

# **Request for Proposal**

## **Network Analyzer**



**July, 2018**

**Space Test Division**  
**Korea Aerospace Research Institute**

169-84 Gwahak-ro, Yuseung, Daejeon, 34133, KOREA  
Phone : 82(42)870-3739, Fax : 82(42)860-2234

## **PART I. Overview**

### **1. Overview of the project**

- 1.1 KARI has a satellite assembly, integration and test center (hereinafter referred to as "SITC") for joint use by corporations and research institutes for the purpose of the effective development of domestic satellites. And basic facilities and equipment for satellite assembly and test have been supplied, installed and used.
- 1.2 The purpose of this project is to equip the **Network Analyzer** in order to EMI/EMC measurement.
- 1.3 All the descriptions in this RFP are minimum requirements and the supplier can suggest the better one to improve the overall performance and cost. But in this case, the proposal should clearly indicate the improvements from KARI's requirements.

### **2. Procedures of the project**

- 2.1 The format of proposal
  - 2.1.1 The participants shall submit 6 copies of a detailed proposal to KARI according to the format and contents satisfying the requirements stipulated in this RFP.
  - 2.1.2 The compliance sheet with the requirement of this RFP shall certainly be included in the proposal.
  - 2.1.3 The price of the system shall be broken down.
  - 2.1.4 The participants shall make out a proposal with their own writing.
  - 2.1.5 The language shall be English or Korean.

2.2 The proposal shall be delivered to KARI before the due date for submission.

2.3 All proposals and documents submitted shall become the property of KARI.

### **3. Requisites of participants**

3.1 The participants shall supply information about themselves.

3.2 The participants shall have experience of installation, operation and arranging of network analyzer.

### **4. Scope of the contract**

4.1 The following items shall meet the specifications which are described in PART II, Technical Requirements.

4.1.1 Network analyzer sets (Network analyzer, test port cable, 3.5 mm Mechanical calibration kit)

4.1.2 Acceptance test at factory & KARI site

4.1.3 Project management, site operation, cooperation with KARI

4.1.4 Basic principle, operation, warranty, maintenance, and training for the equipment

4.1.5 Relevant books and manuals

4.1.6 Other necessary matters required for acquiring and installing the equipment

## **PART II. Technical Requirements**

### **1. System Configuration**

- 1.1 Network Analyzer (1 ea)
- 1.2 2.4 mm to 3.5 mm test port cable (2 ea)
- 1.3 3.5 mm Mechanical calibration kit (1 ea)

### **2. Specifications**

#### **2.1 Network analyzer**

- 2.1.1 Measurement frequency range : 10 MHz ~ 50 GHz
- 2.1.2 No. of port : 2
- 2.1.3 System dynamic range :
  - 127dB (1GHz to 26.5GHz, 10Hz IFBW),
  - 123dB (26.5GHz to 35GHz, 10Hz IFBW)
- 2.1.4 Noise floor at test port : -114dBm (1GHz to 26.5GHz)
- 2.1.5 Frequency accuracy :  $\pm 1$ ppm
- 2.1.6 Frequency stability :  $\pm 0.05$ ppm
- 2.1.7 Frequency resolution : 1Hz
- 2.1.8 Maximum leveled power :
  - 13 dBm (3.2 GHz to 26.5 GHz)
  - 20 dBm (typ @3.2 GHz to 10 GHz)
- 2.1.9 System IF Bandwidth range : 1 Hz to 15 MHz
- 2.1.10 Power sweep range : 38 dB, 47 dB (typ)
- 2.1.11 Power resolution : 0.01 dB
- 2.1.12 RF damage level : +23 dBm

- 2.1.13 Fast CW measurement to allow external point-trigger acquisition of 400,000 data points per second on five measurement receivers : Yes
- 2.1.14 Time domain analysis : Yes
- 2.1.15 Phase noise(1 GHz to 2 GHz@10 kHz offset) : -117 dBc
- 2.1.16 Trace noise magnitude (100 MHz to 13.5 GHz, 1 kHz IFBW) : 0.003 dB rms
- 2.1.17 Directivity : 49 dB (2 GHz to 10 GHz) after cal
- 2.1.18 Source match : 42 dB (2 GHz to 10 GHz) after cal
- 2.1.19 Load match : 41dB (2 GHz to 10 GHz) after cal
- 2.1.20 Cycle time for measurement completion (9 GHz to 10 GHz, 10 kHz IF, 2-port cal, 201 pts) : 65.6 ms
- 2.1.21 Interface : GPIB, LAN, USB, Parallel, VGA video out, Mini display port
- 2.1.22 Upgrade capability for frequency, No. of port, and measurement applications such as frequency converter measurement, noise figure measurement, Spectrum Analysis, CalPod, and others. : Yes
- 2.1.23 Rack mount kit for installation with handles
- 2.1.24 Quantity : 1 ea

