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Nemko Spa Via del Carroccio, 4 – I 20046 Biassono (Italy)

Report Reference ID:	288044-2TRFWL

Test specification:	Title 47-Telecommunication Chapter I - Federal Communications Commission Subchapter A - General Part 15 - Radio Frequency Devices Subpart C - Intentional Radiators
	§15.231 Periodic operation in the band 40.66–40.70 MHz and above 70 MHz

Applicant:  Advanced Microwave Engineering s.r.l.  Via Lucca, 50  Firenze, 5142 Italy		
Apparatus: EGO PRO SAFETY MOVE TAG		
FCC ID:	UKOPLXTAGSFT	
Model:	TAG	

Testing laboratory:	Nemko Spa Via del Carroccio, 4 I 20046 Biassono (Italy)	
	Telephone:	+039 039 2201201
	Facsimile:	+39 039 220 1221

1	Name and title	Date
Tested by:	Double Guorner	2015-12-04
Tested by.	Daniele Guarnone, Wireless/EMC Specialist	
Reviewed by:	Gabriele Curioni, Wireless/EMC Specialist	2015-12-04

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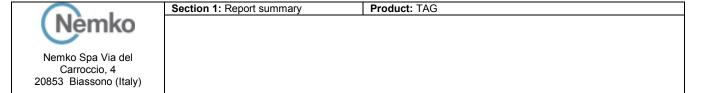
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Product: TAG

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## Section 1: Report summary

1.1 Test specification		
Specifications	FCC Part 15 Subpart C, 15.231 Periodic operation in the band 40.66–40.70 MHz and above 70 MHz	

1.2 Statement of compliance			
Compliance	In the configuration tested the EUT was found compliant Yes No This report contains an assessment of apparatus against specifications based upon tests carried out on samples submitted at Nemko Canada Inc. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15; Subpart C. Radiated tests were conducted in accordance with ANSI C63.4-2003.		

1.3 Exclusions	
Exclusions	None

1.4 Registration number		
Test site FCC ID	Test Firm Registration Number FCC: 481407	
number		

1.5 Test report revision history		
Revision #	Details of changes made to test report	
TRF	Original report issued	
R1TRF	XXX	

#### 1.6 Limits of responsibility

The date of initial receipt of samples and the date of issue of the report.

This test report has been completed in accordance with the requirements of ISO/IEC 17025.

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Section 2: Summary of test results	Product: TAG

# Section 2: Summary of test results

General requir	ements for FCC Part 15	
Part	Test description	Verdict
§15.31(e)	Variation of power source	Pass
§15.31(m)	Number of operating frequencies	Pass
§15.203	Antenna requirement	Pass
§15.207(a)	Conducted limits	N/A
Specific requirements for FCC Part 15 Subpart C, 15.231		
Part	Test description	Verdict
§15.231(a)	Conditions for intentional radiators to comply with periodic operation	Pass
§15.231(b)	Field strength of emissions	Pass
§15.231(c)	Emission bandwidth	Pass
§15.231(d)	Requirements for devices operating within 40.66–40.70 MHz band	N/A
§15.231(e)	Conditions for intentional radiators to comply with periodic operation	N/A

	Section 3: Equipment under test (EUT) details	Product: TAG
( Nèmko		
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# Section 3: Equipment under test (EUT) and application details

