



# Invitation to Quote

Questions

Invitation to Quote (ITQ) on behalf of **STFC**

Subject UK SBS **SKA LFAA Calibration Correlator**

Sourcing reference number **PR17138**

## Section 6 – Evaluation questionnaire

Bidders should note that the evaluation questionnaire is located within the **e-sourcing questionnaire**.

Guidance on completion of the questionnaire is available at <http://www.uksbs.co.uk/services/procure/Pages/supplier.aspx>

**PLEASE NOTE THE QUESTIONS ARE NOT NUMBERED SEQUENTIALLY**

### COMMERCIAL QUESTIONNAIRE

<b>SEL1.1</b>	<b>Please state the full legal name and address and contact details of the organisation tendering (or organisation acting as lead contact where a consortium bid is being submitted).</b>																									
Bidder guidance	The information should be based on the details of the organisation bidding (or organisation acting as lead contact where a consortium bid is being submitted). This is the legal entity with whom we will Contract if successful.																									
Scoring criteria	For information only																									
Bidder response	<table border="1"> <tr> <td colspan="2"><b>Table</b></td> </tr> <tr> <td>Bidders full legal name</td> <td></td> </tr> <tr> <td>Address line 1</td> <td></td> </tr> <tr> <td>Address line 2</td> <td></td> </tr> <tr> <td>Address line 3</td> <td></td> </tr> <tr> <td>Address line 4</td> <td></td> </tr> <tr> <td>Town / City</td> <td></td> </tr> <tr> <td>Country</td> <td></td> </tr> <tr> <td>Post code (or equivalent)</td> <td></td> </tr> <tr> <td>Bidder contact</td> <td></td> </tr> <tr> <td>Telephone No.</td> <td></td> </tr> <tr> <td>Email</td> <td></td> </tr> </table>		<b>Table</b>		Bidders full legal name		Address line 1		Address line 2		Address line 3		Address line 4		Town / City		Country		Post code (or equivalent)		Bidder contact		Telephone No.		Email	
<b>Table</b>																										
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<b>SEL1.2</b>	<p><b>In the last three years, has any finding of unlawful discrimination been made against your organisation by an Employment Tribunal, an Employment Appeal Tribunal or any other court (or in comparable proceedings in any jurisdiction other than the UK)? And/or;</b></p> <p><b>In the last three years, has your organisation had a complaint upheld following an investigation by the Equality and Human Rights Commission or its predecessors (or a comparable body in any jurisdiction other than the UK), on grounds of alleged unlawful discrimination?</b></p>
Bidder guidance	<p>The Bidder shall answer <b>Yes</b> or <b>No</b></p> <p><b>Yes</b> – Fail</p> <p><b>No</b> – Pass</p> <p>*If you have answered “yes” please provide, as an attachment to this question, a summary of the nature of the investigation and an explanation of the outcome of the investigation to date.</p>

	<p>If the investigation upheld the complaint against your organisation, please use the attachment to explain what action (if any) you have taken to prevent unlawful discrimination from reoccurring.</p> <p>You may be excluded if you are unable to demonstrate to the Contracting Authority's satisfaction that appropriate remedial action has been taken to prevent similar unlawful discrimination reoccurring.</p>
Scoring Criteria	Mandatory Pass / Fail
Bidder response	Yes / No

<b>SEL3.11</b>	<p>If you are Commercial organisation with a minimum financial turnover of £36M, please confirm that you are compliant with Section 54 of the Modern Slavery Act 2015.</p>
Bidder guidance	<p>The Bidder shall choose from the following options;</p> <ul style="list-style-type: none"> <li>A. N/A – our turnover is less than £36M</li> <li>B. Yes – information attached</li> <li>C. No (with justification) – we are not compliant but will be prior to commencement of a contract</li> <li>D. No – we are not and will not be compliant at the time of award of the contract</li> </ul>
Scoring Criteria	Mandatory Pass/ Fail
Bidder response	Selection