## **2.2 Flexible test port cable**

- 2.2.1 2.4 mm (f) to 3.5 mm (m), 63 cm
- 2.2.2 Quantity : 2 ea

## **2.3 3.5 mm Mechanical cal. kit**

2.3.1 3.5 mm mechanical calibration kit

2.3.2 DC to 26.5 GHz

2.3.3 Quantity : 1 ea

### **3. Accetance and Traning**

3.1 Visual inspection

3.2 Performance check for acceptance

3.3 Training for operation

### **4. Warranty and Support**

4.1 3 years warranty and support by local engineer

## **Appendix A. General Terms and Conditions**

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## Preamble

This Contract made and entered into this on TBD, 2018 by and between Korea Aerospace Research Institute (“KARI”), a Korean Government-funded research institution, established and operating under the laws of the Republic of Korea, with its principal office at 169-84 Gwahak-ro, Yuseong-gu, Daejeon, 34133 Korea, and [Name of Contractor] (“Contractor”) established under the law of [Nationality] with its principal office at [Address].

## Witnesseth

WHEREAS, KARI has undertaken the task of establishment of the Network Analyzer for EMI/EMC measurement.

WHEREAS, KARI would like to procure the Network Analyzer for EMI/EMC measurement and desires Contractor to provide the Network Analyzer for EMI/EMC measurement including relevant books, manuals, technical support and service for acquiring and installing the equipment as needed; and

WHEREAS, Contractor is willing to provide KARI with the Network Analyzer, necessary Deliverable Item and Services on the terms and conditions as set forth in this Contract;

NOW, THEREFORE, in consideration of the mutual covenants and premises, both Parties hereto have agreed to the following:

## Article 1. Definitions

The terms defined in this Article shall have the meaning described to them herein whenever they are used in this Contract, unless otherwise clearly indicated by the context.

- 1.1 “**Associates**” means all individual or legal entities organized under public or private law, who shall act, directly or indirectly, on behalf of KARI or Contractor, or at the direction of either Party to this Contract to fulfill the obligations undertaken by such Party in this Contract, including, without limitation, the employees of each Party, their suppliers and Subcontractors.
- 1.2 “**AITC**” means satellite, assembly, integration and test center in KARI.
- 1.3 “**Contract**” means this Contract for the procurement of the Network Analyzer for EMI/EMC measurement, including Appendices as attached hereto, and all amendments that may be agreed to by the Parties in accordance with the terms and conditions of this Contract.
- 1.4 “**Contractor**” means **[Name of Contractor]** as a Party to the Contract.
- 1.5 “**Deliverable Data**” means all information required to be delivered by Contractor, at its expense, to KARI under this Contract including, without limitation, data, information, reports, manual, documents, diagrams, drawings as well as graphs related to EMI Test Receivers.
- 1.6 “**Deliverable Items**” means the Network Analyzer Set for EMI/EMC measurement, software, rack, test port cables, mechanical calibration kit and Deliverable Data that Contractor shall deliver to KARI under this Contract and any materials that Contractor may deliver to KARI on KARI’s request, including any additional data, information and spare parts, in the course of the provision of the Network Analyzer for EMI/EMC measurement.
- 1.7 “**EDC**” or “**Effective Date of the Contract**” means the date identified in Article 19 “Effective Date of Contract”.
- 1.8 “**EMC**” means Electro-Magnetic Compatibility.
- 1.9 “**EMI**” means Electro-Magnetic Interference.
- 1.10 “**Force Majeure**” means any act of God, war, act or failure to act of any government in its sovereign capacity, fire, flood, earthquake, strike, epidemic, quarantine, embargo, nuclear incident, or any other event, unforeseeable and beyond the reasonable control without any fault by the Party or its Subcontractors relying upon the Force Majeure.
- 1.11 “**KARI**” means Korea Aerospace Research Institute as a Party to the Contract.
- 1.12 “**Party**” or “**Parties**” means KARI or Contractor, or both, in accordance with the context.

- 1.13 “**Services**” means all professional services and labor required to be provided including, without limitation, basic principle, operation, warranty, maintenance, training, installation and test.
- 1.13 “**Subcontract**” means any subcontract, including purchase orders and all similar forms of agreements at any tier under this Contract.
- 1.14 “**Subcontractor**” means a contractor under any Subcontract, including suppliers and vendors.
- 1.15 “**Third Party**” means any individual or legal entity other than the Parties and the Associates.
- 1.16 “**Work(s)**” means whole or any part of the work, but not limited to review meeting, delivery, installation, operation, test, warranty, training and maintenance, to be executed by a Contractor in accordance with this Contract.

