

# Schedule of Accreditation

issued by

## United Kingdom Accreditation Service

21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK



4262

Accredited to  
ISO/IEC 17025:2005

### JRC Tempest Testing Laboratory Traceability & Vulnerability Assessment Unit (TRVA)

Issue No: 006 Issue date: 12 November 2010

Institute for the Protection & the  
Security of the Citizen (IPSC)

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Testing performed at the above address only

#### DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
134.2 kHz RFID Passive Transponders & Transceivers used for Animal Identification	<b>1 ISO 24631-1 Transponder Conformance Testing</b>  1.1 Transponder resonance frequency determination  1.2 Transponder return signal frequencies/modulation side-bands measurements  1.3 Transponder code structure check	ISO 24631-1:2009
	<b>2 ISO 24631-2 Transceiver Conformance Testing</b>  2.1 Transceiver activation field frequency determination  2.2 Transceiver activation field timing measurements  2.3 Transceiver response to ISO 11784 code	In-house procedure for transceiver conformance tests (Rev 1 issued on 10/06/2010, meeting the requirements of ISO 24631-2: 2009)



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<b>134.2 kHz RFID Passive Transponders &amp; Transceivers used for Animal Identification</b> (cont'd)	<b>3 ISO 24631-3 Transponder Performance Testing</b>  3.1 Transponder Activation field strength  3.2 Transponder Modulation Amplitude  3.3 Transponder Bit length & Frequency stability	OI IN-house Procedure for ISO 11785 Transponder Performance Testing (Rev 1 issued on 10/06/2010)  And  ISO 24631-3: 2009
	<b>4 EMC Testing</b>  4.1 Fast Transient/Burst Immunity 0.25 to 4 kV	IEC 61000-4-4:2004
	4.2 Surge 0.5 kV to 4 kV	IEC 61000-4-5:2005
	4.3 Conducted Immunity 150 kHz to 230 MHz 10 Vrms	IEC 61000-4-6:2006
	4.4 Voltage Dips and Interruptions	IEC 61000-4-11:2004 (50 Hz Single Phase Equipment Only)
	4.5 Electrostatic Discharge Immunity (ESD): Up to 27 kV Direct and Indirect Air and Contact Discharge Positive and Negative Polarity	IEC 1000-4-2:1995 including A1:1998 and A2:2000



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<b>134.2 kHz RFID Passive Transponders &amp; Transceivers used for Animals Identification</b> (cont'd)	<b>5 Environmental Testing (non explosive items)</b>  5.1 Climatic Single Parameters  <b>HIGH TEMPERATURE</b> Max temp: +85 °C Max chamber size: 1.00 m x 1.12 m x 0.90 m  <b>LOW TEMPERATURE</b> Min temp: -40 °C Max chamber size: 1.00 m x 1.12 m x 0.90 m  <b>CHANGE OF TEMPERATURE (Thermal Shock)</b> Manual transfer - 2 chamber method Temp range: -40 °C to +85 °C Max chamber sizes: 0.55 m x 0.62 m x 0.59 m  <b>CHANGE OF TEMPERATURE (Rapid change) Single chamber</b> Temp range: -40 °C to +85 °C Maximum rate of change: 5°C/min Max chamber size: 0.55 m x 0.62 m x 0.59m  <b>DAMP HEAT, STEADY STATE</b> Temp range: +30 °C to +70 °C Humidity range: 10% RH to 93% RH Max chamber size: 0.55 m x 0.62 m x 0.59 m	IEC 60068-2-2:2007:Test Bb  IEC 60068-2-1:2007:Test Ab  IEC 60068-2-14:1984:Test Na  IEC 60068-2-14: 1984 Test Nb  IEC 60068-2-78:2001:Test Cab



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<p><b>134.2 kHz RFID Passive Transponders &amp; Transceivers used for Animals Identification</b> (cont'd)</p>	<p><b>5 Environmental Testing (non explosive items)</b> (cont'd)</p> <p>5.2 Dynamic Single Parameters</p> <p><b>FREE FALL</b> (ambient temperature) Max drop height: 1 m Max item mass: 50 kg Max item face size: 1.30 m x 0.55 m Drop Surface: Concrete</p> <p><b>Shock</b> Half sine, Terminal Peak Sawtooth, Max severity: Half sine: 28 g Terminal Peak Sawtooth: 20 g</p> <p><b>Vibration Sinusoidal</b> Freq range: 5-2000 Hz Peak thrust: 9 kN Max pk/pk displacement: 25.4 mm</p> <p><b>Vibration, broadband random</b> Freq range: 5-2000 Hz Peak thrust: 9 kN Max pk/pk displacement: 25.4 mm</p>	<p>IEC 60068-2-31:2008:Test Ec</p> <p>IEC 60068-2-27:2008:Test Ea</p> <p>IEC 60068-2-6:2007:Test Fc</p> <p>IEC 60068-2-64:2008:Test Fh</p>
	<p>END</p>	