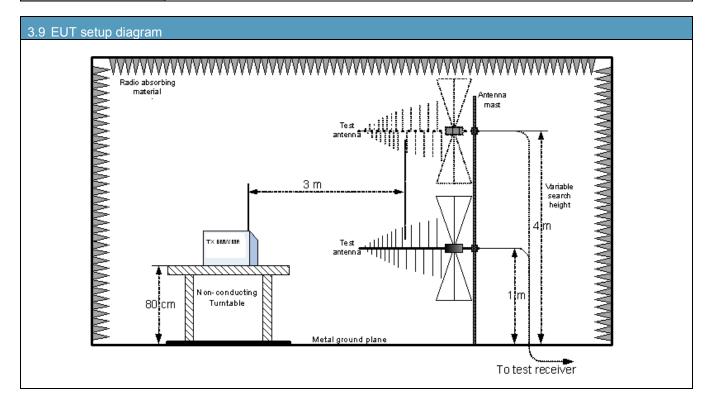
3.1 Applicant details				
Applicant complete		Advanced Microwave Engineering s.r.l.		
business name	Name:	Via Lucca, 50		
Buomoco mamo		Firenze, 5142 Italy		
	Federal Registration			
	Number (FRN):	0015463417		
	Grantee code	UKO		
Mailing address	Address:	Via Lucca, 50		
· ·	City:	Firenze		
	Province/State:	Firenze		
	Post code:	50142		
	Country:	Italy		
3.2 Modular equipment				
a) Single modular	Single modular approva	al		
approval	Yes $\square$	No ⊠		
b) Limited single	Limited single modular			
modular approval	Yes	No ⊠		
modular approval		110 Z		
O O Due do et deteile				
3.3 Product details	Luxo			
FCC ID	Grantee code:	UKO		
	Product code: PLXTAGSFT			
Equipment class		Control/Security Device Transmitter 15.231		
Description of		ople in particular or dangerous areas		
product as it is	Model name/number: EGO PRO SAFETY MOVE TAG			
marketed	Serial number:			
3.4 Application purpose				
Type of application	Original certifi	cation		
		ntification of presently authorized equipment		
	Original FCC			
	☐ Class II permissive change or modification of presently authorized equipment			
3.5 Composite/related e	quipment			
a) Composite	The EUT is a composite device subject to an additional equipment authorization			
equipment	Yes 🗌	No 🛛		
b) Related equipment	The EUT is part of a sy	stem that operates with, or is marketed with, another device that		
	requires an equipment			
	Yes 🗌	No 🗵		
c) Related FCC ID	If either of the above is	"yes":		
		nted under the FCC ID(s) listed below:		
		ss of being filled under the FCC ID(s) listed below:		
		h the FCC ID(s) listed below:		
		ending and granted statues under the FCC ID(s) listed below:		
	i FCC ID:			
	ii FCC ID:			

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3.6 Sample information		
Receipt date:	2015-12-03	
Nemko sample ID number:	152185	

3.7 EUT technical specifications	
Operating band:	433.04 – 434.79 MHz
Operating frequency:	433.92 MHz
Modulation type:	On off Keying 100kbps
Occupied bandwidth:	1.085 MHz
Channel spacing:	Single channel
Emission designator:	500KK1D
Antenna type:	Integral printed on board
Power source:	3 V lithium battery

3.8 Operation of the EUT during testing		
Details:	Constant transmitting at maximum power	



	Section 4: Engineering considerations	Product: Tag
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### Section 4: Engineering considerations

Occition 4. Engineering considerations			
4.1 Modifications incorporated in the EUT			
Modifications	Modifications performed to the EUT during this assessment		
	None ⊠ Yes □, performed by Client □ or Nemko □		
	Details:		
	2 5 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		
4.2 Deviations from labor	pratory tests procedures		
Deviations	Deviations from laboratory test procedures		
	None ⊠ Yes □ - details are listed below:		
	Tes details are listed below.		
4.3 Technical judgment			
Judgment	None		

	Section 5: Test conditions	Product: Tag
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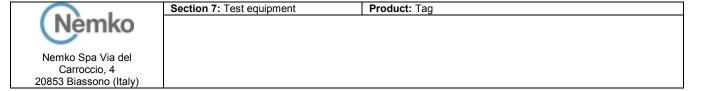
# Section 5: Test conditions

5.1 Power source and ambient temperatures		
Normal temperature, humidity and air pressure test conditions	Temperature: 15–30 °C Relative humidity: 20–75 % Air pressure: 86–106 kPa  When it is impracticable to carry out tests under these conditions, a note to this effect stating the ambient temperature and relative humidity during the tests shall be recorded and stated.	
Power supply range:	The normal test voltage for equipment to be connected to the mains shall be the nominal mains voltage. For the purpose of the present document, the nominal voltage shall be the declared voltage, or any of the declared voltages $\pm 5$ %, for which the equipment was designed.	