<b>FOI1.1</b>	<p><b>FREEDOM OF INFORMATION ACT 2000 (FOI) AND / OR ENVIRONMENTAL INFORMATION REGULATIONS 2004 (EIR)</b></p> <p>Information provided in the course of the procurement process may be disclosed under Freedom of Information Act 2000 or Environmental Information Regulations 2004 if requested under an FOI request or EIR request.</p> <p>Please note that some of the information provided may be protected under the FOI Act exemptions and EIR Exceptions. More information on applying the exemptions or exceptions can be found under the Information Commissioners Office (ICO) website <a href="http://ico.org.uk">http://ico.org.uk</a></p> <p>Please confirm you have been informed that information provided under this Bid may be disclosed under the FOI Act 2000 and Environmental Information Regulations 2004 and agree to it being published irrespective of submitting a successful or unsuccessful Bid.</p>
Bidder guidance	<p>The Bidder shall answer <b>Yes</b> or <b>No</b></p> <p><b>Yes</b> – Pass</p> <p><b>No</b> – Fail</p>
Scoring criteria	Mandatory Pass / Fail

Bidder response	Yes / No
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FOI1.2	<p><b>FREEDOM OF INFORMATION ACT 2000 (FOI) AND / OR ENVIRONMENTAL INFORMATION REGULATIONS 2004 (EIR) EXEMPTIONS</b></p> <p>Please complete this section <u>only</u> if you have agreed for your information to be disclosed under the FOI Act or EIR in Question FOI1.1.</p> <p>If you have not agreed to your information to be disclosed under the FOI Act or EIR in Question FOI1.1 please complete a field 'N/A' (Not applicable)</p> <p>If you have agreed for your information to be disclosed under the FOI Act or EIR in Question FOI1.1 please tell us what exemptions or exceptions may apply to your information and why? If you are not relying on any exemptions or exceptions please complete each field 'N/A' (Not applicable)</p>
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Bidder guidance	<p>The Bidder shall provide details of their proposed exemptions/exception in the table below.</p> <p>The Bidder (irrespective of submitting a successful or unsuccessful Bid) shall note that if the Contracting Authority believes that the suggested Exemptions or Exceptions have not been applied properly as per the Act or Regulation, the Contracting Authority will disclose the requested information unless another exemption or exception can be applied by the Contracting Authority.</p> <p>Be aware that by completing FOI1.1 and answering 'Yes' you have agreed for UK SBS to disclose the provided information under the Freedom of Information Act 2000 or Environmental Information Regulation 2004, therefore you will not be approached for consent.</p>
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Scoring criteria	For information only
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Bidder response	Confidential Information	Justification for exemption/exception under FOI Act
	Commercially sensitive information	Justification for exemption/exception under FOI Act

AW1.1	<p><b>FORM OF BID</b></p> <p>I declare that to the best of my knowledge the answers submitted in this ITQ are correct. I understand that the information will be used in the process to assess my organisation's suitability to be invited to bid for the Contracting Authority's requirement and I am signing on behalf of my organisation. I understand that the Contracting Authority may reject this ITQ if there is a failure to answer all relevant questions fully or if I provide false/misleading information. I understand that the Government's transparency agenda requires that sourcing documents, including ITQ templates such as this, are published on a designated, publicly searchable web site, and, that the same applies to other sourcing documents issued by the</p>
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	<p><b>Contracting Authority, including the ITQ, and any contract entered into by the Contracting Authority or its customers with its preferred supplier once the procurement is complete.</b></p> <p><b>By submitting a response to this ITQ I agree that our participation may be made public.</b></p> <p><b>I understand that the answers given in this response will not be published on the web site (but may fall to be disclosed under Freedom of Information Act 2000 or Environmental Information Regulations 2004).</b></p> <p><b>By submitting a response to this ITQ I agree and accept the justification for the Contracting Authority’s evaluation criteria.</b></p> <p><b>By submitting a response to this ITQ I agreed and accept that the Contracting Authority reserves the right to change without notice the procedure for awarding the Contract, to reject any or all bids for the Contract, to stop the process and not award the Contract (in whole or in part) at any time without any liability on its part.</b></p> <p><b>By submitting a response to this ITQ I agree and accept that nothing in this process is intended to form any express or implied contractual relationship between the Parties unless and until a Contract is awarded. The Contracting Authority is not liable for any costs resulting from cancellation of this process nor any costs incurred by Bidders taking part in this procurement process.</b></p> <p><b>I understand that where sourcing documents issued by the Contracting Authority or contracts with its suppliers fall to be disclosed the Contracting Authority will redact them as it thinks necessary, having regard (inter alia) to the exemptions/exceptions in the FOIA or EIR.</b></p>
Bidder guidance	<p>The Bidder shall answer <b>Yes</b> or <b>No</b></p> <p><b>Yes</b> – Pass</p> <p><b>No</b> – Fail</p>
Scoring criteria	Mandatory Pass / Fail
Bidder response	Yes / No

