





Annex 1: Measurement diagrams  
to  
**TEST REPORT**  
No.: 3-0019-11-6a

According to:  
**FCC Regulations**  
Part 15.209  
**IC Regulations**  
RSS-210, Issue 8  
RSS-Gen, Issue 2

for  
**STRATTEC Security Corp.**

Automotive RFID-CAN based immobilizer PN #5917438  
FCC-ID: OHT5908933  
ID: 5461A-5921714  
+  
RFID-Antenna PN #5917441

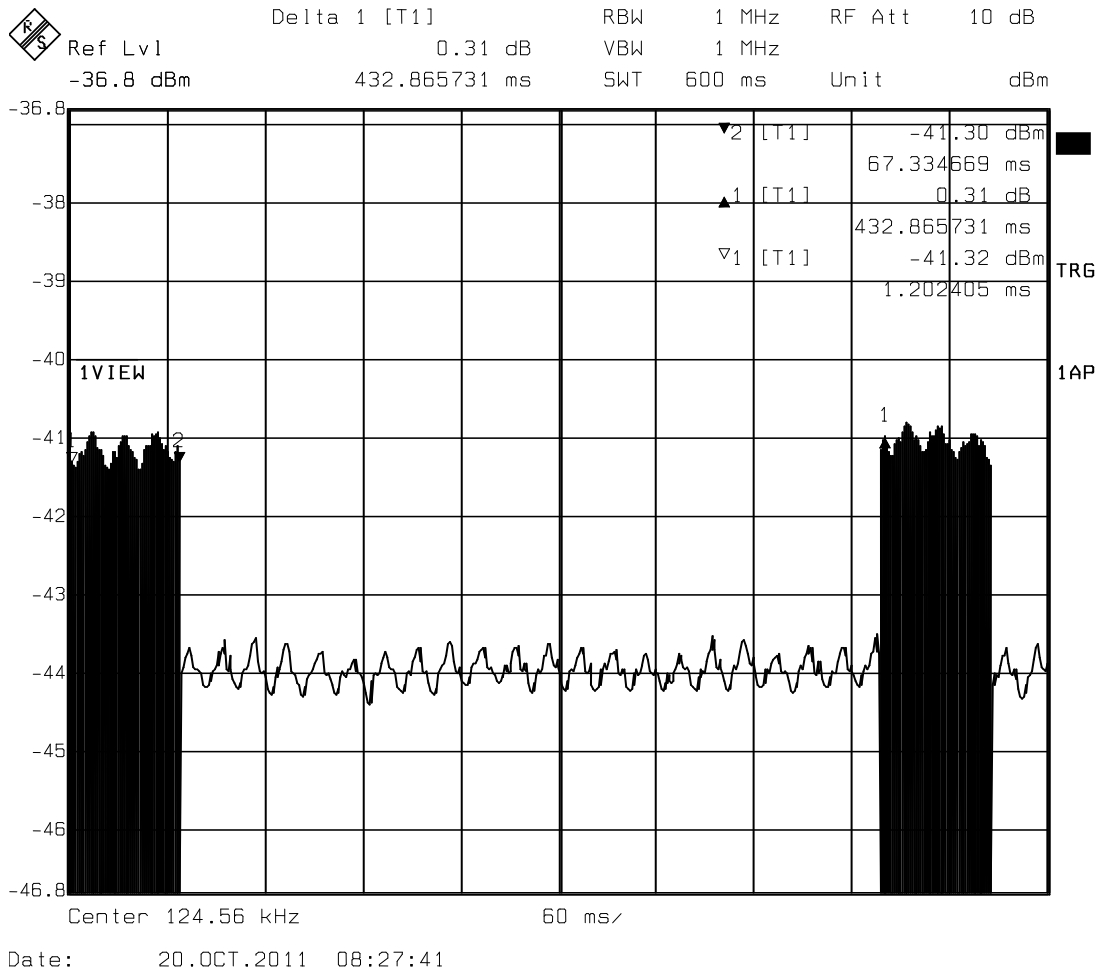
Laboratory Accreditation and Listings			
 <p>Deutscher Akkreditierungs Rat</p> <p>DGA-PL-176/94-03</p>	 <p>Reg. No.: 99538 MRA US-EU 0003</p>	 <p>Industry Canada</p> <p>Reg. No.: 3462D-1 3462D-2</p>	 <p>Reg. No.: R-2665, R-2666 C-2914, T-339</p>
accredited according to DIN EN ISO/IEC 17025			
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# 1. Measurement diagrams

## 1.1. Duty-cycle at continuous TX-mode (maximized transmissions)



**TXon=67.3ms, TXoff=432.9ms**

### Duty Cycle correction factor method

The carrier of presented transmitters is typically pulsed. Peak levels of carrier field-strength is measured, then the average levels is obtained by subtracting the duty cycle factor from the peak levels. A procedure for calculating the duty cycle is also provided in Section 13.1.4.2 of the America National Standard identified as ANSI Standard, C63.4 -2009.

