

Annex 1: Measurement diagrams to  
**T E S T R E P O R T**  
 No.: 18-1-0050701T05a

According to:

**FCC Regulations**  
 Part 15.107  
 Part 15.109

**ISED Regulations**  
 ICES-003, Issue 6  
 RSS-Gen, Issue 4

for







Datalogic S.r.l.

**JOYA TOUCH A6**  
 Type: A00AN04HLXGT0AN

FCC ID: U4GJTADG

IC ID: 3862E-JTADG

PMN: JOYA TOUCH A6 | HVIN: JTADG GUN, JTADG HH  
 | FVIN: Not Applicable

Laboratory Accreditation and Listings			
 <b>DAkKS</b> Deutsche Akkreditierungsstelle D-PL-12047-01-01	 FEDERAL COMMUNICATIONS COMMISSION <b>FC</b> • U S A • MRA US-EU 0003	 Industry Canada Reg. No.: 3462D-2 Reg. No.: 3462D-3	 Voluntary Controls for Electromagnetic Emissions Reg. No.: R-2666 C-2914, T-1967, G-301
 <b>WiFi</b> ALLIANCE AUTHORIZED RF LABORATORY	 <b>ctia</b> Authorized <sup>TM</sup> Test Lab Lab Code: 20011130-00		
accredited according to DIN EN ISO/IEC 17025			
<p align="center"><b>CETECOM GmbH</b>            Laboratory Radio Communications &amp; Electromagnetic Compatibility            Im Teelbruch 116 • 45219 Essen • Germany            Registered in Essen, Germany, Reg. No.: HRB Essen 8984            Tel.: + 49 (0) 20 54 / 95 19-954 • Fax: + 49 (0) 20 54 / 95 19-964            E-mail: info@cetecom.com • Internet: www.cetecom.com</p>			

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# 1. Radiated Field Strength Measurements

## 1.1. Conducted Emissions on AC-Power lines – 150kHz to 30 MHz

### Diagram No.: 1.01 Mode 1

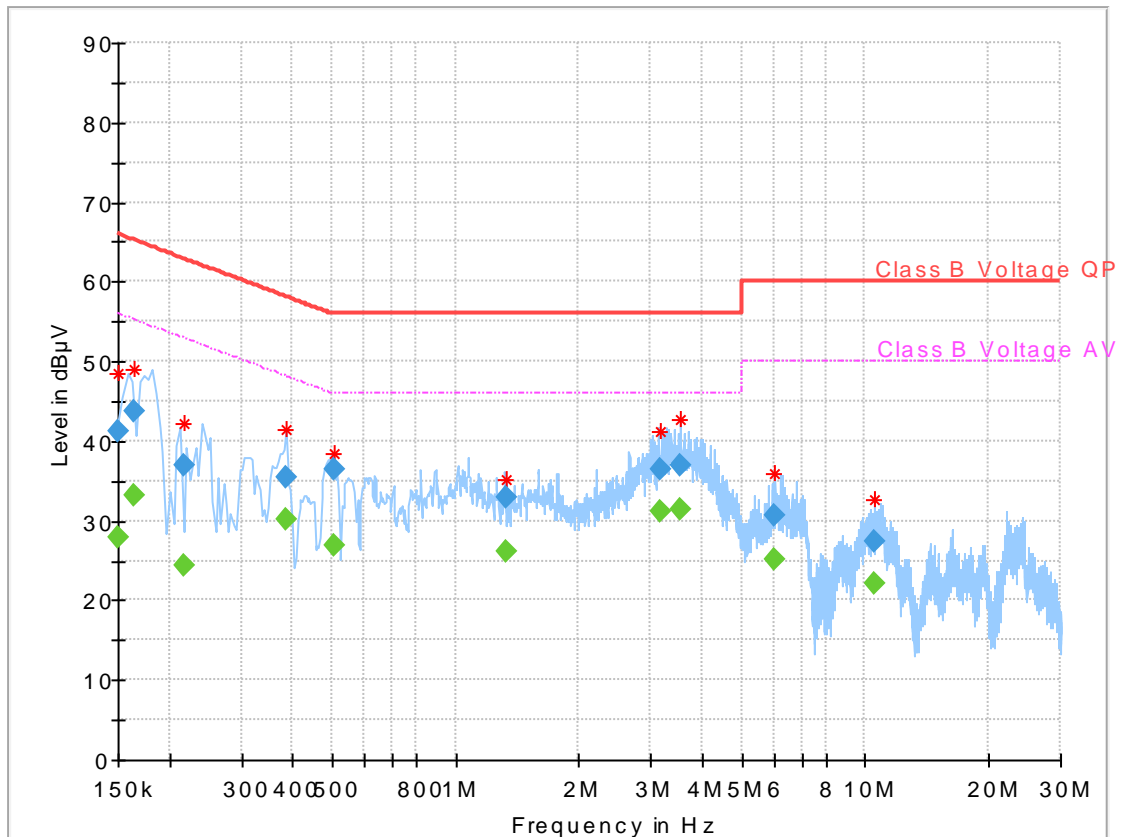
#### Common Information

Test Description:	Conducted Voltage Measurement Class B
Test Site & Location:	Conducted Emission, CETECOM GmbH Essen
Test Software:	R&S EMC32 v9.15
Test Specification:	FCC 15.109 Class B   RSS-Gen. Issue 4   ICES-003 Issue 6 Class B
Operating Mode:	Mode 1
Measured on line:	N/L1
Diagram details:	Shows the peak values as a sum of measured ports in maxhold mode
Environmental Conditions:	Humidity: 47%rH; Temperature: 21°C
Operator:	HEI
Comments:	

#### EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH A6
P/N:	911350080
S/N:	G18D03796
HW Version:	Beta
SW Version:	Andoriod 6.0.1
Firmware Version:1.26	1.26
Input:	120CAC/60Hz over Charger