## **Article 2. Objective**

- 2.1 The objective of this Contract is to procure the qualified the Network Analyzer Set for EMI/EMC measurement through the effort of the Contractor. To accomplish this objective, Contractor shall perform all the Works under this Contract required for design, manufacture, qualification, test, installation, training, warranty and maintenance as well as the delivery of Deliverable Item to meet the requirements and specification of this Contract.

## **Article 3. Contract Documents**

- 3.1 This Contract shall comprise the following documents, as amended from time to time by written agreement by and between both Parties:
- [A] General Terms and Conditions
  - [B] Appendix
    - B-1. Technical Requirements
- 3.2 In the event of any inconsistency or discrepancy between or among the Contract documents as listed in Article 3.1 above, the Contract documents shall be applied in the decreasing order (from [A] to B-1) of precedence.

## **Article 4. Responsibilities of the Parties**

- 4.1 Responsibilities of KARI

- 4.1.1 KARI shall make a payment to Contractor in accordance with Article 6 “Terms of Payment”.
- 4.1.2 In accordance with Appendix B-1 “Technical Requirements”, KARI shall provide any reasonable support including facilities, equipment and information in order for Contractor to fulfill the installation of the Network Analyzer Set at KARI site.
- 4.1.3 KARI shall provide reasonable cooperation and support in order for Contractor to obtain any government approval, if necessary.
- 4.2 Responsibilities of Contractor
- 4.2.1 Contractor shall have all responsibilities for the development, delivery and installation of the Network Analyzer Set to KARI in a timely manner as required and defined under this Contract without any charges to KARI.
- 4.2.2 Contractor shall provide all Work including the installation, training, warranty and maintenance and technical support required and stated under this Contract to KARI.
- 4.2.3 Contractor shall obtain any government approval including the export license to provide KARI with the Network Analyzer Set, if necessary.

## Article 5. Contract Price

- 5.1 For the full, satisfactory and timely performance of all obligations by Contractor in accordance with the provisions of this Contract, KARI shall pay to Contractor the Contract Price of USD TBD (\$ \_\_\_\_\_) in accordance with the terms of payment as specified in Article 6 “Terms of Payment”.
- 5.2 The Contract Price as specified in Article 5.1 above shall be firm and fixed price that is not subject to any escalation or to any adjustment or revision by reason of the increase of actual costs incurred by Contractor in the performance of the work under this Contract.
- 5.3 The Contract Price as specified in Article 5.1 above shall be comprised of the following items;

Description		Price (USD/TBD)
Deliverable Item	<b>Network Analyzer</b> / 1 Set (Including Test port cable 2 ea and Mechanical calibration Kit 1 ea)	<b>TBD</b>
Total Sum		<b>TBD</b>

- 5.4 All banking charges incurred in Korea shall be borne by KARI, and those charges

incurred outside Korea shall be borne by Contractor.

## **Article 6. Terms of Payment**

### **6.1 Payment Schedule**

- 6.1.1 The Contract Price as specified in Article 5 “Contract Price” shall be paid in accordance with the following schedule:

No.	Payment milestone (in Month)	Payment due date	Payment (USD/\$) /TBD	Percentage of Contract Price (%)
1	EDC	EDC + 1M	TBD	TBD
2	FA (EDC+ 4M)	EDC + 5M	TBD	TBD
Total			TBD	100 %

\* “EDC” means the Effective Date of this Contract in accordance with Article 19 “Effective Date of Contract”.

\* “FA” means Final Acceptance Test at KARI site.

### **6.2 Payment Procedure**

- 6.2.1 All invoices to be submitted by Contractor under this Contract shall be in duplicate signed by an authorized company official and received by KARI at least thirty (30) days before the payment due dates as specified in Article 6.1.1 above or the completion date of payment milestone whichever becomes later. Each invoice shall clearly indicate the payment milestone related to the respective payment and shall be accompanied by supporting documents certifying the completion of the milestone event as set forth in Article 6.2.2 below.
- 6.2.2 All payments shall be made in USD(**TBD**) via wire transfer to a bank account as designated by Contractor in its invoices, by the payment due dates as stipulated in Article 6.1 above. Notwithstanding the foregoing sentence, if any payment milestone as set forth in Article 6.1 has not been accomplished for any reasons attributable to Contractor, KARI may, with an advance notice, suspend such payment due until both Parties agree that the delayed payment milestone has been accomplished.
- 6.2.3 Whenever the payment due date falls on Saturday, Sunday, KARI’s non-business day or a Korean legal holiday, the payment date shall be the following business day.

