
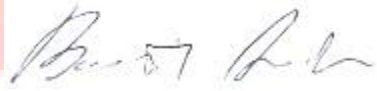
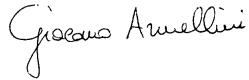




PRIMA

RICERCA & SVILUPPO

RAPPORTO DI PROVA / TEST REPORT

Rif./Ref.No. EMFTR_140386-1	Data / Date: 12/09/2014	Pagine / Pages : 10
Scopo delle prove / Test object :	Prove di tipo in accordo alla Norma armonizzata / Type test according to Harmonized standards EN 50364: 2010	
Richiedente / Applicant :	SICURTEL S.n.c. di Claudio Nigretti & C. Via del Lavoro, 2 – 22100 Como (CO) – ITALY Tel. +39 031 525301	
Persona di riferimento / Applicant's referee :	Sig. Nigretti (nigretti@sicurtel.com)	
Marchio commerciale / Trade mark :		
Fabbricante / Manufacturer :	Sicurtel S.n.c.	
Prodotto / Product :	Reader proximity	
Modello / Model :	System Composed by QUADRA-PROX QUADRA 3 PROX	
Data ricevimento campioni / Test samples receipt date:	07/04/2014	
Campioni verificati / No. of tested samples:	1	
Data verifiche / Testing date :	07/04/2014	
Sito di prova / Testing site :	Prima Ricerca & Sviluppo Via Campagna - 92 I - 22020 FALOPPIO CO	
Esito delle valutazioni / Assessment results :	CONFORME / COMPLIANT	
Verifiche effettuate da / Verifications carried out by :	Andrea Bortolotti Tecnico laboratorio / Laboratory technician	
Approvato / Approved by :	Giacomo Armellini Responsabile Laboratorio EMC e RADIO/ EMC and RADIO Laboratory Manager	

I risultati delle prove riportati nel presente rapporto di prova si riferiscono solo ai campioni esaminati./The test results reported in this test report shall refer only to the samples tested

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0 RELEASE CONTROL RECORD

TEST REPORT NUMBER	REASON OF CHANGE	DATE OF ISSUE
EMFTR_140386-0	Original Release	16/04/2014
EMFTR_140386-1	Editorial Change: correction of trademark log	12/09/2014

1 TECHNICAL INFORMATION OF EQUIPMENT UNDER TEST (EUT)

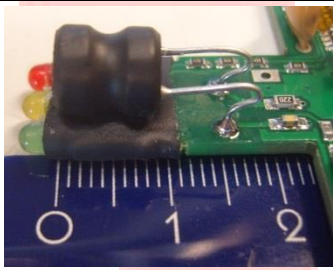
1.1 EUT Identification

DESCRIPTION	Reader proximity
MODEL NAME OR NO.	System Composed by QUADRA-PROX QUADRA 3 PROX
PART NUMBER / SERIAL NO.	Not present (Prototype)
BRAND NAME	 SECURFORCE
MANUFACTURER	Sicurtel S.n.c.
COUNTRY OF MANUFACTURER	Italy
TYPE OF UNIT (acc. to tab 1 of EN 62369-1)	<input type="checkbox"/> Single floor standing unit <input type="checkbox"/> Double floor standing unit <input type="checkbox"/> Walk through unit <input type="checkbox"/> Counter mounted unit <input checked="" type="checkbox"/> Wall mounted unit <input type="checkbox"/> Hand held unit

1.2 EUT Technical Information

POWER SOURCE	External power source
POWER SUPPLY NOMINAL VOLTAGE	24Vdc
NOMINAL POWER / ABSORBED CURRENT	Not declared
DIMENSIONS	See photographic documentation

1.3 EUT radio part technical data

FREQUENCY BAND	A3 119-135 kHz	
OPERATING FREQUENCY	125,2 kHz	
NUMBER OF CHANNELS	1	
CHANNEL BANDWIDTH	---	
TYPE OF MODULATION	ASK	
FIELD STRENGTH at 20cm	66,4dB μ A/m = 0,002089A/m	
TYPE OF ANTENNA	Inductive Coil Loop Antenna	
SIZE/ LENGTH OF ANTENNA	See photographic documentation	
OPERATING MODE	Continuous modulated transmission	
DUTY CYCLE	100%	

