TEST REPORT

Report Number: 3186196MPK-001
Project Number: 3186196
July 31, 2009

Testing performed on the
Cordless Teth-Air
Model number: CT10TX
FCC ID: XL6-CT-10-TX
IC: 8527A-CT10TX
to

FCC Part 15.249, RSS-210 Issue 7

For

RFLOGY BILGI TEKNOLJILERI TIC.LTD.STI.

Test Performed by:	**Test Authorized by:**
Intertek Testing Services NA, Inc	RFLOGY BILGI TEKNOLJILERI TIC.LTD.STI.
1365 Adams Court	ORTAYOL SOK.ORNEK APT.NO:10/4
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Prepared by: _____ **Date:** July 31, 2009
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Reviewed by: _____ **Date:** July 31, 2009
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1.0 Summary of Tests

TEST	REFERENCE FCC Rule	REFERENCE RSS-210/RSS-GEN	RESULT
Field Strength of Fundamental	15.249a	A2.9(a)	Complies
Field Strength of Harmonics	15.249a	A2.9(a)	Complies
Radiated Emissions outside the band	15.249c	A2.9(b)	Complies
Line Conducted Emissions	15.207	RSS-GEN 7.2.2	N/A *
Radiated Emissions from digital part and receiver	15.109	RSS-GEN, ICES-003	Complies

* Not Applicable – The EUT is battery powered

2.0 General Description

2.1 Product Description

The ***Cordless Teth-Air*** is a technologically advanced radio transmitting and receiving safety device. It is designed for snowmobiles and similar vehicles where the rider/driver may get separated from the controls. This system is designed to shut off the engine in a runaway condition, whether the throttle is stuck open or when the vehicle may be kept moving, aided by the engine running uncontrolled in gear.

The ***Cordless Teth-Air*** is comprised of two components:

1. Transmitter. (Worn on the wrist of the vehicle operator)
2. Receiver. (Mounted and wired permanently on the vehicle)

Overview of the EUT

Applicant name & address	RFLOGY BILGI TEKNOLJILERI TIC.LTD.STI. ORTAYOL SOK.ORNEK APT.NO:10/4 USTBOSTANCI-KADIKOY ISTANBUL, Turkey
Manufacturer name & address	RFLOGY BILGI TEKNOLJILERI TIC.LTD.STI. ORTAYOL SOK.ORNEK APT.NO:10/4 USTBOSTANCI-KADIKOY ISTANBUL, Turkey
Model No.	Model: CT10TX
Rated RF Output Power	-12dBm
Frequency Range	2.4GHZ ISM Band (2455MHz)
Number of Channel(s)	1 (one)
Type of Modulation	GFSK
Data Rate	1Mbps
Duty Cycle	Tx period of 0,3-0,47sec randomized (TAG)
Antenna(s) & Gain	PCB, gain = 0.15

A pre-production version of the EUT was received on July 2, 2009 in good operating condition. As declared by the Applicant, it is identical to production units. Date of test July 28, 2009.

Applicant:	RFLOGY BILGI TEKNOLJILERI TIC.LTD.STI.
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2.2 Related Submittal(s) Grants

This report is for use with an application for certification of a low power transmitter.

2.3 Test Methodology

Radiated emissions measurements were performed according to the procedures in ANSI C63.4 (2003). Radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the **"Data Sheet"** of this Application. All other measurements were made in accordance with the procedures in part 2 of CFR 47.

2.4 Test Facility

The 10m anechoic chamber and conducted measurement facility used to collect the radiated data is site #1. This test facility and site measurement data have been fully placed on file with the FCC and A2LA accredited.

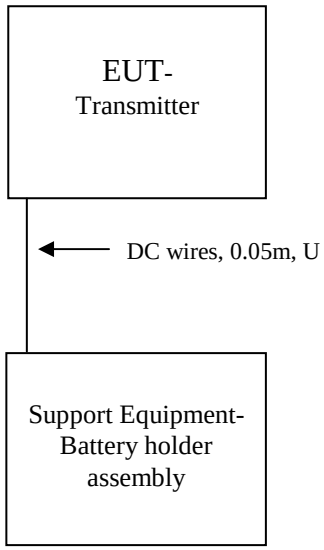
The A2LA certificate number for this site is 1755-01.
The Industry Canada (IC) Site Number is 2042L-1.
FCC Site Registration is 90708.

3.0 System Test Configuration

3.1 Support Equipment and description

None.

3.2 Block Diagram of Test Setup



S = Shielded **U** = Unshielded	**F** = With Ferrite **m** = Length in Meters

3.3 Justification

For emission testing, the test procedures, as described in American National Standards Institute ANSI C63.4 (2003), were employed. The equipment under test (EUT) was configured for testing in a typical fashion (as a customer would normally use it). During testing, all cables were manipulated to produce worst case emissions. If the EUT attaches to peripherals, they are connected and operational (as typical as possible). The EUT was wired to transmit full power. Care was taken to ensure proper power supply voltages during testing.

3.4 Software Exercise Program

No EUT software program was utilized during the evaluation.

3.5 Mode of operation during test

During the test the EUT was setup to transmit continuously at maximum power.

3.6 Modifications required for Compliance

No modifications were installed by Intertek Testing Services during compliance testing in order to bring the product into compliance (Please note that this does not include changes made specifically by RFLOGY prior to compliance testing).

3.7 Additions, deviations and exclusions from standards

No additions, deviations or exclusion have been made from standard.

4.0 Measurement Results

4.1 Transmitter Radiated Emissions
FCC Rules: 15.249, 15.209.

Requirements

The Field Strength of emissions shall not exceed the following levels:
94 dB(μV/m) for fundamental frequency,
54 dB(μV/m) for harmonics.
Emissions radiated outside of the specified frequency band, except for harmonics, shall be attenuated by at least 50 dB below the level of fundamental or to the general radiated emission limits in 15.209, whichever is the lesser attenuation.

