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Issued to: -	D-TACQ Solutions Ltd International House Stanley Blvd Hamilton International Park Blantyre G72 0BN	**Order No.** DPO-230612-01

Electromagnetic Compatibility Test/s were performed on the apparatus as detailed: -

Description	Data acquisition system comprising of a carrier with a number of peripheral DAC, ADC and i/o devices held in carrier slots within the system enclosure.		
Type number	ACQ2106		
Serial Number/s	133		
Configuration/ Mode of Operation	Loopback configuration tests DACs and ADCs for any degradation in the signal from input data (from Laptop PC to carrier) transmitted to the DAC outputs which are connected to the ADC inputs. ADC output data is subsequently transmitted via the carrier back to the laptop PC for display using CS-Studio.		
Date received	30th June 2023	**Date Tested**	30th June 2023 – 10th July 2023
Specification/s	EN55032: 2015+A11: 2020	Electromagnetic compatibility of multimedia equipment – Emissions requirements	
	EN 55035: 2017+A11: 2020 / CISPR 35: 2016	Electromagnetic compatibility of multimedia equipment – Immunity requirements	

The apparatus to which this certificate relates was tested against the above specifications. Full results are retained on file at Eurofins E&E UK Ltd, Grangemouth laboratory. The apparatus was found to be compliant to the above specifications subject to the following conditions:

UKAS Accreditation

Tests marked "Not UKAS Accredited" in this certificate are not included in the UKAS Accreditation Schedule for our laboratory.

Opinions and interpretations expressed herein are outside the scope of UKAS Accreditation.

EUT Submitted

These results apply only to the particular EUT submitted, in the configuration used and in the mode of operation tested.

Certificate No: -	**G6589TC1**	**Job No: -**	**G4031-1**	**Date: -**	**21st July 2023**	**Page 1 of 7**
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Tested by: -	**Approved signatory: -**
P Rosa, Senior Test Engineer	**Dr D. Bozec, Laboratories Director**

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Abnormalities/Departures from Standard Conditions

The test standards used reference dated and undated basic standards. Where amendments to the standards have been used, these are indicated.

Tests Referenced

Product Specific Standard: EN55032: 2015+A11: 2020

Electromagnetic compatibility of multimedia equipment – Emissions requirements

Consisting of:

Reference Standard	Class/limit	Results
Class B Device		
Table A.10 Conducted Emissions Mains port EN 55016-2-1: 2009+A1: 2011+A2: 2013 (Dated standard)	Class B 0.15-0.5MHz 66-56dBμV QP 0.5-5MHz 56dBμV QP 5-30MHz 60dBμV QP 0.15-0.5MHz 56-46dBμV Ave 0.5-5MHz 46dBμV Ave 5-30MHz 50dBμV Ave	Pass
Table A.12 Conducted Emissions Telecommunication port EN 55016-2-1: 2009+A1: 2011+A2: 2013 (Dated standard)	Class B 0.15-0.5MHz 84-74dBμV QP 0.5-30MHz 74dBμV QP 0.15-0.5MHz 74-64dBμV Ave 0.5-30MHz 64dBμV Ave	Pass
Table A.4 Radiated Emissions <1GHz EN55016-2-3: 2010+A1: 2010+A2: 2014 (Dated standard)	Class B 30-230MHz 40dBμV/m QP 230-1000MHz 47dBμV/m QP	Pass
Table A. 5 Radiated Emissions >1GHz EN55016-2-3: 2010+A1: 2010+A2: 2014 (Dated standard)	Class B 1-3GHz 50dBμV/m Ave 3-6GHz 54dBμV/m Ave 1-3GHz 70dBμV/m Peak 3-6GHz 74dBμV/m Peak	Pass

Reference Standard	Class/limit	Results
Harmonic Emissions EN61000-3-2: 2019	A	Pass
Flicker EN61000-3-3: 2013+A1: 2019	Plt & dmax	Pass

