

**PROCEEDINGS OF THE PRE-BID CONFERENCE HELD ON 12-Aug-2022 THROUGH WEBEX TOWARDS PROCUREMENT OF VITA 62 POWER SUPPLY MODULE FOR AFCC.**

The Pre-bid Conference was held and the following T&PC members attended the meeting: -

Sl. No.	Name & Designation		Role
1	Mr. J. Ramaswamy Setty	Sr. Principal Scientist, ACD	Member
2	Mr. Vineet Kumar	Chief Scientist, CAD	PD-SARAS Member
3	Mrs. Veena S	Sr.Principal Scientist	
4	Mr. Venkatesh,K.S	Principal Scientist	
5	Mr. B. Pradeep Kumar,	Sr. Scientist, ALD	Member - Convener (TSC)

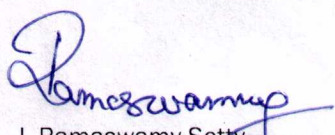
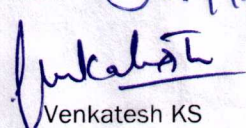
The list of Prospective bidders who attended the Pre-bid Conference is as per **Annexure-I**.

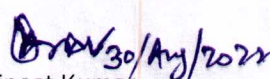
At the outset, the Chairman welcomed all the Members and the representatives of the Bidders and briefed in general the scope of the Project. The Indenting Officer to read out the clarification sought by the bidders and the replied thereto as detailed in **Annexure-II (Part A: Technical Clarification and Part B: Commercial Clarification, if any)**.

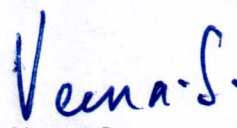
The representatives present were satisfied with the replies given and it was informed that the corrections / additions / clarifications given, as discussed during the Pre-Bid Conference would be hosted on the website of CSIR-NAL and all prospective bidders are required to take cognizance of the proceedings of the Pre-Bid Conference before formulating and submitting their bids as stipulated in bidding Documents.


The meeting ended with a vote of thanks to the Chair.


Encl: as above.

  
J. Ramaswamy Setty  
Member  
  
Venkatesh KS

  
Vineet Kumar  
Member

  
Veena S

  
B. Pradeep Kumar  
Member - Convener (TSC)

  
Dr. M. Manjuprasad  
Chairman-T&PC

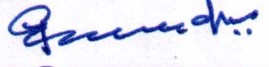
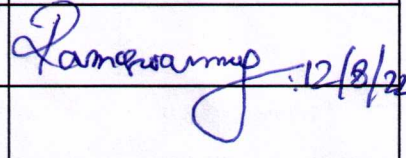
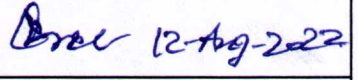
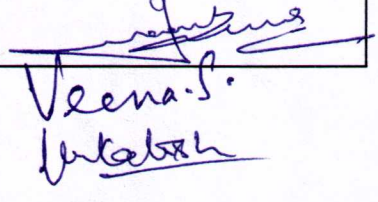
**CSIR-NATIONAL AEROSPACE LABORATORIES  
BENGALURU - 560 017**

TENDER NO.: NAL/PUR/ALD/193/21-Z  
DATE & TIME : 12-Aug-2022 @ 11:00 AM  
VENUE: THROUGH WEBEX

ANNEXURE - I

Pre-Bid Conference for Procurement of VITA 62 Power Supply Module for IAFCC

**ATTENDANCE SHEET - T&PC MEMBERS**

Sr. No.	Name		Signature
1	Dr. M. Manjuprasad, Chief Scientist, STTD	Chairman	
2	Mr. J. Ramaswamy Setty, Sr. Principal Scientist, ACD	Member	
3	Mr. Dilip Kumar Sahu, Sr. Technical Officer-2, CAD	Member	
4	Dr. Abhay Pashilkar, Chief Scientist, FMCD	Member	
5	Mr. Vineet Kumar, Chief Scientist, CAD	Member	
6	Mr. H. Lokesh, Principal Scientist, ALD	Specialist-Member	
7	Mr. G.M. Kamalakannan, Principal Scientist, ALD	Specialist-Member	
8	Mr. B. Pradeep Kumar, Sr. Scientist, ALD	Member- Convenor - TSC	

Mr. Veena.S, Sr. Pr. Sc, ALD  
Venkatesh.K.S. Pr. Sc. ALD

Veena.S.  
Venkatesh

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**ANNEXURE - I**

**Pre-Bid Conference for Procurement of VITA 62 Power Supply Module for IAFCC**

**ATTENDANCE SHEET - PROSPECTIVE BIDDERS**

Sr. No.	Name of the Firm	Name & Designation of Representative	E-tender Registration (Yes/No)	Email ID	Signature
1	M/S Multisphere Power Solutions Pvt. Ltd	Kundan Umesh Verma Murali Mohan	Yes	kundan@mpsindia.in umeshvarma@mpsindia.in blr.sales@mpsindia.in	
2	M/S ElectroWing Technologies Pvt. Ltd	Muthu Kumar Mahendra P Sandeep MC	Yes	muthu@electrowingindia.com mahendrap@electrowingindia.com sandeepmc@electrowingindia.com	

(S.O)

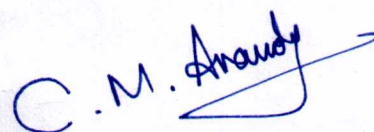
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**CSIR-NATIONAL AEROSPACE LABORATORIES  
BENGALURU**