<b>AW1.3</b>	<p><b>CERTIFICATE OF BONA FIDE BID</b></p> <p>The essence of procurement is that the customer shall receive bona fide competitive Bids, from all those Bidding. In recognition of this principle, we certify that this is a bona fide bid, intended to be competitive and that we have not fixed or adjusted the amount of bid by or under or in accordance with any agreement with any other person.</p> <p>We also certify that we have not done and we undertake that we will not do at any time before the hour and date specified for the return of this bid any of the following:</p> <ul style="list-style-type: none"> <li>(a) Communicate to a person other than the person calling for these bids the amount or approximate amount of the proposed bid, except where the disclosure, in confidence, of the approximate amount of the bid was necessary to obtain insurance premium quotations for the preparation of the bid;</li> <li>(b) Enter into any agreement or arrangement with any other person that he shall refrain from bidding or as to the amount of any bid to be submitted;</li> <li>(c) Offer to pay or agree to pay or give any sum of money or valuable consideration directly or indirectly to any person for doing or having done or causing or have caused to be done in relation to any other bid or proposed bid for the said supply / service any act or thing of the sort described above.</li> </ul>
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	<p>In this certificate, the word "person" includes any persons and any body or association, corporate or unincorporated, and any "agreement or arrangement" includes any such transaction, formal or informal, and whether legally binding or not.</p> <p>We acknowledge that the Contracting Authority will be entitled to cancel the contract and to recover from us the amount of any loss resulting from such cancellation if we or our representatives (whether with our without our knowledge) shall have practiced collusion in Bidding for this contract or any other contract with the Contracting Authority or shall employ any corrupt or illegal practices either in the obtaining or execution of this contract or any other contract with the Contracting Authority.</p> <p>We agree that the Contracting Authority may disclose the Bidders information/documentation (submitted to the Contracting Authority during this Procurement) more widely within Government for the purpose of ensuring effective cross-Government procurement processes, including value for money and related purposes.</p>
Bidder guidance	<p>The Bidder shall answer <b>Yes</b> or <b>No</b></p> <p><b>Yes</b> – Pass</p> <p><b>No</b> – Fail</p>
Scoring criteria	Mandatory Pass / Fail
Bidder response	Yes / No

<b>AW3.1</b>	<p>In the event of a Bidder successfully providing the most advantageous offer to the Contracting Authority against a procurement requirement, the Bidder is expected to provide an answer to the attached questions as a validation check prior to the award of any Contract.</p> <p>If the Bidder fails to meet the Contracting Authority's expectations we reserve the right to not award the Contract to the relevant Bidder and either award to the Bidder with the second most advantageous response or run a new procurement.</p>
Bidder guidance	<p>The Bidder is not required to complete the validation check at this stage but will be required to respond to the questions in the event of providing the most advantageous offer to the Contracting Authority's against a procurement requirement.</p> <p><b>Yes</b> – Pass</p> <p><b>No</b> – Fail</p>
Scoring criteria	Mandatory Pass / Fail
Bidder response	Yes I have understood that I need to complete the validation check in the event of providing the most advantageous offer to the Contracting Authority against a procurement requirement.