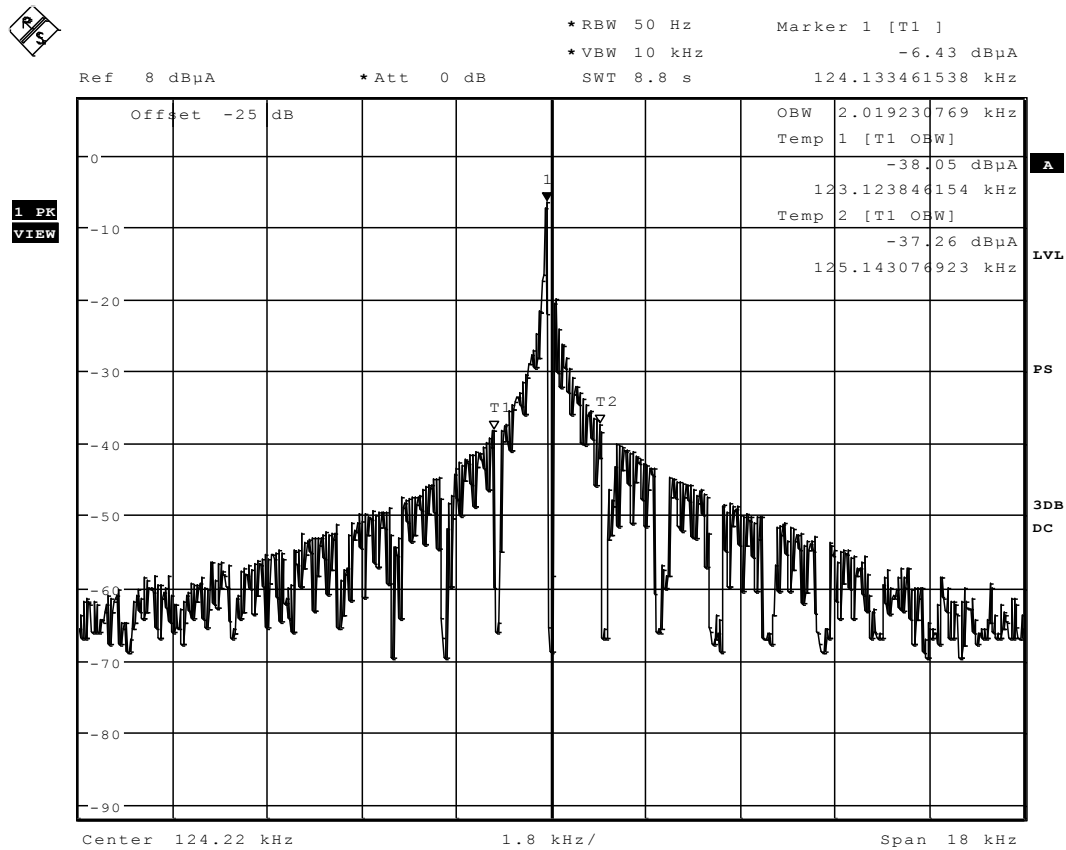
### Duty cycle:

Period on time:  $TXon/(TXon+ TXoff)= 13,5 \%$

### Duty-cycle correction factor calculating:

$20*\text{Log}(\text{Duty cycle})= 20*\text{Log}(0.135)= -17.4 \text{ dB}$

## 1.2. 99% Occupied bandwidth (OBW)



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**Nominal channel (TX-continuous, maximum duty-cycle)**