Full Spectrum



**Final Result**

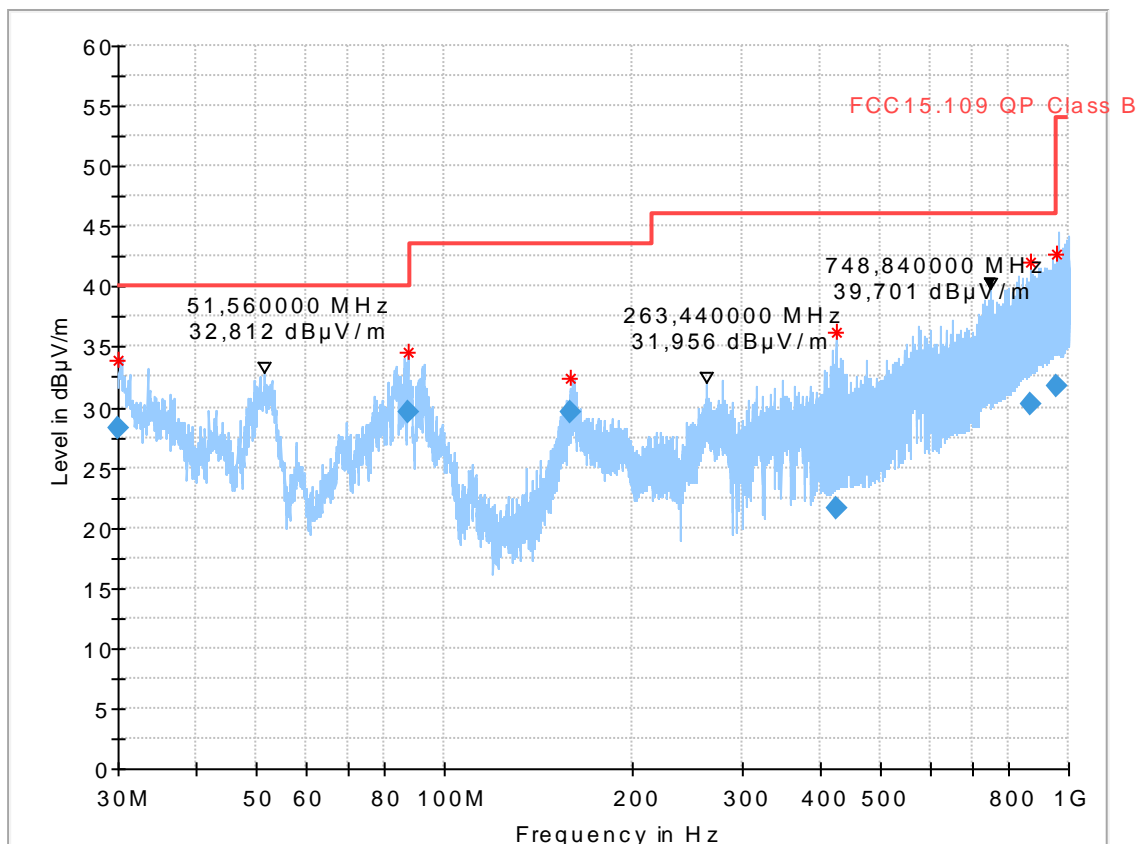
Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	PE	Corr. (dB)
0.150000	---	27.96	56.00	28.04	1000.0	9.000	L1	GN	0.1
0.150000	41.19	---	66.00	24.81	1000.0	9.000	L1	GN	0.1
0.163750	43.86	---	65.27	21.41	1000.0	9.000	N	GN	0.1
0.163750	---	33.31	55.27	21.96	1000.0	9.000	N	GN	0.1
0.217344	37.00	---	62.92	25.92	1000.0	9.000	L1	GN	0.1
0.217344	---	24.28	52.92	28.64	1000.0	9.000	L1	GN	0.1
0.386875	---	30.21	48.13	17.92	1000.0	9.000	L1	GN	0.1
0.386875	35.47	---	58.13	22.66	1000.0	9.000	L1	GN	0.1
0.505156	36.41	---	56.00	19.59	1000.0	9.000	L1	GN	0.1
0.505156	---	26.87	46.00	19.13	1000.0	9.000	L1	GN	0.1
1.331094	---	26.16	46.00	19.84	1000.0	9.000	L1	GN	0.3
1.331094	32.99	---	56.00	23.01	1000.0	9.000	L1	GN	0.3
3.178750	36.50	---	56.00	19.50	1000.0	9.000	N	GN	0.4
3.178750	---	31.29	46.00	14.71	1000.0	9.000	N	GN	0.4
3.550938	36.87	---	56.00	19.13	1000.0	9.000	L1	GN	0.3
3.550938	---	31.41	46.00	14.59	1000.0	9.000	L1	GN	0.3
6.024219	30.69	---	60.00	29.31	1000.0	9.000	L1	GN	0.4
6.024219	---	25.06	50.00	24.94	1000.0	9.000	L1	GN	0.4
10.547031	---	22.17	50.00	27.83	1000.0	9.000	N	GN	0.4
10.547031	27.34	---	60.00	32.66	1000.0	9.000	N	GN	0.4

## 1.2. Radiated Field Strength Emissions – 30 MHz to 1 GHz Diagram No. 3.01\_Mode1\_laynig

Date: 12.06.2017	Page 1 of 1
Test description:	Electric Field Strength Measurement
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3m measurement distance
Version of Testsoftware:	EMC32 V9.25.0
Distance correction:	not used
Technical Data:	Please see page 2 for detailed data of measurement setup
Used filter:	not used
Test specification:	FCC15.109, class B; RSS-Gen.: Issue 4
Operator:	Klv
Operating conditions:	Mode1
Power during tests:	120 V AC

### EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH A6
P/N:	911350080
S/N:	G18D03796
HW Version:	Beta
SW Version:	Andoriod 6.0.1
Firmware Version:1.26	1.26
Input:	120CAC/60Hz over Charger