	Section 6: Measurement uncertainty	Product: Tag
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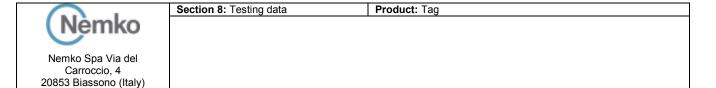
# Section 6: Measurement uncertainty

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 according to CISPR 16-4-2 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4-2: Uncertainties, statistics and limit modelling – Uncertainty in EMC measurements" and is documented in the Nemko Spa Technical Procedure WML1002. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device



# Section 7: Test equipment

7.1 Test equipment list				
Equipment	Manufacturer	Model No.	Asset/Serial No.	Next cal.
Spectrum Analizer 9 KHz ÷ 40 GHz	R&S	FSEK	848255/005	09/2016
Broadband preamplifier	Schwarzbeck	BBV 9718	9718-137	11/2016
Trilog Broadband Antenna	Schwarzbeck	VULB 9162	9162-025	2018/07
Semi-anechoic chamber	Nemko	10m semi-anechoic chamber	530	2016/09
Antenna mast	R&S	HCM	836 529/05	NCR
Controller	R&S	HCC	836 620/7	NCR
EMI receiver 9 kHz ÷ 3 GHz	R&S	ESCI	100888	2016/09
LISN 9 kHz ÷ 30 MHz	R&S	ESH2-Z5	872 460/041	2016/11
Climatic Chamber	ESPEC	ARS 1100	4100000067	2016/11
Loop antenna	R&S	HFH2-Z2	831247/011	2017/02
EMI receiver 20 Hz ÷ 8 GHz	R&S	ESU8	100202	2016/04
Bilog antenna 1 ÷18 GHz	Schwarzbeck	STLP 9148-123	123	09/2018
High pass filter	Wainwright Instruments	WHNX6-2555-3500- 26500-60CC	01	11/2016



# Section 8: Testing data

#### 8.1 Clause 15.31(e) Variation of power source

#### § 15.31 Measurement standards.

(e) For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85 % and 115 % of the nominal rated supply voltage. For battery operated equipment, the equipment tests shall be performed using a new battery.

#### Special notes

None

#### Test data

New battery was used during the tests



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## Clause 15.31(m) Number of operating frequencies

#### § 15.31 Measurement standards.

Measurements on intentional radiators or receivers, other than TV broadcast receivers, shall be performed (m) and, if required, reported for each band in which the device can be operated with the device operating at the number of frequencies in each band specified in the following table:

Frequency range over which device operates	Number of frequencies	Location in the range of operation
1 MHz and less	1	Middle
1 to 10 MHz	2	1 near top and 1 near bottom
More than 10 MHz	3	1 near top, 1 near middle and 1 near bottom

# Special notes None

Test data		
The EUT is one channel equipment, 433.92 MHz		
Low frequency / channel	NA	
Mid frequency / channel NA		
High frequency / channel	NA	



Section 8: Testing data	Product: Tag

#### 8.3 Clause 15.203 Antenna requirement

#### § 15.203 Antenna requirement.

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

#### Special notes

None

#### Test data

Detailed photo of RF connector:







Section 8: Testing data	Product: Tag

#### 8.4 Clause 15.231(a) Conditions for intentional radiators to comply with periodic operation

#### § 15.231 Periodic operation in the band 40.66-40.70 MHz and above 70 MHz.

- (a) The provisions of this section are restricted to periodic operation within the band 40.66–40.70 MHz and above 70 MHz. Except as shown in paragraph (e) of this section, the intentional radiator is restricted to the transmission of a control signal such as those used with alarm systems, door openers, remote switches, etc. Continuous transmissions, voice, video and the radio control of toys are not permitted. Data is permitted to be sent with a control signal. The following conditions shall be met to comply with the provisions for this periodic operation:
  - (1) A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.
  - (2) A transmitter activated automatically shall cease transmission within 5 seconds after activation.
  - (3) Periodic transmissions at regular predetermined intervals are not permitted. However, polling or supervision transmissions, including data, to determine system integrity of transmitters used in security or safety applications are allowed if the total duration of transmissions does not exceed more than two seconds per hour for each transmitter. There is no limit on the number of individual transmissions, provided the total transmission time does not exceed two seconds per hour.
  - (4) Intentional radiators which are employed for radio control purposes during emergencies involving fire, security, and safety of life, when activated to signal an alarm, may operate during the pendency of the alarm condition
  - (5) Transmission of set-up information for security systems may exceed the transmission duration limits in paragraphs (a)(1) and (a)(2) of this section, provided such transmissions are under the control of a professional installer and do not exceed ten seconds after a manually operated switch is released or a transmitter is activated automatically. Such set-up information may include data.

Special notes		
None		



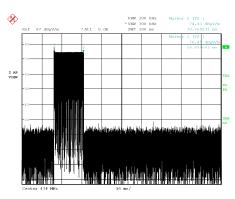
Section 8: Testing data Product: Tag

#### Test data

.