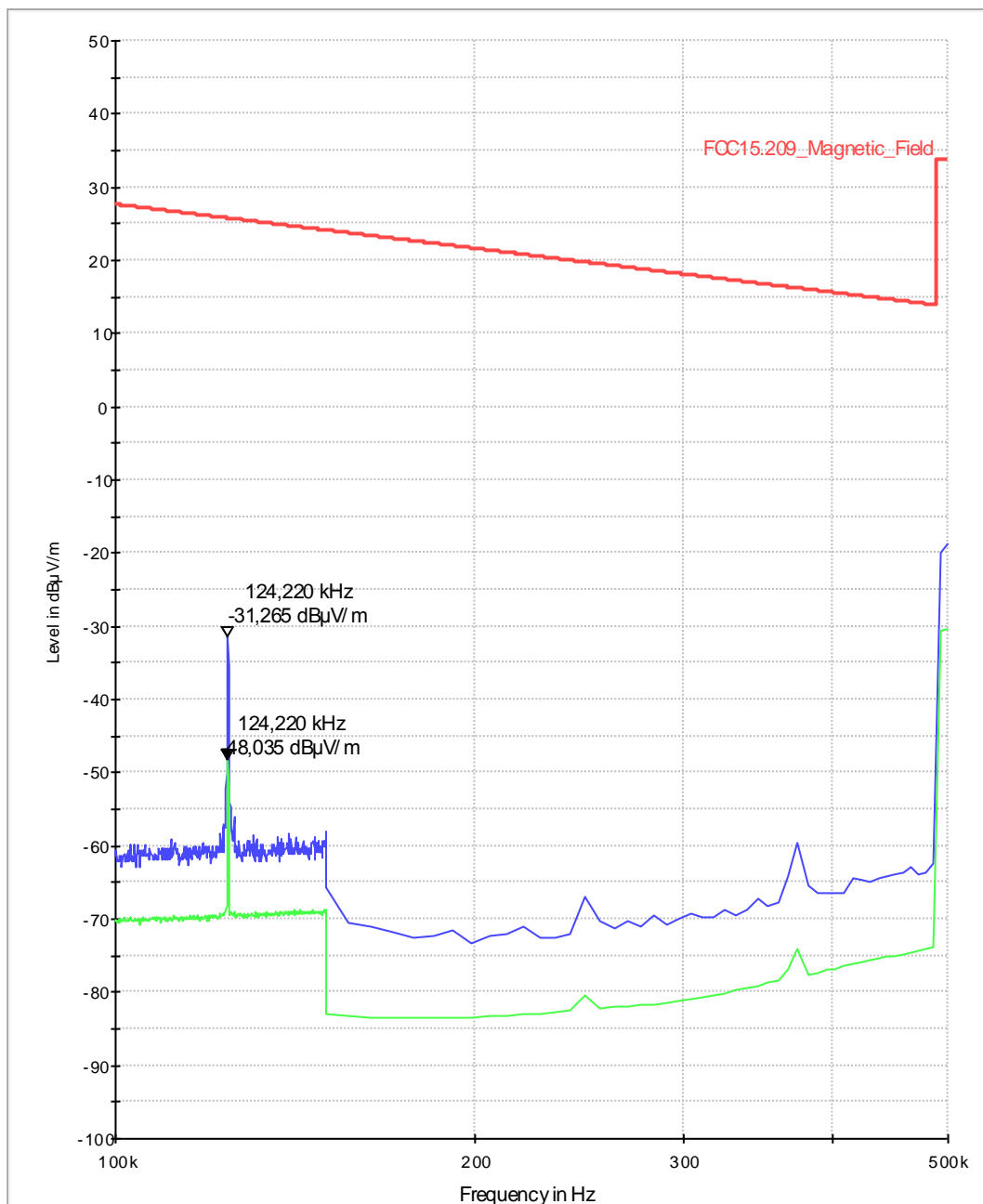
### 1.3. Radiated magnetic field strength measurements (f<30Mhz)

Diagram No. a\_3.01\_PK+AV

**Common Information**

Test description:	Radiated field strength (f<30MHz)
Test site and distance:	Semi Anechoic Room (SAR) with 3m measurement distance and covers with mobile-floor absorbers
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	parallel to EUT
Rec. antenna (final):	height = 1m. Parallel to EUT (RFID CAN Based Immobilizer)
Turntable step:	90° during pre-scan
Test specification.:	FCC 15.205 § 15.209
Operating conditions:	TX modulated (RFID key valid)
Operator:	Tas