**Final Result**

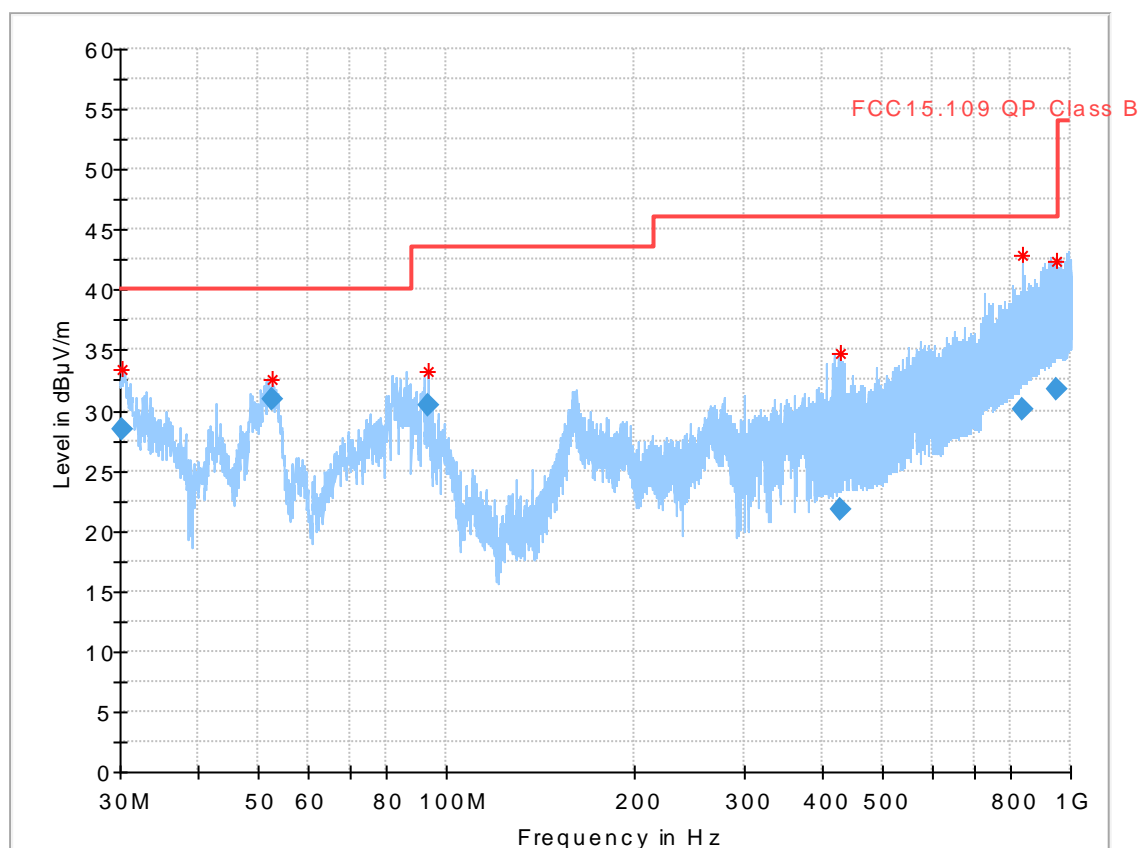
Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.010000	28.24	40.00	11.76	1000.0	120.000	138.0	H	169.0	21.5
87.680000	29.51	40.00	10.49	1000.0	120.000	218.0	H	218.0	8.1
159.100000	29.54	43.50	13.96	1000.0	120.000	114.0	H	269.0	9.2
423.580000	21.53	46.00	24.47	1000.0	120.000	360.0	V	277.0	19.1
867.870000	30.25	46.00	15.75	1000.0	120.000	137.0	H	29.0	26.1
954.420000	31.79	46.00	14.21	1000.0	120.000	338.0	H	235.0	27.2

## Diagram No. 3.01\_Mode1\_standing

Date:	12.06.2017	Page 1 of 1
Test description:	Electric Field Strength Measurement	
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3m measurement distance	
Version of Testsoftware:	EMC32 V9.25.0	
Distance correction:	not used	
Technical Data:	Please see page 2 for detailed data of measurement setup	
Used filter:	not used	
Test specification:	FCC15.109, class B; RSS-Gen.: Issue 4	
Operator:	Klv	
Operating conditions:	Mode1	
Power during tests:	120 V AC	

### EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH A6
P/N:	911350080
S/N:	G18D03796
HW Version:	Beta
SW Version:	Andoriod 6.0.1
Firmware Version:1.26	1.26
Input:	120CAC/60Hz over Charger



**Final Result**

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.130000	28.39	40.00	11.61	1000.0	120.000	157.0	H	162.0	21.5
52.420000	30.89	40.00	9.11	1000.0	120.000	105.0	V	5.0	12.1
93.240000	30.40	43.50	13.10	1000.0	120.000	198.0	H	248.0	8.3
427.840000	21.80	46.00	24.20	1000.0	120.000	329.0	V	0.0	19.2
837.820000	30.07	46.00	15.93	1000.0	120.000	291.0	V	131.0	26.1
948.020000	31.73	46.00	14.27	1000.0	120.000	242.0	V	357.0	27.2



## Diagram No. 3.02\_Mode2\_ laynig

Test description: Electric Field Strength Measurement  
Test site and distance: Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance  
Version of Testsoftware: EMC32 V9.25.0  
Distance correction: not used  
Used filter: not used  
Technical Data: please see page 2 for detailed data of measurement setup  
Test specification.: FCC 15.109 Class B; RSS-Gen. Issue 4  
Operator: HEI  
Operating conditions: Mode2  
Power during tests: batterie  
Comment 1: EUT Laying  
Sample Nr:1

### EUT Information

Manufacturer: Datalogic ADCL S.r.l.  
MODEL: JOYA TOUCH A6  
P/N: 911350080  
S/N: G18D03796  
HW Version: Beta  
SW Version: Andoriod 6.0.1  
Firmware Version:1.26

### Final\_Result

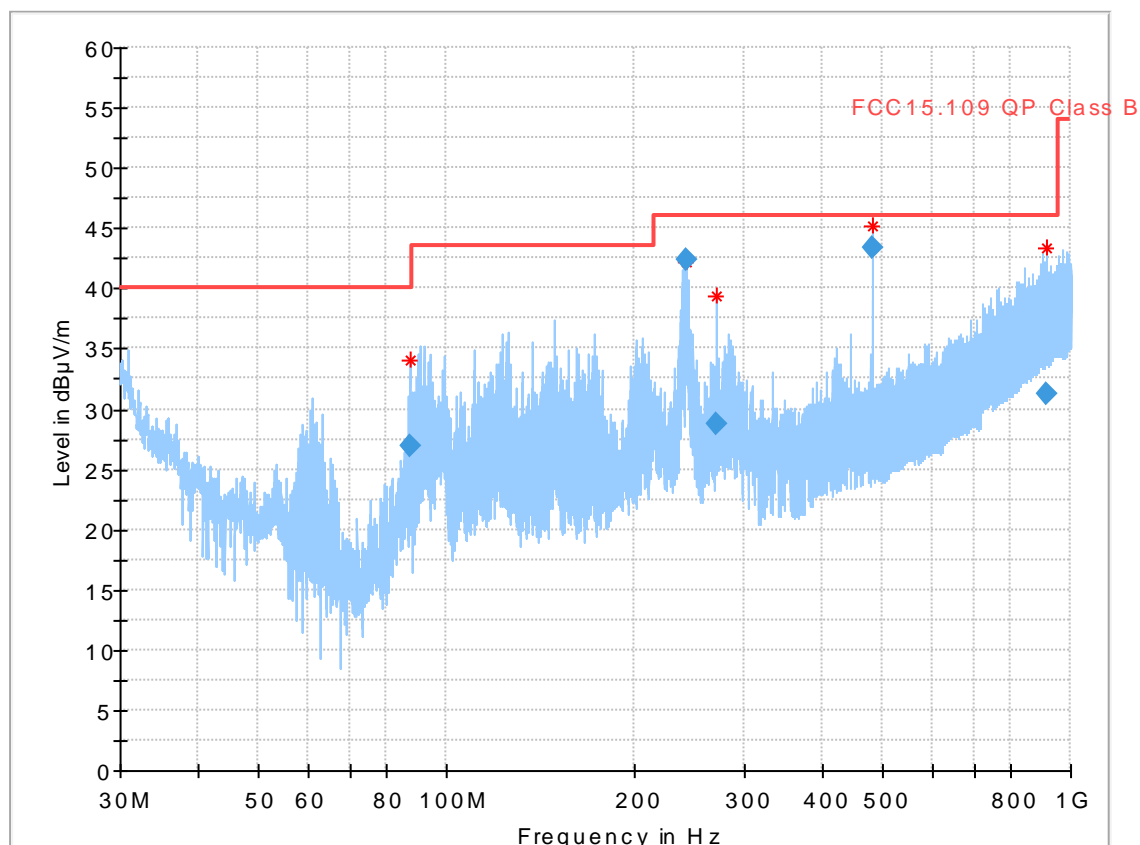
Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
123.250000	28.80	43.50	14.70	1000.0	120.000	257.0	H	202.0	8.1
241.950000	42.00	46.00	4.00	1000.0	120.000	114.0	H	153.0	13.1
961.160000	32.11	54.00	21.89	1000.0	120.000	110.0	V	40.0	27.5

