

2. AMENDMENT/MODIFICATION NO. 0004	3. EFFECTIVE DATE 12 AUG 98	4. REQUISITION/PURCHASE REQ. NO. N/A	5. PROJECT NO. (If applicable)
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6. ISSUED BY CODE	N68462	7. ADMINISTERED BY (If other than Item 6) CODE	
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PROCURING CONTRACTING OFFICE
 NAVAL RESEARCH LABORATORY (NRL-SSC)
 ATTN: CODE 3235.RS
 STENNIS SPACE CENTER, MS 39529-5004

8. NAME AND ADDRESS OF CONTRACTOR (No., street, country, State and ZIP Code)

TO ALL OFFERORS

CODE _____ FACILITY CODE _____

(✓)	9A. AMENDMENT OF SOLICITATION NO. N00173-98-R-RS03
(X)	9B. DATED (SEE ITEM 11) 02 JUL 98
	10A. MODIFICATION OF CONTRACT/ORDER NO.
	10B. DATED (SEE ITEM 13)

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers tended. is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:
 (a) By completing Items 8 and 15, and returning 2 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer x submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

- (✓) A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
- B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103 (b).
- C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
- D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

(SEE PAGE 2)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED
16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)	16C. DATE SIGNED

The following answers are hereby provided for technical questions submitted against this RFP.

QUESTION 1: Does the detector contain a semiconductor junction, or possess parasitic resistance or inductance?

ANSWER 1: The detector consists of a reversed biased large area diode (semiconductor p-i-n junction). This is the "pad" referred to in the RFP.

QUESTION 2: (a) Does the detector look like a simple capacitor? (b) Can the charge be read out by a low impedance circuit? (c) Can the detector be reset to a zero signal by a mosfet switch?

ANSWER 2: (a) A circuit representation of the detector consists of 3 elements: a simple capacitor ~90-150 pF to ground, a steady current source ~TBD nA (detector leakage current, and a pulse current source (charge injection from an event in the detector). (b) Yes. (c) An on-chip MOSFET reset may be used to reset the preamplifier, however, there will be no external reset components in the circuit. The Government expects that the preamplifier reset will function automatically without any external controls.

QUESTION 3: Is the detector a capacitor and does the signal appear as a charge on it?

ANSWER 3: The detector has capacitance. The signal is a change of charge on the detector.

QUESTION 4: Is the noise referenced in paragraph C.4.1.b(6) the noise of the detector?

ANSWER 4: No.

QUESTION 5: Is the noise referenced in paragraph C.4.1.b(6) at the minimum signal level?

ANSWER 5: The noise specified in paragraph C.4.1.b(6) is with no signal present.

QUESTION 6: Does the nomenclature of paragraph C.4.1.b(11) refer to the bandwidth of the amplifier?

ANSWER 6: NO. PEAKING TIME IS SEPARATE FROM BANDWIDTH.

QUESTION 7: What is the source of the leakage referenced in paragraph C.4.1.b(13)?

ANSWER 7: The leakage is that of a reversed-bias diode.

QUESTION 8: Is the end date of 3/1/99 for "Production Run Testing" (Item 0003) considered the most critical date? Is it acceptable to maintain the 3/1/99 date, but adjust the lead times for Items 0001AA, 0001AB, 0001AC and 0002 to be more in line with our processes?

ANSWER 8: The required delivery schedule is stated in RFP Section F-2. Offeror may propose an alternate schedule in accordance with RFP Section F, paragraph F-2 (a).

QUESTION 9: Reference Attachment 1, Paragraph C.4.3. Please provide a definition of what the "end product prototype deliverable" is. What is the actual number of days required from prototype approval to the deliver of production units.

ANSWER 9: See Amendment Number 0001. The required ASIC prototype is that item required in RFP Section B under CLIN 0001AB. It is a fully functional and operational ASIC chip which meets the requirements specified in RFP Section C. Delivery Schedule requirements are stated in RFP Section F, paragraph F-2.

THE CLOSING DATE IS HEREBY EXTENDED FROM 4:00 P.M. 13 AUGUST 1998 TO 4:00 P.M. 17 AUGUST 1998.