.33	Frequency range of radiated measurements
Part 15, Subpart A, Section 15.35	Measurement detector functions and bandwidths
Part 15, Subpart A, Section 15.38	Incorporation by reference

### **FCC Rules and Regulations Part 15, Subpart C - Intentional Radiators (September, 2011)**

Part 15, Subpart C, Section 15.203	Antenna requirement
Part 15, Subpart C, Section 15.204	External radio frequency power amplifiers and antenna modifications
Part 15, Subpart C, Section 15.205	Restricted bands of operation
Part 15, Subpart C, Section 15.207	Conducted limits
Part 15, Subpart C, Section 15.209	Radiated emission limits, general requirements
Part 15, Subpart C, Section 15.215	Additional provisions to the general radiated emission limitations
Part 15, Subpart C, Section 15.225	Operation within the band 13.110 - 14.010 MHz

### **FCC Rules and Regulations Part 1, Subpart I - Procedures Implementing the National Environmental Policy Act of 1969**

Part 1, Subpart I, Section 1.1310	Radiofrequency radiation exposure limits
Part 1, Subpart 2, Section 2.1093	Radiofrequency radiation exposure evaluation: portable device

### **OET Bulletin 65, 65A, 65B, 65C Edition 97-01, August 1997 – Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.**

ANSI C63.4: 2009	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.
ANSI C95.1:1992	IEEE Standard for Safety Levels with respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
CISPR 16-4-2: 2003	Uncertainty in EMC measurement

FCC ID: YMQ-8066000

## 2 SUMMARY

### GENERAL REMARKS:

The EuT is a Laboratory Equipment including a RFID identification working at 13.56 MHz.

This test report describes the assessment for the RFID Module only.

The receiver is permanently co-located within the transmitter. Therefore the receive mode is to short and was tested together with the transmitter in operating mode. There is no standby mode.

### FINAL ASSESSMENT:

The equipment under test **fulfills** the EMI requirements cited in clause 1 test standards.

Date of receipt of test sample : acc. to storage records

Testing commenced on : 23. August 2012

Testing concluded on : 31. August 2012

Checked by:

Tested by:

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Thomas Weise  
Dipl. Ing.(FH)  
Laboratory Manager

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Klaus Gegenfurtner  
Dipl.-Ing.(FH)

FCC ID: YMQ-8066000

### 3 EQUIPMENT UNDER TEST

#### 3.1 Photo documentation of the EUT – See attachment A

#### 3.2 Power supply system utilised

Power supply voltage : Battery 14.4 VDC

#### 3.3 Short description of the equipment under test (EUT)

The RFID Module is included the laboratory device, a so called "blood reader". In the application communication takes place at 13.56 MHz and TAGs will be read over a distance of at least 6 cm.

Number of tested samples: 1  
Serial number: 000002012

#### EUT operation mode:

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

- TX pulsed modulated at 13,56 MHz

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#### EUT configuration:

(The CDF filled by the applicant can be viewed at the test laboratory.)

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

- _____	Model : _____
- _____	Model : _____
- _____	Model : _____

FCC ID: YMQ-8066000

## **4 TEST ENVIRONMENT**

### **4.1 Address of the test laboratory**

**mikes-testingpartners gmbh**  
**Ohmstrasse 2-4**  
**94342 STRASSKIRCHEN**  
**GERMANY**

### **4.2 Environmental conditions**

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

Temperature: 15-35 ° C

Humidity: 30-60 %

Atmospheric pressure: 86-106 kPa

### **4.3 Statement of the measurement uncertainty**

The data and results referenced in this document are true and accurate. The reader may notice that tolerances within the calibration of the equipment and facilities may cause additional uncertainty. The measurement uncertainty is calculated for all measurements listed in this test report acc. to CISPR 16-4-2 „Uncertainties, statistics and limit modelling – Uncertainty in EMC measurement“ and documented in the mikes-testingpartners gmbh quality system acc. to DIN EN ISO/IEC 17025. For all measurements shown in this report, the measurement uncertainty of the test laboratory, mikes-testingpartners gmbh, is below the measurement uncertainty as defined by CISPR. Therefore, no special measures must be taken into consideration with regard to the limits according to CISPR. Furthermore, component diversity and modifications in production processes may result in additional deviation. If necessary, refer to the test lab for the actual measurement uncertainty for specific tests. The manufacturer has the sole responsibility of continued compliance of the EUT.

FCC ID: YMQ-8066000

## 4.1 Measurement Protocol for FCC, VCCI and AUSTEL

### 4.1.1 GENERAL INFORMATION

#### 4.1.1.1 Test methodology

Conducted and radiated disturbance testing is performed according to the procedures set out by the International Special Committee on Radio Interference (CISPR) Publication 22, European Standard EN 55022 as shown under section 1 of this report.

#### 4.1.1.2 Justification

The equipment under test (EUT) is configured in a typical user arrangement in accordance with the manufacturer's instructions. A cable is connected to each available port and either terminated with a peripheral using the appropriate impedance characteristic or left unterminated. Where appropriate, cables are manually manipulated with respect to each other thus obtaining maximum disturbances from the unit.

### 4.1.2 DETAILS OF TEST PROCEDURES

#### General Standard information

The test methods used comply with CISPR Publication 22, EN 55022 - "Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement" and with ANSI C63.4 - "Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz". In compliance with 47 CFR Part 15 Subpart A, Section 15.38 testing for FCC compliance may be achieved by following the procedures set out in ANSI C63.4 and applying the CISPR 22 limits.

FCC ID: YMQ-8066000

## **5 TEST CONDITIONS AND RESULTS**

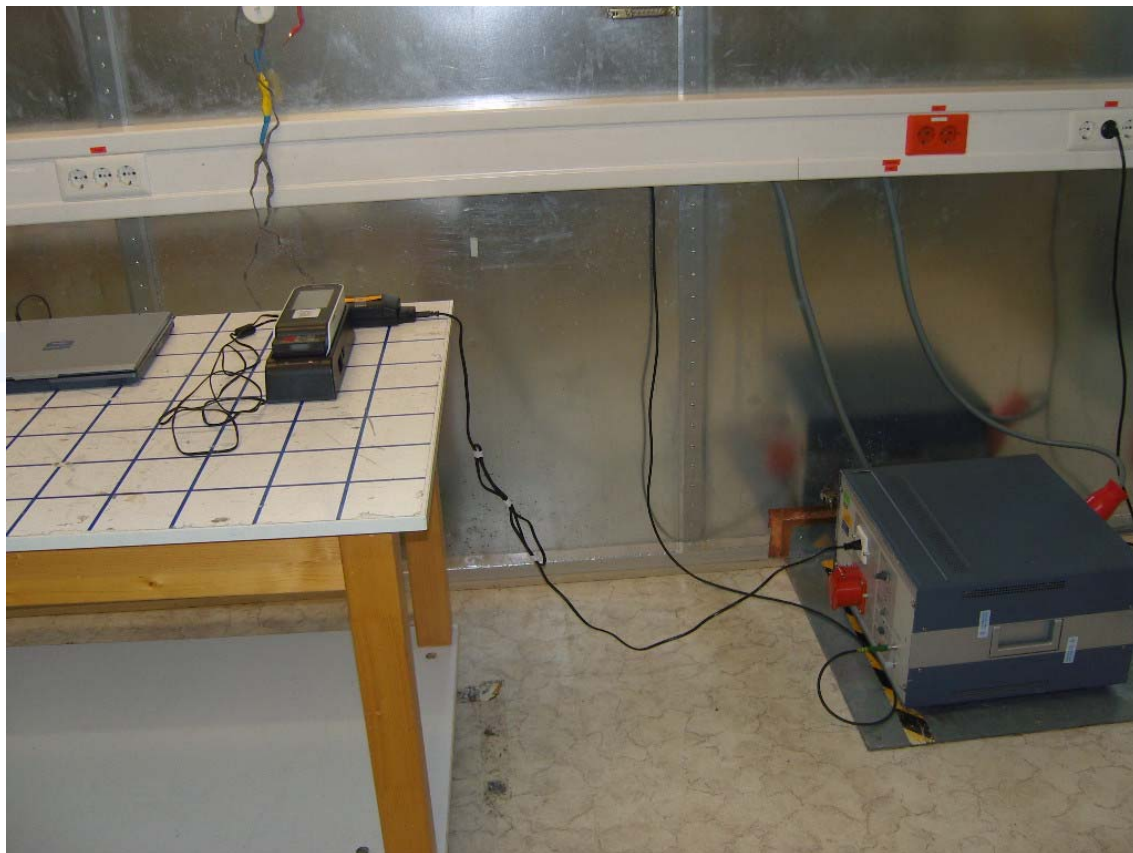
### **5.1 Conducted emissions**

For test instruments and accessories used see section 6 Part A 4.

#### **5.1.1 Description of the test location**

Test location:                      Shielded Room S2

#### **5.1.2 Photo documentation of the test set-up**



#### **5.1.3 Applicable standard**

According to FCC Part 15, Section 15.107(a):

Except for Class A devices, for equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the given limits.

#### **5.1.4 Description of Measurement**

The measurements are performed following the procedures set out in ANSI C63.4 described under item 4.4.3. If the minimum limit margin appears to be less than 20 dB with a peak mode measurement, the emissions are remeasured using a tuned receiver with quasi-peak and average detection and recorded on the data sheets.



