

Terms and Conditions



Korea Aerospace Research Institute

Preamble

This Contract made on December ____, 2014 and will be valid until February 20, 2015 by and between Korea Aerospace Research Institute, established under the law of the Republic of Korea with its principal office at 169-84 Gwahakro, Yuseong-Gu, Daejeon 305-806, Korea, hereinafter referred to as “KARI” and xxx established under the law of the xxx with its principal office at xxx, hereinafter referred to as “Contractor”.

Article 1. Objective

The objective of this Contract is to carry out and provide the technical consulting work to establish the quad-shaker system of vertical configuration under the Contractor’s responsibility. To accomplish this objective, Contractor shall perform all the works under this Contract required for the Appendix 1. Request for Proposal as well as Contractor’s proposal.

Article 2. Scope of Services

- 2.1 Contractor shall accomplish the Services and supply the following documents under this Contract in a timely manner:
 - (a) Statement of work and technical requirements for four-shakers; and
 - (b) Acceptance test for four-shakers; and
 - (c) List of manufacturing key inspection points for quad-shakers; and
 - (d) Acceptance test for overall system; and
 - (e) FMECA [Failure Modes, Effects and Critical Analysis on similar four shakers system; and
 - (f) Review on shaker supplier proposal; and
 - (g) Review on quad-shaker design.
- 2.2 Contractor shall provide as sufficient as engineering and administrative manpower and resources for the timely completion of the Services under this Contract. In the event the Services are not completed with manpower and resources due to Contractor’s fault, Contractor shall provide any additional manpower and resources to accomplish the Services free of charge to KARI.
- 2.3 Contractor shall provide any technical data or technical information as may be needed for KARI to understand the results of Services free of charge to KARI.
- 2.4 To accomplish this Contract, KARI shall cooperate to Contractor in order for it to obtain any necessary government and KARI’s Associates approvals, if necessary. And Contractor shall obtain any government approvals required to accomplish and perform this Contract free of charge to KARI.

Article 3. Contract Price and Terms of Payment

- 3.1 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 or EUR XXX.00**.
- 3.2 The payment of Contract amount specified in Article 3.1 shall be made after delivering the

Services as required in Article 2.1 to KARI and made in USD or EURO by telegraphic transfer to the bank account as designated by Contractor in its invoices. KARI shall remit the payment within thirty (30) days after KARI's receipt of Contractor's invoice.

- 3.3 The Contract Price is a firm and fixed amount not subject to any escalation or to any adjustment or revision for any reason whatsoever, including but not limited to the increase of actual cost incurred by Contractor in the performance of the Contract.
- 3.4 The Contract price excludes any VAT that may be applicable in Korea.
- 3.5 All banking charges incurred in Korea shall be borne by KARI, and those charges incurred outside Korea shall be borne by Contractor.

Article 4. Taxes and Duties

- 4.1 If Korean income tax is required to be withheld from amounts paid or payable to Contractor under this Contract (herein referred to as 'Applicable Tax'), KARI shall withhold the Applicable Tax and pay on behalf of Contractor the relevant Korean taxing authority in accordance with applicable Korean law.
- 4.2 KARI shall forward proof of the withheld Applicable Tax to the Contractor within ninety (90) days of payment.
- 4.3 Neither Party shall be responsible for paying the customs duties, and related taxes, fees or charges for the personnel and the personal belongings of the other Party.
- 4.4 Each Party shall further comply with instructions the other Party may issue from time to time in order to facilitate any exemptions or reductions from customs duties and other taxes that might be levied on the other Party.

Article 5. Performance Bond

- 5.1 Contractor shall establish a performance bond within four (4) weeks 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.
- 5.2 The entire amount covered by the performance bond shall be unconditionally payable to KARI on demand together with KARI's written statement to the effect:
 - (a) that there was a breach of the Contractor in the performance of the Contract (including the breach of its Subcontractor under the Subcontract); or
 - (b) that this Contract was terminated by Contractor's breach as specified in Article 9 'Termination'.
- 5.3 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 (Daejeon Branch at 1495 Dunsan-dong, Seogu, Daejeon, 302-173 Korea, Tel: +82-42-488-9704, Ext. 312, email: the_banker@wooribank.com) and shall remain valid through the end of this Contract. The letter of credit shall not be amended, modified or canceled without KARI's prior written consent.

- 5.4 It is hereby agreed between the Parties that payment from the performance bond under this Article 5 shall not affect any other of KARI's rights, privileges, interests or remedies under this Contract.

