

Annex 1: Measurement diagrams to

TEST REPORT No.: 16-1-0181301T12a

According to:

FCC Regulations

Part 15.205 Part 15.209 Part 15.247

for

Datalogic S.r.l.

SKORPIO X4 Type:00ANM4HS0GF0A4

FCC ID: U4GSX4WB

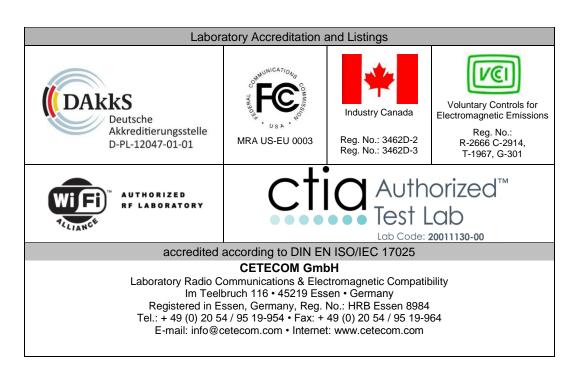




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1. Radiated Field Strength Measurements

1.1. Radiated Field Strength Emissions – 9 kHz to 30 MHz

Diagram No. 2.54_SKORPIO X4-BT-TX-LE Mode-GFSK-1 Mbps-Ch0-+7dBm

Common Information

Test description: Magnetic Field Strength Measurement related to 30/300 m distance
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: used accord. table, pls. see test report

Technical Data: Please see page 2 for detailed data of measurement setup Rec. antenna (pre-scan): height 1.00 m, parallel and 90° to EUT polarisation

Used filter: bypass

Test specification: FCC 15.205 § 15.209

Operator: SLo

Operating conditions: Continuous TX-BT-LE Mode-GFSK-1 Mbps- Pattern Lenght37-Ch 0 (2402 MHz)-

PWR+7dBm

EUT Information

Manufacturer:Datalogic S.r.l.EUT MODEL:SKORPIO X4EuT Type:00ANM4HS0GF0A4

 P/N:
 942600012

 S/N:
 Z16P01723

 HW Version:
 BETA

 SW Version:
 Android 4.4.4

 Firmware Version:
 2.00.29

Input: fully Internal Battery charging

Battery Type: BT-0016 | Li-ion|3.7V DC 5200mAh (2 Cylindrical Cells)

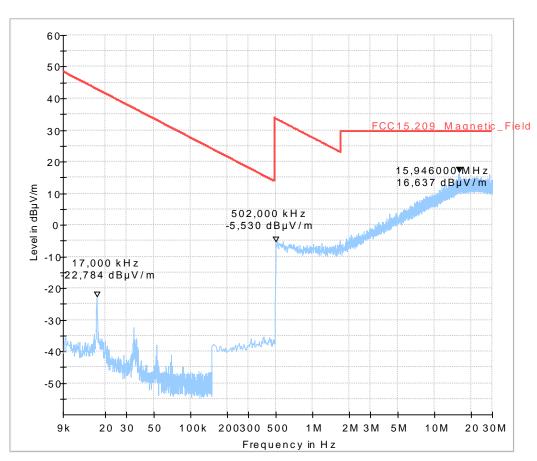




Diagram No. 2.55_SKORPIO X4-BT-TX-LE Mode-GFSK-1 Mbps-Ch20-+7dBm

Common Information

Test description: Magnetic Field Strength Measurement related to 30/300 m distance
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: used accord. table, pls. see test report

Technical Data: Please see page 2 for detailed data of measurement setup Rec. antenna (pre-scan): height 1.00 m, parallel and 90° to EUT polarisation

Used filter: bypass

Test specification: FCC 15.205 § 15.209

Operator: SLo

Operating conditions: Continuous TX-BT-LE Mode-GFSK-1 Mbps-Pattern Lenght37-Ch 20 (2442 MHz)-

PWR+7dBm

EUT Information

Manufacturer:Datalogic S.r.l.EUT MODEL:SKORPIO X4EuT Type:00ANM4HS0GF0A4

 P/N:
 942600012

 S/N:
 Z16P01723

 HW Version:
 BETA

 SW Version:
 Android 4.4.4

 Firmware Version:
 2.00.29

Input: fully Internal Battery charging

Battery Type: BT-0016 | Li-ion|3.7V DC 5200mAh (2 Cylindrical Cells)