### **6.3 Deduction of Payment**

- 6.3.1 In the event that KARI is entitled to receive any amount from the Contractor under the provisions of the Contract (e.g. liquidated damage, etc.), KARI may deduct such amount from any payment that may be or become due to the Contractor from KARI. If such amount exceeds to the residual payment amount, Contractor shall pay such amount within two (2) weeks after Contractor's receipt of KARI's written notice.
- 6.3.2 A prior written notice given by KARI accompanied with documents stating the amount due to KARI referred to in Article 6.3.1 shall be prima facie evidence of the matters stated herein.

## **Article 7. Taxes and Duties**

- 7.1 In the event taxes are charged in Korea, KARI shall be fully responsible for payment of such taxes. Contractor shall be fully responsible for the payment of all applicable taxes imposed outside Korea including any customs duties and charges.
- 7.2 Neither Party shall be responsible for paying the customs duties, and related taxes, fee, or charges for the personnel and the personal effects of the other Party.
- 7.3 The Contractor shall further comply with instructions KARI may issue from time to time in order to facilitate any exemption or reductions from customs duties and other taxes that might be levied on KARI and shall impose the same obligations on the Subcontractor.

## **Article 8. Performance Bond**

- 8.1 Contractor shall establish a performance bond within one (1) week after EDC in favor of KARI in the value of ten percent (10 %) of the Contract Price, in the form of an irrevocable and unconditional standby letter of credit available by KARI's draft at sight.
- 8.2 The entire amount covered by the performance bond shall be payable to KARI on demand together with KARI's written statement to the effect:
- (a) that there was a default of the Contractor in the performance of the Contract (including Subcontractor's default under the Subcontract), or
  - (b) that any amount KARI is entitled to receive from Contractor has not been paid by

Contractor to KARI through any other means, or

(c) that this Contract was terminated by Contractor's breach as specified in Article 20.1.

- 8.3 The letter of credit shall be issued by first class international bank acceptable to KARI. The letter of credit shall be drawn in favor of KARI and advised through the Woori Bank (Address: Daejeon Branch at Moonye-ro 29, Dunsan-dong, Seo-gu, Daejeon, 35241 Korea, Tel.: +82-42-488-9704, Ext. 312 / Fax : +82-505-003-6200 / e-mail : 30904455@wooribank.com) and shall remain valid until the expiry date of warranty as set forth in Article 13 "Representations and Warranties". The letter of credit shall not be amended, modified or canceled without KARI's prior written consent.
- 8.4 It is hereby agreed between the Parties that payment from the performance bond under this Article shall not affect any other of KARI's rights, privileges, interests or remedies under this Contract or the applicable law.

## **Article 9.        Delivery**

### **9.1        General**

- 9.1.1 Contractor shall deliver Deliverable Item in accordance with the defined schedule and method as set forth in Article 9.2.
- 9.1.2 Contractor agrees that delivery or provision of time and place under this Contract, whether specifically provided for or not, or in subsequent amendments thereto, are of the essence of this Contract.
- 9.1.3 Contractor shall be responsible for all applicable taxes imposed outside Korea including any customs duties and charges of any nature levied on Deliverable Item, spare parts, spare materials, tools, consumables and ancillary equipment as well as any charges associated with the transportation.

### **9.2        Delivery to KARI**

- 9.2.1 Contractor shall deliver Deliverable Item under the rule of FCA Contractor's designated airport (Free Carrier in accordance with the Incoterms 2010) in accordance with the

delivery schedule of this Contract. Unless otherwise mutually agreed, Contractor shall make Deliverable Item ready for shipment and shall hand over to the KARI's Forwarding Agent (TBD)

Items	Key Points Schedule
Network Analyzer 1 Set	<ul style="list-style-type: none"> <li>- Arrival at KARI : by December 14 2018</li> <li>- Installation &amp; Finish site acceptance : by December 21, 2018</li> </ul>

9.2.2 To obtain import certification, Contractor shall notify KARI by e-mail (address is “kdjang@kari.re.kr” for Mr. Kyung-Duk JANG and “kimyt@kari.re.kr” for Mr. Sean KIM(Young-Taek KIM) fourteen (14) calendar days prior to shipment with one set of proforma invoice and packing list specifying the number of boxes, name of Items, unit price, and size and volume of each container or box to be shipped. As soon as each shipment as provided for in this Article is made, Contractor shall send one (1) copy of the following shipping documents to KARI by e-mail;

- (a) Airway bill or Clean on board bill of lading,
- (b) Commercial invoice (including the Contractor’s authorization no.),
- (c) Packing list,
- (d) Manufacturer's Inspection Report,
- (e) Export license (if necessary),
- (f) Certificate of Origin, and
- (g) Quality Assurance Certificate.

## **Article 10. Delay**

### **10.1 Excusable Delay**

10.1.1 Neither Party shall be responsible to the other Party for any delay in performing its obligations under this Contract due to any events of Force Majeure.