15.231(a)(2) automatic activation transmitter on time, Event mode, verify, transmission time < 5 seconds and measure transmission duty cycle over 100 ms

#### **Duty cycle/average factor calculations:**

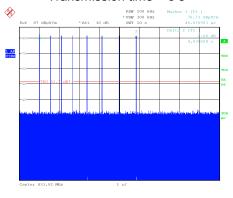


Marker 2- Marker 1= 14.74359 ms

$$Duty \, cycle \, | \, average \, factor = 20 \times \log_{10} \left( \frac{Tx_{100 \, ms}}{100 \, ms} \right)$$

Duty= -16.6279351

#### Transmission time < 5 s



Date: 4.DEC.2015 17:21:23

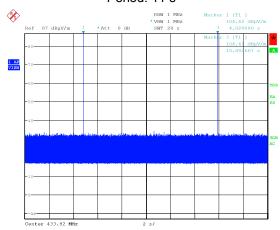


Section 8: Testing data Product: Tag

#### Test data, continue

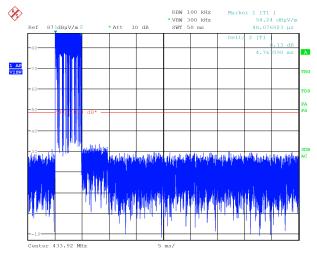
15.231(a)(3) periodic transmission time, Listening mode, verify frame duration and period, see page 6 of attached "Answer\_08\_11-11-15 copy"

Period: 11 s



Date: 4.DEC.2015 16:55:12

#### Frame duration: 4.76 ms





Section 8: Testing data Product: Tag

# Test data, continue 15.231(a)(3) periodic transmission time, Monitoring mode, verify frame duration and period, see page 6 of attached "Answer\_08\_11-11-15 copy" Period: 15.39 s RBW 100 kHz \*VBW 300 kHz SWT 20 s Ref 1 87 dBuV/m Center 433.92 MHz Date: 4.DEC.2015 17:12:02 Frame duration: 5.08 ms Date: 4.DEC.2015 17:07:58



Section 8: Testing data	Product: Tag	

#### 8.5 Clause 15.231(b) Field strength of emissions

#### § 15.231 Periodic operation in the band 40.66-40.70 MHz and above 70 MHz.

(b) In addition to the provisions of §15.205, the field strength of emissions from intentional radiators operated under this section shall not exceed the following:

Fundamental frequency	Field strength of fundamental		Field strength of spurious emissions	
(MHz)	(μV/m)	(dBµV/m)	(µV/m)	(dBµV/m)
40.66–40.70	2,250	67	225	47
70–130	1,250	61.9	125	41.9
130–174	1,250 to 3,750*	61.9 to 71.5*	125 to 375*	41.9 to 51.5*
174–260	3,750	71.5	375	51.5
260–470	3,750 to 12,500*	71.5 to 81.9*	375 to 1,250*	51.5 to 61.9*
Above 470	12,500	81.9	1,250	61.9

<sup>\*</sup> Linear interpolations

- (1) The above field strength limits are specified at a distance of 3 meters. The tighter limits apply at the band edges.
- (2) Intentional radiators operating under the provisions of this section shall demonstrate compliance with the limits on the field strength of emissions, as shown in the above table, based on the average value of the measured emissions. As an alternative, compliance with the limits in the above table may be based on the use of measurement instrumentation with a CISPR quasi-peak detector. The specific method of measurement employed shall be specified in the application for equipment authorization. If average emission measurements are employed, the provisions in §15.35 for averaging pulsed emissions and for limiting peak emissions apply. Further, compliance with the provisions of §15.205 shall be demonstrated using the measurement instrumentation specified in that section.
- (3) The limits on the field strength of the spurious emissions in the above table are based on the fundamental frequency of the intentional radiator. Spurious emissions shall be attenuated to the average (or, alternatively, CISPR quasi-peak) limits shown in this table or to the general limits shown in §15.209, whichever limit permits a higher field strength.



