



Ministry
of Defence

Contract

702246450 –

Provision of EMC Testing Airborne Noise Test & 115V Equipment Under Test

24 January 2022 to 23 January 2023

**Between the Secretary of State for Defence of
the United Kingdom of Great Britain and
Northern Ireland**

And

TUV SUD Limited

Team Name and Address:
Navy Commercial
4 Deck, NCHQ
Leach Building
Whale Island
Portsmouth
PO2 8BY

Contractor Address:
Octagon House,
Concorde Way,
Fareham,
Hampshire,
PO15 5RL

SC1A (Edn 10/21)**1 Definitions - In the Contract:**

The Authority means the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland, (referred to in this document as "the Authority"), acting as part of the Crown;

Business Day means 09:00 to 17:00 Monday to Friday, excluding public and statutory holidays;

Contract means the agreement concluded between the Authority and the Contractor, including all terms and conditions, associated purchase order, specifications, plans, drawings, schedules and other documentation, expressly made part of the agreement in accordance with Clause 2.c;

Contractor means the person, firm or company specified as such in the purchase order. Where the Contractor is an individual or a partnership, the expression shall include the personal representatives of the individual or of the partners, as the case may be;

Contractor Commercially Sensitive Information means the information listed as such in the purchase order, which is information notified by the Contractor to the Authority, which is acknowledged by the Authority as being commercially sensitive;

Contractor Deliverables means the goods and / or services including packaging (and supplied in accordance with any QA requirements if specified) which the Contractor is required to provide under the Contract in accordance with the schedule to the purchase order;

Effective Date of Contract means the date stated on the purchase order or, if there is no such date stated, the date upon which both Parties have signed the purchase order;

Firm Price means a price excluding Value Added Tax (VAT) which is not subject to variation;

Government Furnished Assets (GFA) is a generic term for any MOD asset such as equipment, information or resources issued or made available to the Contractor in connection with the Contract by or on behalf of the Authority;

Hazardous Contractor Deliverable means a Contractor Deliverable or a component of a Contractor Deliverable that is itself a hazardous material or substance or that may in the course of its use, maintenance, disposal, or in the event of an accident, release one or more hazardous materials or substances and each material or substance that may be so released;

Issued Property means any item of Government Furnished Assets (GFA), including any materiel issued or otherwise furnished to the Contractor in connection with the Contract by or on behalf of the Authority;

Legislation means in relation to the United Kingdom any Act of Parliament, any subordinate legislation within the meaning of section 21 of the Interpretation Act 1978, any exercise of Royal Prerogative or any enforceable community right within the meaning of Section 2 of the European Communities Act 1972.

Notices means all notices, orders, or other forms of communication required to be given in writing under or in connection with the Contract;

Parties means the Contractor and the Authority, and Party shall be construed accordingly;

Transparency Information means the content of this Contract in its entirety, including from time to time agreed changes to the Contract, and details of any payments made by the Authority to the Contractor under the Contract.

2 General

a. The Contractor shall comply with all applicable Legislation, whether specifically referenced in this Contract or not.

b. Any variation to the Contract shall have no effect unless expressly agreed in writing and signed by both Parties.

c. If there is any inconsistency between these terms and conditions and the purchase order or the documents expressly referred to therein, the conflict shall be resolved according to the following descending order of priority:

- (1) the terms and conditions;
- (2) the purchase order; and
- (3) the documents expressly referred to in the purchase order.

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d. Neither Party shall be entitled to assign the Contract (or any part thereof) without the prior written consent of the other Party.

e. Failure or delay by either Party in enforcing or partially enforcing any provision of the Contract shall not be construed as a waiver of its rights or remedies. No waiver in respect of any right or remedy shall operate as a waiver in respect of any other right or remedy.

f. The Parties to the Contract do not intend that any term of the Contract shall be enforceable by virtue of the Contracts (Rights of Third Parties) Act 1999 by any person that is not a Party to it.

g. The Contract and any non-contractual obligations arising out of or in connection with it shall be governed by and construed in accordance with English Law, and subject to Clause 15 and without prejudice to the dispute resolution procedure set out therein, the Parties submit to the exclusive jurisdiction of the English courts. Other jurisdictions may apply solely for the purpose of giving effect to this Clause 2.g and for enforcement of any judgement, order or award given under English jurisdiction.

3 Application of Conditions

a. The purchase order, these terms and conditions and the specification govern the Contract to the entire exclusion of all other terms and conditions. No other terms or conditions are implied.

b. The Contract constitutes the entire agreement and understanding and supersedes any previous agreement between the Parties relating to the subject matter of the Contract.

4 Disclosure of Information

Disclosure of information under the Contract shall be managed in accordance with DEFCON 531 (SC1).

5 Transparency

a. Subject to Clause 5.b, but notwithstanding Clause 4, the Contractor understands that the Authority may publish the Transparency Information to the general public. The Contractor shall assist and cooperate with the Authority to enable the Authority to publish the Transparency Information.

b. Before publishing the Transparency Information to the general public in accordance with Clause 5.a, the Authority shall redact any information that would be exempt from disclosure if it was the subject of a request for information under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004, including the Contractor Commercially Sensitive Information.

c. The Authority may consult with the Contractor before redacting any information from the Transparency Information in accordance with Clause 5.b. The Contractor acknowledges and accepts that its representations on redactions during consultation may not be determinative and that the decision whether to redact information is a matter in which the Authority shall exercise its own discretion, subject always to the provisions of the Freedom of Information Act 2000 or the Environmental Information Regulations 2004.

d. For the avoidance of doubt, nothing in this Clause 5 shall affect the Contractor's rights at law.

6 Notices

a. A Notice served under the Contract shall be:

- (1) in writing in the English language;
- (2) authenticated by signature or such other method as may be agreed between the Parties;
- (3) sent for the attention of the other Party's representative, and to the address set out in the purchase order;
- (4) marked with the number of the Contract; and
- (5) delivered by hand, prepaid post (or airmail), facsimile transmission or, if agreed in the purchase order, by electronic mail.

b. Notices shall be deemed to have been received:

- (1) if delivered by hand, on the day of delivery if it is the recipient's Business Day and otherwise on the first Business day of the recipient immediately following the day of delivery;

- (2) if sent by prepaid post, on the fourth Business Day (or the tenth Business Day in the case of airmail) after the day of posting;
- (3) if sent by facsimile or electronic means:
- (a) if transmitted between 09:00 and 17:00 hours on a Business Day (recipient's time) on completion of receipt by the sender of verification of the transmission from the receiving instrument; or
- (b) if transmitted at any other time, at 09:00 on the first Business Day (recipient's time) following the completion of receipt by the sender of verification of transmission from the receiving instrument.

7 Intellectual Property

- a. The Contractor shall as its sole liability keep the Authority fully indemnified against an infringement or alleged infringement of any intellectual property rights or a claim for Crown use of a UK patent or registered design caused by the use, manufacture or supply of the Contractor Deliverables.
- b. The Authority shall promptly notify the Contractor of any infringement claim made against it relating to any Contractor Deliverable and, subject to any statutory obligation requiring the Authority to respond, shall permit the Contractor to have the right, at its sole discretion to assume, defend, settle or otherwise dispose of such claim. The Authority shall give the Contractor such assistance as it may reasonably require to dispose of the claim and will not make any statement which might be prejudicial to the settlement or defence of the claim

8 Supply of Contractor Deliverables and Quality Assurance

- a. This Contract comes into effect on the Effective Date of Contract.
- b. The Contractor shall supply the Contractor Deliverables to the Authority at the Firm Price stated in the Schedule to the purchase order.
- c. The Contractor shall ensure that the Contractor Deliverables:
- (1) correspond with the specification;
 - (2) are of satisfactory quality (within the meaning of the Sale of Goods Act 1979, as amended) except that fitness for purpose shall be limited to the goods being fit for the particular purpose held out expressly by or made known expressly to the Contractor and in this respect the Authority relies on the Contractor's skill and judgement; and
 - (3) comply with any applicable Quality Assurance Requirements specified in the purchase order.
- d. The Contractor shall apply for and obtain any licences required to import any material required for the performance of the Contract in the UK. The Authority shall provide to the Contractor reasonable assistance with regard to any relevant defence or security matter arising in the application for any such licence.