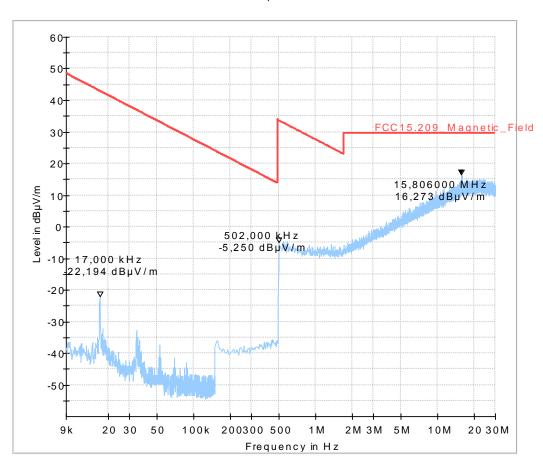




Diagram No. 2.56_SKORPIO X4-BT-TX-LE Mode-GFSK-1 Mbps-Ch39-+7dBm

Common Information

Test description: Magnetic Field Strength Measurement related to 30/300 m distance
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: used accord. table, pls. see test report

Technical Data: Please see page 2 for detailed data of measurement setup Rec. antenna (pre-scan): height 1.00 m, parallel and 90° to EUT polarisation

Used filter: bypass

Test specification: FCC 15.205 § 15.209

Operator: SLo

Operating conditions: Continuous TX-BT-LE Mode-GFSK-1 Mbps- Pattern Lenght37--Ch 39 (2480 MHz)-

PWR+7dBm

EUT Information

Manufacturer:Datalogic S.r.l.EUT MODEL:SKORPIO X4EuT Type:00ANM4HS0GF0A4

 P/N:
 942600012

 S/N:
 Z16P01723

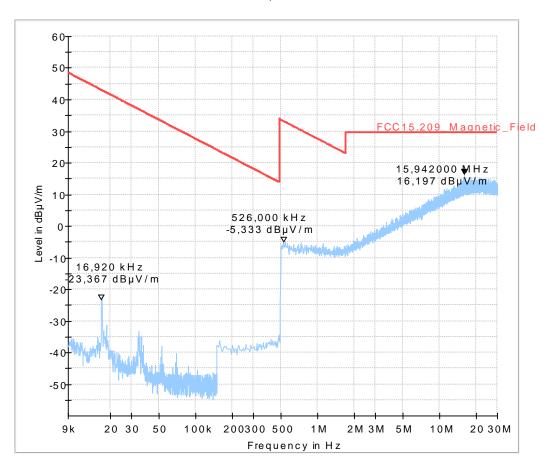
 HW Version:
 BETA

 SW Version:
 Android 4.4.4

 Firmware Version:
 2.00.29

Input: fully Internal Battery charging

Battery Type: BT-0016 | Li-ion|3.7V DC 5200mAh (2 Cylindrical Cells)





1.2. Radiated Field Strength Emissions – 30 MHz to 1 GHz

Diagram No. 3.54_SKORPIO X4-BT-TX-LE Mode-GFSK-1 Mbps-Ch0-+7dBm

Common Information

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: used accord. table, pls. see test report

Technical Data: please see page 2 for detailed data of measurement setup

Test specification.: FCC 15.205 § 15.2093

Operator: KIv

Operating conditions: Continuous TX-BT-LE Mode-GFSK-1 Mbps- Pattern Lenght37-Ch 0 (2402 MHz)-

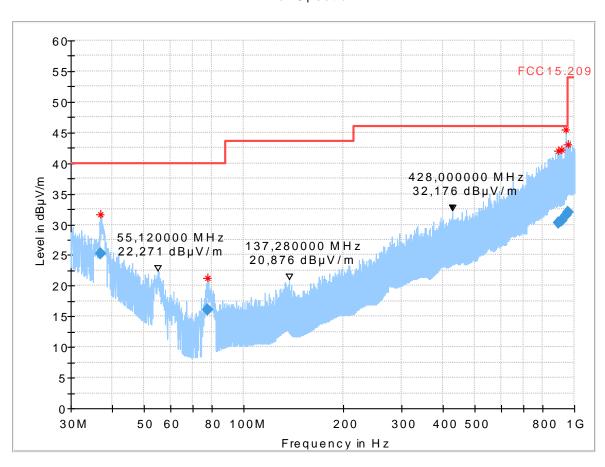
PWR+7dBm

EUT Information

Manufacturer: Datalogic S.r.l. EUT MODEL: SKORPIO X4 00ANM4HS0GF0A4 EuT Type: P/N: 942600012 Z16P01723 S/N: HW Version: **BETA** SW Version: Android 4.4.4 Firmware Version: 2.00.29