2 REFERENCE STANDARDS

REFERENCE EUROPEAN STANDARDS:

EN 50364:2010	Limitation of human exposure to electromagnetic fields from devices operating in the frequency range 0 Hz to 10 GHz, used in Electronic Article Surveillance (EAS), Radio Frequency Identification (RFID) and similar
EN 62369-1:2009	Evaluation of Human exposure to electromagnetic fields from short range devices (SRDs) in various applications over the frequency range 0 GHz to 300GHz – Part 1: Fields produced by devices used for electronic article surveillance, radio frequency identification and similar systems

3 REFERENCE REGULATORY

REFERENCE REGULATORY:

1999/519/EC	European Council Recommendation on the limitation of exposure of the general public to electromagnetic fields (0Hz to 300GHz)
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4 EVALUATION OF COMPLIANCE

4.1 Evaluation of Emitted EMF

The emitted EMF shall be evaluated using one of the following methods.
It is not necessary to demonstrate compliance using more than one method.

4.1.1 Assessment to show compliance with Derived Reference Levels

Measurements shall be made according to EN 62369-1, using one of the methods form EN 62369-1, 4.2, as appropriate.

The results shall be compared with the EC Recommendation, Annex III – Reference levels, using values provided in Table 2 of that document, and any applicable notes to the table.

4.1.2 Assessment to show compliance with Basic Restrictions

Assessment shall be made according to EN 62369-1, using one of the methods form EN 62369-1, 4.3, 4.4 or 4.5 as appropriate.

The results shall be compared with the EC Recommendation, Annex III – Basic restrictions, using values provided in Table 1 of that document, and any applicable notes to the table.

4.2 Evaluation of limb currents and contact currents from conductive objects

This subclause is applicable for equipment that emits single or multiple frequencies at up to 110MHz.
Evaluation shall be made according to EN 62369-1, 4.6.

For general public exposure, the results shall be compared with the EC Recommendation, Annex III – Reference levels, using values provided in Table 3 of that document, and any the paragraph beneath.

4.3 Assessment of devices which emit multiple frequencies

The operating nature of equipment covered by this product standard is such that they operate on one or more discrete frequencies with other frequencies suppressed by more than 30 dB. Where this is the case, the exposure assessment shall be made at the declared operating frequency or frequencies without requiring all other frequencies to be assessed. If this is not the case, then the exposure assessment must be made at all frequencies that are not suppressed by more than 30 dB.

For equipment that can emit more than one frequency, but not all frequencies simultaneously, then the frequency or frequencies which are most representative of the worst exposure condition shall be used. Again emitted frequencies suppressed by more than 30dB need not be considered.

In situations where simultaneous exposure to fields of different frequencies does occur, the possibility that these exposures will be additive in their effects must be considered. Assessment based on such additive effects shall be performed separately for each effect. The assessment shall be made according to EN 62369-1, Section 6. Separate evaluations and comparisons shall be made for thermal and electrical stimulation effects on the body, and for non-simultaneous effects.

For general public exposure, the summation shall be made according to EC Recommendation, Annex IV.

4.4 Assessment after delivery or installation

There is no requirement for assessments to be made after installation or delivery. The installer of the equipment should make such checks as are specified by the manufacturer to ensure that the equipment is operating according to its designed parameters, but this is not a requirement of this Standard.

If there are parameters of the equipment that have to be set at installation which would affect the compliance according to this product standard, these changes shall be made. Details of such changes shall be clearly defined in the documentation for the equipment along with any tests, measurements or checks necessary to ensure that the changes have been implemented correctly.