9 Supply of Data for Hazardous Contractor Deliverables

- a. The Contractor shall establish if the Contractor Deliverables are, or contain, Dangerous Goods as defined in the Regulations set out in this Clause 9. Any that do shall be packaged for UK or worldwide shipment by all modes of transport in accordance with the following unless otherwise specified in the Schedule to the purchase order:
- (1) the Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO), IATA Dangerous Goods Regulations;
 - (2) the International Maritime Dangerous Goods (IMDG) Code;
 - (3) the Regulations Concerning the International Carriage of Dangerous Goods by Rail (RID); and
 - (4) the European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR).
- b. Certification markings, incorporating the UN logo, the package code and other prescribed information indicating that the package corresponds to the successfully designed type shall be

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- marked on the packaging in accordance with the relevant regulation.
- c. As soon as possible and in any event within the period specified in the purchase order (or if no such period is specified no later than one month prior to the delivery date), the Contractor shall provide to the Authority's representatives in the manner and format prescribed in the purchase order:
- (1) confirmation as to whether or not to the best of its knowledge any of the Contractor Deliverables are Hazardous Contractor Deliverables; and
 - (2) for each Hazardous Contractor Deliverable, a Safety Data Sheet containing the data set out at Clause 9.d, which shall be updated by the Contractor during the period of the Contract if it becomes aware of any new relevant data.
- d. Safety Data Sheets if required under Clause 9.c shall be provided in accordance with the extant UK REACH Regulation and any additional information required by the Health and Safety at Work etc. Act 1974 and shall contain:
- (1) information required by the Classification, Labelling and Packaging (GB CLP) Regulation or any replacement thereof; and
 - (2) where the Hazardous Contractor Deliverable is, contains or embodies a radioactive substance as defined in the extant Ionising Radiation Regulations, details of the activity, substance and form (including any isotope); and
 - (3) where the Hazardous Contractor Deliverable has magnetic properties, details of the magnetic flux density at a defined distance, for the condition in which it is packed.
- e. The Contractor shall retain its own copies of the Safety Data Sheets provided to the Authority in accordance with Clause 9.d for 4 years after the end of the Contract and shall make them available to the Authority's representatives on request.
- f. Nothing in this Clause 9 reduces or limits any statutory or legal obligation of the Authority or the Contractor.
- g. Where delivery is made to the Defence Fulfilment Centre (DFC) and / or other Team Leidos location / building, the Contractor must comply with the Logistic Commodities and Services Transformation (LCST) Supplier Manual.

10 Delivery / Collection

- a. The purchase order shall specify whether the Contractor Deliverables are to be delivered to the consignee by the Contractor or collected from the consignor by the Authority.
- b. Title and risk in the Contractor Deliverables shall pass from the Contractor to the Authority on delivery or on collection in accordance with Clause 10.a.
- c. The Authority shall be deemed to have accepted the Contractor Deliverables within a reasonable time after title and risk has passed to the Authority unless it has rejected the Contractor Deliverables within the same period.

11. Marking of Contractor Deliverables

- a. Each Contractor Deliverable shall be marked in accordance with the requirements specified in the purchase order or if no such requirement is specified, the Contractor shall mark each Contractor Deliverable clearly and indelibly in accordance with the requirements of the relevant DEF-STAN 05-132 as specified in the contract or specification. In the absence of such requirements, the Contractor Deliverables shall be marked with the MOD stock reference, NATO Stock Number (NSN) or alternative reference number shown in the Contract.
- b. Any marking method used shall not have a detrimental effect on the strength, serviceability or corrosion resistance of the Contractor Deliverables.
- c. The marking shall include any serial numbers allocated to the Contractor Deliverable.
- d. Where because of its size or nature it is not possible to mark a Contractor Deliverable with the required particulars, the required information should be included on the package or carton in which the Contractor Deliverable is packed, in accordance with condition 12 (Packaging and Labelling (excluding Contractor Deliverables containing Ammunition or Explosives)).

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12 Packaging and Labelling of Contractor Deliverables (Excluding Contractor Deliverables Containing Ammunition or Explosives)

The Contractor shall pack or have packed the Contractor Deliverables in accordance with any requirements specified in the purchase order and Def Stan 81-041 (Part 1 and Part 6).

13 Progress Monitoring, Meetings and Reports

The Contractor shall attend progress meetings and deliver reports at the frequency or times (if any) specified in the purchase order and shall ensure that its Contractor's representatives are suitably qualified to attend such meetings. Any additional meetings reasonably required shall be at no cost to the Authority.

14 Payment

- a. Payment for Contractor Deliverables will be made by electronic transfer and prior to submitting any claims for payment under clause 14b the Contractor will be required to register their details (Supplier on-boarding) on the Contracting, Purchasing and Finance (CP&F) electronic procurement tool.
- b. Where the Contractor submits an invoice to the Authority in accordance with clause 14a, the Authority will consider and verify that invoice in a timely fashion.
- c. The Authority shall pay the Contractor any sums due under such an invoice no later than a period of 30 days from the date on which the Authority has determined that the invoice is valid and undisputed.
- d. Where the Authority fails to comply with clause 14b and there is undue delay in considering and verifying the invoice, the invoice shall be regarded as valid and undisputed for the purpose of clause 14c after a reasonable time has passed.
- e. The approval for payment of a valid and undisputed invoice by the Authority shall not be construed as acceptance by the Authority of the performance of the Contractor's obligations nor as a waiver of its rights and remedies under this Contract.
- f. Without prejudice to any other right or remedy, the Authority reserves the right to set off any amount owing at any time from the Contractor to the Authority against any amount payable by the Authority to the Contractor under the Contract or under any other contract with the Authority, or with any other Government Department.

15 Dispute Resolution

- a. The Parties will attempt in good faith to resolve any dispute or claim arising out of or relating to the Contract through negotiations between the respective representatives of the Parties having authority to settle the matter, which attempts may include the use of any alternative dispute resolution procedure on which the Parties may agree.
- b. In the event that the dispute or claim is not resolved pursuant to Clause 15.a the dispute shall be referred to arbitration and shall be governed by the Arbitration Act 1996. For the purposes of the arbitration, the arbitrator shall have the power to make provisional awards pursuant to Section 39 of the Arbitration Act 1996.
- c. For the avoidance of doubt it is agreed between the Parties that the arbitration process and anything said, done or produced in or in relation to the arbitration process (including any awards) shall be confidential as between the Parties, except as may be lawfully required in judicial proceedings relating to the arbitration or otherwise. No report relating to anything said, done or produced in or in relation to the arbitration process may be made beyond the tribunal, the Parties, their legal representatives and any person necessary to the conduct of the proceedings, without the concurrence of all the Parties to the arbitration.