Input: fully Internal Battery charging

Battery Type: BT-0016 | Li-ion|3.7V DC 5200mAh (2 Cylindrical Cells)





Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margi n (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
37.012000	25.17	40.00	14.83	1000.0	120.000	105.0	V	115.0	90.0	18.4
77.792000	16.08	40.00	23.92	1000.0	120.000	113.0	V	263.0	0.0	6.7
893.080000	30.28	46.00	15.72	1000.0	120.000	316.0	Н	-7.0	90.0	26.7
917.864000	30.66	46.00	15.34	1000.0	120.000	360.0	V	198.0	0.0	27.0
940.072000	31.48	46.00	14.52	1000.0	120.000	200.0	V	133.0	90.0	27.1
953.260000	32.03	46.00	13.97	1000.0	120.000	209.0	Н	147.0	0.0	27.2



Diagram No. 3.55_SKORPIO X4-BT-TX-LE Mode-GFSK-1 Mbps-Ch20-+7dBm

Common Information

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: used accord. table, pls. see test report

Technical Data: please see page 2 for detailed data of measurement setup

Test specification.: FCC 15.205 § 15.209 KIv

Operator:

Continuous TX-BT-LE Mode-GFSK-1 Mbps-Pattern Lenght37-Ch 20 (2442 MHz)-Operating conditions:

PWR+7dBm

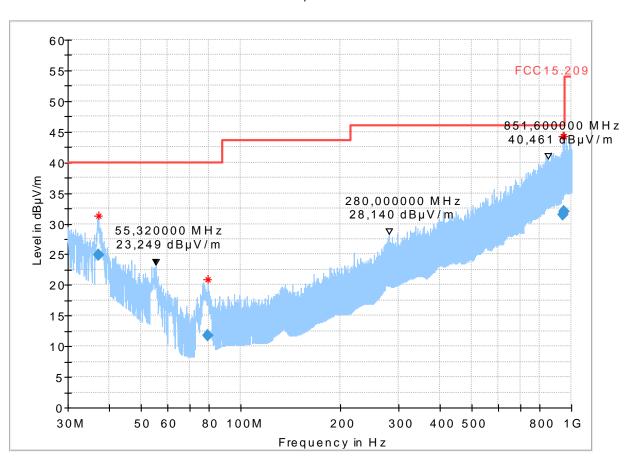
EUT Information

Manufacturer: Datalogic S.r.l. EUT MODEL: SKORPIO X4 00ANM4HS0GF0A4 EuT Type:

P/N: 942600012 S/N: Z16P01723 HW Version: BETA SW Version: Android 4.4.4 2.00.29 Firmware Version:

Input: fully Internal Battery charging

Battery Type: BT-0016 | Li-ion|3.7V DC 5200mAh (2 Cylindrical Cells)





Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margi n (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
37.132000	24.94	40.00	15.06	1000.0	120.000	109.0	V	224.0	90.0	18.3
79.260000	11.73	40.00	28.27	1000.0	120.000	167.0	V	157.0	0.0	6.8
942.608000	31.54	46.00	14.46	1000.0	120.000	134.0	Н	219.0	90.0	27.1
950.224000	31.94	46.00	14.06	1000.0	120.000	187.0	Н	39.0	90.0	27.2



Diagram No. 3.56_SKORPIO X4-BT-TX-LE Mode-GFSK-1 Mbps-Ch39-+7dBm

Common Information

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: used accord. table, pls. see test report

Technical Data: please see page 2 for detailed data of measurement setup

KIv

Test specification.: FCC 15.205 § 15.209

Operator:

Operating conditions: Continuous TX-BT-LE Mode-GFSK-1 Mbps- Pattern Lenght37--Ch 39 (2480 MHz)-