**FCC ID: YMQ-8066000****5.1.5 Test result**

Frequency range: 0.15 MHz - 30 MHz

Min. limit margin 7.8 dB at 0.165 MHz

Limit according to FCC Part 15, Section 15.107(a):

Frequency of Emission (MHz)	Conducted Limit (dB $\mu$ V)	
	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

The requirements are **FULFILLED**.**Remarks:** For detailed test result please refer to following test protocols

FCC ID: YMQ-8066000

5.1.6 Test protocol

Test point: L1  
Operation mode: charging  
Remarks: 120 V/ 60 Hz, class B limits  
Date: 29<sup>th</sup> August 2012  
Tested by: Lange Norbert

Result: passed

Freq kHz	QP- L dB[μV]	D -Limit QP [dB]	Freq kHz	AV-L dB[μV]	D -Limit AV [dB]
165	57,4	7,8	170	40,8	14,2
190	35,8	28,2	260	30,1	21,3
250	44	17,8	345	26,1	23,0
335	36	23,3	430	24,2	23,1
355	36	22,8	435	24,4	22,8
435	36,2	21,0	605	22,1	23,9
610	36,3	19,7	695	21,2	24,8
705	36,3	19,7	875	19,6	26,4
980	36	20,0	1160	21,5	24,5
1240	36	20,0	1330	22	24,0
1410	35,9	20,1	1675	20,9	25,1
1820	35,9	20,1	1980	20,1	25,9
2220	35,9	20,1	2845	20,3	25,7
2465	35,5	20,5	3330	19,4	26,6
2960	34,7	21,3	3770	18,7	27,3

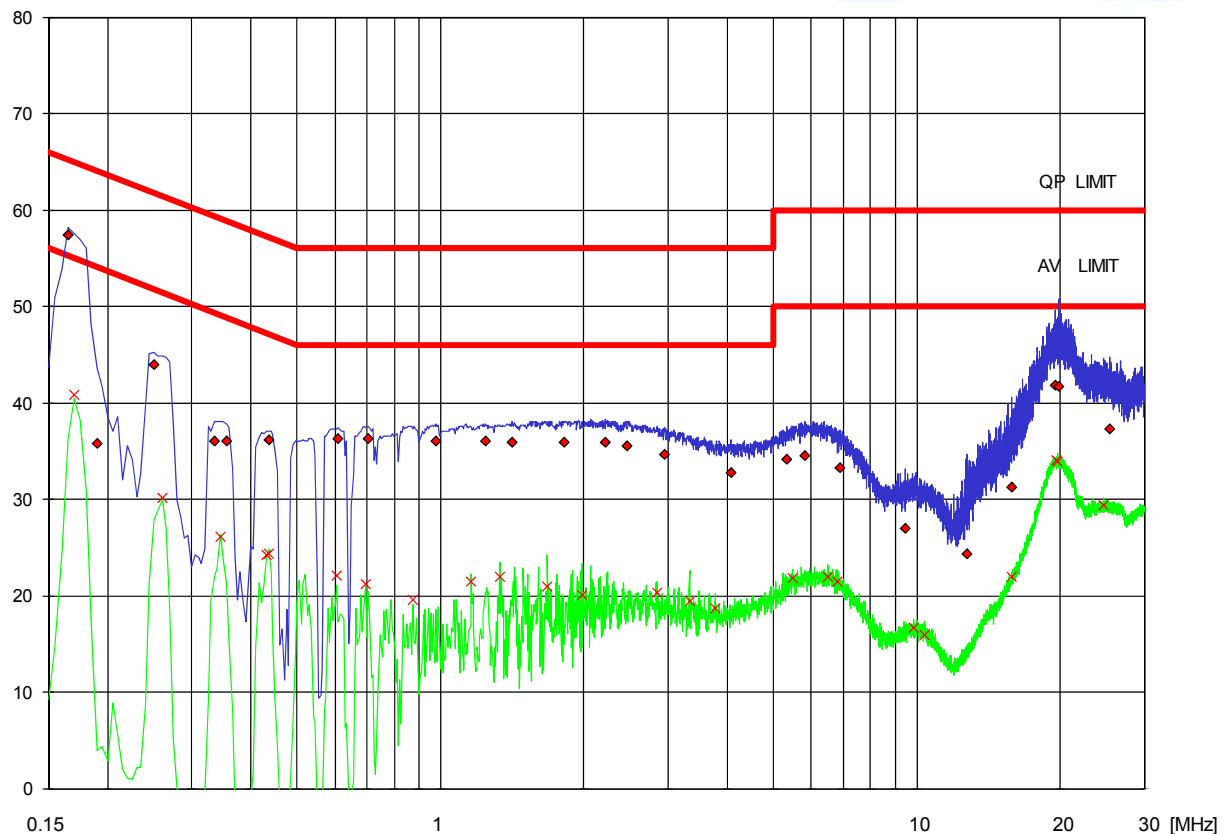
Freq kHz	QP- L dB[μV]	D -Limit QP [dB]	Freq kHz	AV-L dB[μV]	D -Limit AV [dB]
4065	32,8	23,2	5495	21,8	28,2
5320	34,1	25,9	6505	22	28,0
5830	34,5	25,5	6820	21,4	28,6
6885	33,3	26,7	9825	16,7	33,3
9430	27	33,0	10405	15,9	34,1
12765	24,4	35,6	15800	21,9	28,1
15820	31,3	28,7	19590	34	16,0
19525	41,8	18,2	19700	33,9	16,1
19815	41,7	18,3	24670	29,4	20,6
25340	37,3	22,7			

dB [μV]

Legend

PK: — AV: —

Detector: QP: ♦ AV: ×



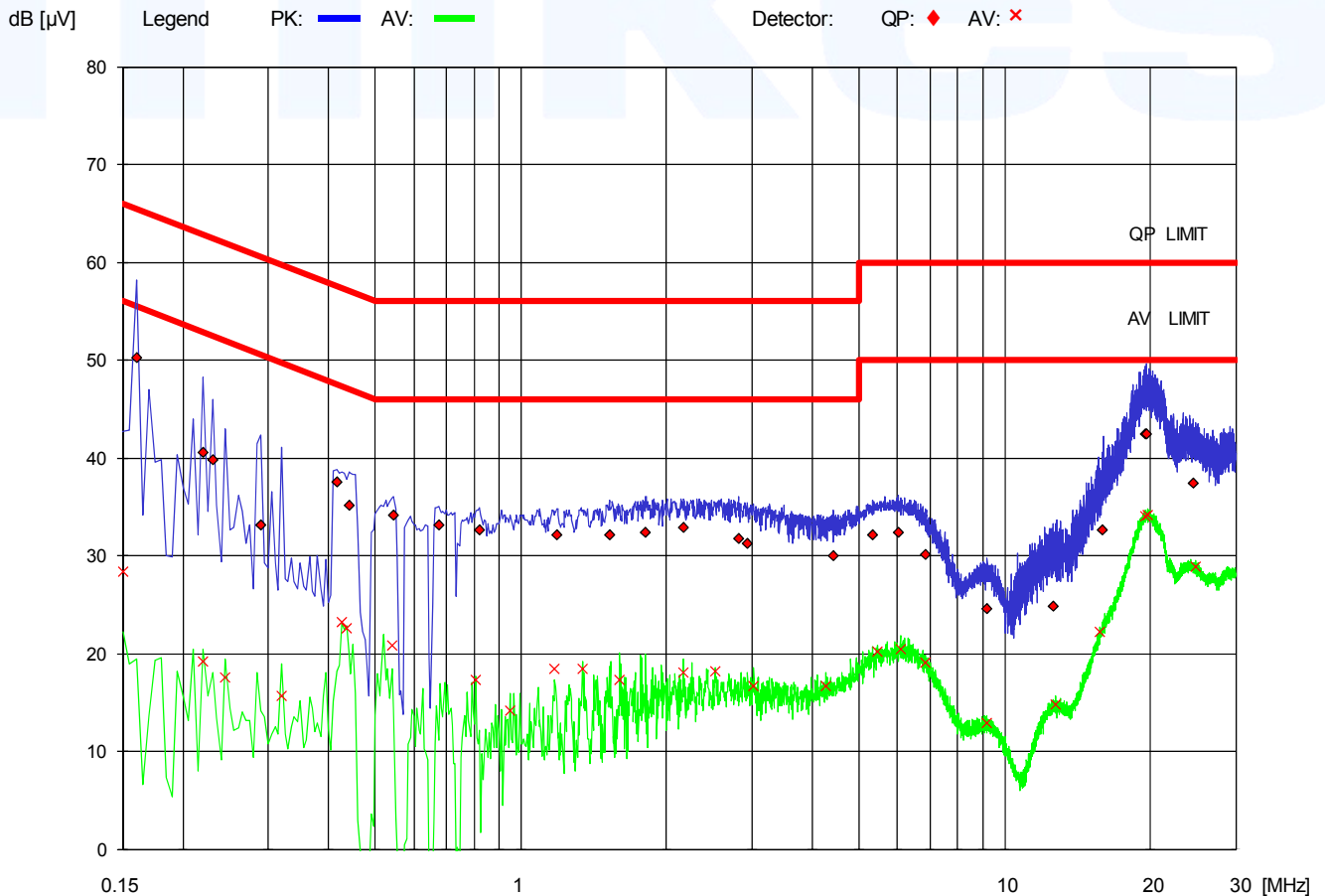
FCC ID: YMQ-8066000

Test point: N  
Operation mode: charging  
Remarks: 120 V/ 60 Hz, class B limits  
Date: 29<sup>th</sup> August 2012  
Tested by: Lange Norbert

Result: passed

Freq kHz	QP- L dB[μV]	D -Limit QP [dB]	Freq kHz	AV-L dB[μV]	D -Limit AV [dB]
160	50,2	15,3	150	28,4	27,6
220	40,6	22,2	220	19,2	33,6
230	39,8	22,6	245	17,5	34,4
290	33,1	27,4	320	15,6	34,1
415	37,5	20,0	425	23,2	24,1
440	35,2	21,9	435	22,6	24,6
545	34,2	21,8	540	20,8	25,2
675	33,2	22,8	805	17,3	28,7
820	32,6	23,4	950	14,2	31,8
1185	32,2	23,8	1175	18,4	27,6
1520	32,1	23,9	1340	18,4	27,6
1810	32,4	23,6	1600	17,3	28,7
2170	32,9	23,1	2165	18,1	27,9
2815	31,7	24,3	2515	18,2	27,8
2940	31,3	24,7	3030	16,7	29,3

Freq kHz	QP- L dB[μV]	D -Limit QP [dB]	Freq kHz	AV-L dB[μV]	D -Limit AV [dB]
4430	30	26,0	4265	16,7	29,3
5335	32,2	27,8	5450	20,2	29,8
6010	32,4	27,6	6080	20,5	29,5
6845	30,1	29,9	6840	19,1	30,9
9205	24,6	35,4	9165	12,9	37,1
12565	24,8	35,2	12755	14,8	35,2
15885	32,6	27,4	15745	22,2	27,8
19565	42,5	17,5	19470	34	16,0
19665	42,4	17,6	19800	34,2	15,8
24460	37,4	22,6	24750	28,9	21,1



FCC ID: YMQ-8066000

## 5.2 Field strength of the fundamental wave

For test instruments and accessories used see section 6 Part CPR 1.