10.1.2 The Party whose performance of obligations hereunder has been affected by any events of Force Majeure shall notify the other Party within ten (10) days thereafter by sending a detailed statement and sufficient evidence with respect thereto, and promptly of any subsequent change in the circumstances, if any. The affected Party shall exercise its best efforts under the circumstances to remove or remedy the events of Force Majeure and the



effects thereof and resume full performance hereof as soon as possible.

10.1.3 Notwithstanding Article 10.1.1 above, any such delay that has not been notified to the other Party pursuant to Article 10.1.2 above shall not be excused for any reason whatsoever. Notwithstanding Article 10.1.1 above, any delay of performance of the affected Party falling due after any delay, failure or incompleteness in exercising the pertinent best efforts to remove or remedy the pertinent events of Force Majeure or the effects thereof pursuant to Article 10.1.2 shall not be excused for any reason whatsoever.

10.2 The Party who has received or was entitled to duly receive the notice of events of Force Majeure under Article 10.1.2 above may suspend performance of its obligations, which shall be due subsequent to such events of Force Majeure, until the other Party has effected such delayed performance to the full extent after and in view of such events of Force Majeure.

### 11.3 Non-Excusable Delay

11.3.1 In the event that, unless otherwise excused by virtue of this Contract or the governing or applicable law, Contractor delays the delivery of the Deliverable Item, Contractor shall be responsible for damages incurred by KARI as a result of such delay.

10.3.2 Contractor acknowledges and agrees that the timely delivery of the Deliverable Item as stipulated under this Contract is essential to KARI, and that such delay as provided for in Article 10.3.1 hereof may cause substantial financial loss or damage to KARI's right, interests and benefit, which may not be assessable or recoverable. Both Parties therefore specifically agree that in the event of such loss or damage caused by delay attributable to Contractor, its Subcontractor or any of its agents, Contractor shall pay KARI as liquidated damages zero point zero seven five percent (0.075%) of Contract Price per day of such delay. In no case, however, shall the aggregate liquidated damages exceed ten percent (10%) of the Contract Price. It is also agreed by both Parties that KARI shall be entitled to terminate this Contract for Contractor's breach, only if the aggregated liquidated damages under this Article, excluding those days of delay excused by KARI in writing, exceeds ten percent (10%) of the Contract Price.

10.4 This Article shall not affect other remedies, rights, privileges, interests, benefits of KARI under this Contract or the governing or applicable law. Contractor agrees that any right of KARI under this Article is not an alternative or substitute to other remedies, rights, privileges, or interests of KARI.

10.5 For the purpose of this Article, any action or omission of Contractor's Subcontractor,

agent, or servant, de facto or de jure, shall be deemed to be Contractor's own.

## **Article 11. Intellectual Property**

- 11.1 KARI shall own and have a right to use, without any obligation, all the Deliverable Items provided by Contractor in its performing this Contract. Contractor shall take all necessary precautions so that all the Deliverable Items supplied hereunder shall be free from infringement of any patent, design patent, trademark, utility model or any other industrial property right, copyright, license or any other right thereunder of any Third Party.
- 11.2 In the event that any Party other than Contractor claims or threatens to claim infringement by KARI with respect to such use of the Deliverable Items, Contractor shall defend, hold harmless, and indemnify KARI from such infringement claims.
- 11.3 This Article will survive the completion of the Contract, any termination, cancellation or expiration of the Contract in any manner whatsoever.

## **Article 12. Final Acceptance**

- 12.1 Notwithstanding the transfer of title or property in or the delivery of Deliverable Items to KARI pursuant to the Contract, the Final Acceptance shall occur only after:
- (a) all specified tests to be performed by the Contractor under the Contract for the Delivery Items have been completed in accordance with the Contract,
  - (b) the Contractor has demonstrated to the satisfaction of KARI that the Delivery Items meet the specifications set out in Appendix B-1 "Technical Requirements" and
  - (c) all conditions under the Contract to be fulfilled by the Contractor prior to the Final Acceptance have been met,
- in which case KARI shall finally accept, in writing, the Delivery Item subject to the provisions set forth below.
- 12.2 Subject to the conditions as set forth in Article 12.1 above, a Final Acceptance of

Deliverable Item shall be occurred only when the incoming inspection of Deliverable Item, within seven (7) days after arrival at KARI site, has successfully completed at KARI site. After the completion of incoming inspection, KARI's authorized representative shall notify the result of incoming inspection in writing. If KARI determines that any Delivery Item is unacceptable, it shall notify the Contractor, in writing, the reasons therefore. If no written notification is given within seven (7) days from the receipt of Deliverable Items, the Deliverable Item should be regarded as finally acceptable.