Procedure

For radiated emission measurements, the EUT is placed on the non-conductive turntable. The signal is maximized through rotation and placement in the three orthogonal axes.

During the test the EUT is rotated and the antenna height and polarization are varied during the search for maximum signal level. The antenna height is varied from 1 to 4 meters.

Radiated emissions are taken at three meters unless the signal level is too low for measurement at that distance. If necessary, a pre-amplifier is used and/or the test is conducted at a closer distance. All readings are extrapolated back to the equivalent three-meter reading using inverse scaling with distance.

Radiated emission measurements were performed from 30 MHz to 25 GHz.
Analyzer resolution is:
100 kHz or greater - for frequencies 1000 MHz and below,
1 MHz - for frequencies above 1000 MHz.

Data is included of the worst case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photographs and data tables of the emissions are included.

Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation is as follows:
FS = RA + AF + CF - AG
Where FS = Field Strength in dB (μV/m)
RA = Receiver Amplitude (including preamplifier) in dB (μV)
CF = Cable Attenuation Factor in dB
AF = Antenna Factor in dB(1/m)
AG = Amplifier Gain in dB

Test Result

Results	Complies by 3.1 dB

The data below shows the significant emission frequencies, the limit and the margin of compliance.

Radiated emissions at fundamental frequency

Channel number	Frequency MHz	RA dB(uV)	Detector Peak/Ave	AF dB(1/m)	CF dB	FS at 3m dB(uV/m)	FS Limit dB(uV/m)	Margin dB
1	2455.0	52.1	Average	29.2	5.1	86.4	94	-7.6

Notes: 1) The peak-to-average ratio measured was less than 10 dB; therefore, the peak Field Strength complies with the Limit of 114 dB(uV/m).

Radiated emissions at harmonic frequencies

Frequency MHz	SA reading dB(uV)	RBW/VBW	Pre Amp dB	Cable Loss dB	Antenna Factor dB(1/m)	FS dB(uV/m)	FS Limit dB(uV/m)	Margin dB
Tx @ 2455.0 MHz								
4910.0	41.9	1MHz/100 Hz	32.7	5.1	33.5	47.8	54.0	-6.2
7365.0	31.8*	1MHz/100 Hz	32.2	5.8	36.0	41.4	54.0	-12.6
9820.0	30.9*	1MHz/100 Hz	31.9	7.8	38.3	45.1	54.0	-8.9
12275.0	31.9*	1MHz/100 Hz	32.4	8.4	39.0	46.9	54.0	-7.1
14730.0	31.5*	1MHz/100 Hz	32.0	10.9	40.4	50.8	54.0	-3.2
17185.0	32.4 *	1MHz/100 Hz	34.1	11.5	41.1	50.9	54.0	-3.1

* Noise floor

Notes: 1) The peak-to-average ratio measured was less than 10 dB; therefore, the peak Field Strength complies with the Limit of 74 dB(uV/m).
2) All other emissions not reported are noise floor which is at least 10 dB below the limit.

4.2 Out of Band Spurious Emissions
FCC Rules: 15.249, 15.209

Frequency MHz	SA reading dB(uV)	Detector P/QP/A	Pre Amp dB	Cable Loss dB	Antenna H/V	Antenna Factor dB(1/m)	FS dB(uV/m)	FS* Limit dB(uV/m)	Margin dB
62.8	41.4	QP	32.0	0.8	V	3.6	13.8	40.0	-26.2
71.3	39.8	QP	32.0	0.8	V	5.3	13.9	40.0	-26.1
79.2	35.9	QP	32.0	0.9	V	6.9	11.7	46.0	-28.3
197.0	30.6	QP	31.9	1.5	H	9.7	9.9	43.5	-33.6
212.9	32.5	QP	31.9	1.5	H	10.2	12.4	43.5	-31.1
355.5	27.8	QP	31.9	2	H	15.3	13.2	46	-32.8
662.4	30.4	QP	32.3	2.7	H	20.5	21.3	46.0	-24.7
1228.0	43.5	AV	34.1	3.4	V	25.0	37.8	54.0	-16.2
1404.0	42.0	AV	34.1	3.6	V	25.1	36.6	54.0	-17.4
2808.0	43.7	AV	34.4	5.8	V	29.6	44.7	54.0	-9.3
4910.0	33.4	AV	32.8	9.7	H	33.3	43.6	54.0	-10.4

* 15.209 Limits were used.

Measurements were performed from 30 MHz to 24 GHz. All other emissions not reported are noise floor which is at least 10 dB below the limit.

5.0 List of test equipment

Measurement equipment used for emission compliance testing utilized the equipment on the following list:

Equipment	Manufacturer	Model/Type	Serial #	Cal Int	Cal Due
RF Filter Section	Hewlett Packard	85460A	3448A00267	12	7/01/10
EMI Receiver	Hewlett Packard	8546A	3710A00373	12	7/01/10
Spectrum Aanalyzer	Rohde & Shwarz	FSP	100030	12	10/13/09
BI-Log Antenna	EMCO	3143	9509	12	11/7/09
Horn Antenna	EMCO	3115	9107-3712	12	10/22/09
Pre-Amplifier	Sonoma	310N	185634	12	11/10/09
Pre-Amplifier	Miteq	AMF-40-001180-24-10P	799159	12	7/28/09

6.0 Document History

Revision/ Job Number	Writer Initials	Date	Change
1.0 / 3186196	BG	July 31, 2009	Original document

7.0 Appendix A – Occupied Bandwidth

Measured using Bandwidth function set at 99%.