Article 6. Delivery

Contractor shall deliver any deliverable item for the technical consulting work in accordance with Article 2.1 and the Appendix 1. Request for Proposal by e-mail.

Article 7. Delays in Performance

7.1 Excusable Delay

- (a) 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.
- (b) '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 act unforeseeable and beyond the reasonable control without the fault of either Party or its Sub-Contractors.
- (c) 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.

7.2 Non-Excusable Delay

- (a) In the event that, unless otherwise excused by virtue of this Contract or the governing or Applicable law, Contractor delays the provision of Services or delivery of detailed drawing and deliverable items as stipulated in this Contract, or performance of its other obligations under this Contract, Contractor shall be responsible for damages incurred by KARI as a result of such delay.
- (b) Non-Excusable Delay, Liquidated damages, shall be applied for late performance or non-performance at the rate of zero point twenty-five (0.25) percent of total Contract price per calendar day, up to ten (10) percent of total price.

Article 8. Final Acceptance

8.1 Final Acceptance of this Contract shall occur only after:

- (a) The technical consulting work to be performed by the Contractor under the Contract has been completed in accordance with this Contract; and
- (b) Contractor has demonstrated to KARI that the technical consulting work meets the specifications and requirements in this Contract.

- 8.2 If the technical consulting work is determined to be unacceptable, it shall be considered as non-delivery and the Contractor shall, at its expense, promptly repair or replace such items so that it shall comply with the Contract specifications and requirements, and shall submit such repaired or replaced items for its confirmation. The repaired or replaced items shall be accepted in

accordance with the requirements of Article 8.1.

- 8.3 The Parties agree that the acceptance of any item 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 9. Termination

- 9.1 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 giving of written notice requiring such breach to be remedied; or
 - (b) Contractor fails to obtain the export or re-export license from any government other than Korean government or conditionally obtains in accordance with Article 2.4; 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's creditors have taken over its management.
- 9.2 In the event of such termination, Contractor shall return to KARI all materials, Data and documentation provided by KARI, at no cost to KARI, and KARI may perform the Services to completion. In addition, KARI, at its sole discretion, may;
- (a) either retain the Services which have already been or are supposed to be provided by Contractor up to the date of such termination by paying the payments which have already become due up to the date of such termination. Any and all terms and conditions of this Contract shall apply to such Services as if it had not been terminated; or
 - (b) Contractor shall return to KARI all the amounts received from KARI up to the date of such termination, and KARI shall return all Services provided by Contractor under this Contractor up to the date of such termination, in the manner of "AS IS".

Article 10. Intellectual Property

- 10.1 KARI shall own and have a right to use, without any obligation, all the deliverable items or data provided by Contractor in its performing this Contract. Contractor shall take all necessary precautions so that the Services 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 or parties.
- 10.2 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 or data, Contractor shall defend, hold harmless, and indemnify KARI from such infringement claims.
- 10.3 This Article will survive the completion of the Contract, any termination, cancellation or expiration of the Contract in any manner whatsoever.

Article 11. Governing Law

The validity, performance, construction, and effect of this Contract shall be governed by the laws of the Republic of Korea.

Article 12. Notice

Any and all notice to be given to either party shall be given to the following addresses by registered airmail or other telecommunication media. Either party may change its address by giving prior notice to the other party in the manner provided for herein.

For KARI: **Korea Aerospace Research Institute**

169-84 Gwahakro, Yuseong-gu, Daejeon 305-806, Korea

Commercial matters

Mr. Jung-Nam Cho

Tel: +82-42-860-2613

Fax: +82-42-860-2666

E-mail: jncho@kari.re.kr

Technical matters

Mr. Jong-Min Im

Tel: +82-42-860-2562

Fax: +82-42-860-2234

E-mail: acoust@kari.re.kr

For Contractor: xxx Company

Address

Commercial matters

Mr.

Tel: +

E-mail:

Technical matters

Mr.

Tel: +

E-mail:

IN WITNESS WHEREOF, the Parties hereto have executed this Contract in duplicate in English by causing these presents to be signed by their duly authorized representatives as of the day and year first above written.

Signed for and on behalf of KARI

By:

Name: Dr. Gwang-Rae CHO

Title: President

Signed for and on behalf of Contractor

By:

Name:

Title:

Appendix 1. Request for Proposal

OVERVIEW

1. Overview of the project

- 1.1 Korea Aerospace Research Institute (hereinafter referred to as "KARI") is located at Daeduk Research Complex, 140 km south of Seoul.
- 1.2 KARI has a satellite assembly, integration and test center (hereinafter referred to as "AITC") 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.
- 1.3 To increase the vibration shaker capability and improve the accessibility to satellite for the safe environmental testing, new guided expander system with quad shakers will be designed and built.
- 1.4 The purposes of this project is to supply the technical consulting work to establish the quad-shaker system of vertical configuration
- 1.5 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. Requisites of participants

- 2.1 The participants shall also have experience of management, integration, installation and acceptance test for the 3m guided quad-shaker system equipped with electro dynamic shakers of 640kN.