Section 8: Testing data	Product: Tag

#### Special notes

#### §15.209 - Radiated emission limits

Frequency	Field strength		Measurement distance
(MHz)	(μV/m)	(dBµV/m)	(m)
0.009-0.490	2400/F	67.6-20log(F)	300
0.490-1.705	24000/F	87.6-20log(F)	30
1.705–30.0	30	29.5	30
30–88	100	40.0	3
88–216	150	43.5	3
216–960	200	46.0	3
above 960	500	54.0	3

#### Notes:

- F = fundamental frequency in kHz
- In the emission table above, the tighter limit applies at the band edges.
- For frequencies above 1 GHz the limit on peak RF emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test.

#### §15.205 – Restricted bands of operation

MHz	MHz	MHz	GHz
0.090-0.110	16.42–16.423	399.9–410	4.5–5.15
0.495-0.505	16.69475–16.69525	608–614	5.35-5.46
2.1735-2.1905	16.80425–16.80475	960–1240	7.25–7.75
4.125-4.128	25.5–25.67	1300–1427	8.025–8.5
4.17725-4.17775	37.5–38.25	1435–1626.5	9.0–9.2
4.20725-4.20775	73–74.6	1645.5–1646.5	9.3–9.5
6.215–6.218	74.8–75.2	1660–1710	10.6–12.7
6.26775-6.26825	108–121.94	1718.8–1722.2	13.25–13.4
6.31175-6.31225	123–138	2200–2300	14.47–14.5
8.291-8.294	149.9–150.05	2310–2390	15.35–16.2
8.362-8.366	156.52475–156.52525	2483.5–2500	17.7–21.4
8.37625-8.38675	156.7–156.9	2690–2900	22.01–23.12
8.41425-8.41475	162.0125–167.17	3260–3267	23.6–24.0
12.29–12.293	167.72–173.2	3332–3339	31.2–31.8
12.51975-12.52025	240–285	3345.8–3358	36.43–36.5
12.57675-12.57725	322–335.4	3600–4400	Above 38.6
13.36-13.41			·

- The spectrum was searched from 30 MHz to the 10<sup>th</sup> harmonic.
- The EUT was measured on three orthogonal axis.
- All measurements were performed at a distance of 3 m.
- All measurements were performed:
  - below 30 MHz: using a quasi-peak detector with 9 kHz/30 kHz RBW/VBW,
  - within 30–1000 MHz range: using a quasi-peak detector with 120 kHz/300 kHz RBW/VBW,
  - within 30–1000 MHz range: using a peak detector with 100 kHz/300 kHz RBW/VBW,
  - above 1 GHz: using peak detector with 1 MHz/3 MHz RBW/VBW for peak results
    - and using peak detector with 1 MHz/10 Hz RBW/VBW for average results
    - or using average detector with 1 MHz/3 MHz RBW/VBW for average results



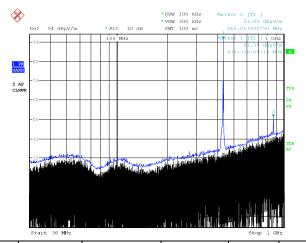
Section 8: Testing data	Product: Tag

Test data, continued			
Test facility	Measuring distance (m)	Antenna height variation (m)	Turn table position (°)
10m Semi anechoic chamber	3	1–4	0–360
Results			

Refer to spectral plots and tables of this section.

## Spectral plots

#### Horizontal polarization



Freq. (MHz)	Pol. V/H	Peak field strength (dBμV/m)	Correction (dB)	Quasi Peak limit (dBµV/m)	Quasi Peak margin (dB)	Duty cycle corr. (dB)	Avg field strength (dBµV/m)	Avg limit (dBµV/m)	Avg margin (dB)
435.315	h	91.4				16.6	74.8	80.9	-6.1
867.97	h	51				16.7	34.3	61.9	-27.6



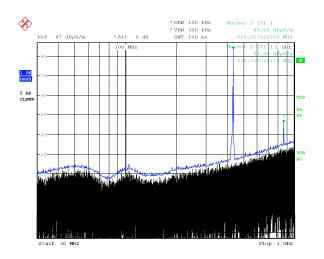
Section 8: Testing data	Product: Tag

Test data, continued			
Test facility	Measuring distance (m)	Antenna height variation (m)	Turn table position (°)
10m Semi anechoic chamber	3	1–4	0–360
Desulte			

Refer to spectral plots and tables of this section.