<b>AW4.1</b>	<b>Please confirm your acceptance of the attached Contract Terms.</b>
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Bidder guidance	The Bidder shall answer <b>Yes, No with justification</b> or <b>No Yes</b> – Pass <b>No with justification</b> – Pass. See question AW4.2 for details of what amounts to a valid justification. <b>No</b> – Fail
Scoring criteria	Mandatory Pass / Fail
Bidder response	Drop down menu - Yes, No with justification, No

<b>AW4.2</b>	<b>Where a Bidder has answered question AW4.1 with ‘no with justification’ they must detail the justification and the proposed change to the clause.</b>
Bidder guidance	<p>A justification for not accepting a specific clause or series of clauses from the attached Contract Terms is that the Bidder would be in breach of legal requirements or statutory regulations by complying with that clause or series of clauses (i.e. for the avoidance of doubt, being unable to comply with a clause or series of clauses because of an internal policy reason will not be considered to be a justification for a legal requirement or statutory regulation).</p> <p>Where the Bidder has answered question AW4.1 as "no with justification", the Bidder shall provide a Contract mark-up utilising track changes detailing the relevant clause, the proposed changes to the clause and the justification for the changes. In this case, the Bidder shall score a pass if (but only if) the Contracting Authority considers both the following requirements are satisfied:</p> <ul style="list-style-type: none"> <li>• the reasons stated as justifying the Bidder's statement that it cannot accept the Contract Terms due to legal requirements or statutory regulations are valid; and</li> <li>• the changes submitted do not create significant risk for the Contracting Authority and are reasonably necessary and proportionate to ensure the Bidder complies with the legal requirements and statutory regulations.</li> </ul> <p>Where a Bidder has answered Question AW4.1 with ‘Yes’ or ‘No’ it must answer ‘not applicable’ to achieve a Pass to question AW4.2 (noting that an answer of ‘No’ to question AW4.1 has already resulted in a fail). In the event of a Bidder answering Yes or No to Question AW4.1 and then providing a proposed mark up, rejection of a clause or a justification for a change then the response will be a Fail.</p>
Scoring criteria	Mandatory Pass / Fail
Bidder response	Drop down menu ‘N/A’ ‘I have answered AW4.1 ‘No with justification’ and attach modifications / requested / justification’.

## PRICE QUESTIONNAIRE

AW5.2	<p><b>Bidders are required to complete the Excel Pricing Schedule attached in the Bidder Response section.</b></p> <p><b>All prices shall be exclusive of VAT.</b></p> <p><b>All costs appearing elsewhere in the Bid but not mentioned in this Pricing Schedule shall be presumed waived.</b></p>																								
Bidder guidance	<p>Bidders shall confirm they have completed the Pricing Schedule. The scoring methodology for this question shall be: The lowest price for a response which meets the pass criteria shall score 100.</p> <p>All other bids shall be scored on a pro rata basis in relation to the lowest price. The score is then subject to a multiplier to reflect the percentage value of the price criterion.</p> <p>Where the scoring criterion is worth 50% then the 0-100 score achieved will be multiplied by 50</p> <p>In the example if a supplier scores 80 from the available 100 points this will equate to 40% by using the following calculation: Score/Total Points multiplied by 50 (80/100 x 50 = 40)</p> <p>The lowest score possible is 0 even if the price submitted is more than 100% greater than the lowest price.</p> <p>The lowest price for a response which meets the pass criteria shall score 100. All other bids shall be scored on a pro rata basis in relation to the lowest price. The lowest score possible is 0.</p> <p>For example, assuming the lowest bid is £100,000.</p> <table border="1" data-bbox="424 1335 1390 1682"> <thead> <tr> <th>Bid Price</th> <th>Differential to the lowest price which meets the mandatory pass criteria</th> <th>Score</th> </tr> </thead> <tbody> <tr> <td>£100,000</td> <td>0</td> <td>100</td> </tr> <tr> <td>£120,000</td> <td>20%</td> <td>80</td> </tr> <tr> <td>£140,000</td> <td>40%</td> <td>60</td> </tr> <tr> <td>£150,000</td> <td>50%</td> <td>50</td> </tr> <tr> <td>£175,000</td> <td>75%</td> <td>25</td> </tr> <tr> <td>£200,000</td> <td>100%</td> <td>0</td> </tr> <tr> <td>£300,000</td> <td>200%</td> <td>0</td> </tr> </tbody> </table>	Bid Price	Differential to the lowest price which meets the mandatory pass criteria	Score	£100,000	0	100	£120,000	20%	80	£140,000	40%	60	£150,000	50%	50	£175,000	75%	25	£200,000	100%	0	£300,000	200%	0
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£175,000	75%	25																							
£200,000	100%	0																							
£300,000	200%	0																							
Scoring criteria	Maximum Marks <b>60%</b>																								
Bidder response	Yes																								
AW5.5	<p><b>The Contracting Authority is committed to delivering payments to suppliers within the timescales stated within our Contract terms and intend to embrace e-invoicing.</b></p>																								

