



National Defence

National Defence Headquarters
Ottawa, Ontario
K1A 0K2

Défense nationale

Quartier général de la Défense nationale
Ottawa (Ontario)
K1A 0K2

REQUEST FOR PROPOSAL DEMANDE DE PROPOSITION

**AMENDMENT NO.
N° DE LA MODIFICATION**
001

**RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À :**

Justin Laundrie
DLP 7-1-2-2
JUSTIN.LAUNDRIE@forces.gc.ca

Proposal To: National Defence Canada

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods and services listed herein and on any attached sheets at the price(s) set out therefore.

Proposition à : Défense nationale Canada

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens et services énumérés ici et sur toute feuille ci-annexée, au(x) prix indiqué(s).

Title – Titre EID Signal Conditioners and Control Modules / Conditionneur de signal EID et modules de contrôle	Solicitation No. – N° de l'invitation W8486-206180/B
Date of Amendment – Date de modification 2020-09-25	
Address Enquiries to: – Adresser toutes questions à : Justin Laundrie by e-mail to justin.laundrie@forces.gc.ca	
Telephone No. – N° de telephone 819-939-6680	FAX No. – N° de fax N/A
Destination Department of National Defence C/O QETE Warehouse Ramp 8 45 Sacré Coeur Blvd J8X 1C6	

Instructions: Municipal taxes are not applicable. Unless otherwise specified herein all prices quoted must include all applicable Canadian customs duties, GST/HST, excise taxes and are to be delivered Delivery Duty Paid including all delivery charges to destination(s) as indicated. The amount of the Goods and Services Tax/Harmonized Sales Tax is to be shown as a separate item.

Instructions : Les taxes municipales ne s'appliquent pas. Sauf indication contraire, les prix indiqués doivent comprendre les droits de douane canadiens, la TPS/TVH et la taxe d'accise. Les biens doivent être livrés « rendu droits acquittés », tous frais de livraison compris, à la ou aux destinations indiquées. Le montant de la taxe sur les produits et services/taxe de vente harmonisée doit être indiqué séparément.

Solicitation Closes – L'invitation prend fin

At – à : Oct 21/2020 @ 14:00 EST

On - le : le 21 octobre 2020 @ 14 :00 EST

Delivery Required – Livraison exigée 31 January 2021 / 31 janvier 2021
Vendor Name and Address – Raison sociale et adresse du fournisseur
Name and title of person authorized to sign on behalf of vendor (type or print) – Nom et titre de la personne autorisée à signer au nom du fournisseur (caractère d'imprimerie) Name – Nom _____ Title – Titre _____
Signature _____ Date _____

AMENDEMENT 001 IS RAISED TO CHANGE (1) 1.21 DELIVERY DATE, (2) 2.2 B) ELECTRONIC SUBMISSIONS, (3) 3.1 BID PREPERATION INSTRUCTIONS, (4) 4.1.1.1 MANDATORY TECHNICAL CRITERIA, (5) 6.4.1 DELIVERY DATE, (6) 6.6.1 BASIS OF PAYMENT, (7) ANNEX A, (8) ANNEX B, (9) ANNEX C - *All other Terms and Conditions remain the same.*

1. **DELETE:**

1.2.1 Delivery Requirement

Delivery is requested to be completed by December 31, 2020.

ADD:

1.2.1 Delivery Requirement

Delivery is requested to be completed by January 31, 2021.

2. **DELETE:**

2.2 Electronic Submission of Bids

Due to the nature of the bid solicitation, bids transmitted by facsimile will not be accepted.

ADD:

2.2 Electronic Submission of Bids

Due to the nature of the bid solicitation, bids transmitted by facsimile and epost Connect will not be accepted.

3. **DELETE:**

3.1 Bid Preparation Instructions

Bidders may use Annex C to indicate their prices. If Bidders choose to use Annex C to indicate their prices, Bidders must include Annex C in their financial bid.

