

## Request for Information Development Program for Space Application RF Subcomponents

January 23, 2013

Dear Prospective Proposer,

The California Institute of Technology's (Caltech) Jet Propulsion Laboratory (JPL) located in Pasadena, California, is managing several unclassified yet restricted-access Projects on behalf of the United States government. As a part of this effort, JPL is evaluating RF/Microwave subassemblies for a development program (Program).

The purpose of this Request for Information (RFI) is to determine the interest and capability of potential proposers to:

- (1) Develop, fabricate and test Prototype and Engineering Model RF/Microwave subassemblies for flight R&D developmental work
- (2) Deliver space qualified Flight Model assemblies that meet the Technical Operational Requirements (TOR) and project/functional requirements.

Table 1: JPL document title and number of RF subassemblies

JPL Doc. #	number of prototypes	EM qual	EM no qual	FM units (incl. 1-2 Qualification Model)	RF Sub-assembly/Component
53815	2	1x	1x	5x	uWave Synth. (20GHz), dual tracking high output power, programmable frequency range
53831	2	1x	1x	5x	VHF Synth. (77MHz), single high output, power programmable frequency range
53832	2	1x	1x	5x	RGM Code Amplifier, high voltage output capable of amplifying a minimum of 6 GHz bandwidth.
53937	1-2	1x	1x	5x	10MHz Distribution Amplifier, higher than 22 dBm output power
53938	1-2	1x	1x	5x	250MHz Distribution Amplifier, higher than 22 dBm output power
53939	1-2	1x	1x	5x	250MHz PLO, low noise fixed frequency reference
53940	1-2	1x	1x	5x	10MHz OXCO, high frequency stability reference over 10 years

The preliminary performance requirements for the RF/Microwave subassemblies are provided in the enclosed documents which are listed in table 1, and should be considered to be the minimum required by the Program.

Responders to this RFI are asked to provide the following information for the RF/Microwave subassemblies:

1. Describe the technical performance of your hardware that will meet the requirements specified in this RFI
2. Delivery schedule for each phase, as identified in the Preliminary Statement of Work dated 1/14/2013, after subcontract award
3. Schedule that identifies the critical paths (ex: flight parts procurements, qualification, etc.)
4. Major difference in schedule and cost from the initial RFI response submitted by your organization circa November 2012, if applicable
5. Flight qualification/flight heritage status

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6. ROM Price for each phase as identified in the Preliminary Statement of Work dated 1/14/2013. ROM pricing is to assume Fixed Price structure. Price for each phase to be shown in Government Fiscal Year (Oct – Sept). Identify all technical and pricing assumptions.
7. Information on cost and high-level design (DC-DC converter or other), if interested to include the proposer's own power supplies in the RF assemblies.
8. Assessment of whether or not it is beneficial for the thermal design to separate the power amplifiers from the synthesizers.
9. Requirements that are exceptionally challenging or driving the mass and power budget, if any.

In order to maximize the return on information for JPL from all participants, our answers to any specific questions raised as a result of this RFI may be sent to all parties participating in this RFI, and JPL will keep the identity of the questioner confidential.

In your response to this RFI, please indicate if your company is interested in receiving and bidding on an RFP. The RFP is expected to be released in April 2013 timeframe.

It is emphasized that the requested information is for preliminary planning purposes only and does not constitute a commitment, implied or otherwise, that JPL will solicit you for such a procurement in the future. Neither JPL nor the Government will be responsible for any costs incurred by you in furnishing this information.

As a part of the RFI process, JPL is not interested in receiving any proprietary data from prospective proposers. Please do not include any proprietary data in your response.

Prospective proposers are advised that any information provided shall be deemed to be furnished with unlimited rights to JPL, with JPL assuming no liability for any accidental disclosure, use, or reproduction of such data.

Please submit your response to this request as early as possible, but no later than February 19, 2013 via mail at 4800 Oak Grove Drive, Mail Stop 190-220, Pasadena, CA 91109 or by electronic mail at [Jane.Lee@jpl.nasa.gov](mailto:Jane.Lee@jpl.nasa.gov).

Please contact Dr. Frank Maiwald at 818-354-0214 or [Frank.W.Maiwald@jpl.nasa.gov](mailto:Frank.W.Maiwald@jpl.nasa.gov) for technical questions and the undersigned for contractual questions.

Sincerely,



Jane Lee  
Subcontracts Manager

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Enclosures:

Item No.	Doc ID	Title	Revision
(1)	N/A	Preliminary Statement of Work dated 1/14/2013	N/A
(2)	N/A	SDRL for Modulator RF components	Draft 2b
(3)	D-53098	APX Project Environmental Requirements Document	Rev B
(4)	D-53100	APX Safety and Product Assurance Requirements (SPAR)	Rev B
(5)	D-53815	uWave Synth. (20GHz)	Initial
(6)	D-53831	VHF Synth. (77MHz)	Initial
(7)	D-53832	RGM Code Amplifier	Initial
(8)	D-53937	10MHz Distribution Amplifier	Initial
(9)	D-53938	250MHz Distribution Amplifier	Initial
(10)	D-53939	250MHz PLO	Initial
(11)	D-53940	10MHz OXCO	Initial
(12)	N/A	JPL Special Program Guidelines for Industry on Handling of Data Marked "For Official Use Only" dated December 14, 2012	12/14/2012