	<p><b>There are a number of options for suppliers to choose from outlined in the attached FAQ. Please confirm your acceptance of e-payment.</b></p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">         AW5.5 ISupplier fact sheet.pdf     </div> <div style="text-align: center;">         AW5.5 Science Warehouse fact shee     </div> </div> <p><b>XML (for Science Warehouse Contracts only) ADI Consolidated Data Upload ISupplier</b></p>
Bidder guidance	<p>The Bidder shall answer Yes or No</p> <p><b>Yes</b> – we will utilise an e-invoicing option - Pass  <b>No</b> – we will not utilise an e-invoicing option - Fail</p>
Scoring criteria	Mandatory Pass / Fail
Bidder response	Yes / No

<b>AW5.6</b>	<p><b>Please confirm if you are successfully awarded this contract your implementation team will work with the Contracting Authority to ensure that e-invoicing is established within 28 days of Contract award by the Contracting Authority.</b></p>
Bidder guidance	<p>The Bidder shall answer <b>Yes</b> or <b>No</b></p> <p><b>Yes</b> – Pass  <b>No</b> – Fail</p>
Scoring criteria	Mandatory Pass / Fail
Bidder response	Yes / No

## QUALITY QUESTIONNAIRE

<b>AW6.1</b>	<b>Please confirm your compliance to the requirements of Section 4 Specification</b>
Bidder guidance	The Bidder shall answer <b>Yes</b> or <b>No</b> <b>Yes</b> – Pass <b>No</b> – Fail
Scoring criteria	Mandatory Pass / Fail
Bidder response	Yes / No

<b>PROJ1.1</b>	<b>Does the board comply with the PCIe x16 Form-Factor?</b>
Bidder guidance	The boards must be capable of being fitted into and powered from a standard GPU server chassis.  The bidder shall answer Yes or No  The scoring methodology for this question shall be as follows:  Yes - Pass No – Fail
Scoring criteria	Mandatory Pass / Fail
Bidder response	Drop-down menu – Yes / No

<b>PROJ1.2</b>	<b>Is the board based around a 14nm FPGA?</b>
Bidder guidance	In order to achieve the required transceiver and core clocking for the total data throughput of the completed system the FPGA must be of the latest generation.  The bidder shall answer Yes or No  The scoring methodology for this question shall be as follows:  Yes – Pass No – Fail
Scoring criteria	Mandatory Pass / Fail
Bidder response	Drop-down menu – Yes / No

<b>PROJ1.3</b>	<b>Does the FPGA Have an F Max/Clock-Tree Performance of At Least 900MHz?</b>
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Bidder guidance	<p>In order to achieve the total data throughput of the completed system the FPGA must be capable of achieving a clock-tree performance of at least 900MHz.</p> <p>The bidder shall answer Yes or No</p> <p>The scoring methodology for this question shall be as follows:</p> <p>Yes – Pass No – Fail</p>
Scoring criteria	Mandatory Pass / Fail
Bidder response	Drop-down menu – Yes / No