Canada requests that Bidders provide their bid in separately bound sections as follows:

Section I: Technical Bid (1 soft copy)

Section II: Financial Bid (1 soft copy)

Section III: Certifications (1 soft copy)

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Bidders may use Attachment 1 to Part 3 to indicate their prices. If Bidders choose to use Attachment 1 to Part 3 to indicate their prices, Bidders must include Attachment 1 to Part 3 in their financial bid.

Section I: Technical Bid

In their technical bid, Bidders should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

Section II: Financial Bid

Bidders must submit their financial bid as follows:

Bidders must submit firm prices, Delivered Duty Paid (DDP) at (Gatineau) Incoterms 2010, Applicable Taxes excluded. The total amount of Applicable Taxes must be shown separately. Refer to Annex C – Pricing Schedule.

Bids must be submitted in Canadian dollars. .

Pricing - Multi-Item Bid Solicitation

Bidders must quote a price for all items identified in the bid solicitation. See para 4.2

ADD:

3.1 Bid Preparation Instructions

Bidders may use Annex B to indicate their prices. If Bidders choose to use Annex B to indicate their prices, Bidders must include Annex B in their financial bid.

Canada requests that Bidders provide their bid in separately bound sections as follows:

Section I:	Technical Bid (1 soft copy)
Section II:	Financial Bid (1 soft copy)
Section III:	Certifications (1 soft copy)

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Section I: Technical Bid

In their technical bid, Bidders should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

Section II: Financial Bid

Bidders must submit their financial bid as follows:

Bidders must submit firm prices, Delivered Duty Paid (DDP) at (Gatineau) Incoterms 2010, Applicable Taxes excluded. The total amount of Applicable Taxes must be shown separately. Refer to Annex C – Pricing Schedule.

Bids must be submitted in Canadian dollars. .

Pricing - Multi-Item Bid Solicitation

Bidders must quote a price for all items identified in the bid solicitation. See para 4.2

4. DELETE:

4.1.1.1 Mandatory Technical Criteria

Technical compliance to all items in Annex B.

ADD:

4.1.1.1 Mandatory Technical Criteria

Technical compliance to all items in Annex C.

5. DELETE:

6.4.1 Delivery Date

All the deliverables must be received on or before December 30, 2020.

ADD:

6.4.1 Delivery Date

All the deliverables must be received on or before January 31, 2021.

6. DELETE:

6.6.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid firm unit prices as specified in Annex B Line Item Details for a cost of \$____. Customs duties are included and Applicable Taxes are extra.

ADD:

6.6.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid firm unit prices as specified in Annex C Line Item Details. Customs duties are included and Applicable Taxes are extra.

7. ADD:

ANNEX “A” Statement of Work/Requirement (Attached)

1. SCOPE

1.1. OBJECTIVE

1.1.1. The purpose of this Statement of Work (SOW) is to define the technical requirements for Electrically Initiated Device (EID) Signal Conditioners and Control Modules.

1.2. BACKGROUND

1.2.1 The Quality Engineering Test Establishment (QETE) is a field unit within the Canadian Armed Forces (CAF) with the mandate to provide the Department of National Defence (DND) and the CAF with specialized, technology-based test and investigative services required to support engineering decisions throughout all phases of materiel acquisition and support. QETE provides technical advice and consultation, material evaluation, investigation and analysis, calibration and measurement, in the domains of mechanical and materials engineering, applied science, electrical engineering, measurement science and imagery.