16 Termination for Corrupt Gifts

The Authority may terminate the Contract with immediate effect, without compensation, by giving written notice to the Contractor at any time after any of the following events:

- a. where the Authority becomes aware that the Contractor, its employees, agents or any sub-contractor (or anyone acting on its behalf or any of its or their employees):

- (1) has offered, promised or given to any Crown servant any gift or financial or other advantage of any kind as an inducement or reward;
- (2) commits or has committed any prohibited act or any offence under the Bribery Act 2010 with or without the knowledge or authority of the Contractor in relation to this Contract or any other contract with the Crown;
- (3) has entered into this or any other contract with the Crown in connection with which commission has been paid or has been agreed to be paid by it or on its behalf, or to its knowledge, unless before the contract is made particulars of any such commission and of the terms and conditions of any such agreement for the payment thereof have been disclosed in writing to the Authority.

b. In exercising its rights or remedies to terminate the Contract under Clause 16.a. the Authority shall:

- (1) act in a reasonable and proportionate manner having regard to such matters as the gravity of, and the identity of the person committing the prohibited act;
- (2) give due consideration, where appropriate, to action other than termination of the Contract, including (without being limited to):
 - (a) requiring the Contractor to procure the termination of a subcontract where the prohibited act is that of a Subcontractor or anyone acting on its or their behalf;
 - (b) requiring the Contractor to procure the dismissal of an employee (whether its own or that of a Subcontractor or anyone acting on its behalf) where the prohibited act is that of such employee.

c. Where the Contract has been terminated under Clause 16.a. the Authority shall be entitled to purchase substitute Contractor Deliverables from elsewhere and recover from the Contractor any costs and expenses incurred by the Authority in obtaining the Contractor Deliverables in substitution from another supplier.

17 Material Breach

In addition to any other rights and remedies, the Authority shall have the right to terminate the Contract (in whole or in part) with immediate effect by giving written notice to the Contractor where the Contractor is in material breach of its obligations under the Contract. Where the Authority has terminated the Contract under Clause 17 the Authority shall have the right to claim such damages as may have been sustained as a result of the Contractor's material breach of the Contract.

18 Insolvency

The Authority shall have the right to terminate the contract if the Contractor is declared bankrupt or goes into liquidation or administration. This is without prejudice to any other rights or remedies under this Contract.

19 Limitation of Contractor's Liability

- a. Subject to Clause 19.b the Contractor's liability to the Authority in connection with this Contract shall be limited to £5m (five million pounds).
- b. Nothing in this Contract shall operate to limit or exclude the Contractor's liability:

- (1) for:
 - a. any liquidated damages (to the extent expressly provided for under this Contract);
 - b. any amount(s) which the Authority is entitled to claim, retain or withhold in relation to the Contractor's failure to perform or under-perform its obligations under this Contract, including service credits or other deductions (to the extent expressly provided for under this Contract);
 - c. any interest payable in relation to the late payment of any sum due and payable by the Contractor to the Authority under this Contract;
 - d. any amount payable by the Contractor to the Authority in relation to TUPE or pensions to the extent expressly provided for under this Contract;

(2) under Condition 7 of the Contract (Intellectual Property), and DEFCONs 91 or 638 (SC1) where specified in the contract;

(3) for death or personal injury caused by the Contractor's negligence or the negligence of any of its personnel, agents, consultants or sub-contractors;

(4) for fraud, fraudulent misrepresentation, wilful misconduct or negligence;

(5) in relation to the termination of this Contract on the basis of abandonment by the Contractor;

(6) for breach of the terms implied by Section 2 of the Supply of Goods and Services Act 1982; or

(7) for any other liability which cannot be limited or excluded under general (including statute and common) law.

c. The rights of the Authority under this Contract are in addition to, and not exclusive of, any rights or remedies provided by general (including statute and common) law.

20 The Project Specific DEFCONs and DEFCON

SC Variants that apply to this Contract are:

DEFCON 5J (Edn 11/16) - Unique Identifiers

DEFCON 16 (Edn 10/04) - Repair And Maintenance Information

DEFCON 21 (Edn 06/21) - Retention Of Records

DEFCON 76 SC1 (Edn 06/21) - Contractor's Personnel at Government Establishments

DEFCON 129J SC1 (Edn 06/17) – The Use of the Electronic Business Delivery Form

DEFCON 503 SC1 (Edn 07/21) – Formal Amendments to Contract

DEFCON 524A SC1 (Edn 08/20) – Counterfeit Materiel

DEFCON 532A SC1 (Edn 08/20) - Protection of Personal Data (Where Personal Data is not being processed on behalf of the Authority)

DEFCON 534 (Edn 06/21) – Subcontracting and Prompt Payment

DEFCON 538 (Edn 06/02) - Severability

DEFCON 566 Edn 10/20) - Change of Control of Contractor

DEFCON 609 SC1 (Edn 08/18) - Contractor's Records

DEFCON 611 SC1 (Edn 12/16) – Issued Property

DEFCON 620 SC1 (Edn 08/21) – Contract Change Control Procedure

DEFCON 656A (Edn 08/16) - Termination for Convenience Under £5m

DEFCON 658 SC1 (Edn 09/21) - Cyber

Further to DEFCON 658 the Cyber Risk Level of the Contract is Very Low, as defined in Def Stan 05-138

DEFCON 660 (Edn 12/15) - Official-Sensitive Security Requirements

DEFCON 694 SC1 (Edn 07/21) Accounting For Property Of The Authority

21 The special conditions that apply to this Contract are:

Third Party IPR Authorisation

Notwithstanding any other provisions of the Contract and for the avoidance of doubt, award of the Contract by the Authority and placement of any contract task under it does not constitute an authorisation by the Crown under Sections 55 and 56 of the Patents Act 1977 or Section 12 of the Registered Designs Act 1949. The Contractor acknowledges that any such authorisation by the Authority under its statutory powers must be expressly provided in writing, with reference to the acts authorized and the specific intellectual property involved.

Publicity and Communications with the Media

The Contractor shall not and shall ensure that any employee or Subcontractor shall not communicate with representatives of the press, television, radio or other media on any matter concerning the Contract unless the Authority has given its prior written consent.

22 The processes that apply to this Contract are:

The Contractor shall notify the Authority as soon as they become aware of any circumstance which will impact on their ability to deliver any of the requirements or meet any of the stated timescales.

**PURCHASE ORDER**

Supply the Deliverables described in the Schedule to this Purchase Order, subject to the attached MOD Terms and Conditions for Less Complex Requirements (up to £122,976).

Contractor	Quality Assurance Requirements (Clause 8)
Name: TUV SUD Limited Registered Address: Napier House Scottish Enterprise Technology Park East Kilbride Glasgow G75 0QF	AQAP 2130
Consignor (if different from Contractor's registered address)	Transport Instructions (Clause 10)
Name: TUV SUD Limited Address: Octagon House Concorde Way Fareham Hampshire PO15 5RL	Select method of transport of Deliverables To be Delivered by the Contractor <input type="checkbox"/> To be Collected by the Authority <input checked="" type="checkbox"/> Each consignment of the Deliverables shall be accompanied by a Delivery Note