EVALUATION OF COMPLIANCE	<input checked="" type="checkbox"/> Evaluation of Emitted EMF	<input checked="" type="checkbox"/> Derived Reference Levels
		<input type="checkbox"/> Basic Restrictions
	<input type="checkbox"/> Evaluation of Limb currents and contact currents from conductive objects	
<input type="checkbox"/> Assessment of devices which emit multiple frequencies		

MEASUREMENTS DEFINITION (acc. to EN 62369-1 par 4.2)	TYPE	<input checked="" type="checkbox"/> Direct
		<input type="checkbox"/> Spatial
		<input type="checkbox"/> Modelling and analysis
	DISTANCE	20cm

5 LIMITS

Tab. 2 of Recommendation 1999/519/EC: Reference levels for electric, magnetic and electromagnetic fields (0Hz to 300GHz, unperturbed rms values)

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (μT)	Equivalent plane wave power density S_{eq} (W/m ²)
0-1 Hz	—	$3,2 \times 10^4$	4×10^4	—
1-8 Hz	10 000	$3,2 \times 10^4/f^2$	$4 \times 10^4/f^2$	—
8-25 Hz	10 000	$4\,000/f$	$5\,000/f$	—
0,025-0,8 kHz	$250/f$	$4/f$	$5/f$	—
0,8-3 kHz	$250/f$	5	6,25	—
3-150 kHz	87	5	6,25	—
0,15-1 MHz	87	$0,73/f$	$0,92/f$	—
1-10 MHz	$87/f^{1/2}$	$0,73/f$	$0,92/f$	—
10-400 MHz	28	0,073	0,092	2
400-2 000 MHz	$1,375 f^{1/2}$	$0,0037 f^{1/2}$	$0,0046 f^{1/2}$	$f/200$
2-300 GHz	61	0,16	0,20	10

6 MEASUREMENTS RESULTS

H-Field strength (A/m)		
MEASURED	LIMIT	VERDICT
0.002089	0.073	WITHIN THE LIMITS
NOTES	-----	