PWR+7dBm

EUT Information

Manufacturer:Datalogic S.r.l.EUT MODEL:SKORPIO X4EuT Type:00ANM4HS0GF0A4

 P/N:
 942600012

 S/N:
 Z16P01723

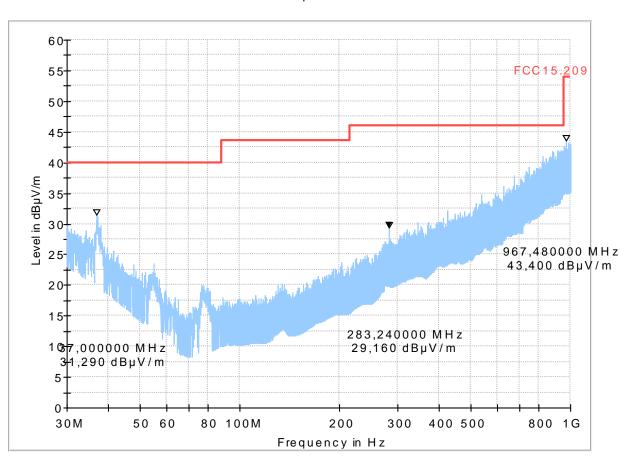
 HW Version:
 BETA

 SW Version:
 Android 4.4.4

 Firmware Version:
 2.00.29

Input: fully Internal Battery charging

Battery Type: BT-0016 | Li-ion|3.7V DC 5200mAh (2 Cylindrical Cells)





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

Diagram No. 4.54_SKORPIO X4-BT-TX-LE Mode-GFSK-1 Mbps-Ch0-+7dBm

Common Information

Test Description: Radiated field strength emission in 3m distance

Test Site: CETECOM GmbH Essen

Test Standard: FCC 15.205 § 15.209 + FCC 15.247 Intentional Radiator

Antenna polarisation: horizontal/vertical

Operation mode: Continuous TX-BT-LE Mode-GFSK-1 Mbps-Test Pattern PN9-Ch 0 (2402 MHz)-

PWR+7dBm

Operator Name: KIv

EUT Information

Manufacturer:Datalogic S.r.l.EUT MODEL:SKORPIO X4EuT Type:00ANM4HS0GF0A4

 P/N:
 942600012

 S/N:
 Z16P01691

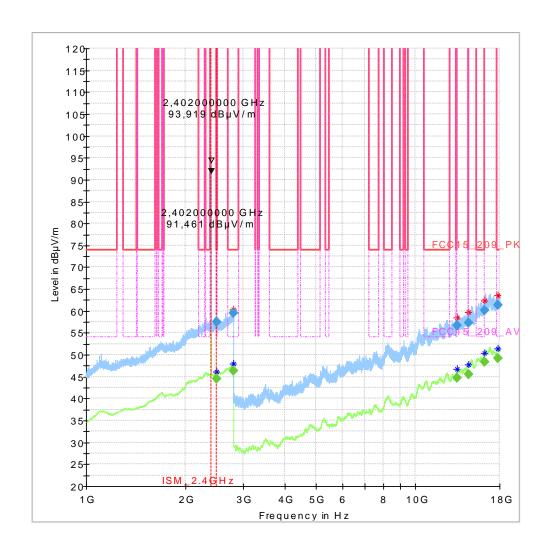
 HW Version:
 BETA

 SW Version:
 Android 4.4.4

 Firmware Version:
 2.00.29

Input: fully Internal Battery charging

Battery Type: BT-0016 | Li-ion|3.7V DC 5200mAh (2 Cylindrical Cells)





Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margi n (dB)	Meas. Time (ms)	Bandwidth (kHz)	Heigh t (cm)	Pol	Azimut h (deg)	Elevatio n (deg)	Corr (dB)
2492.400000		44.53	54.00	9.47	100.0	1000.000	155.0	Н	0.0	90.0	35.6
2493.200000	57.51		74.00	16.49	100.0	1000.000	155.0	Н	300.0	90.0	35.6
2794.800000	59.47		74.00	14.53	100.0	1000.000	155.0	V	303.0	0.0	38.1
2796.400000		46.40	54.00	7.60	100.0	1000.000	155.0	Н	246.0	90.0	38.1
13356.400000	56.67		74.00	17.33	100.0	1000.000	155.0	V	11.0	90.0	19.9
13398.400000		44.73	54.00	9.27	100.0	1000.000	155.0	V	62.0	90.0	20.1
14482.400000		45.66	54.00	8.34	100.0	1000.000	155.0	V	41.0	90.0	22.3
14488.400000	57.31		74.00	16.69	100.0	1000.000	155.0	V	261.0	0.0	22.3
16180.400000	60.23		74.00	13.77	100.0	1000.000	155.0	V	221.0	0.0	24.7
16197.600000		48.34	54.00	5.66	100.0	1000.000	155.0	V	272.0	90.0	24.8
17750.400000		49.26	54.00	4.74	100.0	1000.000	155.0	V	70.0	90.0	25.8
17814.400000	61.41		74.00	12.59	100.0	1000.000	155.0	V	63.0	0.0	25.9