- 12.3 If any Delivery Item is determined to be unacceptable, it shall be considered as non-delivery and the Contractor shall, at its expense, promptly repair or replace such item so that it complies with the Contract specifications and requirements, and shall submit such repaired or replaced item for its confirmation. The repaired or replaced item shall be accepted in accordance with the requirements of Article 12.1.
- 12.4 The Parties agree that the acceptance of any Items under this Article shall not be interpreted or construed to mean that such Items are free of all defects and conform in all respects with the requirements of this Contract, and Contractor shall not be entitled to any additional costs incurred or to recover any damages suffered due to defects in the Items or KARI's rejection of the Items.

## **Article 13. Representations and Warranties**

13.1 Contractor represents and warrants to KARI that:

- (a) Contractor shall provide the Deliverable Item and Service in a timely and efficient manner and in accordance with the-state-of-art engineering and design industry standards and practices;
- (b) Each of its employees who are performing the Service shall be qualified and sufficiently experienced so as to provide the work competently, professionally and efficiently with the standards and practices as set forth in paragraph (a) above;
- (c) All Deliverable Items that Contractor shall provide under this Contract shall be free from all defects in workmanship and materials and shall comply with the specifications and requirements of this Contract;
- (d) Contractor shall have good title to all design, engineering or technical data or documents, and all material, and the Deliverable Item provided to KARI, including, but not limited to, the Deliverable Items and Deliverable Data, free from any and all claims, demands, liens and encumbrances on title;
- (e) Neither part of the design, engineering or technical data or documents, and all material, and the Deliverable Item provided to KARI, including, but not limited to,

the Deliverable Items and Deliverable Data, when given and in the future, shall be the subject of any Third Party infringement claim or action; and

- (f) The warranty will not cover the damage or failure due to improper operation, lack of maintenance, unauthorized alteration, normal wear and tear, and abnormal use.

13.2 The warranty period hereof shall be three (3) years from the Final Acceptance date of the Deliverable Item at the designated site by KARI.

13.3 KARI shall notify Contractor and allow Contractor to access to the Deliverable Item to assure proper handling and use under the warranty. Any action performed by Contractor under the terms of this warranty clause will not extend the warranty period.

13.4 Upon the receipt of written notification from KARI that Deliverable Item delivered by Contractor is defective of non-conforming, Contractor shall, for the period agreed by both Parties, immediately repair or replace, at Contractor's expense, such Deliverable Item so as to comply with the above warranties. The Contractor shall not be entitled to any additional costs incurred or to recover any damages suffered due to defect in the Deliverable Item or rejection of the Deliverable Item by KARI.

#### **Article 14. Legal Compliance and Governmental Authorizations**

14.1 Contractor and its employees shall comply with all applicable legal requirements of any place in which any part of the work and Service under this Contract is to be done and with the legal requirements of public, municipal and other authorities in any way affecting or applicable to any work and Service performed by Contractor and its employees.

14.2 Unless otherwise provided for herein, Contractor shall, at its own expense, obtain any permits, licenses, approvals or certificates including any other requirements necessary for the export of Deliverable Item and for the performance of the work and Service under the Contract. Contractor shall perform the work and Service in accordance with the conditions of any applicable permits or licenses, approvals or certificates.

14.3 No Party shall be responsible in any way for direct or indirect consequences of any violation of law by the other Party, its Subcontractors or their officers, employees, agents or servants.

- 14.4 Contractor shall be responsible for obtaining all non-Korean governmental authorizations necessary for the performance of the Contractor's obligations hereunder in a timely manner.

#### **Article 15. Non-Transfer and Use Assurances**

- 15.1 In case that any part of the Deliverable Items to be provided to KARI by Contractor under this Contract are subject to export control regimes of the exporting country for the purpose of non-proliferation of dual use articles and technology, KARI hereby assures and certifies that KARI will use the said articles and technical data only for peaceful purposes and, as an end user, except as specifically authorized by prior written approval of the relevant authorities of the exporting country, will not re-export, re-sell or otherwise dispose of the articles and technical data outside the Republic of Korea or to any Third Party. If requested by Contractor, KARI shall execute and issue to Contractor a non-transfer and end use certificate containing the said KARI's assurances.

#### **Article 16. License and Ownership of Data and Information**

- 16.1 If any license or consent from Contractor or any Third Party is required to ensure KARI's right in this Article, Contractor shall grant and shall have such Third Party grant such license and consent to KARI.
- 16.2 Subject to Article 16.1 above, Contractor shall retain ownership rights in its prior existing standards, reference materials, drawings, and engineering tools, used in connection with the Satellite EMC Test Equipment for Lightning Induced Transient Susceptibility Test under this Contract.