7 PHOTOGRAPHIC DOCUMENTATION

PHOTO N° 1 – SYSTEM IDENTIFICATION QUADRA-PROX + QUADRA 3 PROX

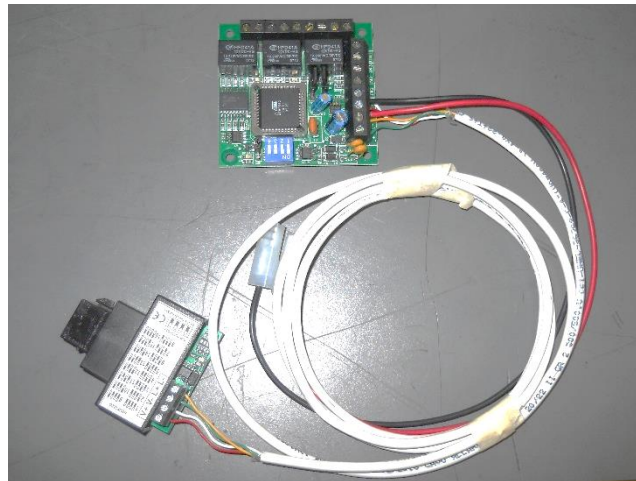


PHOTO N° 2 –QUADRA-PROX

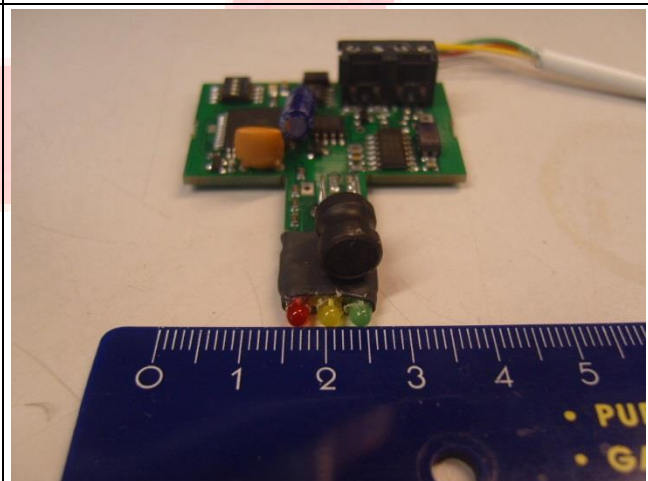
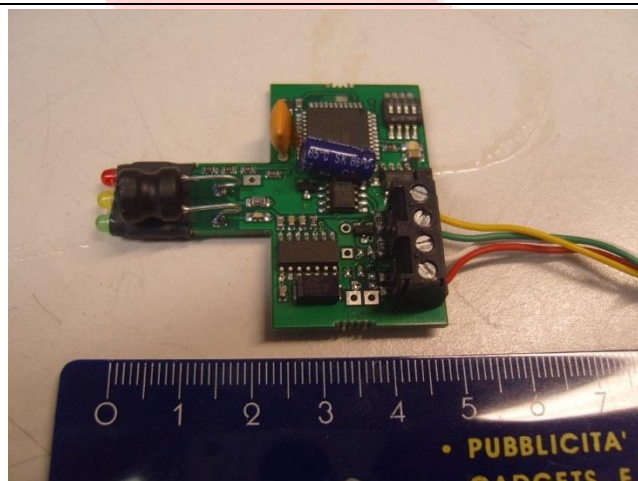
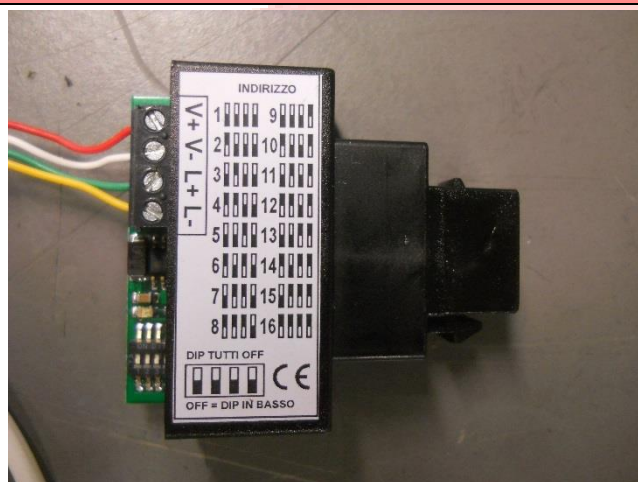


PHOTO N° 3 – QUADRA 3 PROX

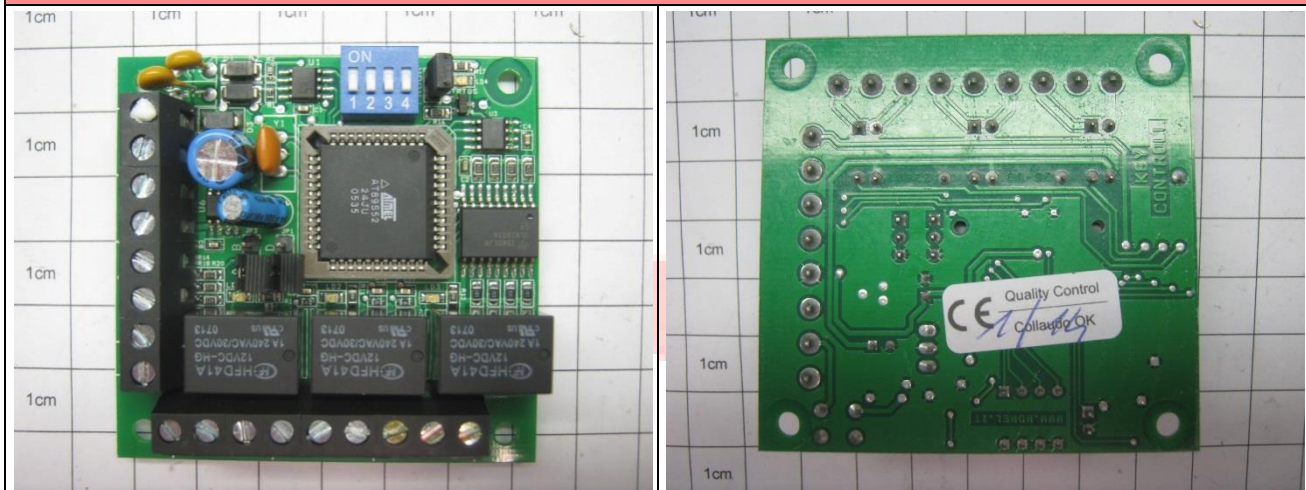


PHOTO N° 2 – EMISSION SETUP