Progress Meetings (Clause 13)	Progress Reports (Clause 13)
<p>The Contractor shall be required to attend the following meetings:</p> <p>To be arranged if and when required unless already detailed in Statement of Requirements.</p>	<p>The Contractor is required to submit the following Reports:</p> <p>To be arranged if and when required unless already detailed in Statement of Requirements.</p>
Payment (Clause 14)	
<p>Payment is to be enabled by CP&F.</p>	
Forms and Documentation	Supply of Hazardous Deliverables (Clause 9)
<p>Forms can be obtained from the following websites:</p> <p>https://www.aof.mod.uk/aofcontent/tactical/toolkit (Registration is required).</p> <p>https://www.gov.uk/government/organisations/ministry-of-defence/about/procurement#invoice-processing</p> <p>https://www.dstan.mod.uk/ (Registration is required).</p> <p>The MOD Forms and Documentation referred to in the Conditions are available free of charge from:</p> <p>Ministry of Defence, Forms and Pubs Commodity Management PO Box 2, Building C16, C Site Lower Arncott Bicester, OX25 1LP (Tel. 01869 256197 Fax: 01869 256824)</p> <p>Applications via email: DESLCSLS-OpsFormsandPubs@mod.uk</p> <p>If you require this document in a different format (i.e. in a larger font) please contact the Authority's Representative (Commercial Officer), detailed below.</p>	<p>A completed DEFFORM 68 and, if applicable, Safety Data Sheet(s) are to be provided by email with attachment(s) in Adobe PDF or MS WORD format to:</p> <p>a. The Commercial Officer detailed in the Purchase Order, and</p> <p>b. DSA-DLSR-MovTpt-DGHSIS@mod.uk</p> <p>by the following date:</p> <p>or if only hardcopy is available to the addresses below:</p> <p>Hazardous Stores Information System (HSIS) Defence Safety Authority (DSA) Movement Transport Safety Regulator (MTSR) Hazel Building Level 1, #H019 MOD Abbey Wood (North) Bristol BS34 8QW</p>

DEFFORM 111
(Edn 07/21)

Appendix - Addresses and Other Information

1. Commercial Officer:

Redacted under FOIA Section 40, Personal Information

8. Public Accounting Authority:

- Returns under DEFCON 694 (or SC equivalent) should be sent to DBS Finance ADMT – Assets In Industry 1, Level 4 Piccadilly Gate, Store Street, Manchester, M1 2WD
☎ 44 (0) 161 233 5397
- For all other enquiries contact DES Fin FA-AMET Policy, Level 4 Piccadilly Gate, Store Street, Manchester, M1 2WD
☎ 44 (0) 161 233 5394

2. Project Manager, Equipment Support Manager or PT Leader (from whom technical information is available):

Name: As detailed in the SOR

Address: As detailed in the SOR

Email As detailed in the SOR

☎ As detailed in the SOR

9. Consignment Instructions:

The items are to be consigned as follows:

As detailed in Schedule of Requirements

3. Packaging Design Authority:

Organisation and point of contact:

(where no address is shown please contact the Project Team in Box 2)



4. (a) Supply/Support Management Branch or Order Manager Branch/Name:

As per box 2



(b) U.I.N.

10. Transport. The appropriate Ministry of Defence Transport Offices are:

A. **DSCOM**, DE&S, DSCOM, MoD Abbey Wood, Cedar 3c, Mail Point 3351, BRISTOL BS34 8JHAir Freight CentreIMPORTS ☎ 030 679 81113 / 81114 Fax 0117 913 8943
EXPORTS ☎ 030 679 81113 / 81114 Fax 0117 913 8943Surface Freight CentreIMPORTS ☎ 030 679 81129 / 81133 / 81138 Fax 0117 913 8946
EXPORTS ☎ 030 679 81129 / 81133 / 81138 Fax 0117 913 8946B. **JSCS**

JSCS Helpdesk ☎ 01869 256052 (option 2, then option 3); JSCS Fax No 01869 256837

Users requiring an account to use the MOD Freight Collection Service should contact UKStratCom-DefSp-RAMP@mod.gov.uk in the first instance

5. Drawings/Specifications are available from:

6. Intentionally Left Blank

7. Quality Assurance Representative:

Commercial staff are reminded that all Quality Assurance requirements should be listed under the General Contract Conditions.

AQAPS and DEF STANs are available from UK Defence Standardization, for access to the documents and details of the helpdesk visit <http://dstan.gateway.isg-r.r.mil.uk/index.html> [intranet] or <https://www.dstan.mod.uk/> [extranet, registration needed]

11. The Invoice Paying Authority:

Ministry of Defence ☎ 0151-242-2000

DBS Finance

Walker House, Exchange Flags Fax: 0151-242-2809

Liverpool, L2 3YL

Website is:<https://www.gov.uk/government/organisations/ministry-of-defence/about/procurement#invoice-processing>

12. Forms and Documentation are available through *:

Ministry of Defence, Forms and Pubs Commodity Management
PO Box 2, Building C16, C Site
Lower Arncott

Bicester, OX25 1LP (Tel. 01869 256197 Fax: 01869 256824)

Applications via fax or email: DESLCSLS-OpsFormsandPubs@mod.uk

* NOTE

1. Many **DEFCONs** and **DEFFORMs** can be obtained from the MOD Internet Site: <https://www.aof.mod.uk/aofcontent/tactical/toolkit/index.htm>

2. If the required forms or documentation are not available on the MOD Intranet site requests should be submitted through the Commercial Officer named in Section 1.

Contractor's Commercially Sensitive Information (Clause 5). Not to be Published

Redacted under FOIA Section 40, Personal Information

Redacted under FOIA Section 43, Commercial interests

Schedule of Requirements

Deliverables in accordance with Statement of Requirements						
Item Number	Description	Delivery Date (exact dates to be confirmed on contract award)	Unit of Measurement	Quantity	Firm Price (£) Ex VAT – Per Item (including any packaging, travel, delivery and importing)	Firm Price (£) Ex VAT -Total (including any packaging, travel, delivery and importing)
1	Navy Digital Deployed - 115V EMC Test Plan as detailed in the SOR	TBC - within 12 months of Contract Commencement	Per Item	1	Redacted under FOIA Section 43, Commercial interests	Redacted under FOIA Section 43, Commercial interests
2	Navy Digital Deployed - 115V EMC Testing as detailed in the SOR	TBC - within 12 months of Contract Commencement	Per Item	1		
3	Navy Digital Deployed - 115V EMC Test Report as detailed in the SOR	TBC - within 12 months of Contract Commencement	Per Item	1		
4	Navy Digital Deployed – Airborne Noise Testing as detailed in the SOR	TBC - within 12 months of Contract Commencement	Per Item	1		
5	Navy Digital Deployed – Airborne Noise Test Report as detailed in the SOR	TBC - within 12 months of Contract Commencement	Per Item	1		
					Total Price	14131.00

Item Number	Consignee Address (XY code only)
All	As detailed in the SOR
Item Number	Payment Schedule
All	Payments to be made following delivery of services

Offer and Acceptance	
<p>A) The Purchase Order constitutes an offer by the Contractor to supply the Deliverables. This is open for acceptance by the Authority for 90 days from the date of signature. By signing the Purchase Order the Contractor agrees to be bound by the attached Terms and Conditions for Less Complex Requirements (up to £122,979)</p> <p>Name (Block Capitals): Redacted under FOIA Section 40, Personal Information</p> <p>Position: Business Line Manager</p> <p>For and on behalf of the Contractor:</p> <p>Authorised Signatory Redacted under FOIA Section 40, Personal Information</p> <p>..</p> <p>Date: 23/12/2021</p>	<p>B) Acceptance</p> <p>Name (Block Capitals): Redacted under FOIA Section 40, Personal Information</p> <p>Position: COMMERCIAL MANAGER</p> <p>For and on behalf of the Authority:</p> <p>Authorised Signatory Redacted under FOIA Section 40, Personal Information</p> <p>Date: 21st January 2022</p>
<p>C) Effective Date of Contract: 24th January 2022</p>	

Statement of Requirements

1 Introduction

- 1.1 The Navy Digital Deployed (NDD) Programme will provide compute and networking equipment to Royal Navy warships.
- 1.2 This Statement of Requirement specifies how NDD programme will provide the necessary technical details to EMC Test Houses required to conduct EMC testing of 115V configuration of NDD equipment and Airborne Noise Testing of NDD MaStar cabinet assembly consisting of a combination of COTS Server and Operator Interface equipment, Uninterruptible Power Supply (UPS) and Power Distribution equipment.