Immunity		
Product Specific Standard: EN 55035: 2017+A11: 2020 / CISPR 35: 2016 **Electromagnetic compatibility of multimedia equipment – Immunity requirements** **Consisting of:**		
Reference Standard	**Level**	**Result**
Section 4.2.1 ESD EN61000-4-2: 2009 (Dated standard)	±8kV air ±4kV contact	Pass
Section 4.2.2.2 Radiated Immunity EN61000-4-3: 2006 + A1: 2007+A2: 2010 (Dated standard)	3V/m 80MHz-1000MHz Spot Frequencies • 1800MHz • 2600MHz • 3500MHz • 5000MHz 80% 1kHz AM	Pass
Section 4.2.4 EFT/B EN61000-4-4: 2012 (Dated standard)	±1kV ac power ±0.5kV signal and telecoms ports (Applied using Capacitive Clamp)	Pass
Section 4.2.5 Surge EN61000-4-5: 2006 (Dated standard)	±1kV ac power, line to line ±2kV ac power, line to ground Time between surges: 30 secs lower levels and 60 secs higher levels	Pass
Section 4.2.2.3 Conducted RF Immunity EN61000-4-6: 2009 (Dated standard)	3Vrms 150kHz-10MHz 3 to 1 Vrms 10-30MHz 1Vrms 30-80 MHz 1kHz 80% AM AC Signal/Other (Applied using an EM Clamp)	Pass

Immunity		
Product Specific Standard: EN 55035: 2017+A11: 2020 / CISPR 35: 2016 **Electromagnetic compatibility of multimedia equipment – Immunity requirements** **Consisting of:**		
Reference Standard	**Level**	**Result**
Section 4.2.3 Power frequency magnetic field EN61000-4-8: 2010 (Dated standard)	1A/m 50Hz or 60Hz *Applicable only to equipment containing magnetically sensitive components*	N/A
Section 4.2.6 Voltage dips and Interruptions EN61000-4-11: 2004 (Dated standard)	0% for 0.5 periods 70% for 25 periods 0% for 250 periods	Pass

Note - The Decision Rule is applied on the basis of the following:

- EMC testing - CISPR16-4-2 and/or EN61000-4-x (TR61000-1-6)

These standards provide guidance on how to calculate and apply measurement uncertainty whilst providing maximum uncertainties allowance. In all cases due consideration will be given to JCGM 106:2012, ILAC-G8:09/2019 and LAB 48.

This laboratory has demonstrated by calibrating its equipment and facilities, and calculating its own uncertainties, that it complies with the above requirements and therefore no allowance of uncertainties has been given to the tolerances.

Where a result is considered marginal in respect of its proximity to the limit line, for example, the customer would be made aware of situation so that they can make an informed decision on how to proceed.

Opinions/Interpretations/Additional information

None

----------End of Certificate----------

Appendix 1
Uncertainty of measurement

MEASUREMENT UNCERTAINTIES
Conducted emissions
Power ports The reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 % is +/- 3.44dB for the frequency range from 150kHz to 30MHz
Telecom port The reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 % is +/- 4.94dB for the frequency range from 150kHz to 30MHz
Harmonic emissions
The reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 % is +/-4.33%
Mains Voltage Fluctuation and Flicker
The reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 % is +/-5.61%
Radiated emissions
The reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95% is +/- 4.9dB for the frequency range 30MHz to 1GHz +/- 5.22dB for the frequency range from 1GHz to 6GHz
ESD immunity
The ESD gun has been calibrated and shown to meet EN 61000-4-2:2009 with a reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, provides a level of confidence of approximately 95%.
Radiated RF immunity
The reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95% is +/-2.40dB
EFT immunity
The EFT generator has been calibrated and shown to meet EN 61000-4-4:2012 with a reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, provides a level of confidence of approximately 95%: +/-8.6%
Surge immunity
The surge generator has been calibrated and shown to meet EN 61000-4-5:2005 and 2014 with a reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, provides a level of confidence of approximately 95%. +/-13.2%

MEASUREMENT UNCERTAINTIES

Conducted RF immunity

The reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95% is

+/-1.36dB for a CDN

+/-3.19dB for a EM Clamp

Power Line Voltage Dips and Interrupts immunity

The VDIP generator has been calibrated and shown to meet EN 61000-4-11:2020 with a reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, provides a level of confidence of approximately 95%.