3. Scope of the work

- 3.1 The Contractor shall supply the technical consulting work as followings;
 - ✓ Statement of work and Technical requirements for four-shakers
 - ✓ Acceptance test for four-shakers
 - ✓ List of manufacturing Key Inspection points for quad-shakers
 - ✓ Acceptance test for overall system
 - ✓ FMECA [Failure modes, effects and critical analysis] analysis on similar four shakers system
 - ✓ Review on shaker supplier proposal
 - ✓ Review on quad-shaker design

Technical Requirements

1. Quad-shaker System Configuration

To increase the shaker capability and improve the accessibility to test object, new guided expander system with quad shakers shall be designed. The head expander should be designed with magnesium material for reducing the weight. Seismic mass should be designed to support dynamic load during the vibration test and also supply the rigid support and load path for the hydraulic bearings. Quad-shakers should be used to increase the capability. Top level of H/E is designed to same level of facility floor.

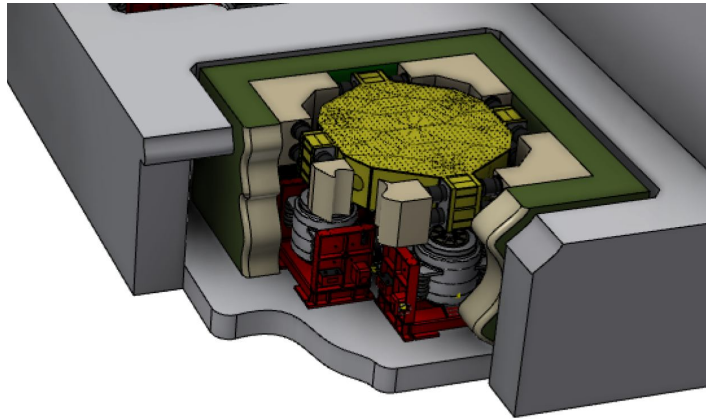


Figure 1 Concept for Quad-shaker System

Table 1. Technical requirements for Quad-shaker System

Quad-shaker System	Specification	
Table mass	<2600kg	
Table dimension	3.25m x 3.25m	
Excitation range		
Sine	5-2000 Hz	
Random	10-2000 Hz	
Max payload mass	10 ton	
Max overturning moment	200kNm	
First pseudo rigid mode in operational status bare table	>50 Hz	
Elastic modes	>170 Hz	
Cross axis response bare table		
5-150 Hz	< 10 %	
150-400Hz	< 100 %	
Homogeneity bare table	<± 15 %	
3-100 Hz		

Work Description

WP #1 Statement of work and Technical requirements for four-shakers

Objective	To generate the SOW and technical requirements for four-shakers
Activities	<ul style="list-style-type: none"> - Generate the statement of work for four shakers - Generate the technical requirements for shakers - Generate the Amplifier requirements - Generate the system requirements - Generate the maintenance requirements - Generate the guidelines for preparing statement of work
Outputs	<ul style="list-style-type: none"> - Documentation on SOW and technical requirements - Guidelines for preparing SOW

WP #2 Acceptance test for four-shakers

Objective	To check the readiness of four-shaker and review the results of acceptance test
Activities	<ul style="list-style-type: none"> - Generate four shakers acceptance plan on site - Provide acceptance test results of similar system
Outputs	<ul style="list-style-type: none"> - Four shakers acceptance test procedure - Similar four shakers acceptance test result report

WP #3 List of manufacturing Key Inspection points for quad-shakers

Objective	To check the Key inspection points for quad-shakers
Activities	<ul style="list-style-type: none"> - Generate the list of manufacturing key inspection points for shakers
Outputs	<ul style="list-style-type: none"> - List of manufacturing key inspection points

WP #4 Acceptance test for overall system in KARI

Objective	To check the readiness of overall system
Activities	<ul style="list-style-type: none"> - Generate the list of manufacturing key inspection points for overall system - Generate the overall system acceptance test procedure - Provide similar system acceptance test results report
Outputs	<ul style="list-style-type: none"> - Overall system acceptance test procedure - Similar system acceptance test result report

WP#5 FMECA analysis on KARI quad-shaker system

Objective	To check the safety logic for overall system
Activities	- Provide similar four shakers system FMECA report
Outputs	- Similar four shaker system FMECA report

WP#6 Review on shaker supplier proposal

Objective	To review on shaker supplier proposal
Activities	- Review the shaker supplier proposal
Outputs	- Review report on shaker proposal

WP#7 Review on quad-shaker design

Objective	To review on quad-shaker design
Activities	- Review the overall quad-shaker design
Outputs	- Review report on quad-shaker design

Format of Proposal

The proposal shall consist of 5 Sections (S).