2 Specifications

- 2.1 Annex C - Navy Digital Deployed 115V Equipment Under Test Specification
- 2.2 Annex D - Navy Digital Deployed Airborne Noise Test Specification

3 Security Classifications

- 3.1 The classification of the NDD equipment is in accordance with the Security Aspects Letter (SAL) and will not be above Official-Sensitive. Security arrangements required are specified in the SAL.

4 Other Considerations

- 4.1 The NDD team shall work with the EMC test house to define and agree the required tests.
- 4.2 The supplier must have a testing site within 20 miles of HMNB Portsmouth, PO1 3LU to enable The Authority to deliver and test items.

ANNEX C



Navy Digital Deployed 115V Equipment Under Test Specification

Version ISSUE 01

Document Control

Version history

Version	Date	Details	Author
ISSUE	October 2021	Document for Issue	Redacted under FOIA Section 40, Personal Information

Reviewers

Role	Name	Title	Date
Reviewer	Redacted under FOIA Section 40, Personal Information	NAVY DIGITAL-NDD Project Manager	

Approver

Role	Name	Title	Date
Equipment Technical Authority (ETA)	Redacted under FOIA Section 40, Personal Information		

Introduction

Scope

The Navy Digital Deployed (NDD) Programme will provide compute and networking equipment to Royal Navy warships. The scope of this Equipment Under Test (EUT) Specification document is to provide the necessary technical details to EMC test houses required to conduct EMC testing of the 115V configuration of the NDD equipment.

Equipment Overview

The 115V configuration of the NDD equipment comprises of 38U, 19-inch racks, with power, earth and signal connections external to the rack. The equipment will be fitted within compartments below decks. The characteristics of the 115V configuration are listed in **Table Error! No text of specified style in document..1**.

Table Error! No text of specified style in document..1 - Equipment Class Characteristics

Rack Variant	Number of Racks	Signal Connections	Power Supply
115V Configuration	1	Fibre Optic and Copper	115V, A/C, Single Phase

The NDD racks contain the following internal components:

- Electrical Power Filters
- Uninterruptable Power Supply (UPS)
- Servers
- Switches
- Power Distribution Units (PDU)
- Firewall

Equipment Dimensions

Figure Error! No text of specified style in document..1 details the dimension of the NDD equipment rack.

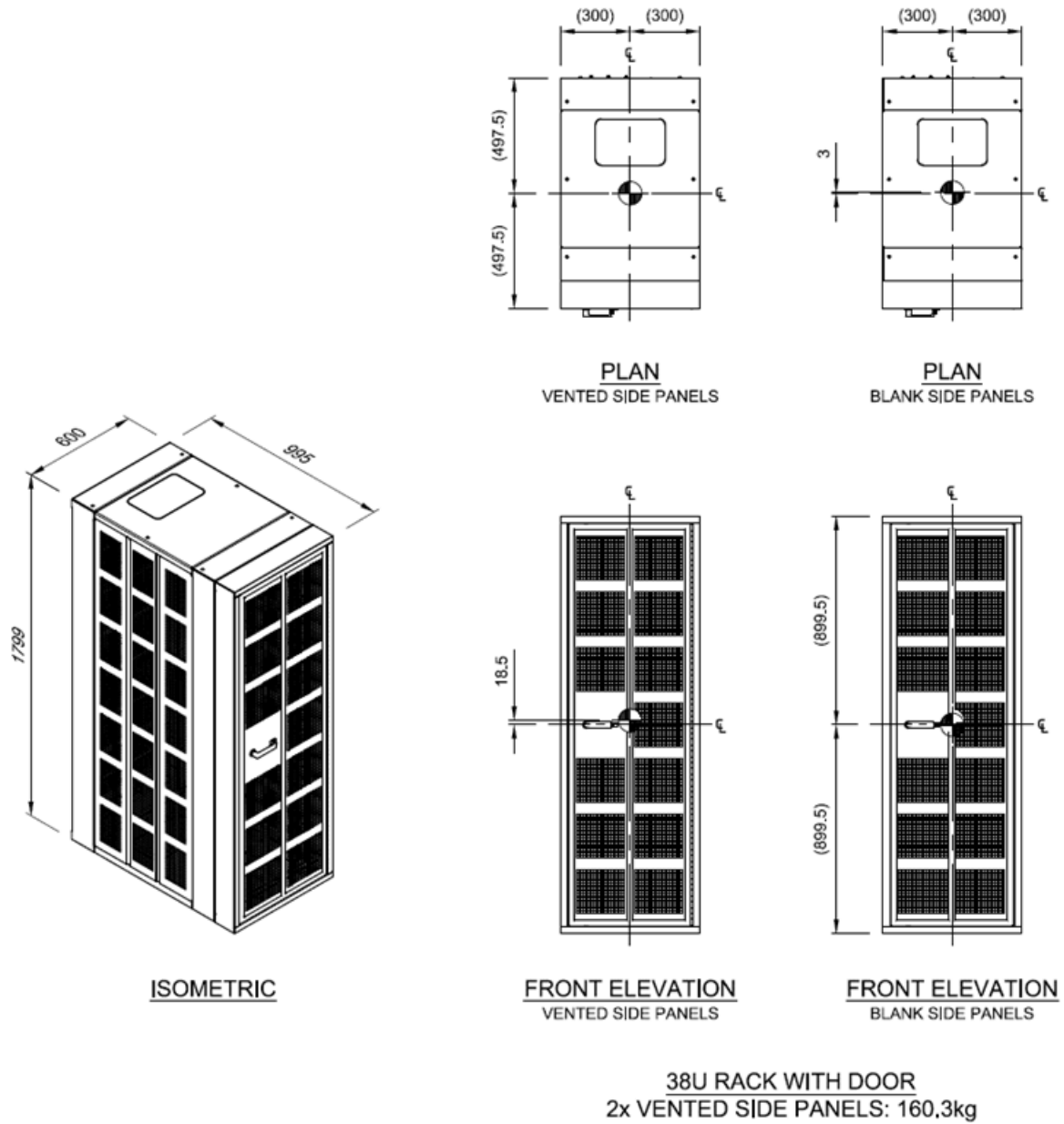


Figure Error! No text of specified style in document..1 - NDD Rack Dimensions

External Connections

Figure Error! No text of specified style in document..2 below provides an overview of the NDD equipment external connections. The dashed line indicates the suggested boundary of EMC test.