Diagram No. 4.55_SKORPIO X4-BT-TX-LE Mode-GFSK-1 Mbps-Ch20-+7dBm

Common Information

Radiated field strength emission in 3m distance Test Description:

Test Site: CETECOM GmbH Essen

Test Standard: FCC 15.205 § 15.209 + FCC 15.247 Intentional Radiator

Antenna polarisation: horizontal/vertical

Operation mode: Continuous TX-BT-LE Mode-GFSK-1 Mbps-Test Pattern PN9-Ch 20 (2442 MHz)-

PWR+7dBm

Operator Name: KIv

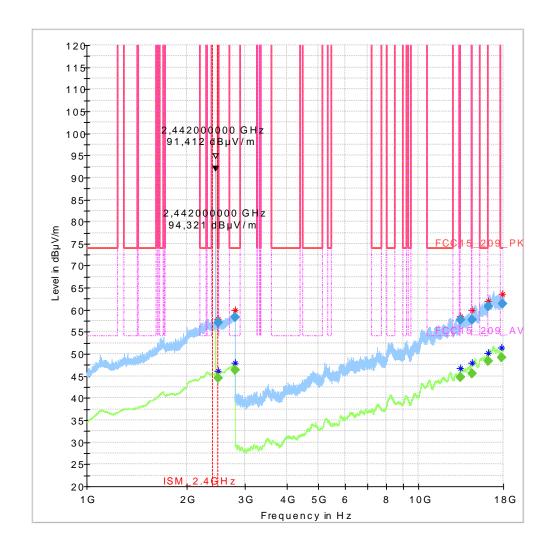
EUT Information

Manufacturer: Datalogic S.r.l. EUT MODEL: SKORPIO X4 00ANM4HS0GF0A4 EuT Type:

P/N: 942600012 Z16P01691 S/N: HW Version: BETA SW Version: Android 4.4.4 Firmware Version: 2.00.29

Input:

fully Internal Battery charging BT-0016 | Li-ion|3.7V DC 5200mAh (2 Cylindrical Cells) Battery Type:





Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margi n (dB)	Meas. Time (ms)	Bandwidth (kHz)	Heigh t (cm)	Pol	Azimut h (deg)	Elevatio n (deg)	Corr (dB)
2486.800000	57.12		74.00	16.88	100.0	1000.000	155.0	V	185.0	0.0	35.6
2494.400000		44.54	54.00	9.46	100.0	1000.000	155.0	Н	356.0	90.0	35.6
2798.000000	58.41		74.00	15.59	100.0	1000.000	155.0	Н	219.0	90.0	38.1
2800.000000		46.39	54.00	7.61	100.0	1000.000	155.0	Н	220.0	90.0	38.1
13398.400000	57.69		74.00	16.31	100.0	1000.000	155.0	V	135.0	90.0	20.1
13398.400000		44.76	54.00	9.24	100.0	1000.000	155.0	V	109.0	90.0	20.1
14474.400000		45.64	54.00	8.36	100.0	1000.000	155.0	V	92.0	90.0	22.2
14491.200000	57.76		74.00	16.24	100.0	1000.000	155.0	Н	165.0	0.0	22.3
16192.400000	60.75		74.00	13.25	100.0	1000.000	155.0	Н	242.0	0.0	24.8
16195.200000		48.32	54.00	5.68	100.0	1000.000	155.0	V	295.0	90.0	24.8
17752.800000		49.23	54.00	4.77	100.0	1000.000	155.0	V	349.0	90.0	25.8
17883.200000	61.31		74.00	12.69	100.0	1000.000	155.0	Н	329.0	90.0	26.2