- S 1 : Bidder's Qualification Document
- S 2 : Overview and Technical Proposal
- S 3 : Work Schedule Plan
- S 4 : Documentation
- S 5 : Price Proposal

The bidder shall present 6 copies of the proposal. A4 or letter size paper shall be used. **The bidder is requested to strictly follow the following illustrated format (tabular form).** This is very important to compare and evaluate different bidders' proposal. Consequently, disregard for this rule may end up with disqualification. Also, well-prepared and well-organized proposal will be highly appreciated and evaluated. The landscape orientation will be acceptable for tables. The suggested contents in each WP are minimum requirements and works for reminiscences. Ambiguous expression will act adversely to the bidder.

Note : The prices which are used in the proposal to calculate the final total and breakdown prices shall be distinguished from the other prices (e.g. optionally suggested parts by the bidder or KARI, . . .) by marking a.p. (applied price) after the prices. In other words, the sum of a.p. shall be the final total price proposed in the proposal.

(example)

Item	Price	Unit	Subtotal
Item #1	\$ 5,000 a.p.	2	\$ 10,000
Item #2	\$ 4,000 a.p.	1	\$ 4,000
Item #3	\$ 2,000 a.p.	3	\$ 6,000
:	:	:	:
		Total	\$ 20,000

S1 : Bidder's Qualification Document

The followings shall be included in this WP.

- (a) Bidder's experiences on the prescribed system in this "Request for Proposal" including :
 - design/ management/ integration/ installation/ acceptance test
- (b) **Bidder's Qualification Evidence Documents** to show the capability to perform the technical consultings.

S2 : Overview and Technical Proposal

Concise and clear expression is required. A long sentence should be broken down into several sentences. Detailed block diagrams, figures and photos are recommended for clear illustration.

The bidder should prepare tables for the check list to show the bidder's compliance with the "Request for Proposal [S1 to S5 in Work description]". **The bidder's compliance list shall be legal bind.** This table shall be located in the front of Overview part. The article numbers in the "Part I. Overview" and "Part II. Technical Requirements" in the RFP should be completely enumerated in the table. The table format to be followed is as follows:

Check List for "Part I. OVERVIEW", "Part II. TECHNICAL REQUIREMENTS", "Part III. Warranty, Maintenance and other Requirement" and "Part IV Terms and Conditions"(COMPLIANCE LIST)

- ANR : Article Number in the Part I and Part II in the RFP
- Y/N : Compliance (Yes or No)
- CAP : Corresponding Article number in the bidder's Proposal to ANR

AAM : Article number of Added Material in the bidder's proposal which is not mentioned in this RFP
(Exemple)

ANR	Y/N	CAP	Remark	AAM	Remark
I-1.	yes	I-1.1	Ditto		
I-2.	yes	I-2.1.1	Ditto		
I-2.1.	yes	I-2.1.2.	Ditto		
.....			
II-1.	yes	II-1.1	Ditto		
II-2.	yes	II-2.1.2.	Ditto		
II-2.1.	yes	II-2.1.3.	Ditto		
II-2.1.1.	yes	II-2.1.5.	The specifications look old. We updated them		
N/A	N/A	N/A	N/A	II-2.1.4.	We currently developed a new method.
II-2.1.2.	yes	II-2.2.1.	Ditto		

WP 3 : Work Schedule

The work schedule shall be shown as in detail as possible in chronological way.
- Table for work schedule

WP 4 : Documentation

9.1. Documentation
- document list (contents) to be delivered

WP 5 : Price Proposal

8.1.Total price :

All the Price Proposal shall be separately submitted being sealed.

Note :

The prices which are used in the proposal to calculate the final total and break-down prices shall be distinguished from the other prices (e.g. optionally suggested parts by the bidder or KARI, . . .) by marking a.p.(applied price) after the prices. In other words, the sum of a.p. shall be the final total price proposed in the proposal.
The total price is the sum of the break down prices hereafter.

APPENDIX

1. General Terms and Conditions