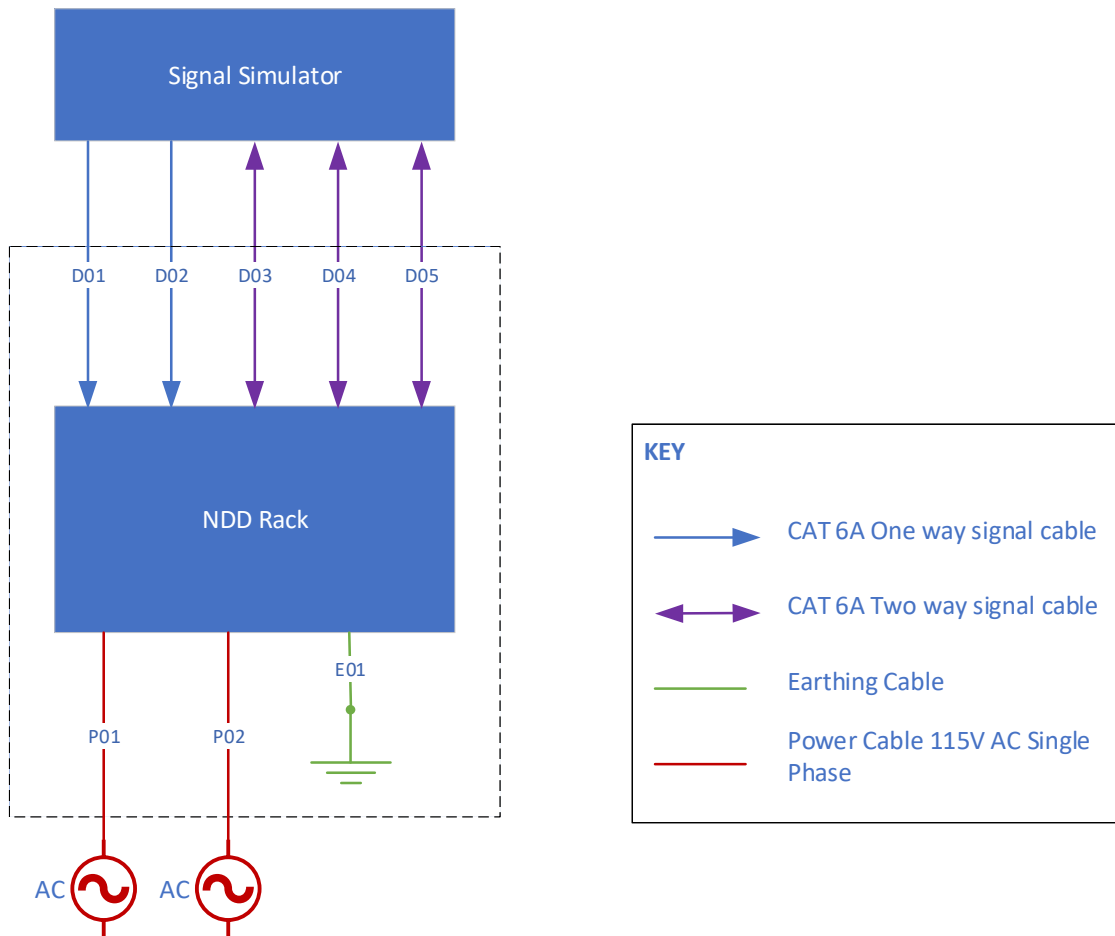


Figure Error! No text of specified style in document..2 - NDD Equipment External Connections

Signal cables

All signal cables enter the NDD rack enclosure via a gland/connector plate located on the top face of the rack. **Figure** Error! No text of specified style in document..2 details copper signal cables only, no fibre optic cables are shown as these are understood to be outside of the scope of EMC testing.

In order to simulate representative signals and operating states, a signal simulator (switch and laptops) will be connected to the NDD rack. It is anticipated the signal simulator will be external to the testing chamber as it is out of scope of EMC testing.

Power Cables

The NDD rack is powered via 2 power cable which enter via glands through a gland/connector plate located on the top face of the rack. The power source is outside the scope of EMC testing. An earthing cable between an M10 earth stud on the NDD rack to an earthing point, is assumed to be within the scope of EMC testing.

Modes of Operation

The NDD equipment will be continuously operational. The equipment shall function in the following high-level modes of operation:

1. Power up sequence.
2. Data Ingest: Continuous, one-way data ingest (from external systems), storage and processing of data.
3. External Interactions: Intermittent two-way signals.
4. Power down sequence.

For EMC testing the NDD equipment will operate in a single mode comprising continuous combined Mode 2 and Mode 3 operation.

EMC Test Requirement

Test Requirements

The NDD equipment shall be tested against the requirements set out in Def Stan 59-411 specifically the required tests to carry out for Sea platforms, as identified in Def Stan 59-411 Part 3 to Sea Service Below Decks Limits. The required tests are listed below.

1. DCE01.B
2. DCE02.B
3. DCE03.B
4. DCS01.B
5. DCS02.B
6. DCS03.B
7. DCS05.B
8. DCS06.B
9. DCS10.B
10. DCS12.B
11. DRE01.B
12. DRE02.B
13. DRS01.B
14. DRS02.B

Deliverables

The EMC test house shall be responsible for the delivery of the items listed in **Table Error! No text of specified style in document..2**.

Table Error! No text of specified style in document..2 - Deliverables

Deliverable	Format	Due Date
NDD 115V EMC Test Plan	Document	Contract Award + 1week
NDD 115V EMC Testing	Testing	N/A
NDD 115V EMC Test Report	Document	Completion of testing + 2 weeks

Other Considerations.

The NDD team shall work with the EMC test house to define and agree the required tests.

Supplier must have a testing site within 20 miles of HMNB Portsmouth, PO1 3LU to enable The Authority to deliver and test items.

ANNEX D

Navy Digital Deployed

Airborne Noise Test Specification

Document Number: NDD-TEST-000011

Version: Issue 01

Document Control

Version history

Version	Date	Details	Author
DRAFT A	July 2021	Initial Draft	Redacted under FOIA Section 40, Personal Information
Issue 01	August 2021	Issue Version	Redacted under FOIA Section 40, Personal Information

Reviewers

Role	Name	Title	Date
Reviewer	Redacted under FOIA Section 40, Personal Information	NDD Engineering Manager	29/07/2021

Approver

Role	Name	Title	Date
Equipment Technical Authority (ETA)	Redacted under FOIA Section 40, Personal Information	NDD Physical System and Infrastructure Equipment Technical Authority (ETA)	19/08/2021

References

No.	Title
01	NDD System Requirements, Issue 01
02	Def Stan 02-813 Requirements for Structure Borne Vibration and Airborne Noise Testing of Warship Equipment
03	Navy Digital Deployed System Build Procedure, Issue 01
04	MaStar Rack Specification, DMS DESIGN SUPPORT TASK 30451 EQUIPMENT RACK DESIGN 38U RACK DRAWING & DOCUMENT LIST DRAWING No. 020084578
05	1699249-IS_AAA-QEC-20-0002_NAVY DIGITAL DEPLOYED_CLASS-001
06	NDD Equipment Safety and Environmental Assurance Report v1-1 RS2A/NCHQ/12/18 #10

1 Introduction

1.1 Scope

This specification details the tests required to enable airborne noise compliance to be achieved in accordance with the NDD system environmental requirements [Ref 01] and DEF STAN 02-813 Section 3 [Ref 02].

The test measures the airborne noise generated by NDD equipment to inform use of the equipment on board the Queen Elizabeth Class (QEC), Type 45 (T45) and Type 23 (T23) Royal Navy vessels.

2 Test Responsibilities

2.1 Division of Responsibilities

The Test House conducting the test will be responsible for providing a suitable test environment and will provide the test equipment and calibration data for the test equipment used.

The Test House will provide a Test Report stating the identity of the test item, the test levels achieved, any Incident Reports raised during testing and calibration data for all instrumentation used to record the test levels.

The NDD team will ensure the availability of the test item and any supporting equipment. The NDD Test Item will be assembled to a baseline specification in accordance with the NDD Build Procedure [Ref 03] prior to commencement of airborne noise testing by the NDD Team.

The Test House are responsible for all cables providing electrical supplies to the Test Item. The NDD project team are to ensure that the Test House provide the correct power supply connectors to interface with the Test Item. The NDD project team are to ensure that all other test cables required are available and functional.

The NDD team will set up the Test Item ready for operation once it has been positioned in the test environment by the Test House team.