#### **Article 17. Suits for Infringement**

- 17.1 In the event that any suit, claim, action or proceeding against KARI and its Subcontractor arises from allegations that any proprietary rights to be provided by Contractor hereunder constitute infringement of any patent, copyright, trade secret, know-how, or any other proprietary right of any Third Party, Contractor shall defend KARI's and KARI Subcontractor's right, title and interest to the same against such suit, claim, action, or proceeding at Contractor's expense and shall hold KARI and KARI Subcontractor's harmless from any damages or losses of any kind including without limitation legal fees. If as a result of such suit, claim, action or proceeding, the proprietary rights or any part thereof is held to constitute an infringement and the use of said proprietary rights, or any part thereof, is enjoined, Contractor shall promptly, at its option and expense, either procure for KARI and KARI's Subcontractor the right to

continue using said proprietary rights, or the part thereof, or replace the same with non-infringing proprietary rights acceptable to KARI.

- 17.2 The Contractor owns the intellectual property right of the Deliverable Item and KARI and KARI Subcontractor shall not copy the design or allow any Third Party to copy the design for any purpose without prior written approval from the Contractor.

## **Article 18. Confidentiality**

- 18.1 Each Party agrees to keep secret and confidential all information obtained pursuant to this Contract from the other Party, which is designated as confidential by the other Party. The Parties agree to take all necessary precautions in a manner acceptable to the Party furnishing the confidential information in order to keep secret and confidential such information and to restrict its use outside and beyond the scope of this Contract; provided, however, that the above shall not apply to information which is or becomes part of the public domain or obtained from an independent source through no fault of the disclosing Party, nor shall the above restrict or prohibit the disclosure of such information to competent government authorities as is required to bring about the purposes intended by this Contract.
- 18.2 Any information derived from KARI's property in connection with this Contract, shall be kept secret and confidential and shall not, without the consent in writing of an authorized officer of KARI, be published or disclosed to any Third Party, or made use of by Contractor, except for the purpose of implementing this Contract.
- 18.3 The obligations undertaken by the Parties pursuant to this Article 18, shall survive termination of this Contract and shall remain in effect and be binding on the Parties for a period of five (5) years after the termination or expiration of this Contract except for such information as shall become part of the public domain or is received from an independent source through no fault of the Party wishing to disclose.
- 18.4 Contractor shall obtain the prior written approval of KARI concerning the content and timing of news releases, articles, brochures, advertisements, prepared speeches, and other information releases, proposed to be made by such party concerning this Contract or the work performed or to be performed hereunder. KARI shall be given a reasonable time to review the proposed text prior to the date scheduled for its release.

## **Article 19. Effective Date of Contract**

- 19.1 The effective date of this Contract ("EDC") is the date the duly authorized representatives of the Parties have signed this Contract.

- 19.2 Any amendment to this Contract shall be effective upon signature by the duly authorized representatives of both Parties.

## **Article 20. Termination**

- 20.1 KARI may terminate this Contract upon written notice to Contractor:

- (a) if Contractor commits a material breach of any of its obligations under this Contract which shall not be remedied within thirty (30) days from the receipt of written notice by KARI requiring such breach to be remedied;
- (b) if Contractor becomes incapable for a period of ninety (90) consecutive or aggregate days of performing any of its obligations under this Contract because of Force Majeure; or
- (c) if Contractor or its creditors or any other eligible party shall file for its liquidation, bankruptcy, receivership, reorganization, dissolution or similar proceedings, or if Contractor is unable to pay any debts as they become due, has explicitly or implicitly suspended payment of any debts as they became due (except debts contested in good faith), or if Contractor's creditors have taken over its management, or if the relevant financial institutions have suspended Contractor's clearing house privileges.

In the event of such termination, Contractor shall return to KARI all materials, data and documentation provided by KARI, if any, at no cost to KARI, and the Contractor shall return to KARI all the amounts received from KARI up to the date of such termination.

In the event that this Contract is terminated pursuant to paragraphs (a) or (c) above, Contractor shall also pay ten percent (10%) of the Contract Price as specified in Article 5 "Contract Price" as termination charge.

- 20.2 KARI may terminate this Contract, in whole or in part, at any time for its convenience, upon reasonable prior written notice to Contractor. In case of such termination for convenience, Contractor shall be entitled to the amount paid and payable up to the date of such termination. In addition, KARI shall be entitled to the any products paid and products due as of the date of such termination.

## **Article 21. Resolution of Disputes and Governing Law**

- 21.1 In cases any controversy or claim arises out of or in relation to this Contract or with respect to a breach hereof, the Parties shall seek to resolve the matter amicably through discussions between themselves. In the event of any disagreement between KARI and

Contractor about the interpretation of the provisions or definitions used in this Contract, the interpretation of KARI shall govern until and unless otherwise decided by arbitration conducted pursuant to the following provisions.