### 5.2.1 Description of the test location

Test location: OATS1

Test distance: 3 metres

### 5.2.2 Photo documentation of the test set-up



## FCC ID: YMQ-8066000

### 5.2.3 Applicable standard

According to FCC Part 15, Section 15.225(a):

The field strength of any emission within the band 13.553 – 13.567 MHz shall not exceed 15848  $\mu\text{V/m}$  at 30 m.

### 5.2.4 Description of Measurement

The transmitted field strength of the EUT has to be measured at an open area test site using a tuned receiver and a shielded loop antenna. The set up of the equipment under test will be in accordance with ANSI C63.4. The measurement has been performed at 3 m. The results have been compared to the limits defined at 30 m distances according to FCC Part 15C, Section 15.31(f)(2) using an inverse linear distance extrapolation factor of 40 dB/decade. The final measurement has been performed with an EMI receiver using quasi peak detector and a resolution bandwidth of 9 kHz.

### 5.2.5 Test result

- a) Result at a measurement distance of 3m

Frequency (MHz)	Level (dB $\mu\text{V}$ )	Ant. factor (dB 1/m)	Field strength dB( $\mu\text{V/m}$ )
13.56	43.6	20.0	63.6

- b) Result extrapolated to a distance of 30 m

Frequency (MHz)	Level (dB $\mu\text{V}$ )	Ant. factor (dB 1/m)	Field strength dB( $\mu\text{V/m}$ )	Limit dB( $\mu\text{V/m}$ )	Delta (dB)
13.56	3.6	20.0	23.6	84.0	-60.4

Limit according to FCC Part 15, Section 15.225(a):

Frequency (MHz)	Field strength of fundamental wave		Measurement distance (metres)
	( $\mu\text{V/m}$ )	dB( $\mu\text{V/m}$ )	
13.553 - 13.567	15848	84.0	30

The requirements are **FULFILLED**.

Remarks:

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FCC ID: YMQ-8066000

### 5.3 Spurious emissions

For test instruments and accessories used see section 6 Part SER 1, SER 2.

#### 5.3.1 Description of the test location

Test location: OATS1

Test distance: 3 metres

#### 5.3.2 Photo documentation of the test set-up





## FCC ID: YMQ-8066000

### 5.3.3 Applicable standard

According to FCC Part 15C, Section 15.209:

The emissions from an intentional radiator shall not exceed the field strength levels specified in the table below.

### 5.3.4 Description of Measurement

The spurious emissions of the EUT have to be measured at an open area test site in the frequency range from 9 kHz to 1000 MHz using a tuned EMI receiver. The set up of the equipment under test will be in accordance with ANSI C63.4. The measurement has been performed at 3 m. The results have been compared to the limits defined at 30 m or 300 m distances according to FCC Part 15C, Section 15.31(f)(2) using an inverse linear distance extrapolation factor of 40 dB/decade. The final measurement has been performed with the EMI receiver using Quasi peak detector except for the frequency bands 9 kHz to 90 kHz and 110 to 490 kHz where an average detector will be used, according to Section 15.209(d).

The resolution bandwidth during the measurement is as follows:

9 kHz – 150 kHz: RBW: 200 Hz

150 kHz – 30 MHz: RBW: 9 kHz

30 MHz – 1000 MHz: RBW: 120 kHz

### 5.3.5 Test result

Results at a measurement distance of 3m

Frequency (MHz)	Level AV (dBμV)	Level QP (dBμV)	Ant. factor (dB)	Field strength QP dB(μV/m)	Field strength AV dB(μV/m)	Limit dB(μV/m)	Delta (dB)
0.009-0.090	---						
0.090-0.110		---					
0.110-0.490	---						
0.490 - 1.705		---					
1.705 - 30.0		---					
30 - 88		---					
88 - 216		---					

Limit according to FCC Part 15 Subpart 15.209(a):

Frequency (MHz)	Field strength of spurious emissions		Measurement distance
	(μV/m)	dB(μV/m)	(metres)
0.009 - 0.490	2400/F(kHz)	--	300
0.490 - 1.705	24000/F (kHz)	--	30
1.705 - 30.0	30	29.5	30
30 - 88	100	40	3
88 - 216	150	43.5	3
216 - 960	200	46	3
Above 960	500	54	3

The requirements are **FULFILLED**.

**Remarks:** Measurement has been performed up to the 10<sup>th</sup> harmonic (135.6 MHz).  
No undesired emissions occurred in the frequency range from 9 kHz up to 135.6 MHz

FCC ID: YMQ-8066000

## 5.4 Frequency tolerance

For test instruments and accessories used see section 6 Part FE.

### 5.4.1 Description of the test location

Test location: AREA4 (Climatic Chamber)

### 5.4.2 Photo documentation of the test set-up



### 5.4.3 Applicable standard

According to FCC Part 15, Section 15.225(e):

The frequency tolerance of the carrier signal shall be maintained within  $\pm 0.01\%$  of the operating frequency over a temperature range of  $-20\text{ }^{\circ}\text{C}$  to  $+50\text{ }^{\circ}\text{C}$  at normal supply voltage and for a variation in the primary supply voltage from  $85\%$  to  $115\%$  of the rated supply voltage at a temperature of  $20\text{ }^{\circ}\text{C}$ . For battery operated equipment, the equipment shall be performed using a new battery.

### 5.4.4 Description of Measurement

The frequency tolerance has been measured radiated using a spectrum analyser. The center frequency of the spectrum analyser has been set to the fundamental frequency. This is an alternative test method because the EuT can not be operated in un-modulated mode. The limit line was set to 10 dB below the carrier. The frequencies of the upper ( $f_U$ ) and lower ( $f_L$ ) points, where the displayed power envelope of the modulation including frequency drift is equal to the appropriate level, have been recorded. The centre frequency is calculated as  $f_C = (f_U + f_L)/2$ . The measurement has been performed at normal and extreme test conditions from  $-20\text{ }^{\circ}\text{C}$  to  $+50\text{ }^{\circ}\text{C}$  in steps of 10 degrees (According to FCC Part 2.1055).



## FCC ID: YMQ-8066000

### 5.4.5 Test result

Test conditions		Test result
		Frequency (MHz)
$T_{min} (-20)^{\circ}\text{C}$	$V_{min} (13.0 \text{ V})$	13.55992
	$V_{max} (16.8 \text{ V})$	13.55996
$T (-10)^{\circ}\text{C}$	$V_{min} (13.0 \text{ V})$	13.55992
	$V_{max} (16.8 \text{ V})$	13.55996
$T (0)^{\circ}\text{C}$	$V_{min} (13.0 \text{ V})$	13.55992
	$V_{max} (16.8 \text{ V})$	13.55994
$T (10)^{\circ}\text{C}$	$V_{min} (13.0 \text{ V})$	13.55992
	$V_{max} (16.8 \text{ V})$	13.55994
$T_{nom} (20)^{\circ}\text{C}$	$V_{min} (13.0 \text{ V})$	13.55992
	$V_{nom} (14.4 \text{ V})$	13.55992
	$V_{max} (16.8 \text{ V})$	13.55992
$T (30)^{\circ}\text{C}$	$V_{min} (13.0 \text{ V})$	13.55988
	$V_{max} (16.8 \text{ V})$	13.55990
$T (40)^{\circ}\text{C}$	$V_{min} (13.0 \text{ V})$	13.55988
	$V_{max} (16.8 \text{ V})$	13.55988
$T_{max} (50)^{\circ}\text{C}$	$V_{min} (13.0 \text{ V})$	13.55984
	$V_{max} (16.8 \text{ V})$	13.55988
Measurement uncertainty		$\pm 10 \text{ Hz}$

Carrier frequency:  $f_c = 13.56 \text{ MHz}$

Max. tolerance:  $\pm 0.01 \% \text{ of } 13.56 \text{ MHz} = \pm 1.356 \text{ kHz}$

Lowest frequency:  $f_l = 13.55984 \text{ MHz}$

Lowest tolerance:  $f_l - f_c = -0.16 \text{ kHz} < -1.356 \text{ kHz}$

Limit according to FCC Part 15, Section 15.225(e):

The frequency tolerance of the carrier signal shall be maintained within  $\pm 0.01 \%$  of the operating frequency.

The requirements are **FULFILLED**.