1.3. TERMINOLOGY

CAF	Canadian Armed Forces
CSA	Canadian Standards Association
DND	Department of National Defence
DC	Direct Current
EED	Electro-Explosive Device
EID	Electrically Initiated Device
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
OEM	Original Equipment Manufacturer
NFT	No-Fire Threshold
NPB	National Printing Bureau
QETE	Quality Engineering Test Establishment
RF	Radio Frequency
SCBG	SemiConductor Bandgap
SCPI	Standard Commands for Programmable Instruments
SOW	Statement of Work
VAC	Volts Alternating Current

Table 1-1 Acronyms and Abbreviations

2. REFERENCE DOCUMENTS

- 2.1. The latest issue of the following standards, references and documents apply to this SOW:
- 2.1.1. ISO/IEC 17025 General requirements for the competence of testing and calibration laboratories¹
 - 2.1.2. Canadian Electrical Code²

3. REQUIREMENTS

3.1. SCOPE OF WORK

- 3.1.1. QETE has a requirement for three (3) EID signal conditioners and control modules. Each signal conditioner will be required to accommodate control modules with up to eight (8) optical channels. The solution must provide reliable assessment of Electromagnetic Environment Effects of bridge wire type EID.
- 3.1.2. General Requirements:
 - 3.1.2.1. All electrical components of the equipment must be certified or approved for use in accordance with the Canadian Electrical Code, Part 1, before delivery, by a certification organization accredited by the Standards Council of Canada.
 - 3.1.2.2. The equipment must operate from a universal power source (90 to 260 VAC / 48 to 62 Hz).
 - 3.1.2.3. The EID signal conditioner and control modules must be a standalone turnkey instrument, not a system comprised of several interconnected different devices. A turnkey instrument is a ready-for-use piece of equipment that:
 - (a) is able to automatically convert temperature measurements into current (mA), power (mW) and decibel below NFT (dB) parameters;
 - (b) has all the software and EID signal conditioner and control modules functionality resident within a chassis;
 - (c) supports eight (8) individual optical channels;
 - (d) provides real-time synchronized measurements; and
 - (e) has been advertised for sale in the configuration of the proposed solution as described in company literature (e.g. as described in published product catalogues, brochures, specifications, data sheets, or web site descriptions).
 - 3.1.2.4. The equipment must meet the more stringent of the technical specifications stated in this Statement of Work or the manufacturer's published specifications.
 - 3.1.2.5. The equipment must meet the manufacturer's published specifications for any functional or performance parameter not specified in this Statement of Work.
 - 3.1.2.6. Basic Functional and Performance Requirements: The equipment must meet the following requirements:
 - (a) Channels: Each signal conditioner must have eight (8) optical channels with Semiconductor Bandgap (SCBG) based technology.
 - (b) Display: The equipment must display real-time measurements via a remote computer.

¹ http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=39883

² <http://www.csagroup.org/services/codes-and-standards/installation-codes/canadian-electrical-code/>

- (c) **Sensor Compatibility:** The equipment must be able to make temperature measurements when connected to Opsens Solutions OTG-R sensors using SCBG Technology equipped with ST connectors.
- (d) **Sample Rate:** The equipment must have a sample rate adjustable up to 1000 Hz.
- (e) **Advanced Filtering:** The equipment must filter out noise without compromising response time.
- (f) **Cable and Channel Compensation:** The equipment must de-embed the effects of connected cables and adapters from the measurement.
- (g) **Integrated Current Source:** The equipment must calibrate an instrumented EID with an integrated current source that can supply 1 to 1000 mA.
- (h) **Calibration Software:** The equipment must auto-calibrate an instrumented EID.
- (i) **Remote Control Connectivity:** The instrument must be remotely computer controllable via the Network Interface EtherCat and Ethernet Interface 10/100 Base-T.
- (j) **Data Storage:** The equipment must be equipped with a minimum of 32 GB of local data storage.
- (k) **Each EID signal conditioner must fit in a standardized 19-inch equipment rack.**

3.1.3. **Accessories -** The contractor must provide all accessories necessary to operate the Equipment for its intended design function, including all cables associated must be connected and retained using fasteners or other means to ensure mechanical and electrical integrity of the connection while allowing ease of disconnection for installation and servicing.