#### Spectral plots

#### Vertical polarization



Freq. (MHz)	Pol. V/H	Peak field strength (dBμV/m)	Correction (dB)	Quasi Peak limit (dBµV/m)	Quasi Peak margin (dB)	Duty cycle corr. (dB)	Avg field strength (dBµV/m)	Avg limit (dBµV/m)	Avg margin (dB)
435.315	٧	83.5				16.6	66.9	80.9	-14.0
869.01	٧	45.6				16.6	29	61	-32.0



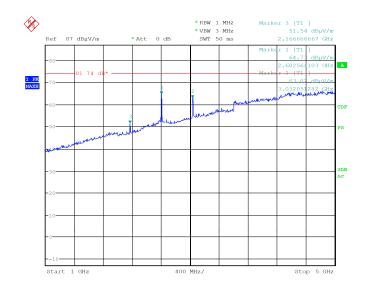
Section 8: Testing data Product: Tag

Test data, continued			
Test facility	Measuring distance (m)	Antenna height variation (m)	Turn table position (°)
10m Semi anechoic chamber	3	1–4	0–360
_			

Refer to spectral plots and tables of this section.

#### Spectral plots

#### Horizontal polarization



Freq. (MHz)	Pol. V/H	Peak field strength (dBμV/m)	Correction (dB)	Quasi Peak limit (dBµV/m)	Quasi Peak margin (dB)	Duty cycle corr.	Avg field strength (dBµV/m)	Avg limit (dBμV/m)	Avg margin (dB)
2166.66	h	51.54				16.6	34.94	61	-26.06
2602.564	h	64.73				16.6	48.13	61	-12.87
3032.051	h	63.02				16.6	46.42	61	-14.58



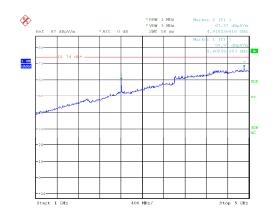
Section 8: Testing data Product: Tag

Test data, continued			
Test facility	Measuring distance (m)	Antenna height variation (m)	Turn table position (°)
10m Semi anechoic chamber	3	1–4	0–360
Describe			

Refer to spectral plots and tables of this section.

#### Spectral plots

#### Vertical polarization



Freq.	Pol. V/H	Peak field strength	Correction (dB)	Quasi Peak limit (dBµV/m)	Quasi Peak margin (dB)	Duty cycle corr.	Avg field strength (dBµV/m)	Avg limit (dBµV/m)	Avg margin (dB)
(MHz)		(dBμV/m)			, ,	(dB)			
2602.564	٧	67.57			-	16.6	50.97	61	-10.03
4910.256	V	59.97				16.6	43.37	61	-17.63

D : 10 1 1 11	
Receiver/Spectrum analyzer settings:	
30 MHz	to 1 GHz
Preview measurements	Final measurement
Receiver: 120 kHz RBW, Peak detector, max hold	Receiver: 120 kHz RBW, Quasi-peak detector
1 GHz to	o 40 GHz
Preview measurements	Final measurement
Spectrum analyzer: 1 MHz RBW, Peak detector, max hold	Receiver: 1 MHz RBW, Average and Peak detector
Measurement time 100ms	



Section 8: Testing data	Product: Tag

#### 8.6 Clause 15.231(c) Emission bandwidth

#### § 15.231 Periodic operation in the band 40.66-40.70 MHz and above 70 MHz.

(c) The bandwidth of the emission shall be no wider than 0.25 % of the center frequency for devices operating above 70 MHz and below 900 MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5 % of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.

#### Special notes

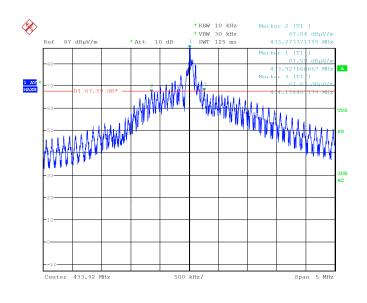
The test was performed using peak detector of the spectrum analyzer with RBW no narrower than 1 % of the emission bandwidth.

#### Test data

#### Limits

0.25 % of 433.92 MHz is 1.085 MHz

#### Measured results



Date: 4.DEC.2015 18:35:28

20 dB bandwidth	Limit	Margin
(kHz)	(kHz)	(kHz)
434.178 MHz - 433.273 MHz= 905 kHz	1085	180



Special notes

None

Section 8: Testing data	Product: Tag

## 8.7 Clause 15.231(d) Requirements for devices operating within 40.66–40.70 MHz band

§ 15.231 Periodic operation in the band 40.66-40.70 MHz and above 70 MHz.