### 3.02b\_Mode2\_standing

Test description:	30.04.2018 Page 1 of 2 Electric Field Strength Measurement
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Version of Testsoftware:	EMC32 V9.25.0
Distance correction:	not used
Used filter:	not used
Technical Data:	please see page 2 for detailed data of measurement setup
Test specification.:	FCC 15.109 Class B; RSS-Gen. Issue 4
Operator:	HEI
Operating conditions:	Mode2
Power during tests:	batterie

#### EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH A6
P/N:	911350080
S/N:	G18D03796
HW Version:	Beta
SW Version:	Andoriod 6.0.1
Firmware Version:1.26	1.26



**Final\_Result**

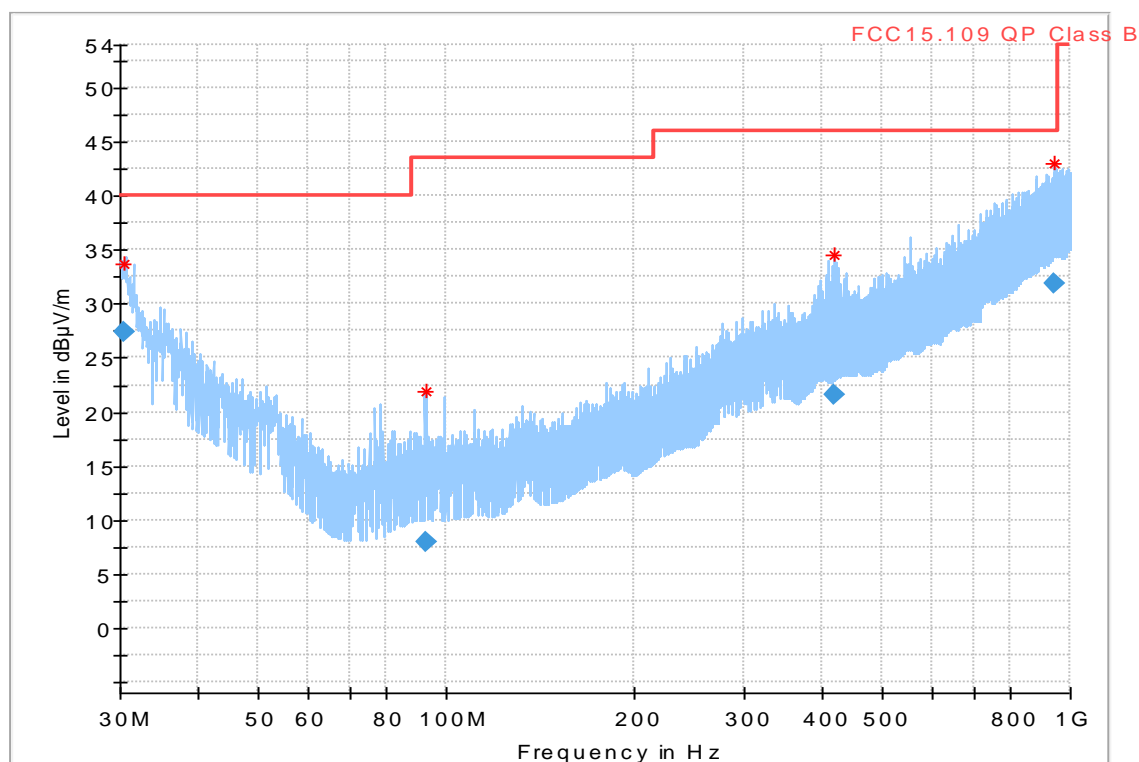
Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
87.500000	26.98	40.00	13.03	1000.0	120.000	264.0	H	188.0	8.1
241.560000	42.40	46.00	3.60	1000.0	120.000	122.0	H	156.0	13.1
270.160000	28.71	46.00	17.29	1000.0	120.000	137.0	H	169.0	14.6
480.030000	43.31	46.00	2.69	1000.0	120.000	188.0	H	120.0	19.2
913.290000	31.17	46.00	14.83	1000.0	120.000	281.0	V	320.0	26.8

### 3.03\_Mode3\_liegend

Test description:	30.04.2018 Page 1 of 2 Electric Field Strength Measurement
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Version of Testsoftware:	EMC32 V9.25.0
Distance correction:	not used
Used filter:	not used
Technical Data:	please see page 2 for detailed data of measurement setup
Test specification.:	FCC 15.109 Class B; RSS-Gen. Issue 4
Operator:	HEI
Operating conditions:	Mode3
Power during tests:	batterie

#### EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH A6
P/N:	911350080
S/N:	G18D03796
HW Version:	Beta
SW Version:	Andoriod 6.0.1
Firmware Version:1.26	1.26