<b>PROJ1.4</b>	<b>Does the FPGA have greater than 10,000 18x19 Multipliers?</b>
Bidder guidance	<p>The FPGA requires this number of DSP blocks in order to achieve the data processing throughput required by the final system. This number also reduces the number of boards required in the final system ensuring that the final system falls within the power envelope defined by the project.</p> <p>The bidder shall answer Yes or No</p> <p>The scoring methodology for this question shall be as follows:</p> <p>Yes – Pass No – Fail</p>
Scoring criteria	Mandatory Pass / Fail
Bidder response	Drop-down menu – Yes / No

<b>PROJ1.5</b>	<b>Does the Board Include DDR4 Memory Capable of a Data Rate of at Least 2400MT/s?</b>
Bidder guidance	<p>In order to reorder incoming data pre-processing and to store results prior to readout DDR4 memory is required to meet the data throughput requirements of the project.</p> <p>The bidder shall answer Yes or No</p> <p>The scoring methodology for this question shall be as follows:</p> <p>Yes – Pass No – Fail</p>
Scoring criteria	Mandatory Pass / Fail

Bidder response	Drop-down menu – Yes / No
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<b>PROJ1.6</b>	<b>How Many Banks of DDR4 Memory are Attached to the FPGA?</b>
Bidder guidance	<p>In order to reorder incoming pre-processing data and to store results prior to readout at least two banks of DDR4 memory are required.</p> <p>The bidder shall answer the number of DDR4 Banks attached to the FPGA.</p> <p>The scoring methodology for this question shall be as follows:</p> <p>Greater than 2 – Pass  2 - Pass  Less than 2 - Fail</p>
Scoring criteria	Mandatory Pass / Fail
Bidder response	Drop-down menu – Greater than 2 / 2 / Less than 2

<b>PROJ1.7</b>	<b>What is the Power Requirement of the Board?</b>
Bidder guidance	<p>Given the board must meet the PCIe x16 form factor the power configuration of the board shall fall into one of the following categories. The scoring methodology for this question shall be as follows:</p> <p>150W to 375W - Pass  Greater than or equal to 376W – Fail  Less than or equal to 149W = Fail</p>
Scoring criteria	Mandatory Pass / Fail
Bidder response	Drop-down menu - 150W to 375W / Greater than 376W / Less than 149W

<b>PROJ1.8</b>	<b>Does the FPGA Include Multi-Gigabit Capable Transceivers?</b>
Bidder guidance	<p>In order to connect the final system and transfer data between all of the hardware elements in the final system transceivers of at least 17.4Gbs are required.</p> <p>The bidder shall answer here referring to NRZ transceiver implementation being greater than or equal to OR less than the specified values.</p> <p>The scoring methodology for this question shall be as follows:</p> <p>Greater than or Equal to 17.4Gbs - Pass  Less than or equal to 17.3Gbs - Fail</p>

Scoring criteria	Mandatory Pass / Fail
Bidder response	Drop-down menu - Greater or Equal to 17.4Gbs / Less than 17.3Gbs

<b>PROJ1.9</b>	<b>Does the FPGA have QSFP28 Cages Attached?</b>
Bidder guidance	<p>The connectivity between hardware elements in the final system has been defined as 40Gb Ethernet, where the network switching hardware uses the QSFP28 form-factor.</p> <p>The bidder shall answer Greater than 2 or 2 or Less than 2</p> <p>In order to provide at least two 40Gb Ethernet connections to the board the following criteria must be met:</p> <p>The scoring methodology for this question shall be as follows:</p> <p>Greater than 2 - Pass 2 – Pass Less than 2 - Fail</p>
Scoring criteria	Mandatory Pass / Fail
Bidder response	Drop-down menu – Greater than 2 / 2 / Less than 2