01\_FCC\_MG\_FELD\_PK\_FAST\_H&V\_EUT

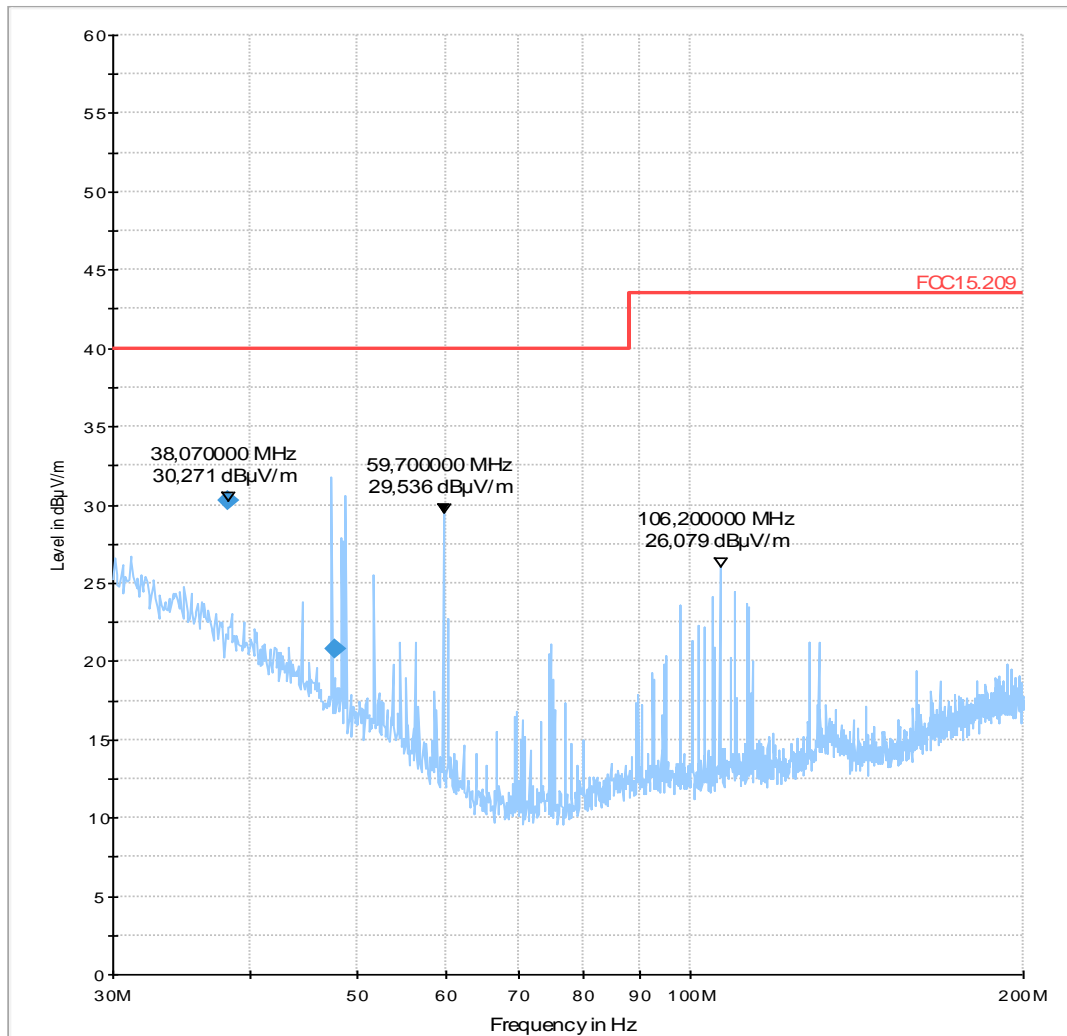


**1.3.1. Radiated field strength in the frequency range 30MHz to 200 MHz (§15.209, RSS210e)**

**Diagram No. 2.02**

Test description:	Electric Fieldstrength Measurement, measurement distance 3 m
Test site and distance:	Semi Anechoic Room (SAR) with 3m measurement distance
Measured sides of EUT:	front, right, rear, left, top, under
Rec. antenna (pre-scan):	height 1.00 m and 1.82 m, horizontal and vertical polarisation
Rec. antenna (final):	height between 1 m to 4 m, polarisation according to pre-scan results
Turntable step:	90° during pre-scan, continuously turning during final measurement
Used filter:	bypass
Test specification.:	FCC 15.109 Class B; RSS-Gen: Issue 3
Operator:	TAS
Operating conditions:	TX-ON modulated/ (key valid)
Power during tests:	12 V DC
Comment 1:	RFID CAN based immobilizer STRATTEC corp. (Test setup2)

FCC15.209\_hor+vert



**Final Result 1**

Frequency (MHz)	QuasiPk (dBµV/m)	Meas. Time (ms)	Bandwid. (kHz)	Hght. (cm)	Polarization	Azi. (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Com.
38.07	30.3	1000	120.000	368.0	H	85.0	18.2	9.70	40.00	
47.59	20.8	1000	120.000	203.0	V	39.0	14.1	19.20	40.00	