Remarks:

FCC ID: YMQ-8066000

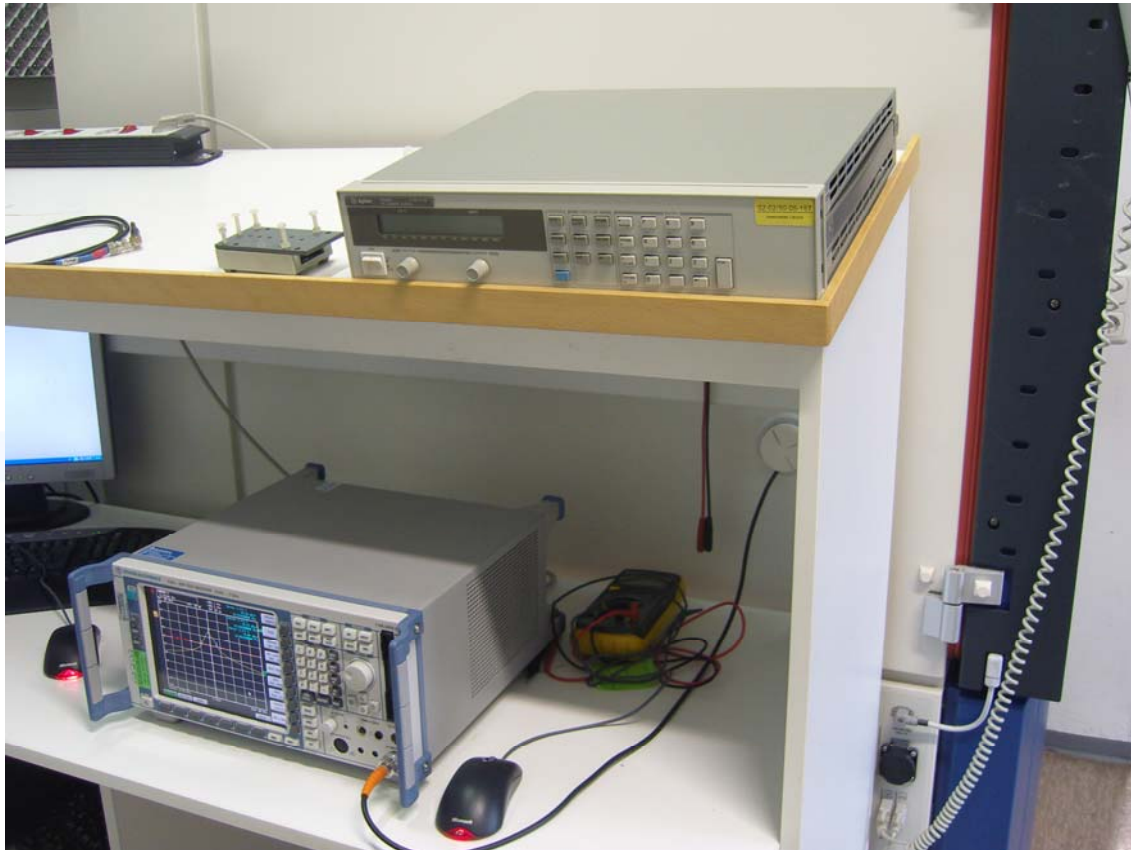
## 5.5 20 dB Bandwidth

For test instruments and accessories used see section 6 Part MB.

### 5.5.1 Description of the test location

Test location: AREA4

### 5.5.2 Photo documentation of the test set-up



### 5.5.3 Applicable standard

According to FCC Part 15C, Section 15.215(c):

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in section 15.217 to 15.257, must be designed to ensure that the 20 dB bandwidth of the emission is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed.

## FCC ID: YMQ-8066000

### 5.5.4 Description of Measurement

The frequency range has been measured radiated using a test fixture and a spectrum analyser. The limit line is set to 20 dB below the carrier. The frequency of the upper ( $F_H$ ) and lower ( $F_L$ ) points, where the displayed power envelope of the modulation including frequency drift is equal to the appropriate level, is recorded as the modulation bandwidth. The measurement has been performed at normal and extreme test conditions in modulated transmitting mode.

Spectrum analyzer settings:

RBW: 1 kHz

VBW: 3 kHz

Detector Peak

### 5.5.5 Test result

Carrier Frequency (MHz)	( $F_L$ ) (MHz)	( $F_H$ ) (MHz)	Bandwidth (kHz)	Limit (kHz)
13.56	13.5576	13.5622	4.6	14.0

Limit according to FCC Part 15C, Section 15.215(c):

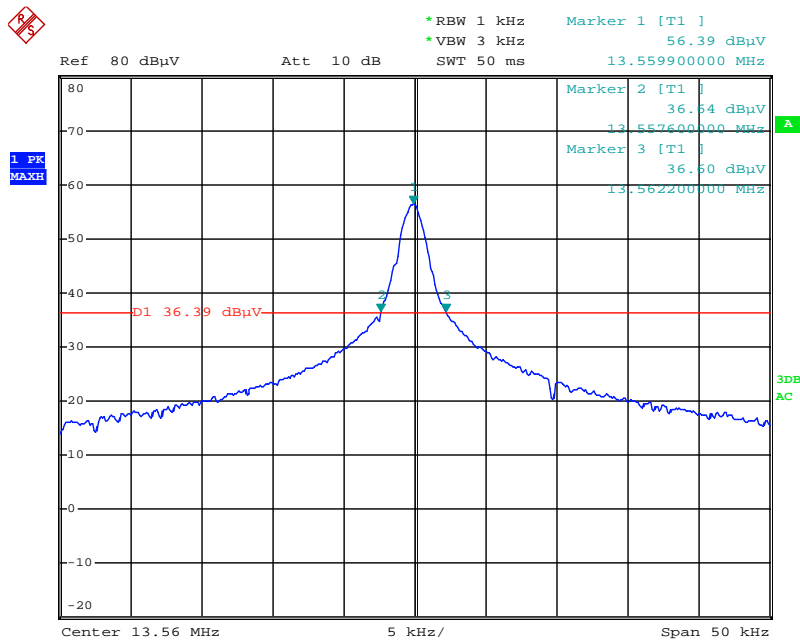
Frequency band (MHz)	Limit 20 dB bandwidth (kHz)
13.553 - 13.567	14.0

The requirements are **FULFILLED**.

**Remarks:** For detailed test result please refer to following test protocol.

FCC ID: YMQ-8066000

### 5.5.6 Test protocol



FCC ID: YMQ-8066000

## 5.6 Transmitter spectrum mask

For test instruments and accessories used see section 6 Part MB.

### 5.6.1 Description of the test location

Test location: AREA4

### 5.6.2 Photo documentation of the test set-up



## FCC ID: YMQ-8066000

### 5.6.3 Applicable standard

According to FCC Part 15C, Section 15.225 (a-d):

The field strength of any emission shall not exceed the limits given in FCC Part 15C, Section 15.225 (a-d)

### 5.6.4 Description of Measurement

The spectrum mask is measured using a spectrum analyser. The profile of the spectrum mask is displayed on analyser and have to be adjusted to the reference level given as maximum output power measured in OATS. The marker is set up manually to the particular maximum level at the effective limit in the frequency range and recorded. The measurement was performed radiated.

### 5.6.5 Test result

Frequency band (MHz)	Emission level (dBμV/m)	Limit (dBμV/m)
13.110 – 13.410	≤ 20	40.5
13.410 - 13.553	38.2	50.5
13.553 - 13.567	43.6	84.0
13.567 – 13.710	39.1	50.5
13.710 – 14.010	≤ 20	40.5
outside of 13.110 – 14.010	≤ 10	29.5

Limits according to FCC Part 15C, Section 15.225(a-d):

The absolute levels of RF power at any frequency shall not exceed the limits defined in the following table:

Frequency band (MHz)	Emission level limit at 30 m (μV/m)
13.110 – 13.410	106
13.410 - 13.553	334
13.553 - 13.567	15,848
13.567 – 13.710	334
13.710 – 14.010	106
outside of 13.110 – 14.010	30

The requirements are **FULFILLED**.

Remarks:

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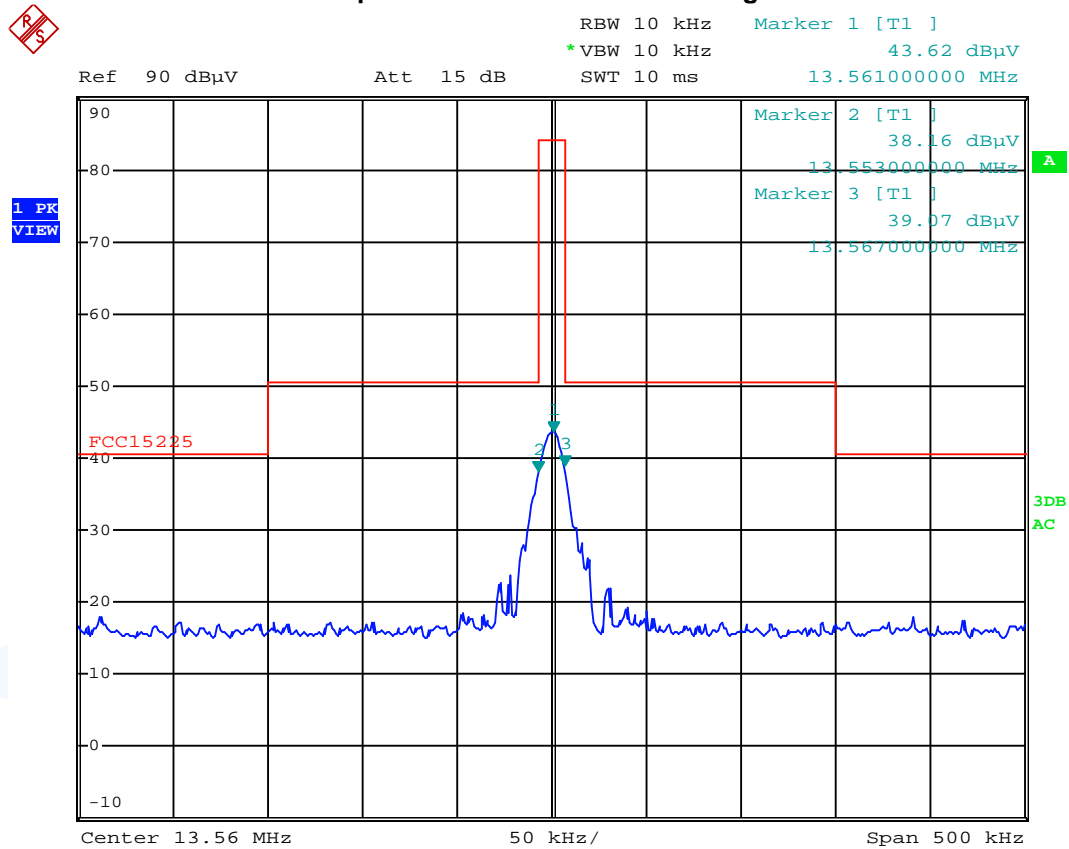


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FCC ID: YMQ-8066000

## 5.6.6 Test protocol

### Spectrum mask of modulated signal



The values of the plot are extrapolated to a measurement distance of 3 m.