#### Final Result

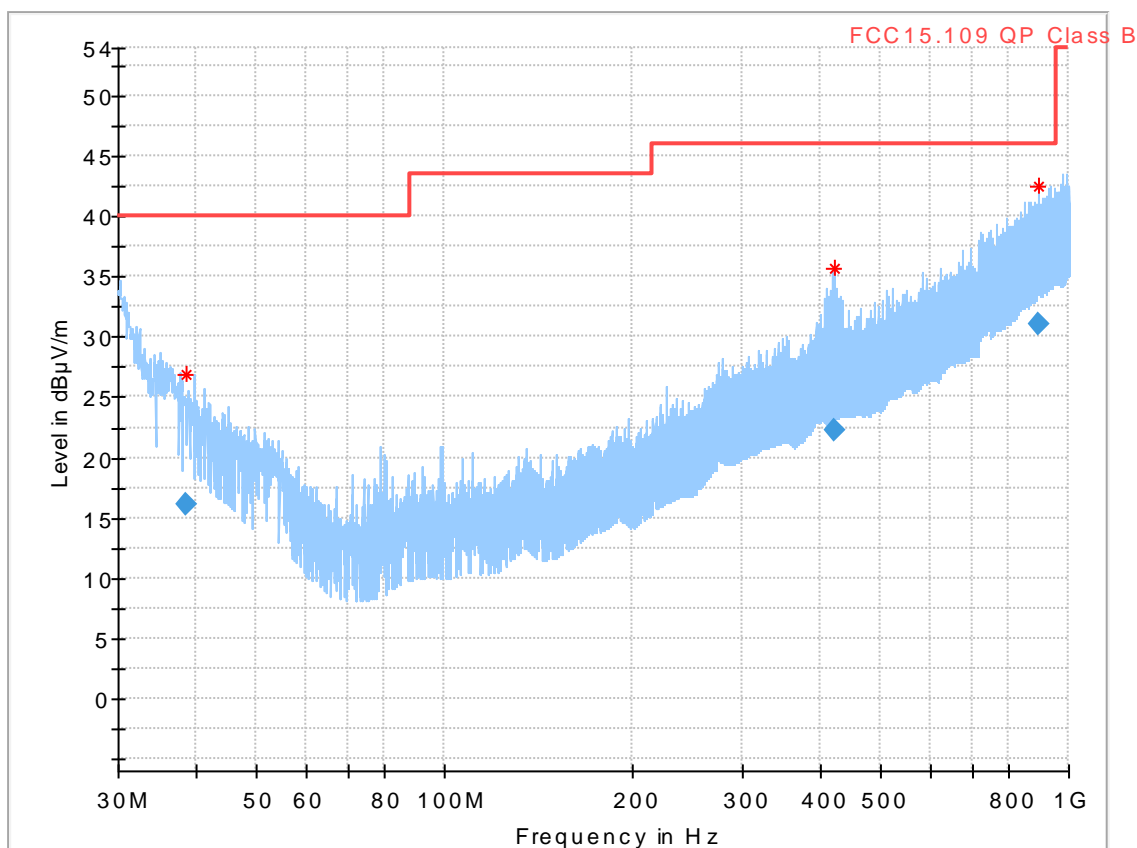
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.350000	27.44	40.00	12.56	1000.0	120.000	185.0	H	251.0	21.4
92.730000	8.01	43.50	35.49	1000.0	120.000	150.0	V	21.0	8.3
418.840000	21.66	46.00	24.34	1000.0	120.000	353.0	V	177.0	18.8
940.810000	31.91	46.00	14.09	1000.0	120.000	205.0	H	273.0	27.1

### 3.03b\_Mode3\_stehend

Test description:	30.04.2018 Page 1 of 2
Test site and distance:	Electric Field Strength Measurement
Version of Testsoftware:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Distance correction:	EMC32 V9.25.0
Used filter:	not used
Technical Data:	not used
Test specification.:	please see page 2 for detailed data of measurement setup
Operator:	FCC 15.109 Class B; RSS-Gen. Issue 4
Operating conditions:	HEI
Power during tests:	Mode3
	batterie

#### EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH A6
P/N:	911350080
S/N:	G18D03796
HW Version:	Beta
SW Version:	Andriod 6.0.1
Firmware Version:1.26	1.26



#### Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
38.620000	16.06	40.00	23.94	1000.0	120.000	232.0	H	24.0	17.7
421.630000	22.28	46.00	23.72	1000.0	120.000	351.0	V	279.0	18.9
896.670000	31.07	46.00	14.93	1000.0	120.000	156.0	H	281.0	26.8

### 1.3. Radiated Field Strength Emissions – 1 GHz to 18 GHz

#### 4.01\_Mode 1

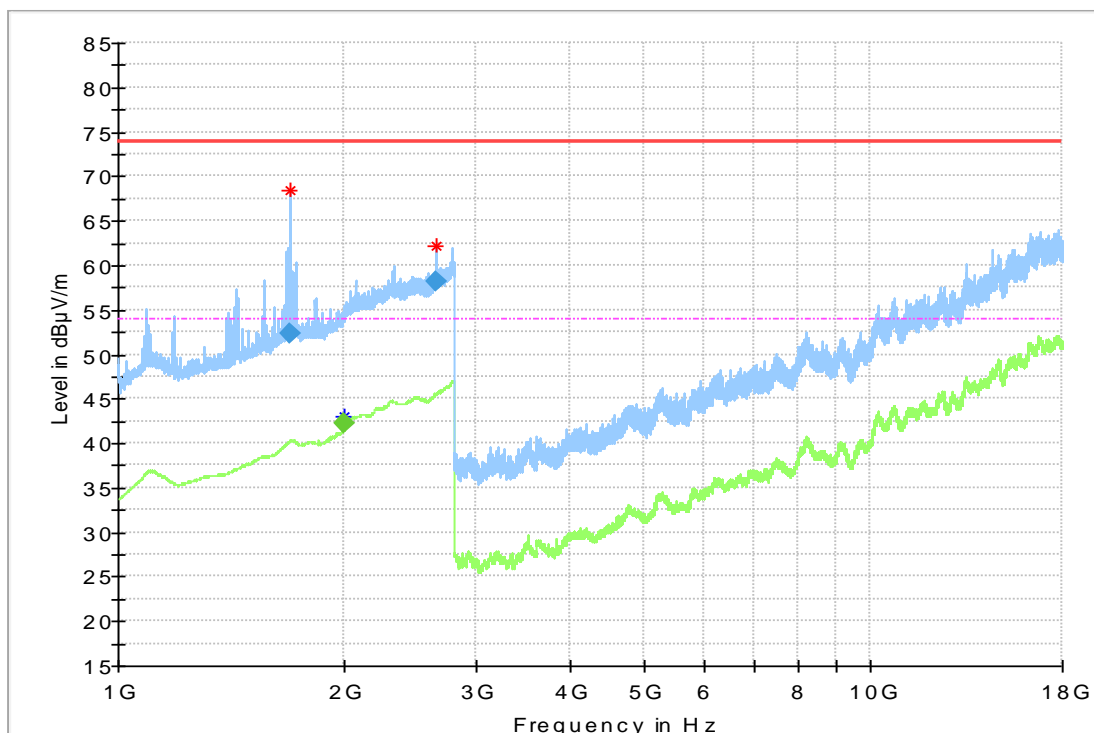
##### Common Information

Test Description:	Radiated Filed Strength Emission
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 15.109, class B / RSS-Gen., Issue 4
Operating Mode:	Mode 1_Power :120V
Equipment Class:	Class B
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	HEI

##### EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH A6
P/N:	911350080
S/N:	G18D03796
HW Version:	Beta
SW Version:	Andoriod 6.0.1
Firmware Version:1.26	1.26

Full Spectrum



##### Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margi n (dB)	Meas - Time	Bandwidt h (kHz)	Pol	Azimet h (deg)	Elevatio n (deg)	Corr - (dB)
1690.420000	52.25	---	74.00	21.75	100.0	1000.000	V	92.0	90.0	32.4
2000.220000	---	42.17	54.00	11.83	100.0	1000.000	V	329.0	0.0	33.4
2648.780000	58.22	---	74.00	15.78	100.0	1000.000	V	105.0	90.0	36.9

## 4.02\_Mode 2

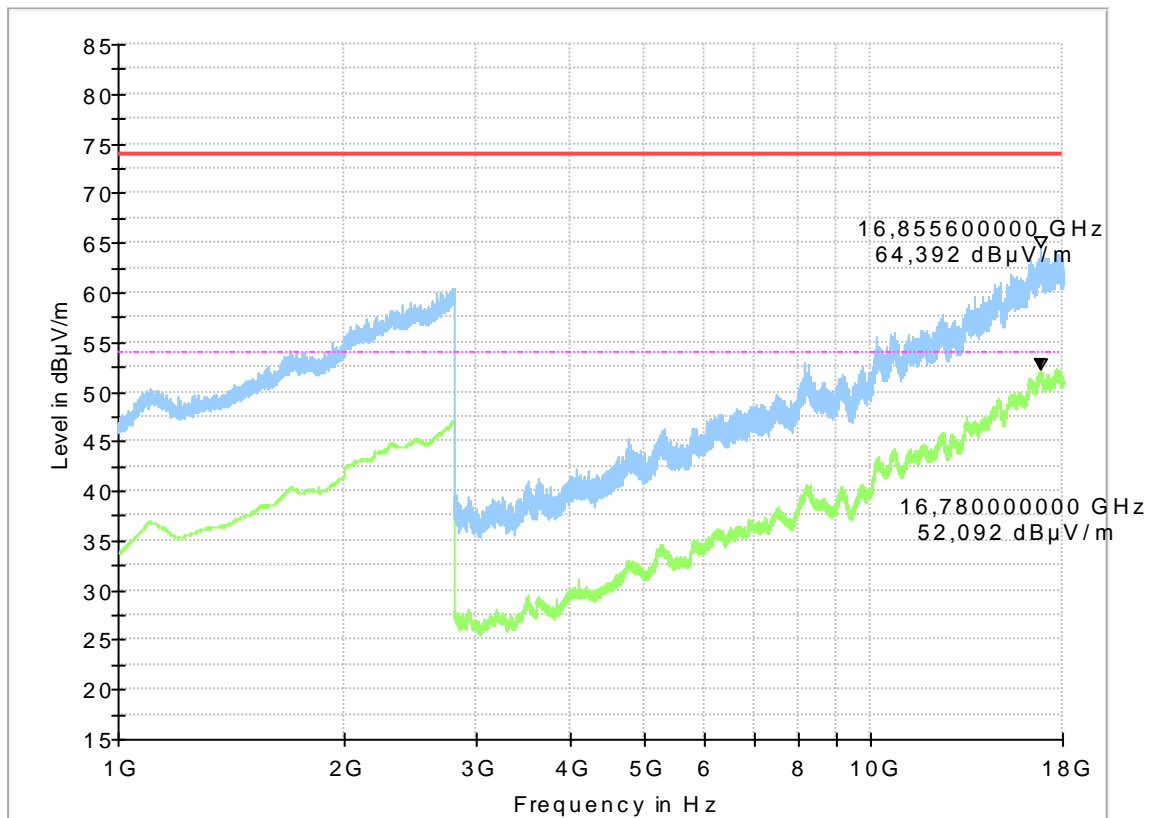
### Common Information

Test Description:	Radiated Filed Strength Emission
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 15.109, class B / RSS-Gen., Issue 4
Operating Mode:	Mode2_Power :batteriei
Equipment Class:	Class B
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	HEI

### EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH A6
P/N:	911350080
S/N:	G18D03796
HW Version:	Beta
SW Version:	Andoriod 6.0.1
Firmware Version:1.26	1.26

