

## NNC12425237Q – C-Band Solid State Power Amplifiers

This notice is a combined synopsis/solicitation for commercial items prepared in accordance with the format in FAR Subpart 12.6 and FAR Part 13, as supplemented with additional information included in this notice. This announcement constitutes the only solicitation; offers are being requested and a written solicitation will not be issued.

This notice is being issued as a Request for Quotations for two (2) C-Band Solid State Power Amplifiers.

The provisions and clauses in the RFQ are those in effect through FAC 05-54.

This procurement is a total small business set-aside. See Note 1

The NAICS Code and the small business size standard for this procurement are 334220 and 750 employees, respectively. The offeror shall state in their offer their size status for this procurement.

All responsible sources may submit an offer which shall be considered by the agency.

Delivery to NASA Glenn Research Center, Lewis Field is required no later than June 29, 2012. Delivery shall be FOB Destination. Therefore shipping shall NOT be quoted separately, and any quoted prices shall include all shipment charges.

Offers for the items(s) described above are due by Wednesday February 22, 2012 no later than 4:30 PM, local GRC time. NASA GRC prefers electronic submissions via email for this procurement. Faxed submissions are also acceptable. Submissions MUST include: solicitation number, FOB destination to this Center, proposed delivery schedule, discount/payment terms, warranty duration (if applicable), taxpayer identification number (TIN), identification of any special commercial terms, and be signed by an authorized company representative. Offerors are encouraged to use the Standard Form 1449, Solicitation/Contract/Order for Commercial Items form found at URL: <http://server-mpo.arc.nasa.gov/Services/NEFS/NEFSHome.tml>

Offerors shall provide the information required by FAR 52.212-1 (JUNE 2008), Instructions to Offerors-Commercial Items, which is incorporated by reference. Addenda to FAR 52.212-1 are as follows: N/A

If the end product(s) offered is other than domestic end product(s) as defined in the clause entitled "Buy American Act -- Supplies," the offeror shall so state and shall list the country of origin.

FAR 52.212-4 (JUNE 2010), Contract Terms and Conditions-Commercial Items is applicable. Addenda to FAR 52.212-4 are as follows: N/A

FAR 52.212-5 (MAR 2011), Contract Terms and Conditions Required To Implement Statutes or Executive Orders-Commercial Items is applicable and the following identified clauses are incorporated by reference:

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- 1) 52.204-7, Central Contractor Registration (Apr 2008)
- 2) 52.204-10, Reporting Executive Compensation and First-Tier Subcontract Awards (Jul 2010)
- 3) 52.209-6, Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment (Dec 2010)
- 4) 52.209-10, Prohibition on Contracting with Inverted Domestic Corporations (May 2011)
- 5) 52.219-6, Notice of Total Small Business Set-Aside (Nov 2011)
- 6) 52.219-28, Post-Award Small Business Program Rerepresentation (Apr 2009)
- 7) 52.222-3, Convict Labor (June 2003)
- 8) 52.222-19, Child Labor—Cooperation with Authorities and Remedies (Jul 2010)
- 9) 52.222-21, Prohibition of Segregated Facilities (Feb 1999)
- 10) 52.222-26, Equal Opportunity (Mar 2007)
- 11) 52.222-36, Affirmative Action for Workers with Disabilities (Oct 2010)
- 12) 52.222-50, Combating Trafficking in Persons (Feb 2009)
- 13) 52.223-18, Encouraging Contractor Policies to Ban Text Messaging While Driving (Aug 2011)
- 14) 52.225-1, Buy American Act—Supplies (Feb 2009)
- 15) 52.225-13, Restrictions on certain foreign purchases (June 2008)
- 16) 52.232-33, Payment by Electronic Funds Transfer—Central Contractor Registration (Oct 2003)

The FAR may be obtained via the Internet at URL:  
<http://www.acquisition.gov/far/index.html>

The NFS may be obtained via the Internet at URL:  
<http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm>

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All contractual and technical questions must be submitted in writing by Wednesday February 15, 2012 no later than 4:30 pm local GRC. Telephone questions will not be accepted.

Selection and award will be made to that offeror whose offer will be most advantageous to the Government, with consideration given to the factors of proposed technical merit, price(s), and past performance. Other critical requirements: See the following Statement of Work for Performance Goals – Desired Performance.

The Statement of Work consists of, in part, Basic Specifications. Offerors MUST at least meet these basic specifications in order to be considered for this procurement. The Statement of Work also contains Performance Goals, which NASA considers desired performance. It is not necessary for offerors to meet these goals. However, offerors that meet one or more of these desired performance goals, while also taking price into account, can be rated more favorably than those companies that do not meet one or more of these desired performance goals.

Regarding price quotes: The offeror shall submit a quote for each amplifier meeting the basic specifications. The offeror shall also separately price the additional Performance goals met, if any, for NASA's consideration.

It is critical that offerors provide adequate detail to allow evaluation of their offer. (SEE FAR 52.212-1(b)).

Offerors must include completed copies of the provision at 52.212-3 (MAR 2011), Offeror Representations and Certifications - Commercial Items with their offer. These may be obtained via the internet at URL: <http://rcb.cancer.gov/rcb-internet/SAP/52-212-3plusadd.pdf>. These representations and certifications will be incorporated by reference in any resultant contract.

An ombudsman has been appointed -- See NASA Specific Note "B".

Prospective offerors shall notify this office of their intent to submit an offer. It is the offeror's responsibility to monitor the following Internet site for the release of solicitation amendments (if any): <http://prod.nais.nasa.gov/cgi-bin/eps/bizops.cgi?gr=D&pin=22> . Potential offerors will be responsible for downloading their own copy of this combination synopsis/solicitation and amendments (if any).

Any referenced notes may be viewed at the following URLs linked below.

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**Statement of Work  
C-Band Solid State Power Amplifiers****General Description**

NASA GRC would like to procure two (2) pieces C-band solid state power amplifiers, to be used with a portable ground station.

**Basic Specifications – Must meet**

- frequency range: 5000 - 5150 MHz
- gain: 20 dB minimum
- output power: 50 W minimum
- input/output impedance: 50 Ohms
- 19" Rack Mount
- RF connectors: type N female
- storage temperature: -50 to +100 C
- remote control and monitoring: USB or RS232 (9 pin female)
- prime power: 120 VAC (nominal) 50/60 Hz, single phase
- cooling: air cooled, by internal fan (if required)
- One year warranty; parts and labor

**Performance Goals—Desired Performance**

- gain adjustment: 1 dB steps
- flatness:  $< \pm 1$  dB over any 50 MHz band
- P1dB: +50 dBm minimum
- third-order intermodulation distortion  $< -30$  dBc at rated power
- harmonics:  $< -20$  dBc minimum at rated output power
- output VSWR: 1.8:1 max

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- coupled output sample port
- operating temperature: -10 to +50 C, in an enclosure
- gain stability:  $< \pm 1$  dB over a four-hour interval, after one hour warm up
- status monitoring
- early delivery of amplifiers
- extended warranty, up to 3 additional years.

**Warranty**

One year; parts and labor, with three-year option (see above).

**Past Performance**

Company should have a minimum of least five years experience in manufacturing fielded amplifiers of a similar type.

References are appreciated.

**Delivery**

Both amplifiers shall be delivered to NASA GRC no later than June 29, 2012. Earlier delivery is desirable (see above).