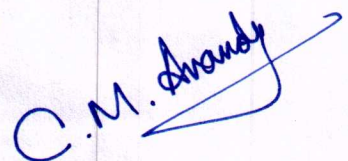
**TECHNICAL QUERIES & CLARIFICATION**

**Tender No.** : NAL/PUR/ALD/193/21 -Z  
**Item Description** : Procurement of VITA 62 Power Supply Module for IAFCC.

Sr. No.	Query / Clarification Sought	Clarification/Amendment
1	Does application require redundant PSU support? (i.e is there a chance to have multiple PSU on a single system).	<b>Clarification</b> Not Required
2	Is optional VBAT output needed, since P3V3_AUX is available?	<b>Clarification</b> VBAT is optional. Vendor shall quote with VBAT bus if existing product has the same. The parameter shall not be considered for Tender selection/rejection criteria
3	At what input voltage, holdup (50ms) will be checked? Usually it will be tested at nominal input Voltage (28V). Please confirm.	<b>Clarification</b> It shall be tested at operating low voltage(i.e 18V)
4	There is a discrepancy in max operating temperature. "Operating temperature" section mentions as -40 Deg to +85 Deg. However, under qualification test 4.2.4.1 serial number 3 "High Temperature", Ground survival high temperature is +71 Deg whereas short term is mentioned as +55 Deg.	<b>Clarification</b> Operating temperature is the nominal operating temperature range at the card edge upto which full performance as per the specification to be met. "High Temperature", Ground survival high temperature is +71 Deg whereas short term is mentioned as +55 Deg are for Qualification test as per DO-160 standard. This refers to temperature in the test curves with mentioned ambience.
5	In section "Over temperature shutdown with Auto-Recovery", 95 Degree refers at which location? Normally Over Temp Protection will be implemented based on component temperature margin so 95 Deg is too low.	<b>Clarification</b> 95 DegC mentioned is for temperature at card edge. The module shall be designed such the unit shall be protected when card edge temperature reached 95DegC and recovered back when temperature reached 90Deg C
6	UVLO and OVP spec mentioned are for input or output? UVLO and OVP threshold has to be defined in terms of percentage.	<b>Amendment</b> UVP and OVP spec mentioned are for input. Under voltage threshold shall be greater than or equal to 10% less than the minimum operating input voltage Over voltage threshold shall be greater than or equal to 10% more

		than maximum operating input voltage
7	Remote sense tuning range will be maximum of 1% for VS1, VS2 and VS3. Please confirm.	<b>Clarification</b> Remote sense tuning range shall be maximum of 1% for VS1, VS2 and VS3
8	Output power vs thermal Derating required to be defined.	<b>Clarification</b> For operating range upto 85DegC at Card Edge the output power should be as per the specification(full load) without derating.
9	Expected behavior during reversed input is, psu is protected and outputs are off. Please confirm.	<b>Amendment</b> during reversed input is, PSU is protected and outputs are off
10	"Inrush Current on load lines" spec is interpreted as each output should support 5 times of lout for 50uS duration. Please confirm.	<b>Clarification</b> each output should support 5 times of lout for 50uS duration
11	"Output Current Limiting" Please define OCP duration required before protection is turned on.	<b>Clarification</b> It shall be Continuous protection for unlimited time with Hiccup mode
12	Size details of the module	<b>Amendment</b> 3U VPX VITA 62 complaint single slot 1 inch(25mm pitch) module including power supply and holdup.
13	Voltage spike test requirements	<b>Clarification</b> As per DO-160G section 17 category A 600V spike test.
14	Conducting Lightning Induced Transient Susceptibility test as part of module QT	<b>Amendment</b> The Design shall meet the Qualification test requirements mentioned as part of the tender. However during integrated LRU Qualification testing vendor should support and correct for any issues/failures observed in the power supply module within 3 years from date of supply.
15	Magnetic effect	<b>Amendment</b> The Design shall meet the Qualification test requirements mentioned as part of the tender. However during integrated LRU Qualification testing vendor should support and correct for any issues/failures observed in the power supply module within 3 years from date of supply.

**CSIR-NATIONAL AEROSPACE LABORATORIES  
BENGALURU**

**COMMERCIAL QUERIES & CLARIFICATION**

**Tender No.** : NAL/PUR/ALD/193/21-Z  
**Item Description** : Procurement of VITA 62 Power Supply Module for IAFCC.

Sr. No.	Query / Clarification Sought	Clarification/Amendment
1	In tender document, Para 6.2 Technical Qualification Criteria, Point C, this is being a new product development, this clause may be amended as similar product instead of offered version/model	<b>Clarification</b> 6.2 Point C mentions "offered version/model of 'The product'" where the definition of 'the product' is mentioned in 6.2 Point A. as "with the same or higher specifications having/with Similar parameters(hereinafter called 'The Product')"
2	Please confirm if this tender is meant only Class I and Class II supplier. Also, please confirm if any non-local suppliers or traders can participate in this tender.	<b>Clarification</b> Yes, only Class I and Class II supplier (are allowed to) are eligible for domestic tender Enquiry. <i>Non local Suppliers/traders are not eligible for bidding.</i>
3	Is there any purchase preference for MSME vendor?	<b>Clarification</b> Yes, refer section 1.9 for the tender document
4	Is there any provision for other company to bid this tender who did not participate in the Prebid conference held in 12 <sup>th</sup> Aug 2022?	<b>Clarification</b> yes other companies who did not participate in the Prebid conference held in 12th Aug 2022 can bid to this tender.

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*05/09/2022*

Sr. Controller of Stores & Purchase  
For and on behalf of CSIR-NAL