<b>PROJ1.10</b>	<b>Is Standard HDL Support Provided for the FPGA via Reference Design, Constraints File or Schematics?</b>
Bidder guidance	<p>The primary method for programming the FPGA device will be via VHDL. This requires the pin connectivity of the FPGA to be made available to allow for custom programming of the FPGA. This can be provided via a reference design; constraints file defining the pinout; or can be derived from a supplied board schematic.</p> <p>The scoring methodology for this question shall be as follows:</p> <p>Yes - Pass No - Fail</p>
Scoring criteria	Mandatory Pass / Fail
Bidder response	Drop-down menu – Yes / No

<b>PROJ1.11</b>	<b>Can the Boards be Delivered No Later than March 2018?</b>
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Bidder guidance	<p>Bidder to supply a project plan showing delivery dates of key FPGA components, full delivery being completed by week ending 16<sup>th</sup> March 2018.</p> <p>The scoring methodology for this question shall be as follows:</p> <p>Yes - Pass</p> <p>No - Fail</p>
Scoring criteria	Mandatory Pass / Fail
Bidder response	Drop-down menu – Yes / No

<b>PROJ1.12</b>	<b>Is the FPGA a Production or Engineering Sample Part</b>
Bidder guidance	<p>I provide full functionality of the FPGA and ensure prolonged tool support production FPGA devices are preferred. If Engineering Sample devices need to be supplied to meet the supply deadline of these boards then they may be considered.</p> <p>The bidder shall answer Production or Engineering Sample</p> <p>The scoring methodology for this question shall be as follows:</p> <p>Production – 100</p> <p>Engineering Sample – 25</p>
Scoring criteria	Maximum Marks <b>8%</b>
Bidder response	Drop-down menu – Production / Engineering Sample

<b>PROJ1.13</b>	<b>What is the Capacity of Each DDR4 Memory Bank?</b>
Bidder guidance	<p>In order to reorder incoming data pre-processing and to store results prior to readout the capacity of each of the DDR4 memory banks must be at least 4GB.</p> <p>The bidder shall answer according to selection below.</p> <p>The scoring methodology for this question shall be as follows:</p> <p>16GB - 100</p> <p>8GB - 75</p> <p>4GB - 50</p>

Scoring criteria	Maximum Marks <b>8%</b>
Bidder response	Selection Drop Down

<b>PROJ1.14</b>	<b>What Speed are the FPGA Multi-Gigabit Capable Transceivers?</b>
Bidder guidance	<p>In order to connect the final system and transfer data between all of the hardware elements in the final system transceivers of at least 17.4Gbs are required.</p> <p>The bidder shall answer according to the selection below.</p> <p>The values here refer to NRZ transceiver implementation.</p> <p>The scoring methodology for this question shall be as follows:</p> <p>Greater than 28.3Gbs - 100  28.3Gbs - 75  17.4Gbs to 28.2Gbs - 50</p>
Scoring criteria	Maximum Marks <b>8%</b>
Bidder response	Selection Drop Down

<b>PROJ1.15</b>	<b>What is the Power Configuration of the Board?</b>
Bidder guidance	<p>Given the board must meet the PCIe x16 form factor the power configuration of the board shall fall into one of the following categories.</p> <p>The scoring methodology for this question shall be as follows:</p> <p>75W +150W (8 Pin Connector) + 150W (8 Pin Connector) = 375W - 100  75W + 75W (6Pin Connector) + 150W (8 Pin Connector) = 300W - 75  75W + 150W (8Pin Connector) = 225W - 50  75W + 75W (6 Pin Connector) = 150W - 25</p>
Scoring criteria	Maximum Marks <b>8%</b>
Bidder response	

<b>PROJ1.16</b>	<b>Is an OpenCL Board Support Package Supplied with the Board?</b>
Bidder guidance	<p>There is the possibility that the board could be programmed using OpenCL as an alternative to VHDL.</p> <p>The scoring methodology for this question shall be as follows:</p> <p>Yes – Full Marks 100  No – Scores 0</p>

Scoring criteria	Maximum Marks <b>8%</b>
Bidder response	