FCC ID: YMQ-8066000

## 5.7 Receiver radiated emissions

### 5.7.1 Description of the test location

Test location: None

### 5.7.2 Applicable standard

According to FCC Part 15, Section 15.109(a):

The emission of an unintentional radiator shall not exceed the specified field strength level at 3 m.

**Remarks:** This test is not applicable. The receive mode is too short to make an assessment.

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mikes



**FCC ID: YMQ-8066000**

## **6 USED TEST EQUIPMENT AND ACCESSORIES**

All test instruments used are calibrated and verified regularly. The calibration history is available on request.

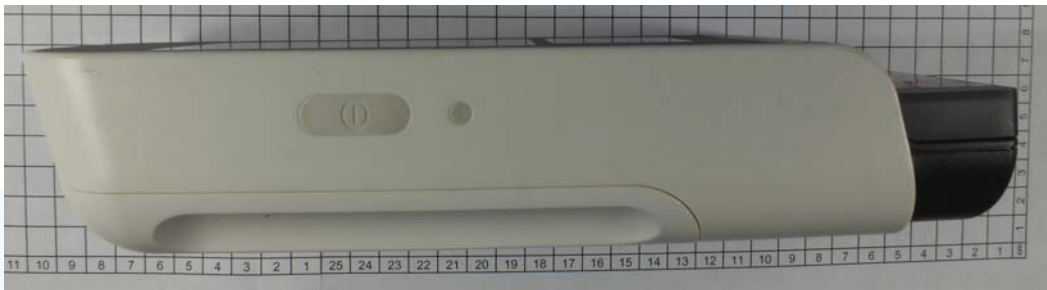
Test ID	Model Type	Equipment No.	Next Calib.	Last Calib.	Next Verif.	Next Verif.
CPR 1	FMZB 1516 ESCI	Magnetic Field Antenna EMI Test Receiver		Schwarzbeck Mess-Elektronik Rohde & Schwarz München	01-02/24-01-018 02-02/03-05-005	
FE	ESCI THS730A HZ-10 WK-340/40 6543A	EMI Test Receiver Handheld Scope Magnetic Field Antenna Climatic Chamber Power Supply		Rohde & Schwarz München Tektronix GmbH Rohde & Schwarz München Weiss Umwelttechnik GmbH HP Hewlett-Packard	02-02/03-05-005 02-02/13-05-001 02-02/24-05-012 02-02/45-05-001 02-02/50-05-157	
MB	ESCI HZ-10	EMI Test Receiver Magnetic Field Antenna		Rohde & Schwarz München Rohde & Schwarz München	02-02/03-05-005 02-02/24-05-012	
SER 1	FMZB 1516 ESCI	Magnetic Field Antenna EMI Test Receiver		Schwarzbeck Mess-Elektronik Rohde & Schwarz München	01-02/24-01-018 02-02/03-05-005	
SER 2	ESVS 30 VULB 9168 S10162-B KK-EF393-21N-16 NW-2000-NB	EMI Test Receiver Trilog Broad Band Antenna RF Cable 33 m RF Cable 20 m RF Cable		Rohde & Schwarz München Schwarzbeck Mess-Elektronik Huber + Suhner Huber + Suhner Huber + Suhner	02-02/03-05-006 02-02/24-05-005 02-02/50-05-031 02-02/50-05-033 02-02/50-05-113	

Test ID	Model Type	Equipment No.	Next Calib.	Last Calib.	Next Verif.	Last Verif.
CPR 1	FMZB 1516 ESCI	01-02/24-01-018 02-02/03-05-005	21/11/2012	21/11/2011	16/02/2013	16/02/2012
FE	ESCI THS730A HZ-10 WK-340/40 6543A	02-02/03-05-005 02-02/13-05-001 02-02/24-05-012 02-02/45-05-001 02-02/50-05-157	21/11/2012 17/10/2012	21/11/2011 17/10/2011	09/02/2013	09/08/2012
MB	ESCI HZ-10	02-02/03-05-005 02-02/24-05-012	21/11/2012	21/11/2011		
SER 1	FMZB 1516 ESCI	01-02/24-01-018 02-02/03-05-005	21/11/2012	21/11/2011	16/02/2013	16/02/2012
SER 2	ESVS 30 VULB 9168 S10162-B KK-EF393-21N-16 NW-2000-NB	02-02/03-05-006 02-02/24-05-005 02-02/50-05-031 02-02/50-05-033 02-02/50-05-113	26/06/2013 16/03/2013	26/06/2012 16/03/2012	16/09/2012	16/03/2012