(d) For devices operating within the frequency band 40.66–40.70 MHz, the bandwidth of the emission shall be confined within the band edges and the frequency tolerance of the carrier shall be ±0.01 %. This frequency tolerance shall be maintained for a temperature variation of −20 degrees to +50 degrees 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 degrees C. For battery-operated equipment, the equipment tests shall be performed using a new battery.

Test data
NA.



Section 8: Testing data	Product: Tag

## 8.8 Clause 15.231(e) Field strength of emissions for periodic radiators

#### § 15.231 Periodic operation in the band 40.66-40.70 MHz and above 70 MHz.

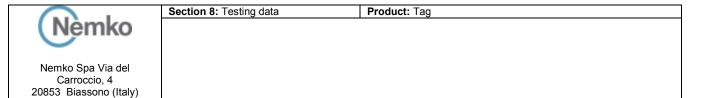
(e) Intentional radiators may operate at a periodic rate exceeding that specified in paragraph (a) of this section and may be employed for any type of operation, including operation prohibited in paragraph (a) of this section, provided the intentional radiator complies with the provisions of paragraphs (b) through (d) of this section, except the field strength table in paragraph (b) of this section is replaced by the following:

occurry extensit	couldn't except and more during an easier in paragraph (a) or and couldn't expected a j and remaining.				
Fundamental frequency	Field strength of fundamental		Field strength of spurious emissions		
(MHz)	(μV/m)	(dBµV/m)	(μV/m)	(dBµV/m)	
40.66–40.70	1,000	60	100	40	
70–130	500	53.9	50	33.9	
130–174	500 to 1,500*	53.9 to 63.5*	50 to 150*	33.9 to 43.5*	
174–260	1,500	63.5	150	43.5	
260–470	1,500 to 5,000*	63.5 to 73.9*	150 to 500*	43.5 to 53.9*	
Above 470	5.000	73.9	500	53.9	

- \* Linear interpolations.
- The above field strength limits are specified at a distance of 3 meters. The tighter limits apply at the band edges.

In addition, devices operated under the provisions of this paragraph shall be provided with a means for automatically limiting operation so that the duration of each transmission shall not be greater than one second and the silent period between transmissions shall be at least 30 times the duration of the transmission but in no case less than 10 seconds.

Special Notes		
None		



#### Test data

Duty cycle/average factor calculations

§15.35(c) When the radiated emission limits are expressed in terms of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds.

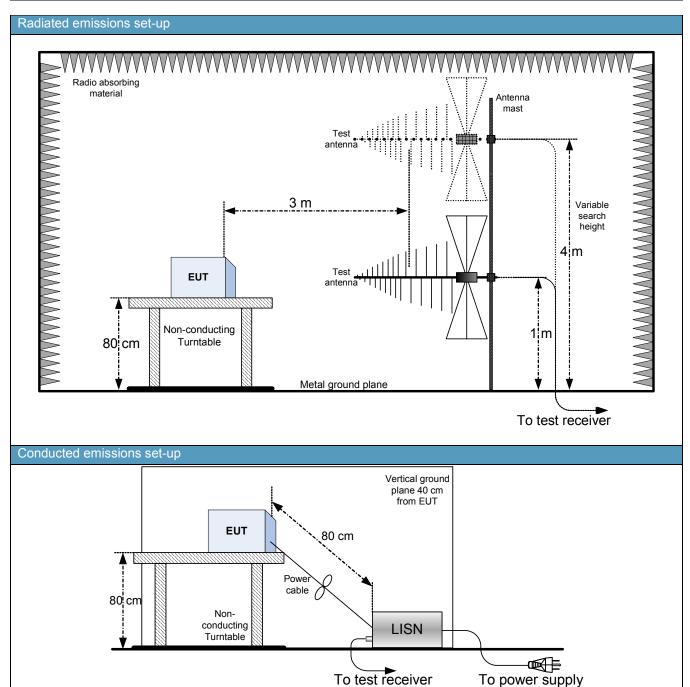
Duty cycle/average factor calculations: NA

Duty cycle | average factor = 
$$20 \times \log_{10} \left( \frac{Tx_{100 \, ms}}{100 \, ms} \right)$$



Section 9: Block diagrams of test set-ups	Product: Tag	

# Section 9: Block diagrams of test set-ups





Section 10: EUT photos Product: Tag

# Section 10: EUT photos

#### EUT