3.2. TASKS

3.2.1. Service Support

3.2.1.1. **Availability -** The Contractor must:

- (a) ensure that full service support and replacement parts are available for a period of ten (10) years following the date of delivery of the Equipment; and
- (b) provide Canada with a one year written notification prior to the Equipment parts no longer being available, and failing such notification, the Contractor must provide Canada sufficient notice to ensure that Canada may purchase the parts that are no longer available.

3.2.1.2. **Service Desk -** A toll-free support service desk function must be provided to help Canada in answering questions with respect to the Equipment that includes, at a minimum:

- (a) telephone technical support during normal business hours, Monday to Friday, excluding public holidays;
- (b) e-mail technical support with a response within 48 hours excluding weekends and public holidays; and
- (c) on-line help resources, including contact information, product information and documentation downloads (e.g. product brochures, technical manuals).

3.2.1.3. **Product Notifications -** Canada must be advised in writing as soon as reasonably possible in the event of:

- (a) any safety-related product recalls or advisories, component defects, and other similar events;
- (b) any security vulnerabilities that are subsequently discovered; and
- (c) any hidden or previously unknown defects that are subsequently discovered that may adversely affect product performance and/or functionality.

3.2.1.4. Software Support:

- (a) The Contractor must provide Maintenance Releases for a period of ten (10) years from the Contract Award date.
- (b) All provided proprietary software must be of the most current version and must be provided with a full end-user licence not limited in time, and provided with a backup CD/DVD disk(s)/USB.

3.2.2. Equipment Certifications

3.2.2.1. Certificate of Calibration_- The Contractor must provide a Certificate of Calibration for a Traceable Calibration for each of the control modules. The Traceable Calibration must include:

- a) a verification that the performance of the delivered equipment meets factory specifications;
- b) traceability to a National Metrology Institute; and
- c) a compliant Certificate of Calibration containing the information listed in ISO/IEC 17025:2005.

3.2.2.2. Certificate of Conformance - The Contractor must provide a Certificate of Conformance to attest that the delivered equipment has been manufactured according to the Contractor's published specifications and has been verified to function as designed. The Certificate must identify the location and date of completion of manufacturing and must be signed by an authorized representative of the manufacturer.

3.2.2.3. Statement of Compliance - The Contractor must provide a Statement of Compliance to attest that the delivered equipment meets the requirements of the Contract. The Statement of Compliance may be provided within the Certificate of Conformance or as a separate document.

3.2.2.4. Statement of Continued Production and Support - The Contractor must provide a Statement of Continued Production to attest that the equipment is neither manufacturer-discontinued nor is there an intent to discontinue the manufacturing of the Equipment within two (2) years. The Statement must also attest that the Contractor will continue to provide technical support and spare parts supply for a minimum of ten (10) years following delivery of the Equipment.

3.2.3. Equipment Documentation - The Contractor must provide the following documentation in support of the delivered Equipment:

3.2.3.1. User Operations Manual - provides detailed information about the functionality and operation of the Equipment and the care and maintenance of the Equipment that is normally performed by the user.

3.3. CONSTRAINTS

3.3.1. None.

3.4. SUPPORT PROVIDED BY CANADA

3.4.1. None required.

3.5. TIME FRAME AND DELIVERY DATES

3.5.1. Equipment delivery - within eight (8) weeks after contract award.

3.5.2. Equipment documentation - at the time of equipment delivery.

3.5.3. Certifications - at the time of equipment delivery.

4. DELIVERABLES

4.1 Equipment. The Contractor must provide the following deliverables:

4.1.1 EID Signal Conditioner: Quantity of three (3)

4.1.2 Control modules with eight (8) optical channels for each EID Signal Conditioner

4.1.3 Certificate of Calibration: Quantity of one (1) for each Control Module in electronic format

4.1.4 Certificate of Conformance: Quantity of one (1) in electronic format

4.1.5 Statement of Compliance: Quantity of one (1) in electronic format

4.1.6 Statement of Continued Production and Support : Quantity of one (1) in electronic format

4.1.7 User Operations Manual: Quantity of one (1) in electronic format

4.1.8 Warranty Period: Minimum of three (3) years

4.2 Format for Documentation

4.2.1 Equipment documentation, reports, certificates and compliance statements must be provided in English.

4.2.2 Equipment documentation and reports may be provided in Contractor format.

4.2.3 Unless otherwise specified, certificates and compliance statements may be provided in Contractor format.

4.2.4 Electronic copies of deliverable documents may be delivered by e-mail to the Technical Authority or on CD/DVD or USB memory devices.