Diagram No. 4.56_SKORPIO X4-BT-TX-LE Mode-GFSK-1 Mbps-Ch39-+7dBm

Common Information

Test Description: Radiated field strength emission in 3m distance

Test Site: CETECOM GmbH Essen

Test Standard: FCC 15.205 § 15.209 + FCC 15.247 Intentional Radiator

Antenna polarisation: horizontal/vertical

Operation mode: Continuous TX-BT-LE Mode-GFSK-1 Mbps-Test Pattern PN9-Ch 39 (2480 MHz)-

PWR+7dBm

Operator Name: KIv

EUT Information

Manufacturer:Datalogic S.r.l.EUT MODEL:SKORPIO X4EuT Type:00ANM4HS0GF0A4

 P/N:
 942600012

 S/N:
 Z16P01691

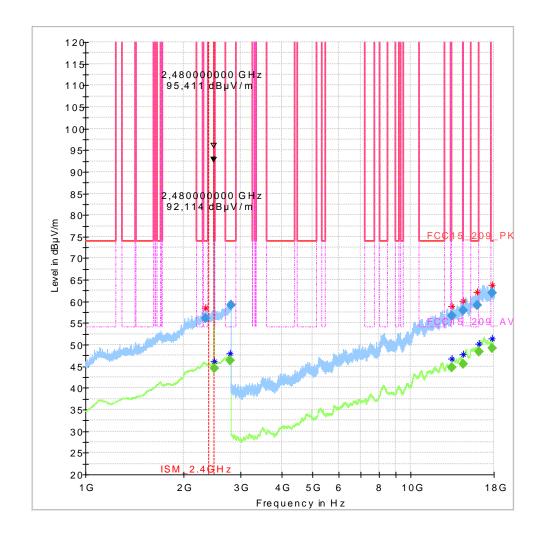
 HW Version:
 BETA

 SW Version:
 Android 4.4.4

 Firmware Version:
 2.00.29

Input: fully Internal Battery charging

Battery Type: BT-0016 | Li-ion|3.7V DC 5200mAh (2 Cylindrical Cells)





Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margi n (dB)	Meas. Time (ms)	Bandwidth (kHz)	Heigh t (cm)	Pol	Azimut h (deg)	Elevatio n (deg)	Corr (dB)
2333.600000	56.18		74.00	17.82	100.0	1000.000	155.0	V	22.0	90.0	35.7
2495.200000		44.52	54.00	9.48	100.0	1000.000	155.0	V	21.0	90.0	35.6
2788.400000		46.34	54.00	7.66	100.0	1000.000	155.0	V	165.0	90.0	38.0
2794.000000	59.24		74.00	14.76	100.0	1000.000	155.0	V	234.0	0.0	38.1
13332.000000	56.76		74.00	17.24	100.0	1000.000	155.0	Н	52.0	90.0	19.7
13397.600000		44.78	54.00	9.22	100.0	1000.000	155.0	V	-38.0	90.0	20.1
14475.200000	58.01		74.00	15.99	100.0	1000.000	155.0	Н	23.0	0.0	22.2
14477.200000		45.59	54.00	8.41	100.0	1000.000	155.0	V	54.0	90.0	22.2
15969.600000	59.14		74.00	14.86	100.0	1000.000	155.0	V	325.0	90.0	23.6
16199.200000		48.45	54.00	5.55	100.0	1000.000	155.0	V	191.0	90.0	24.8
17756.000000		49.20	54.00	4.80	100.0	1000.000	155.0	V	147.0	90.0	25.8
17806.000000	61.89		74.00	12.11	100.0	1000.000	155.0	Н	300.0	0.0	25.9



1.4. Radiated Field Strength Emissions – 18 GHz to 25 GHz

Diagram No.: 4.54a_SKORPIO X4-BT-TX-LE Mode-GFSK-1 Mbps-Ch0-+7dBm

Common Information

Test Description: Radiated field strength emission in 1m distance

Test Site: CETECOM GmbH Essen

Test Standard: FCC 15.205 § 15.209 + FCC 15.247 Intentional Radiator

Antenna polarisation: horizontal/vertical

Distance correction factor 3 to 1m: -10.5 dB applying to measurement results

SW-Version: EMC32 V8.53.0

Operation mode: Continuous TX-BT-LE Mode-GFSK-1 Mbps- Pattern Lenght37-Ch 0 (2402 MHz)-