Full Spectrum



### 4.03\_Mode 3

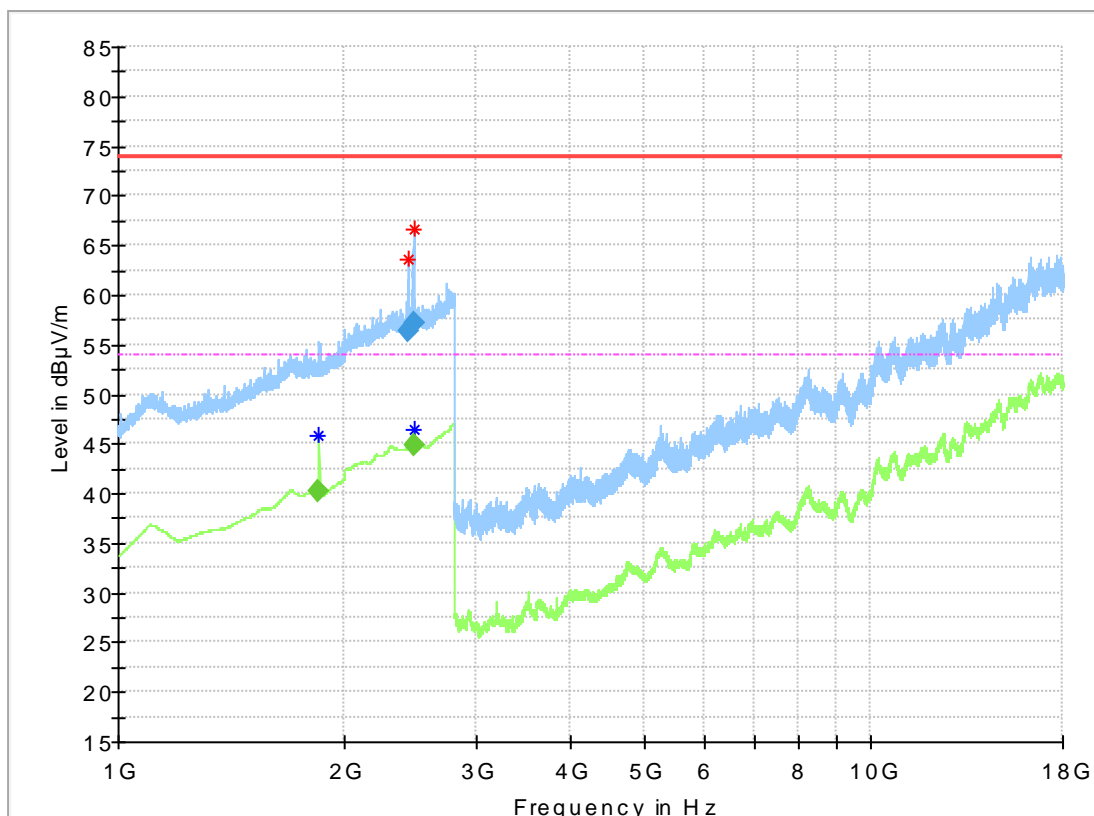
#### Common Information

Test Description:	Radiated Filed Strength Emission
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 15.109, class B / RSS-Gen., Issue 4
Operating Mode:	Mode3_Power :batteriei
Equipment Class:	Class B
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	HEI

#### EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH A6
P/N:	911350080
S/N:	G18D03796
HW Version:	Beta
SW Version:	Andoriod 6.0.1
Firmware Version:1.26	1.26

Full Spectrum



#### Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margi n (dB)	Meas - Time	Bandwid th (kHz)	Pol	Azimet h (deg)	Elevatio n (deg)	Corr - (dB)
2426.180000	56.45	---	74.00	17.55	100.0	1000.000	H	201.0	90.0	35.6
2470.900000	57.19	---	74.00	16.81	100.0	1000.000	H	84.0	90.0	35.9
1850.180000	---	40.16	54.00	13.84	100.0	1000.000	H	66.0	90.0	32.3
2469.180000	---	44.80	54.00	9.20	100.0	1000.000	H	88.0	90.0	35.9



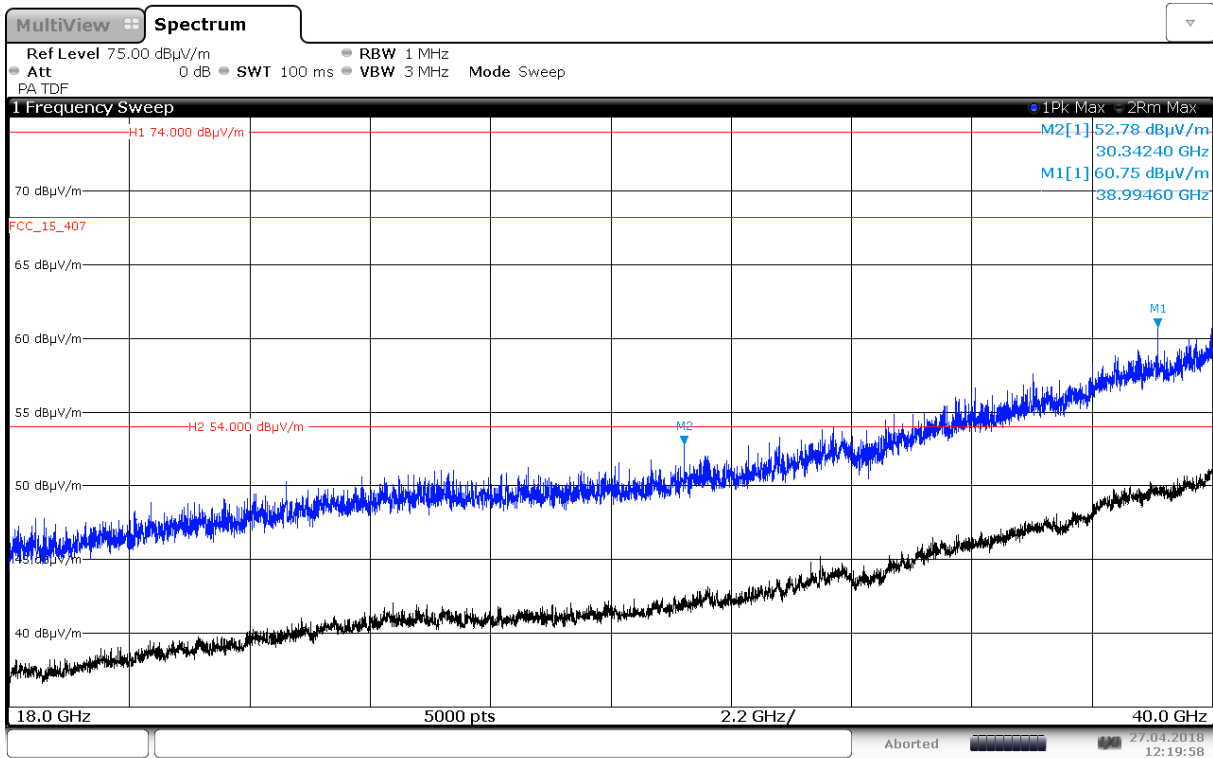
### 1.4. Radiated Field Strength Emissions – 18 GHz to 40 GHz Diagram No.: 4.01a Mode 3

#### Common Information

Test Description:	Radiated field strength emission in 1m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC15.109, Class B   RSS-Gen. Issue 4   ICES-003 Issue 6 Class B
Antenna polarisation:	horizontal/vertical
Distance correction factor	3 to 1m: -10.5 dB applying to measurement results
Operation mode:	TX mode continuous
Operator Name:	TFR
Operating conditions:	Mode 1

#### EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH A6
P/N:	911350080
S/N:	G18D03796
HW Version:	Beta
SW Version:	Andoriod 6.0.1
Firmware Version:1.26	1.26