4.2.5 Document files provided in electronic format must provide users with the capability to search documents (e.g. keyword search).

4.2.6 Unless otherwise specified, document files must be provided in PDF format.

8. ADD:

ANNEX “B” Pricing Schedule

The Bidder must complete this pricing schedule and include it in its financial bid once completed. Bidders must include a price for all items. If the price of an item is included in other item, the Bidder must indicate this by inserting the words “Price included in item xxx.” If there is no cost for an item, the Bidder must insert “\$0.00”. The information in this Annex will form part of the resulting contract. It is anticipated that in the resulting contract, this Annex will become Annex “B”.

Bidders are to review paragraph 3.1 Bid Preparation Instructions Section II Financial bid for instructions on the completion of the Pricing Schedule.

Bidders must fill in the prices for the following items. Goods and Services Tax (GST) and/or the Harmonized Sales Tax (HST) not included.

Item	Description	Proposed Part Numbers Option/ Components	Units of Issue	Qty.	Firm Unit/Lot Prices	Extended Price
001	EID Signal Conditioner		Each	3	\$	\$
002	Service Support		Each	1	\$	\$
003	Service Desk		Each	1	\$	\$
004	Product Notifications		Each	1	\$	\$
005	Software Support		Each	1	\$	\$
006	Certificate of Calibration: Quantity of one (1) for each Control Module in electronic format		Each	3	\$	\$
007	Certificate of Conformance		Each	1	\$	\$
008	Statement of Compliance		Each	1	\$	\$
009	Statement of Continued Production and support		Each	1	\$	\$
010	User Operations manual		Each	1	\$	\$
011	Warranty Period: Minimum of three (3) years		Each	1	\$	\$
012	Seven (7) years of software maintenance after warranty period is finished		Each	1	\$	\$
Total Evaluated Bid Price items 001 to 012						\$
Applicable Taxes						

9. ADD:

ANNEX “C” Technical Evaluation Criteria (Attached)

1. General Instructions

The Bid must meet the mandatory requirements specified below. Bidders must provide the necessary documentation to support compliance with the requirements, including technical data sheets, specifications, brochures and/or other relevant technical documentation describing the equipment offered and demonstrating compliancy. Each mandatory technical requirement should be addressed separately and in the order presented below.

2. Mandatory Requirements Compliancy Matrix

Where *Provide Proposal Reference or Description* is indicated for the Bidder's response, Bidders must either provide a reference to their technical proposal where information can be found that clearly shows how the requirement is met by the proposed solution, or provide a description of how the requirement is met. **Where the Bidder's technical documentation does not clearly demonstrate that the equipment offered will meet a specific requirement, the Bidder's proposal must provide additional descriptions of how the requirement will be met by the proposed solution.**

Where *Provide Statement of Compliance* is indicated for the Bidder's response, Bidders must commit to complying with the requirement during the performance of the work. Bidders may indicate "Yes" in the Compliant column, which will be a commitment to comply, or they may provide a statement committing to comply.