PWR+7dBm

Operator Name: SLo

EUT Information

Manufacturer:Datalogic S.r.l.EUT MODEL:SKORPIO X4EuT Type:00ANM4HS0GF0A4

 P/N:
 942600012

 S/N:
 Z16P01691

 HW Version:
 BETA

 SW Version:
 Android 4.4.4

 Firmware Version:
 2.00.29

Input: fully Internal Battery charging

EMIScan_18_25GHz_Pre

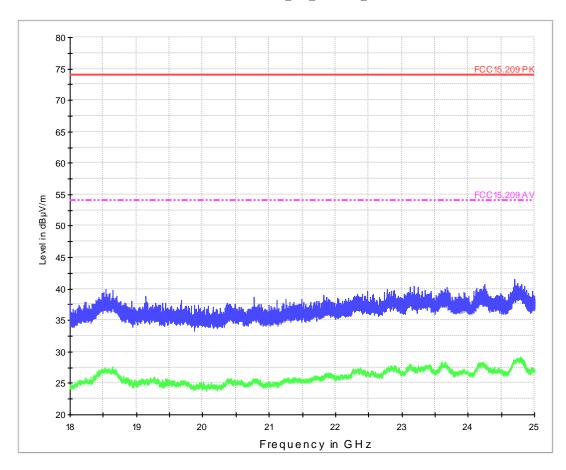




Diagram No.: 4.55a_SKORPIO X4-BT-TX-LE Mode-GFSK-1 Mbps-Ch20-+7dBm

Common Information

Test Description: Radiated field strength emission in 1m distance

Test Site: CETECOM GmbH Essen

Test Standard: FCC 15.205 § 15.209 + FCC 15.247 Intentional Radiator

Antenna polarisation: horizontal/vertical

Distance correction factor 3 to 1m: -10.5 dB applying to measurement results

SW-Version: EMC32 V8.53.0

Operation mode: Continuous TX-BT-LE Mode-GFSK-1 Mbps-Pattern Lenght37-Ch 20 (2442 MHz)-

PWR+7dBm

Operator Name: SLo

EUT Information

Manufacturer:Datalogic S.r.l.EUT MODEL:SKORPIO X4EuT Type:00ANM4HS0GF0A4

 P/N:
 942600012

 S/N:
 Z16P01691

 HW Version:
 BETA

 SW Version:
 Android 4.4.4

 Firmware Version:
 2.00.29

Input: fully Internal Battery charging

EMIScan_18_25GHz_Pre

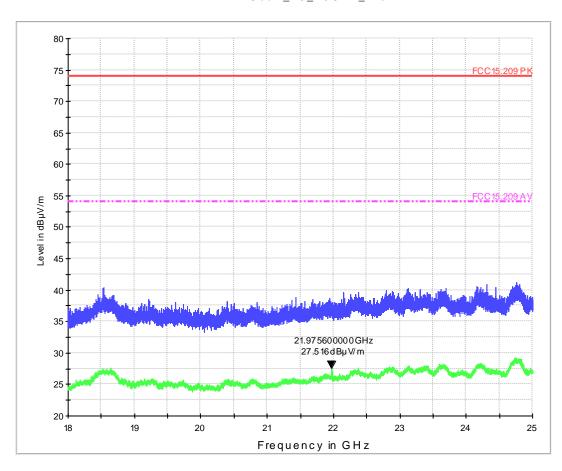




Diagram No.: 4.56a_SKORPIO X4-BT-TX-LE Mode-GFSK-1 Mbps-Ch39-+7dBm

Common Information

Test Description: Radiated field strength emission in 1m distance

Test Site: CETECOM GmbH Essen

Test Standard: FCC 15.205 § 15.209 + FCC 15.247 Intentional Radiator

Antenna polarisation: horizontal/vertical

Distance correction factor 3 to 1m: -10.5 dB applying to measurement results

SW-Version: EMC32 V8.53.0

Operation mode: Continuous TX-BT-LE Mode-GFSK-1 Mbps- Pattern Lenght37--Ch 39 (2480 MHz)-