12:19:58 27.04.2018

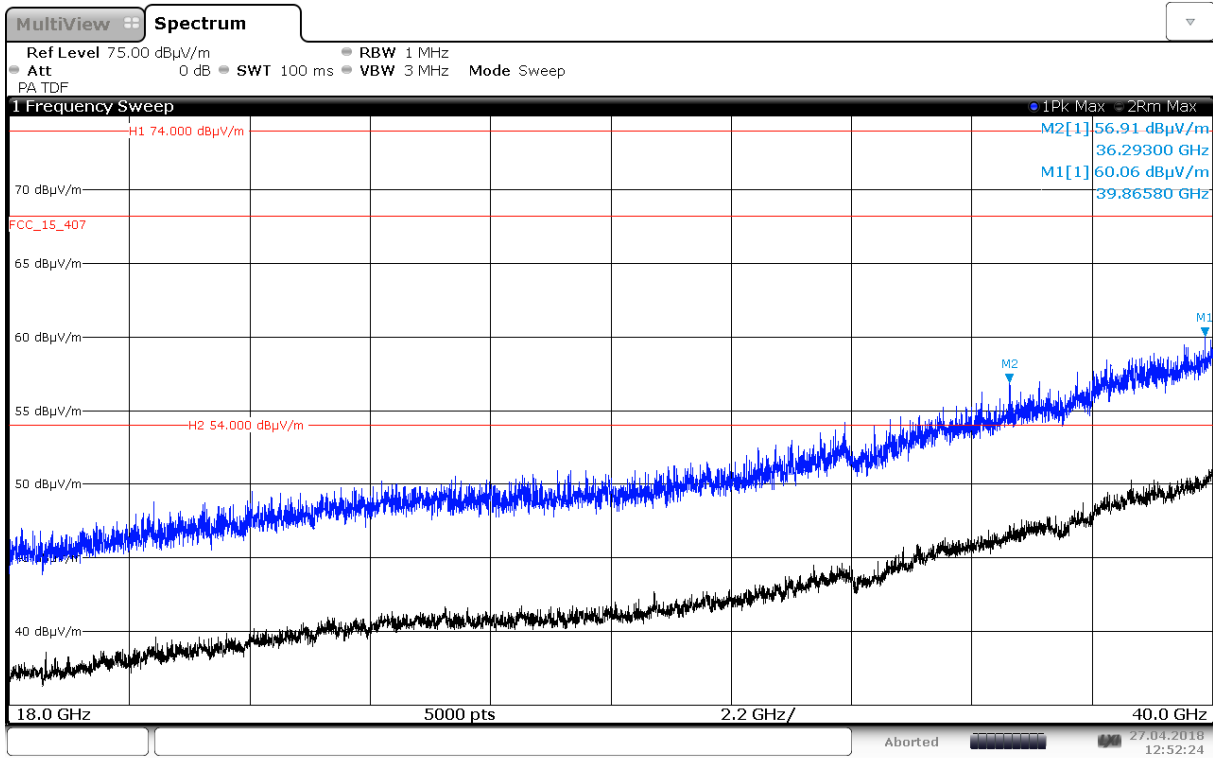
### Diagram No.: 4.02a Mode 1

#### Common Information

Test Description:	Radiated field strength emission in 1m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC15.109, Class B   RSS-Gen. Issue 4   ICES-003 Issue 6 Class B
Antenna polarisation:	horizontal/vertical
Distance correction factor:	3 to 1m: -10.5 dB applying to measurement results
Operation mode:	TX mode continuous
Operator Name:	TFr
Operating conditions:	mode 2

#### EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH A6
P/N:	911350080
S/N:	G18D03796
HW Version:	Beta
SW Version:	Andoriod 6.0.1
Firmware Version:1.26	1.26



12:52:24 27.04.2018

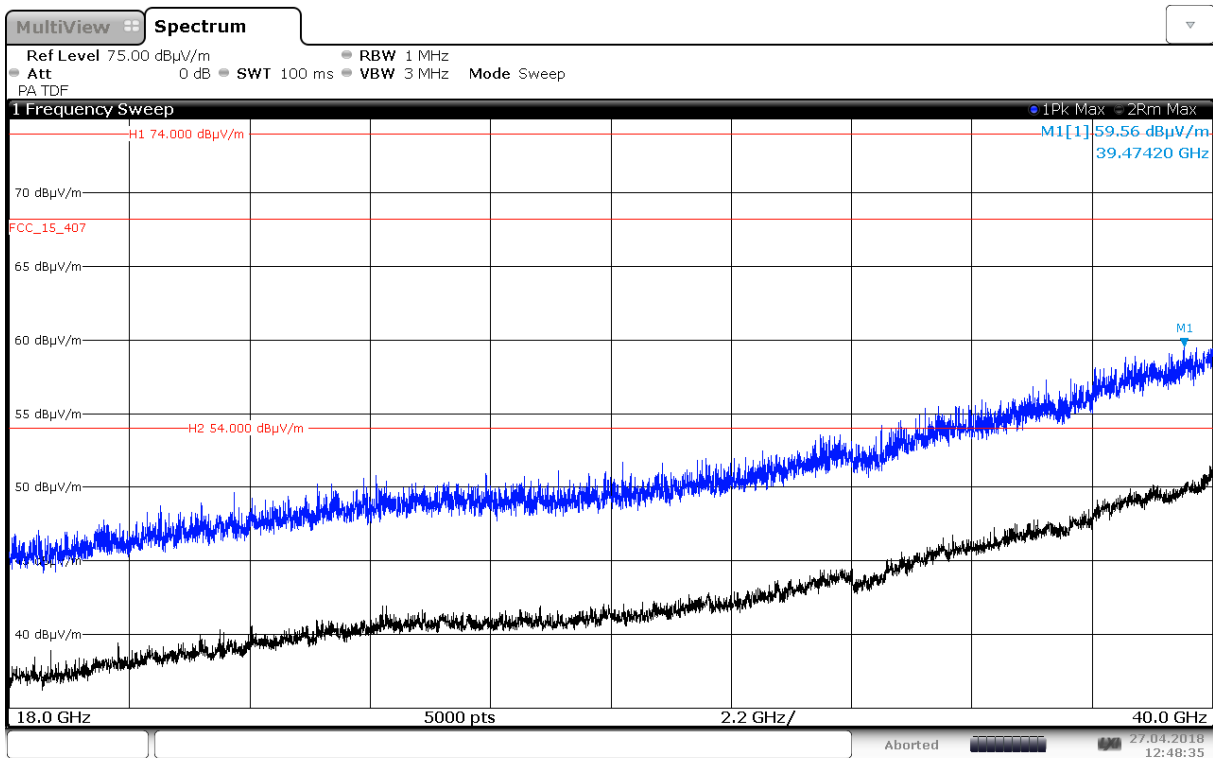
### Diagram No.: 4.03a Mode 3

#### Common Information

Test Description:	Radiated field strength emission in 1m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC15.109, Class B   RSS-Gen. Issue 4   ICES-003 Issue 6 Class B
Antenna polarisation:	horizontal/vertical
Distance correction factor:	3 to 1m: -10.5 dB applying to measurement results
Operation mode:	TX mode continuous
Operator Name:	TFR
Operating conditions:	Mode 3

#### EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH A6
P/N:	911350080
S/N:	G18D03796
HW Version:	Beta
SW Version:	Andorid 6.0.1
Firmware Version:	1.26



12:48:35 27.04.2018