- 21.2 If the Parties cannot resolve such controversy or claim in accordance with Article 21.1 above, it shall be finally settled by arbitration under the rules of arbitration of the Korean Commercial Arbitration Board (KCAB) and the place of arbitration shall be Seoul in Korea. The proceedings shall be conducted in English. The award rendered by the board shall be final and binding on the Parties and may be entered in any court of competent jurisdiction for execution.
- 21.3 The validity, performance, construction, and effect of this Contract shall be governed by the laws of Korea.

## **Article 22. Notice**

- 22.1 All notices required or permitted to be given hereunder shall be made in writing, and shall be valid and sufficient if dispatched by registered airmail (postage prepaid), delivered personally, or sent by facsimile or e-mail to the following addresses:

- a) If to KARI : Korea Aerospace Research Institute  
169-84 Gwahak-ro, Yuseong-Gu  
Daejeon, 34133 Korea

Technical Matter

Attn.: Mr. Kyung Duk JANG  
Dep't: Space Test Department

Tel.: +82-42-870-3739

Fax: +82-42-860-2234

e-mail : kdjang@kari.re.kr

Contract Matter

Attn.: Mr. Sean KIM  
Dep't: Procurement Team

Tel: +82-42-860-2613

Fax: +82-42-860-2666

e-mail : kimyt@kari.re.kr

- b) If to Contractor : Name of Contractor Address

Technical Matter

Attn.: TBD  
Dep't: TBD

Contract Matter

Attn.: **TBD**  
Dep't: **TBD**



Tel.: TBD

Tel: **TBD**

Fax: TBD

Fax: **TBD**

e-mail : TBD

e-mail : **TBD**

- 22.2 Each Party may change its address for notice by notice given to the other Party in the manner set forth above.
- 22.3 Notices given as herein provided shall be considered effective seven (7) days after the registered postage pre-paid airmailing thereof or the day of actual receipt thereof, whichever occurs first, or on the day of personal delivery, or the day of sending if by facsimile or e-mail.

## **Article 23. Miscellaneous**

### **23.1 Assignment**

This Contract and each and every covenant, term and condition hereof shall be binding upon and inure to the benefit of the Parties and their respective successors, and neither this Contract nor any rights and obligations hereunder shall be assignable or delegable directly or indirectly by any Party without the prior written consent of the other Party, which consent shall not be unreasonably withheld.

### **23.2 Language and Units**

This Contract is executed in English and all documents, drawings, plans and any other writings as well as communication between the Parties shall be in English. Weight and measurement for deliverable documentation including Deliverable Data shall be recorded in units of metric system.

### **23.3 Entire Agreement**

This Contract embodies the entire agreement between the Parties with respect to the subject matter hereof and supersedes and cancels any and all prior understandings or agreements, oral or written, in relation hereto, which may exist between the Parties. No oral explanation or oral information by any of the Parties shall alter the meaning or interpretation of this Contract.

### **23.4 Amendment**

No amendment or change hereof or addition hereto shall be effective or binding on any of the Parties unless reduced to writing and executed by the respective duly authorized representatives of each of the Parties.

### **23.5 Subcontract**

Each Party shall be fully responsible for the work of its Subcontractors under this Contract, and such subcontracting shall not relieve that Party of its obligation under this Contract.

23.6 Headings

The headings and titles in this Contract have been inserted for convenience of reference only and are not to be used in construing or interpreting this Contract.

23.7 Unenforceable Terms

If any term or provision of this Contract shall for any reason be invalid, illegal or unenforceable in any respect, this Contract shall be interpreted and construed as if such term or provision had never been included herein. Any remaining part of this Contract shall not be influenced by such ineffectiveness.

23.8 Non-Waiver

The failure or delay of any Party to require any performance by the other Party of any provision of, or of any right or obligation under this Contract, shall not constitute a waiver thereof, nor shall such affect that Party's right to thereafter require performance of such or any other provision, right or obligation.

23.9 Disclaimer of Agency

This Contract shall not be deemed to constitute any Party the agent of the other Party.

23.10 Time Limits

Unless otherwise indicated, any time limits to which this Contract binds Contractor or KARI shall be counted in calendar days from the day following that of the event marking the start of the time limit, and shall end on the last day of the period specified. When the last day of a time limit is a Saturday or Sunday, or a legal holiday in the country in which the particular contractual performance is required, such time limit shall be extended to the first working day following.

**IN WITNESS WHEREOF** this Contract has been issued in two (2) signed English originals of equivalent validity, executed on behalf of KARI and the Contractor by their respective persons authorized on that behalf.

**Korea Aerospace Research Institute**

**Name of Contractor**

**By :** \_\_\_\_\_

**By :** \_\_\_\_\_

**Name :** Dr. Cheol-Ho LIM

**Name :**

**Title :** President

**Title :**