FCC ID: YMQ-8066000

## 7 Attachment A

### 7.1 Photo documentation of the EUT – external photos



FCC ID: YMQ-8066000



FCC ID: YMQ-8066000



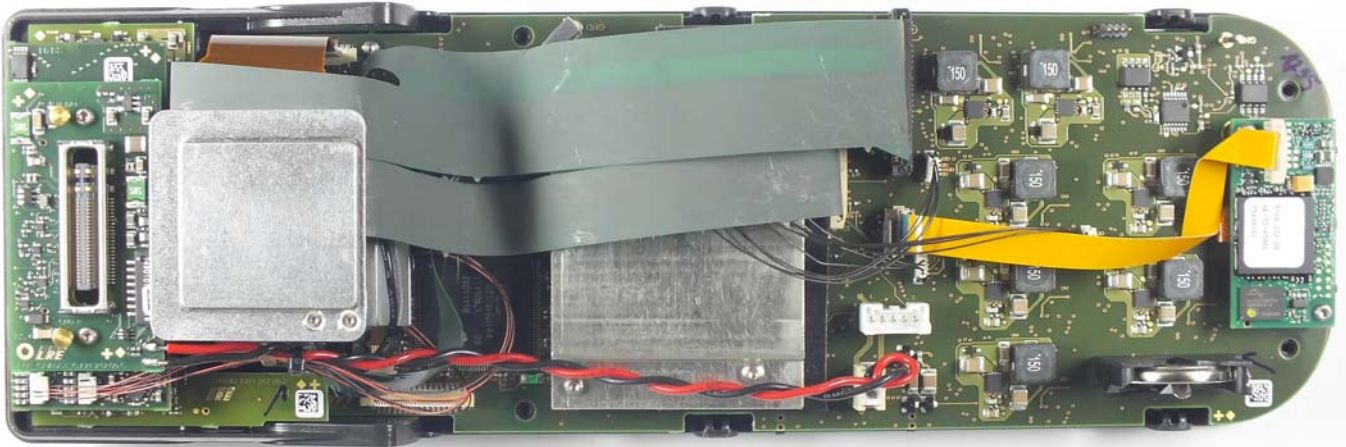


FCC ID: YMQ-8066000

## 7.2 Photo documentation of the EUT – internal photos

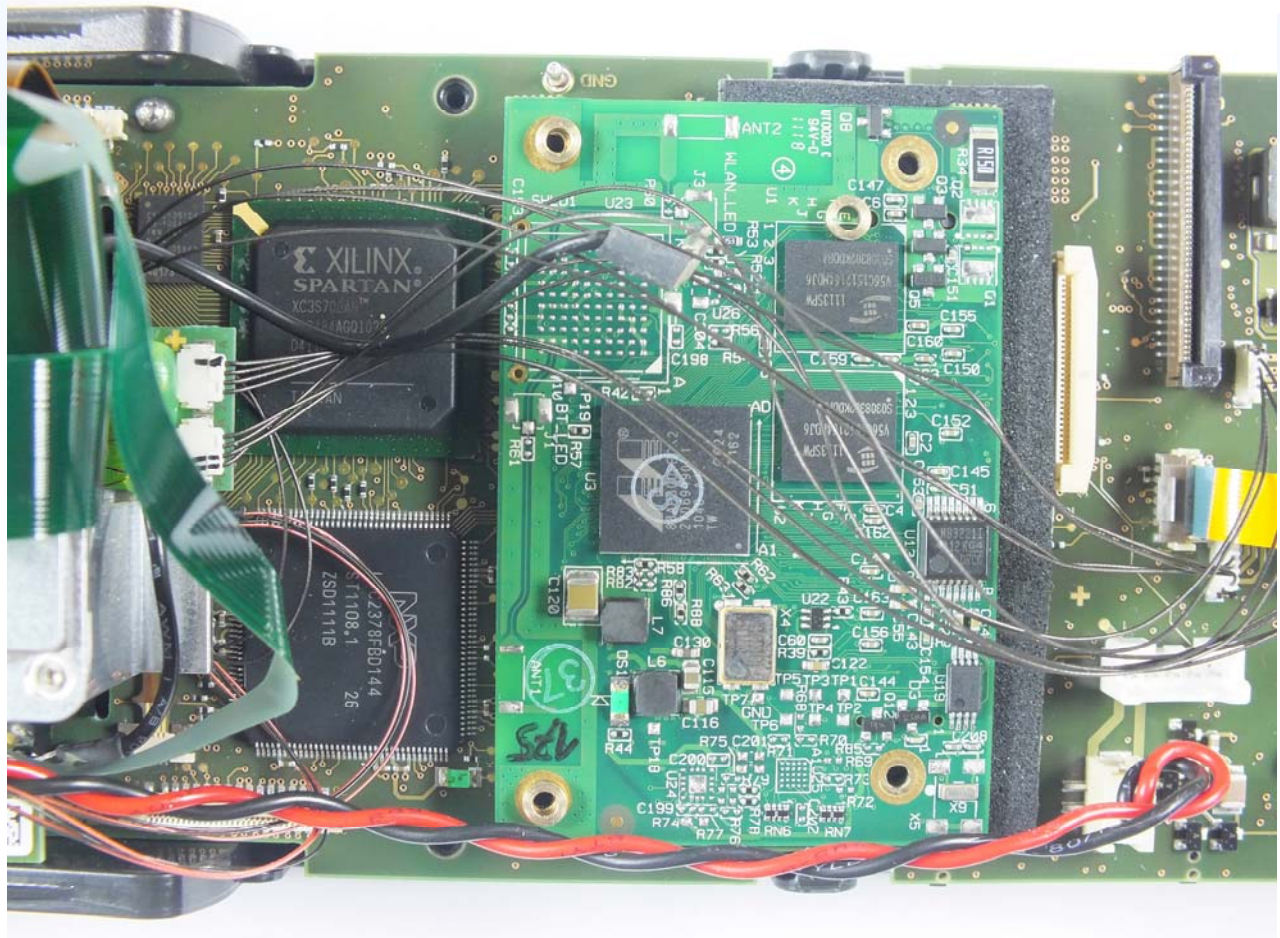
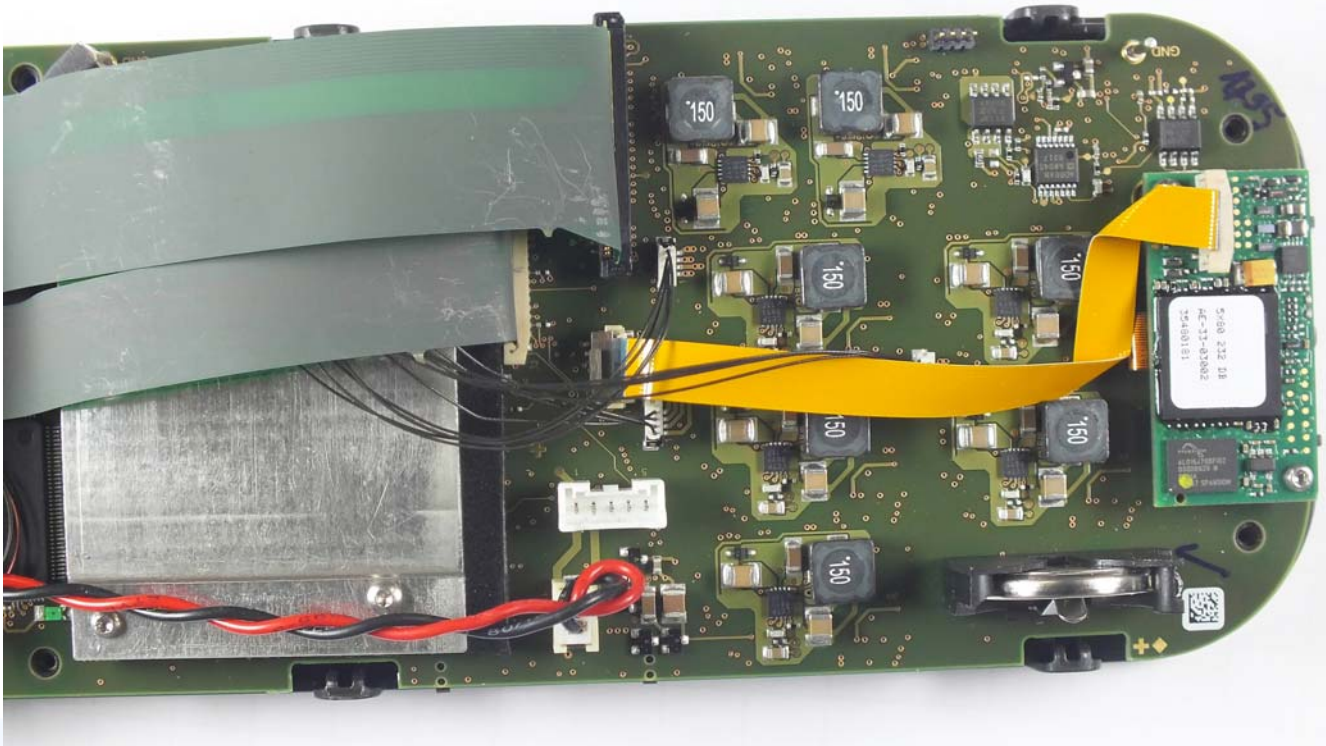