All electrical and functional performance checks of the equipment under test will be carried out by the NDD team with a test house engineer present. Performance checks will be used to demonstrate satisfactory operation of the test item before, during and after each test. (An NDD systems engineer presence will be required at predetermined times during airborne noise testing to observe and record functional performance).

3 Test Specification

3.1 Test Item Description

The NDD hardware (Test Item) consists of a combination of COTS server equipment, Uninterruptible Power Supply (UPS), Power Distribution and Operator Interface equipment, listed in Table Error! No text of specified style in document..3. The COTS hardware is housed within a 38U MASTAR Cabinet [Ref 04] fitted with a security door [Ref 05].

Table Error! No text of specified style in document..3 – NDD Cabinet Mounted COTS Equipment Components

Item	Description
Fortinet FG-100F	Firewall
MPE DS50002	Tempest Power Line Filter
MPE DS50002	Tempest Power Line Filter
Dell EMC Switch S4128F-ON	Switch
Dell EMC Switch S4128F-ON	Switch
Eaton EMAH06	Power Distribution Unit
Dell DMPU108E	KVM switch
Dell KMMLED185	KVM Display
Dell Power Edge R340	Server
Dell VxRail P/V/570d	Server
Dell VxRail P/V/570d	Server
Dell VxRail P/V/570d	Server
Dell VxRail P/V/570d	Server
Eaton 9PX 6000 RT	Uninterrupted Power Supply
Eaton 9PX EBM 180 RT	Extended Battery Module

3.2 Ship Installations

In service, the NDD hardware will be installed on surface ship platforms (QEC, T45 and T23) and will be mounted on an X Mount suspension system in accordance with their respective installation solutions.

Figure Error! No text of specified style in document..3 and Figure Error! No text of specified style in document..4 detail the mounting arrangement of the NDD cabinets on the QEC vessel as described within the NDD QEC Installation Solution [Ref 05].

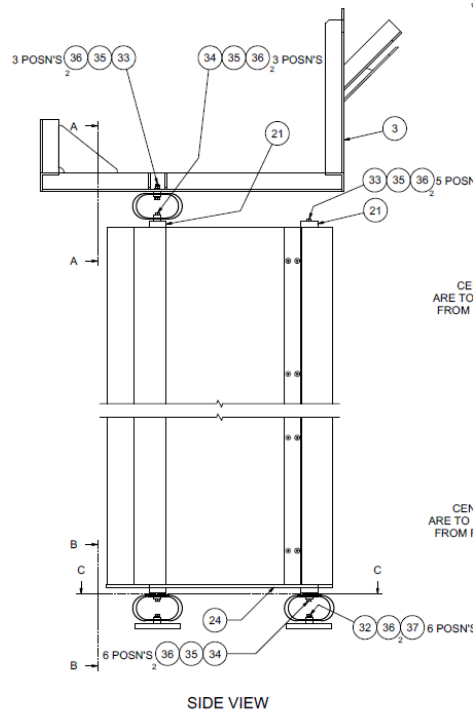


Figure Error! No text of specified style in document..3 - QEC Mounting Arrangement Side View

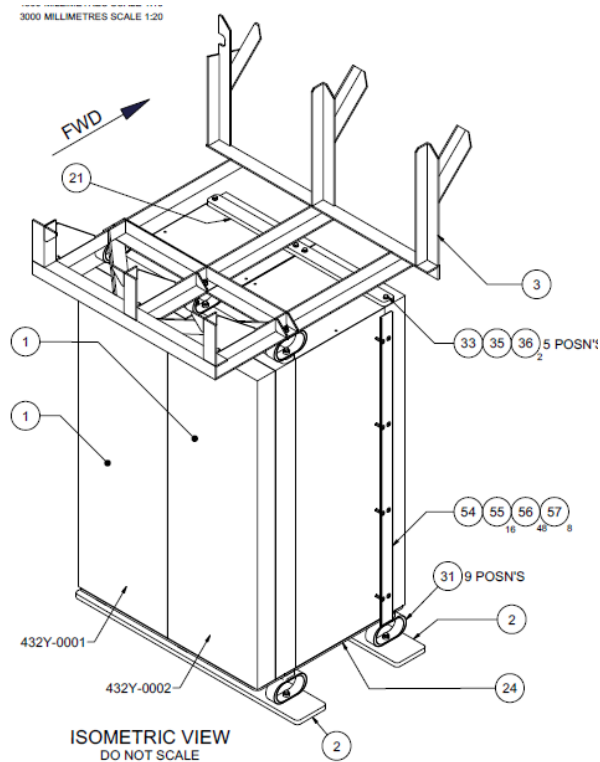


Figure Error! No text of specified style in document..4- QEC Mounting Arrangement Isometric View

3.3 Test Configuration

The airborne noise testing will test a single rack assembly

The overall dimensions and mass of the NDD Test Item are shown in Figure Error! No text of specified style in document..5 below. All dimensions specified in Figure Error! No text of specified style in document..5 are in millimetres (mm).

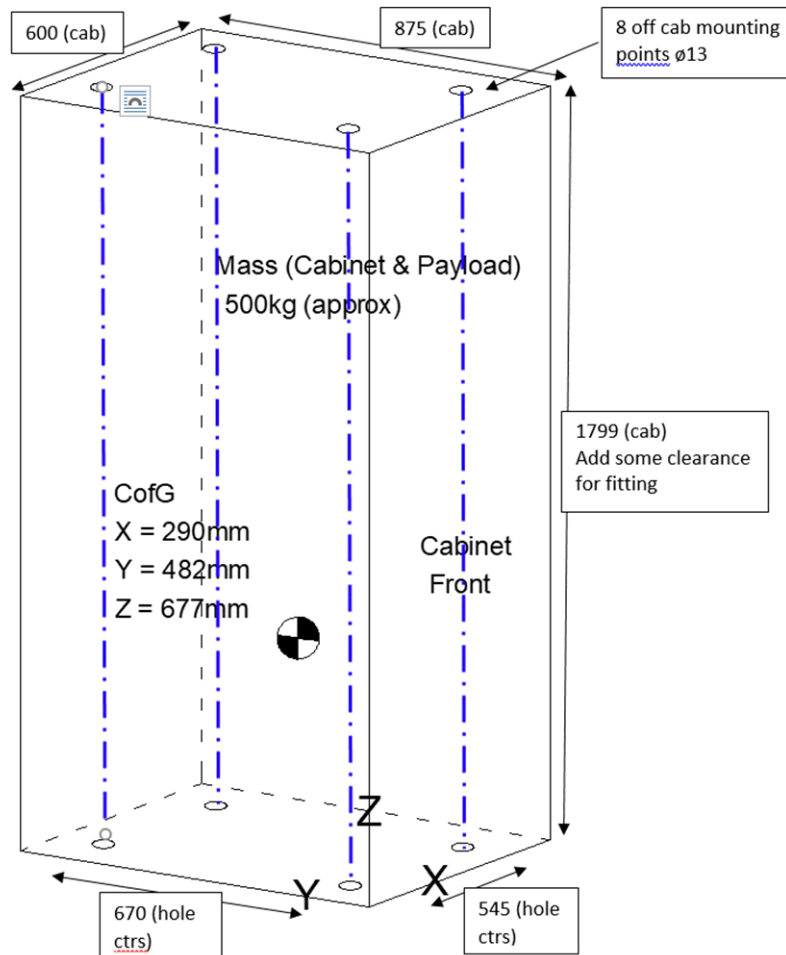


Figure Error! No text of specified style in document..5 - Test Item Mass, Dimensions (Dimensions in mm)

3.4 Power and Services

In addition to the airborne noise test environment the following electrical services will be required.