SO W P a r a . N o .	Mandatory Technical Criteria	Supporting Evidence Required	Compliant		Proposal Reference or Description
			Yes	No	
3.1.2 .1.	All electrical components of the equipment must be certified or approved for use in accordance with the Canadian Electrical Code, Part 1, before delivery, by a certification organization accredited by the Standards Council of Canada.	<i>Provide Statement of Compliance</i>	<input type="checkbox"/>	<input type="checkbox"/>	
3.1.2 .2.	The equipment must operate from a universal power source (90 to 260 VAC / 48 to 62 Hz).	<i>Provide Proposal Reference or Description</i>	<input type="checkbox"/>	<input type="checkbox"/>	
3.1.2 .3.	The EID signal conditioners and control modules must be a standalone turnkey instrument, not a system comprised of several interconnected different devices. A turnkey instrument is a ready-for-use piece of equipment that:	<i>Provide Proposal Reference or Description</i>	<input type="checkbox"/>	<input type="checkbox"/>	

(a)	is able to automatically convert temperature measurements into current (mA), power (mW) or decibel below NFT (dB) parameters;	<i>Provide Proposal Reference or Description</i>	<input type="checkbox"/>	<input type="checkbox"/>	
(b)	has all the software and EID signal conditioner and control modules functionality resident within a chassis;	<i>Provide Proposal Reference or Description</i>	<input type="checkbox"/>	<input type="checkbox"/>	
SOW Para. No.	Mandatory Technical Criteria	Supporting Evidence Required	Compliant		Proposal Reference or Description
			Yes	No	
(c)	supports eight (8) individual optical channels;	<i>Provide Proposal Reference or Description</i>	<input type="checkbox"/>	<input type="checkbox"/>	
(d)	provides real-time synchronized measurements; and	<i>Provide Proposal Reference or Description</i>	<input type="checkbox"/>	<input type="checkbox"/>	
(e)	has been advertised for sale in the configuration of the proposed solution as described in company literature (e.g. as described in published product catalogues, brochures, specifications, data sheets, or web site descriptions).	<i>Provide Proposal Reference or Description</i>	<input type="checkbox"/>	<input type="checkbox"/>	
3.1.2.6	Basic Functional and Performance Requirements: The equipment must meet the following requirements:	<i>Provide Statement of Compliance</i>	<input type="checkbox"/>	<input type="checkbox"/>	
(a)	Channels: Each signal conditioner must have eight (8) optical channels with Semiconductor Bandgap (SCBG) based technology.	<i>Provide Proposal Reference or Description</i>	<input type="checkbox"/>	<input type="checkbox"/>	
(b)	Display: The equipment must display real-time measurements via a remote computer.	<i>Provide Proposal Reference or Description</i>	<input type="checkbox"/>	<input type="checkbox"/>	
(c)	Sensor Compatibility: The equipment must be compatible with the specifications of QETE's existing Opsens Solutions OTG-R sensors using SCBG Technology equipped with ST connectors.	<i>Provide Proposal Reference or Description</i>	<input type="checkbox"/>	<input type="checkbox"/>	
(d)	Sample Rate: The equipment must have a sample rate adjustable up to 1000 Hz.	<i>Provide Proposal Reference or Description</i>	<input type="checkbox"/>	<input type="checkbox"/>	
(e)	Advanced Filtering: The equipment must filter out noise without compromising response time.	<i>Provide Proposal Reference or Description</i>	<input type="checkbox"/>	<input type="checkbox"/>	
(f)	Cable and Channel Compensation: The equipment must de-embed the effects of connected cables and adapters from the measurement.	<i>Provide Proposal Reference or Description</i>	<input type="checkbox"/>	<input type="checkbox"/>	
(g)	Integrated Current Source: The equipment must calibrate an instrumented EID with an integrated current source that can supply 1 to 1000 mA.	<i>Provide Proposal Reference or Description</i>	<input type="checkbox"/>	<input type="checkbox"/>	

(h)	Calibration Software: The equipment must auto-calibrate an instrumented EID.	<i>Provide Proposal Reference or Description</i>	<input type="checkbox"/>	<input type="checkbox"/>	
(i)	Remote Control Connectivity: The instrument must be remotely computer controllable via the Network Interface EtherCat and Ethernet Interface 10/100 Base-T.	<i>Provide Proposal Reference or Description</i>	<input type="checkbox"/>	<input type="checkbox"/>	