FCC ID: YMQ-8066000



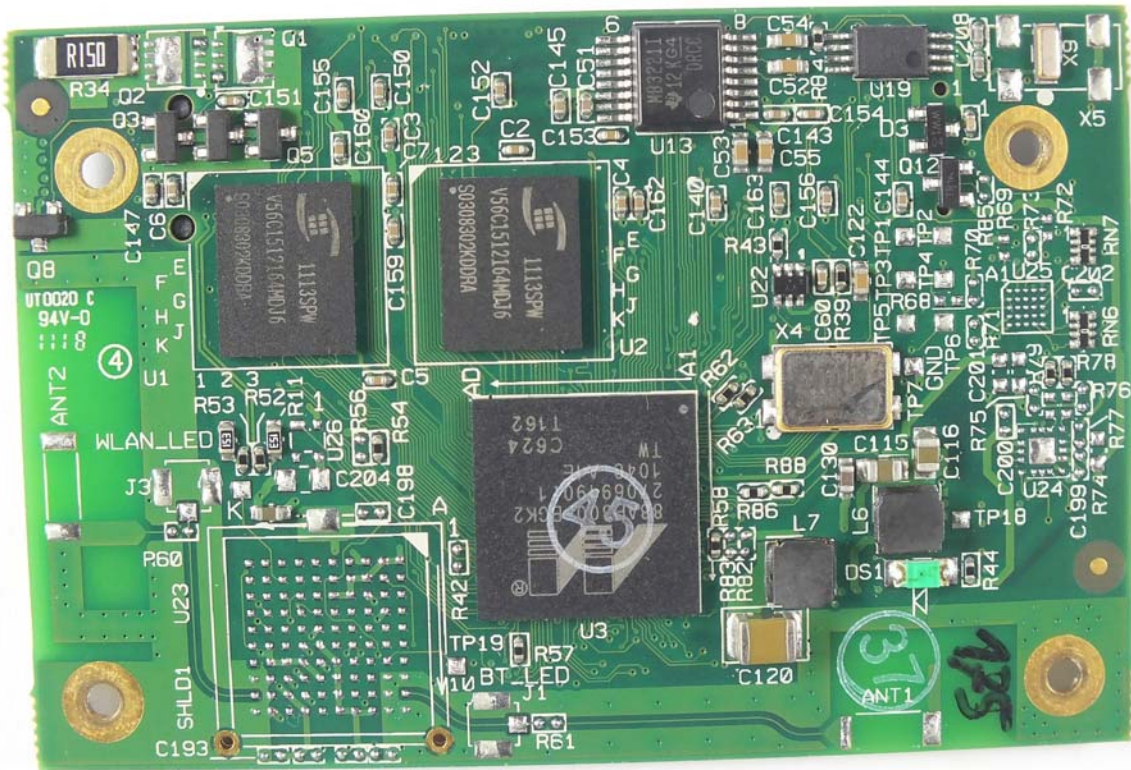


FCC ID: YMQ-8066000



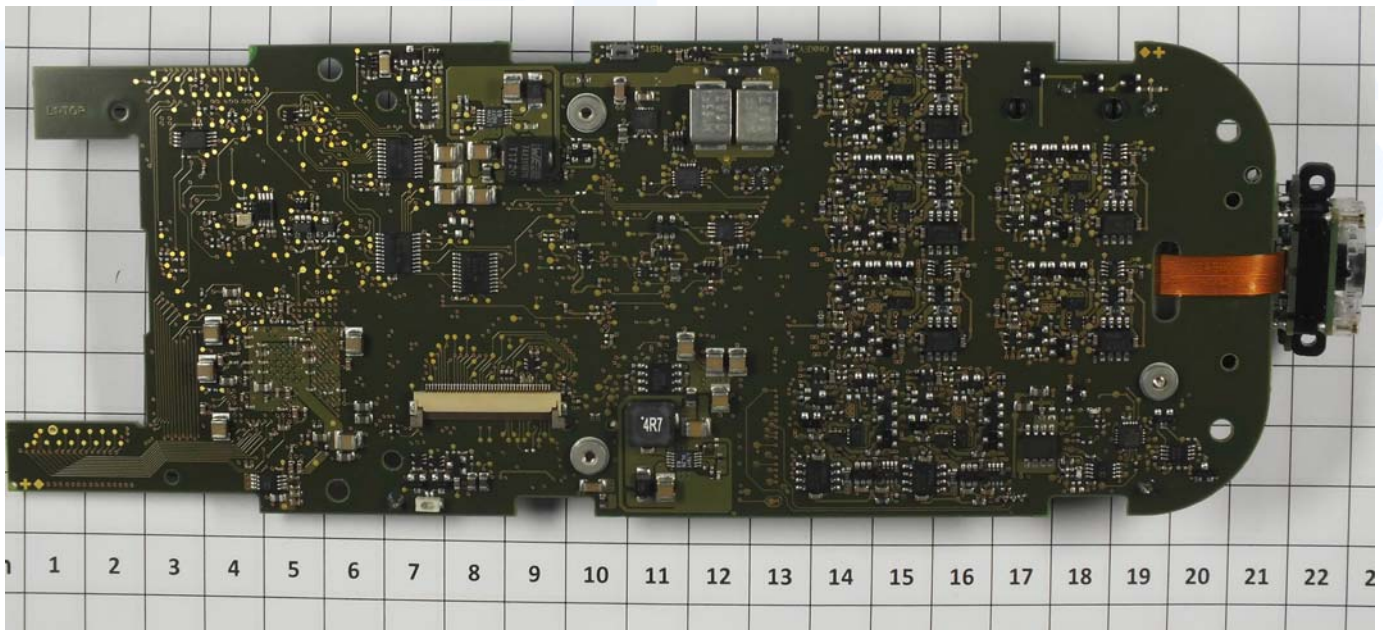
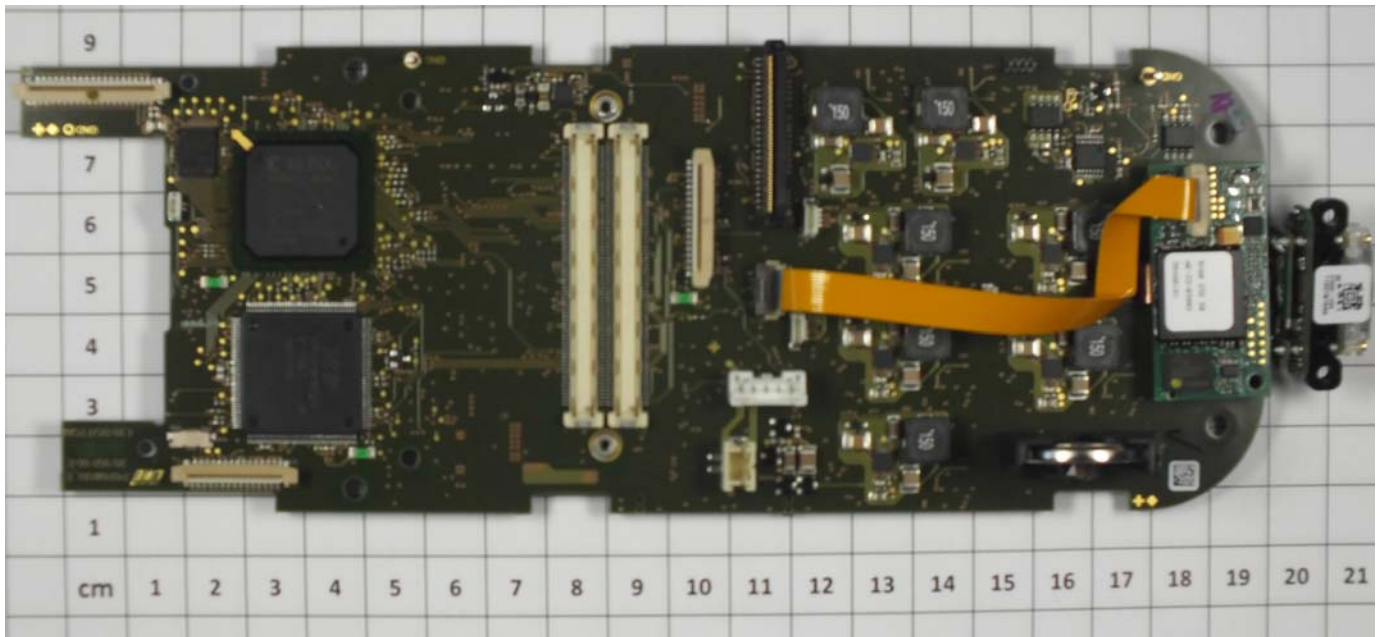