1. NDD Test Item Electrical Supply – 230 VAC 60 Hz single phase (To be tested at 50 Hz).
2. NDD UPS Item Electrical Supply – 120 VAC 60 Hz single phase (To be tested at 50 Hz).

3. NDD Drive Equipment Electrical Supply – NDD Hardware monitoring – 230V 50Hz single phase outlets. 2 off required for signal simulator laptop and signal simulator switch.

3.5 Test Monitoring and Supporting Equipment

The following monitoring and support equipment are required to complete the airborne noise testing defined in this specification:

1. Calibrated sound level meter to record test levels which meets the requirements of BS EN 61672-1&2 (Test House to supply).
2. Signal simulator – Switch (MOD to supply)
3. Signal simulator – Laptop (MOD to supply)

4 Test Requirements

4.1 General Requirements

All tests are to be carried out in accordance with DEF STAN 02-813 Section 3 [Ref 2], and the results recorded and reported in a Test Report prepared and provided by the Test House.

4.2 Modes of Operation

The Test Item is to be powered and operational throughout the test. The equipment functions in the following high-level modes of operation:

1. Power up sequence.
2. Data Ingest: Continuous, one-way data ingest (from external systems), storage and processing of data
3. External Interactions: Intermittent two-way signals.
4. Power down sequence.

For airborne noise testing the NDD equipment will operate in a single mode comprising continuous combined Mode 2 and Mode 3 operation.

4.3 Test Set Up

1. Install the test item onto a metal or concrete block via resilient mounts. The block must have a mass of at least three times that of the test item.
2. Resilient mounts must ensure that the lowest vertical resonance of the mounted system is less than one half of the lowest disturbing frequency of the machine. i.e. <50% of the first natural frequency of the test item.
3. Any connections to the test item, whether flexible or rigid, are to be such that the overall resilient performance of the mounts is unaffected. Where possible, the connections are to be similar to those which will be used in-service. Care is to be taken over the method of supporting flexible connections to avoid noise shorts.

4.4 Airborne Noise Test

With reference to Figure Error! No text of specified style in document..6 below, determine and mark microphone positions around the test item. The microphone must be supported on a rigid tripod (or suitable structure) 1m from each of the five exposed test item faces. Note: a single microphone will be used for sound measurements; the microphone will be moved to each measurement location as required.

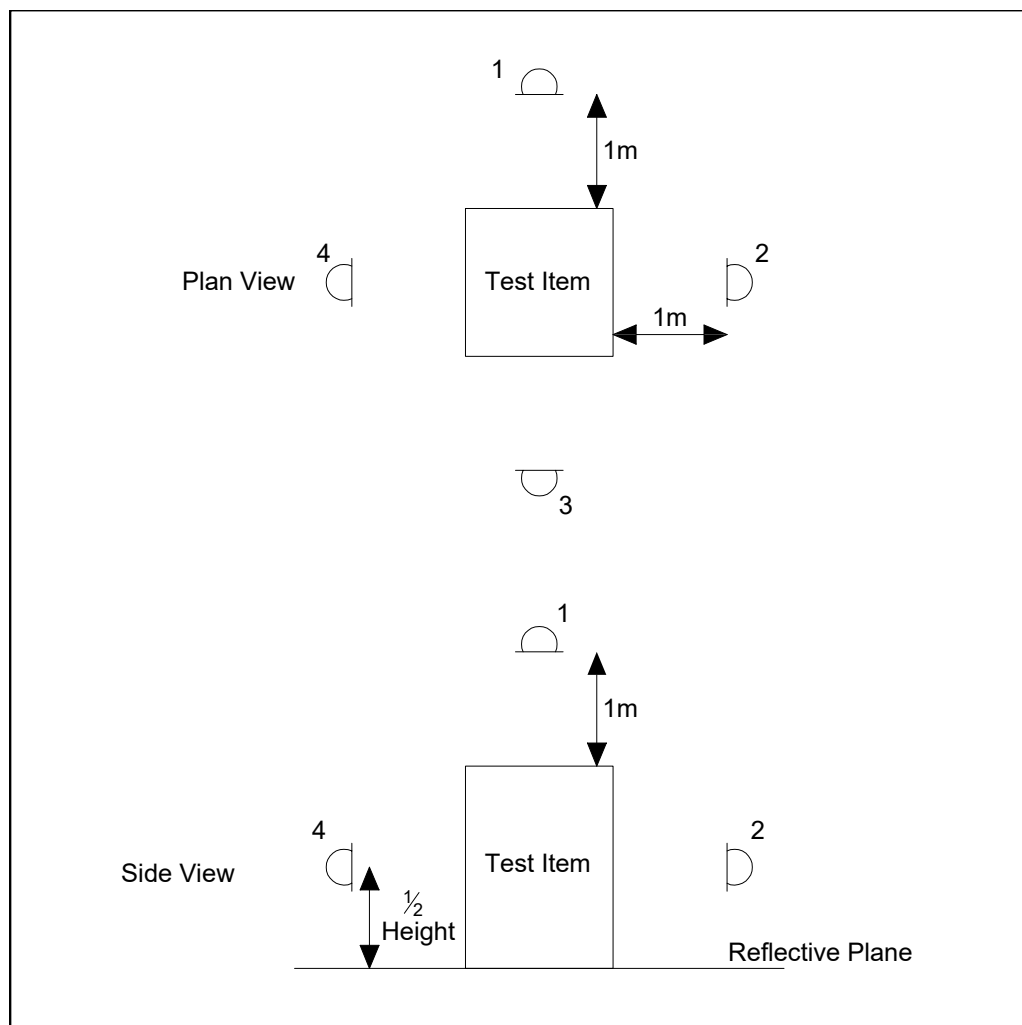


Figure Error! No text of specified style in document..6 - Microphone Locations for Airborne Noise Measurements

Connect power, services and monitoring equipment to the test item.

Operate the test item at full load and with full cooling, then carry out airborne sound measurements as stated below:

1. Airborne noise measurements are to be carried out using a calibrated sound level meter which meets the requirements of BS EN 61672-1&2. The octave/third octave filters of the measurement systems are to conform to BS EN 61260 or ANSI S1.11.
2. Airborne noise levels are to be measured as RMS sound pressure levels to the nearest dB (dBA for overall levels) referenced to 2×10^{-5} Pa.
3. The following airborne noise levels are to be measured and recorded on the blank airborne noise results forms D445d contained in DEF STAN 02-813 Appendix 3:
 - a. Weighted overall levels (plus background levels). Note, the test must be stopped, and findings reported to the NDD Team if levels >70dB(A) are measured.
 - b. Unweighted third octave band levels ideally from 20 Hz to 20 kHz, but from 20 Hz to 10 kHz as a minimum (plus background levels).
 - c. Unweighted octave band levels ideally from 31,5 Hz to 16 kHz, but from 31,5 Hz to 8 kHz as a minimum (plus background levels).

5 Safety and Security

5.1 NDD Safety Report

A formal hazard analysis of the NDD hardware has been carried out and is documented in the NDD Safety and Environmental Assessment Report (SEAR) [Ref 06]. This report includes details of the hazards associated with heavy equipment and the Lead Acid batteries fitted within the UPS equipment.

5.2 Security Classification

The classification of the NDD equipment is in accordance with the Security Aspects Letter (SAL) and will not be above Official-Sensitive. Security arrangements required are specified in the SAL.

6 Other Considerations

The NDD team shall work with the EMC test house to define and agree the required tests. Supplier must have a testing site within 20 miles of HMNB Portsmouth, PO1 3LU to enable The Authority to deliver and test items.