PWR+7dBm

Operator Name: SLo

EUT Information

Manufacturer:Datalogic S.r.l.EUT MODEL:SKORPIO X4EuT Type:00ANM4HS0GF0A4

 P/N:
 942600012

 S/N:
 Z16P01691

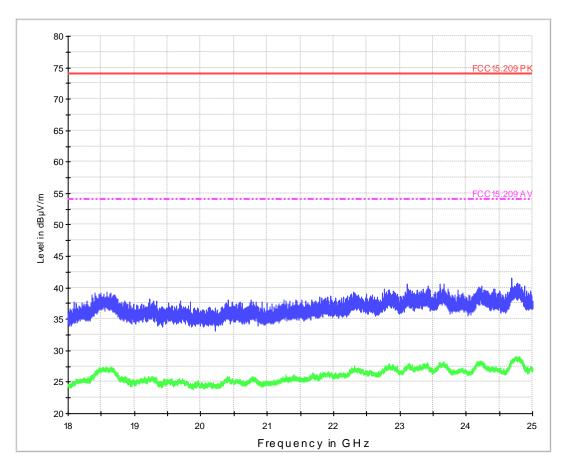
 HW Version:
 BETA

 SW Version:
 Android 4.4.4

 Firmware Version:
 2.00.29

Input: fully Internal Battery charging

EMIScan_18_25GHz_Pre





2. Radiated Band-Edge Measurements

2.1. LE Mode-GFSK-Low Channel 2402 MHz (2.4 GHz ISM: left band edge)

Diagram No.: 9.57_BE-Low- SKORPIO X4-BT-TX-LE Mode-GFSK-1 Mbps-Ch0-+7dBm

Common Information

Test Description: Band-Edge: Radiated Field Strength Emissions in 3m distance

Test Site: CETECOM GmbH Essen

Test Standard: FCC 15.205 § 15.209 + FCC 15.247 Intentional Radiator

Antenna polarisation: horizontal/vertical

Operation mode: Continuous TX-BT-LE Mode-GFSK-1 Mbps-Pattern Lenght37-Ch 0 (2402 MHz)-

PWR+7dBm

Operator Name: RIs

EUT Information

Manufacturer: Datalogic S.r.l.
EUT MODEL: SKORPIO X4
EuT Type: 00ANM4HS0GF0A4

 P/N:
 942600012

 S/N:
 Z16P01691

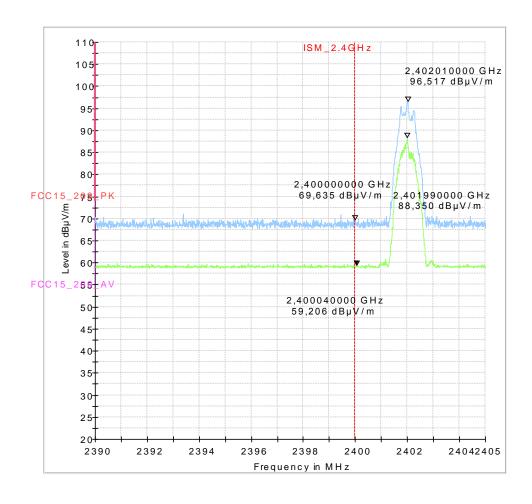
 HW Version:
 BETA

 SW Version:
 Android 4.4.4

 Firmware Version:
 2.00.29

Input: fully Internal Battery charging

Battery Type: BT-0016 | Li-ion|3.7V DC 5200mAh (2 Cylindrical Cells)





2.2. LE Mode-GFSK-High Channel 2480 MHz (2.4 GHz ISM: right band edge)

Diagram No.: 9.58_BE-High- SKORPIO X4-BT-TX- LE Mode-GFSK-1 Mbps-Ch39-+7dBm

Common Information

Test Description: Band-Edge: Radiated Field Strength Emissions in 3m distance

Test Site: CETECOM GmbH Essen

Test Standard: FCC 15.205 § 15.209 + FCC 15.247 Intentional Radiator

Antenna polarisation: horizontal/vertical

Operation mode: Continuous TX-BT-LE Mode-GFSK-1 Mbps- Pattern Lenght37--Ch 39 (2480 MHz)-

PWR+7dBm

Operator Name: RI

EUT Information

Manufacturer: Datalogic S.r.l.
EUT MODEL: SKORPIO X4
EuT Type: 00ANM4HS0GF0A4
P/N: 942600012

 P/N:
 942600012

 S/N:
 Z16P01691

 HW Version:
 BETA

 SW Version:
 Android 4.4.4

 Firmware Version:
 2.00.29

Input: fully Internal Battery charging

Battery Type: BT-0016 | Li-ion|3.7V DC 5200mAh (2 Cylindrical Cells)