FCC ID: YMQ-8066000

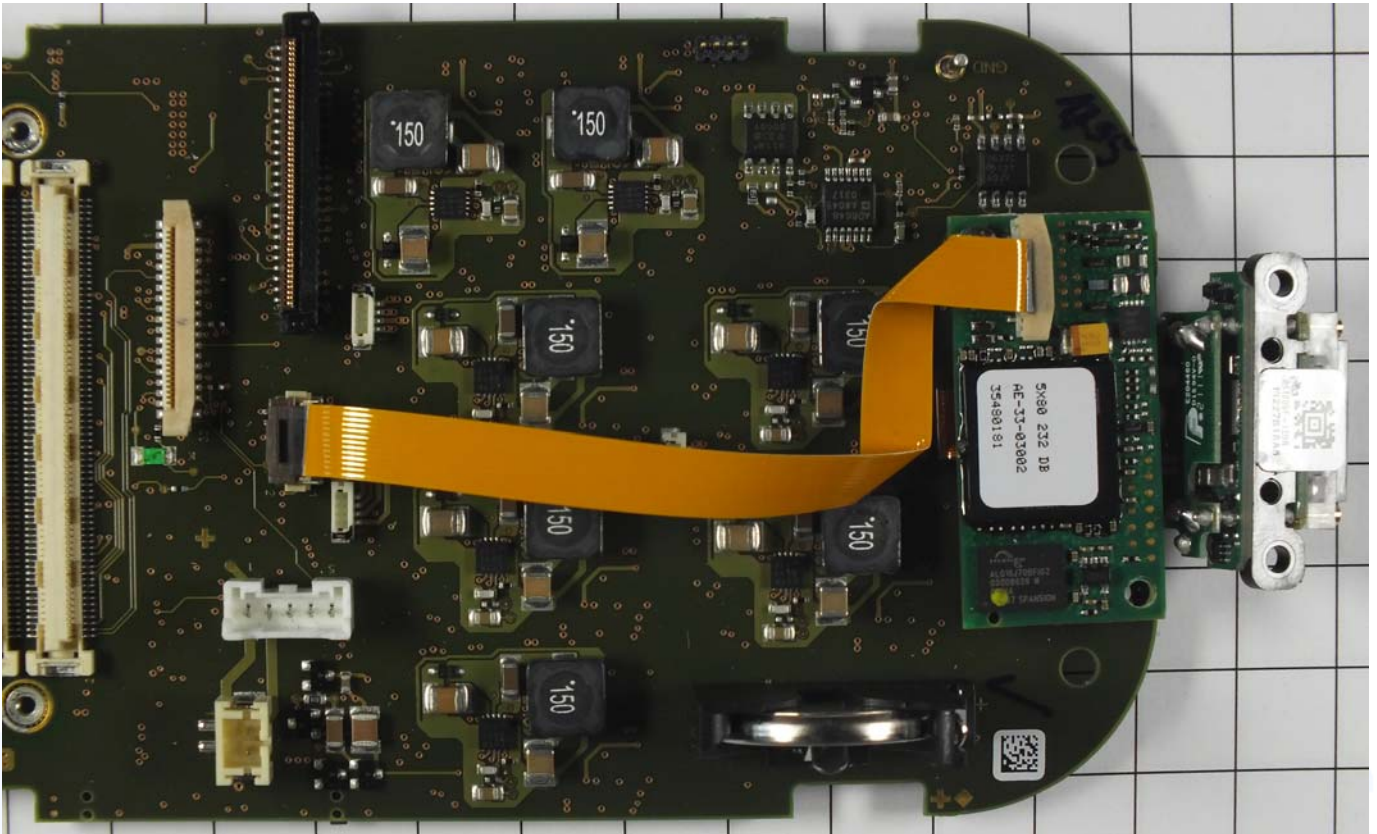




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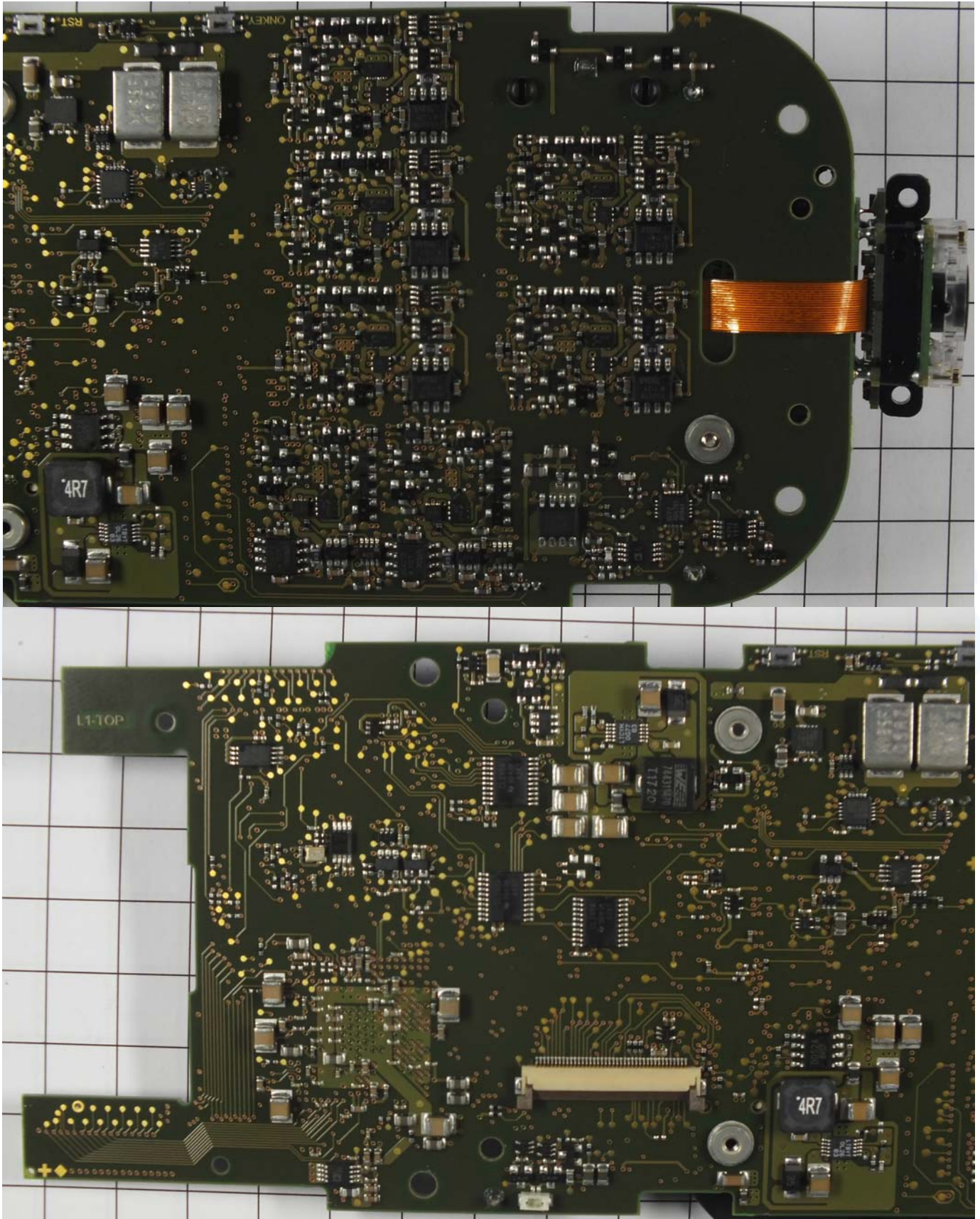


FCC ID: YMQ-8066000

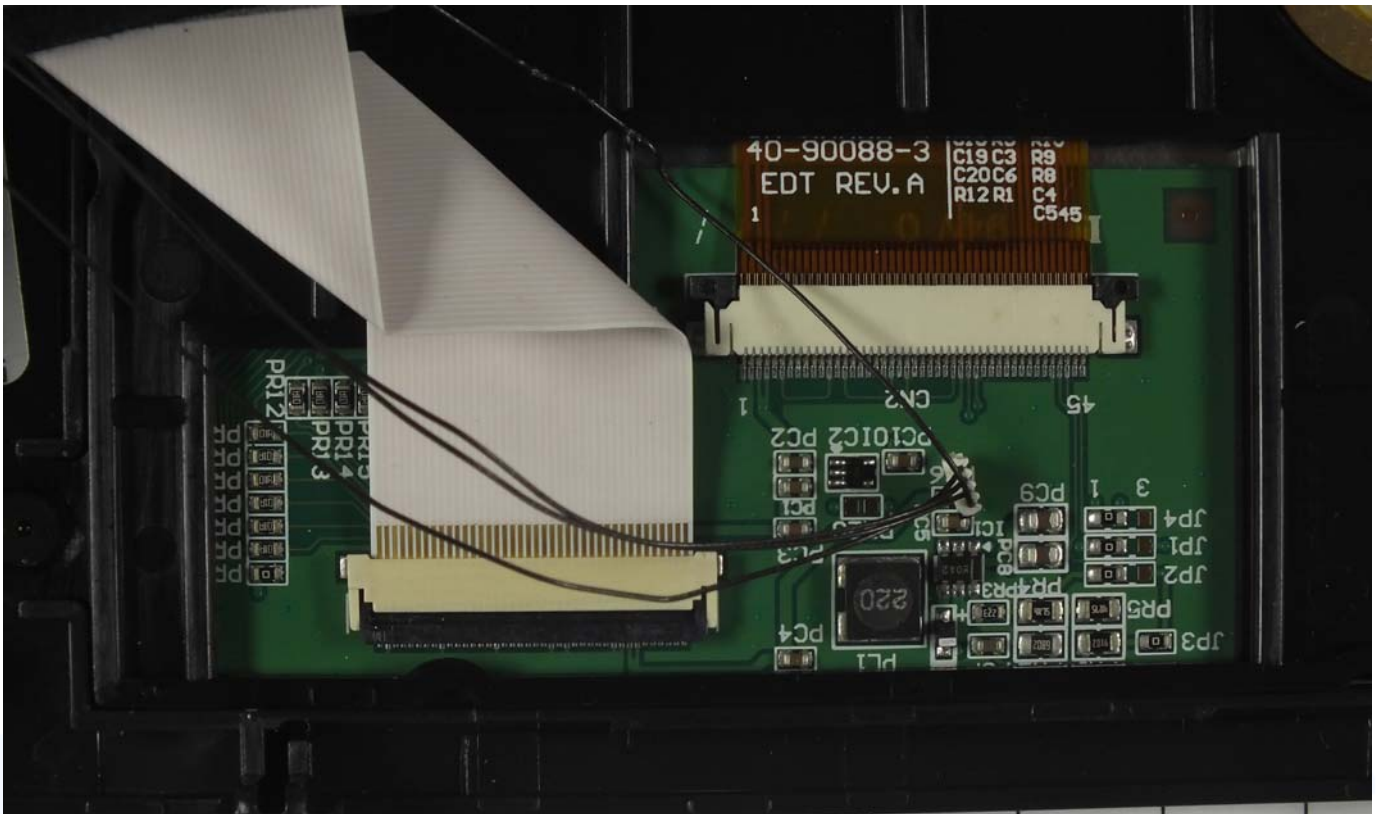




FCC ID: YMQ-8066000

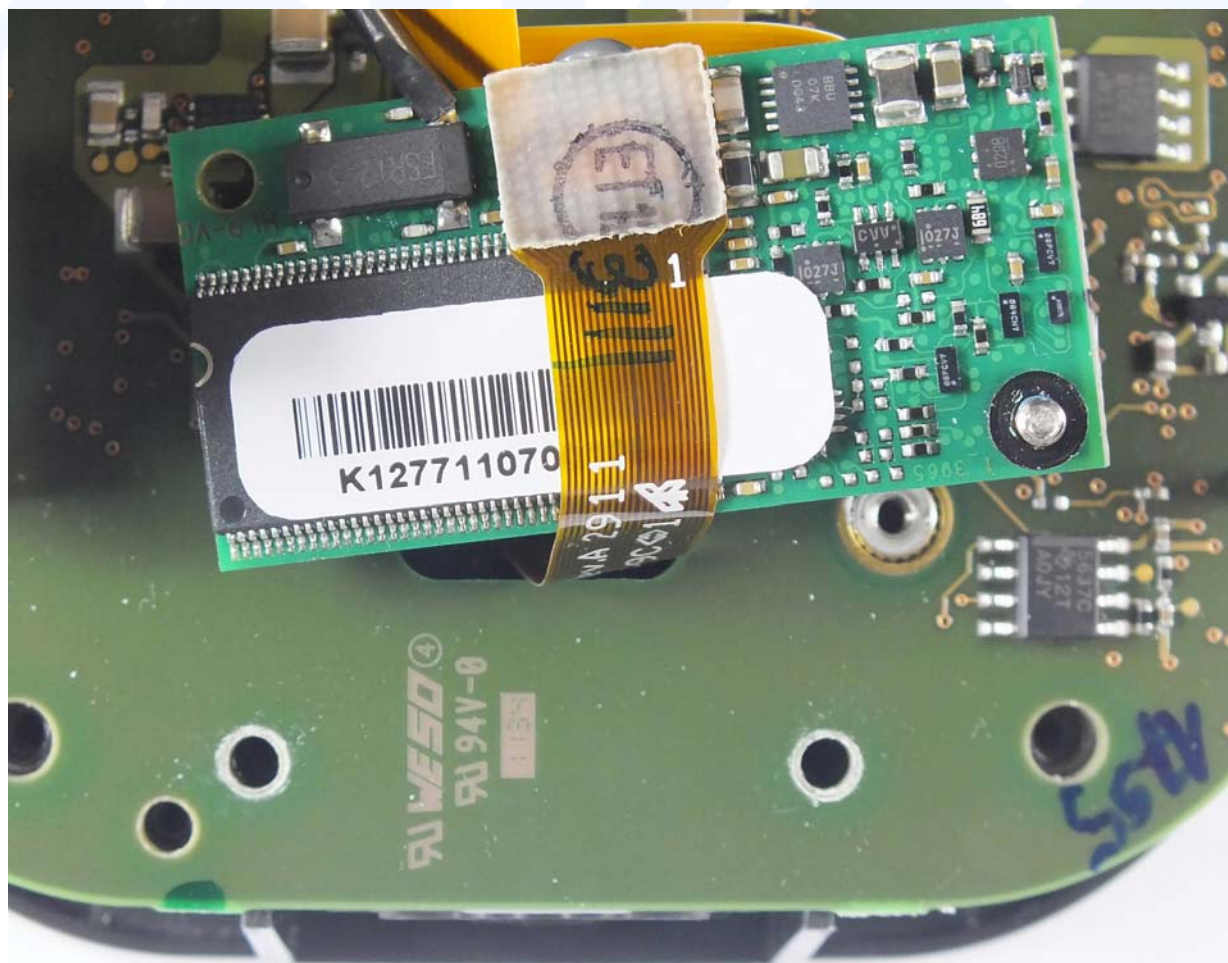


FCC ID: YMQ-8066000





FCC ID: YMQ-8066000



FCC ID: YMQ-8066000

