



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

RCMP – GRC
Bid Receiving/Réception des soumissions
Attention: Robyn Dagg
Mail Stop/Arrêt postal 15
73 chemin Leikin Drive
Ottawa, ON K1A 0R2

All persons delivering mail, parcels and bids to the Mail Parcel and Screening Facility will be asked to provide government photo identification and a contact number as part of an enhanced security protocol.

Dans le cadre d'un protocole de sécurité amélioré, toute personne qui livre le courrier, les paquets et les soumissions à l'installation d'inspection du courrier et des colis devra désormais présenter une carte d'identité avec photo émise par le gouvernement et un numéro de téléphone.

**REQUEST FOR
PROPOSAL**

**DEMANDE DE
PROPOSITION**

Proposal to: Royal Canadian Mounted Police

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, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

Proposition aux : Gendarmerie royale du 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 appendices ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments: - Commentaries :

| | | |
|--|---|---|
| Title – Sujet Vector Signal Generators | | Date January 25, 2019 |
| Solicitation No. – N° de l'invitation 201904225 | | |
| Client Reference No. - No. De Référence du Client 201904225 | | |
| Solicitation Closes – L'invitation prend fin | | |
| At / à : | 2 :00pm | EST (Eastern Standard Time) HNE (heure normale de l'Est) |
| On / le : | February 12, 2019 | |
| Delivery - Livraison See herein — Voir aux présentes | Taxes - Taxes See herein — Voir aux présentes | Duty – Droits See herein — Voir aux présentes |
| Destination of Goods and Services – Destinations des biens et services See herein — Voir aux présentes | | |
| Instructions See herein — Voir aux présentes | | |
| Address Inquiries to – Adresser toute demande de renseignements à Robyn Dagg | | |
| Telephone No. – No. de téléphone 613-843-3872 | Facsimile No. – No. de télécopieur | |

| | |
|---|--|
| Delivery Required – Livraison exigée See herein — Voir aux présentes | Delivery Offered – Livraison proposée |
| Vendor/Firm Name, Address and Representative – Raison sociale, adresse et représentant du fournisseur/de l'entrepreneur: | |
| Telephone No. – No. de téléphone | Facsimile No. – No. de télécopieur |
| Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) – Nom et titre de la personne autorisée à signer au nom du fournisseur/de l'entrepreneur (taper ou écrire en caractères d'imprimerie) | |
| Signature | Date |



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PART 1 - GENERAL INFORMATION

1.1 Security Requirements

1. Before award of a contract, the following conditions must be met:

- (a) the Bidder's proposed individuals requiring access to classified or protected information, assets or sensitive work site(s) must meet the security requirements as indicated in Part 6 - Resulting Contract Clauses;
- (b) the Bidder must provide the name of all individuals who will require access to classified or protected information, assets or sensitive work sites;

1.2 Requirement

The requirement is detailed at Annex A, Requirement, of the resulting contract clauses.

1.2.1 Delivery Requirement

All the deliverables must be received on or before March 29, 2019.

1.3 Debriefings

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

1.4 Resource Mechanisms

If you have any concerns relating to the procurement process, please refer to the [Recourse Mechanisms](#) page on the Buyandsell.gc.ca website. Please note that there are strict deadlines for filing complaints with the Canadian International Trade Tribunal (CITT) or the Office of the Procurement Ombudsman (OPO).

<https://buyandsell.gc.ca/for-businesses/selling-to-the-government-of-canada/recourse-mechanisms>

1.5 Trade Agreements

The requirement is subject to the Canadian Free Trade Agreement (CFTA).



PART 2 - BIDDER INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Revision to Departmental Name: As this solicitation is issued by Royal Canadian Mounted Police (RCMP), any reference to Public Works and Government Services Canada or PWGSC or its Minister contained in any term, condition or clause of this solicitation, including any individual SACC clauses incorporated by reference, will be interpreted as reference to RCMP or its Minister.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 (2018-05-22) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of 2003, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days

Insert: 90 days

2.2 Submission of Bids

Bids must be submitted only to RCMP Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

NOTE: The RCMP has not been approved for bid submission by epost Connect service.

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

2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than **three (3)** calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.



2.4 Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the bidders.

2.5 Promotion of Direct Deposit Initiative

The following information is not related to the solicitation process:

An initiative within the Government of Canada called the Cheque Standardization Project has been established whereby eventually for all payments, cheque stubs will no longer be printed and, with few exceptions, will be processed via direct deposit. This option is only available when payment is made in Canadian dollars for deposit into a Canadian bank account. In an attempt to be proactive, RCMP Corporate Accounting is promoting the registration of RCMP suppliers for the upcoming change in the payment process.

If you are the successful bidder on this or any other RCMP requirement, you are encouraged to register with the RCMP for direct deposit. Please contact RCMP Corporate Accounting by email to receive a form entitled *Recipient Electronic Payment Registration Request* along with instructions for completion of the form.

Should you have any questions regarding the Cheque Standardization Project or if you want to register, please contact the following email: corporate_accounting@rcmp-grc.gc.ca

PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

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

Section I: Technical Bid (4 hard copies – 1 original & 3 copies)

Section II: Financial Bid (1 hard copy)

Section III: Certifications (1 hard copy)

If there is a discrepancy between the wording of the soft copy on electronic media and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy.

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

Canada requests that bidders follow the format instructions described below in the preparation of their bid:

(a) use 8.5 x 11 inch (216 mm x 279 mm) paper;



-
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process [Policy on Green Procurement](http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, bidders should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

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.

The technical bid consists of the following:

- a) Completed and signed page 1 of the RFP;
- b) Documentation (e.g. data sheets, brochures, web site information, literature, etc.) to substantiate compliancy to the mandatory technical specifications detailed under Annex D, Mandatory Technical Requirement;
- c) Completed Annex D, Mandatory Technical Requirement.

Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Basis of Payment. The total amount of Applicable Taxes must be shown separately.

3.1.1 Exchange Rate Fluctuation

C3011T (2013-11-06) Exchange Rate Fluctuation

Section III: Certifications

Bidders must submit the certifications and additional information required under Part 5.

Section IV: Additional Information

3.1.2 Delivery Offered

The best offered delivery is _____.



PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

4.1.1 Technical Evaluation

4.1.1.1 Mandatory Technical Criteria

To be considered responsive, a bid must meet all of the mandatory requirements as detailed at Annex D, Mandatory Technical Requirement. **Note:** Simply repeating the statement contained in the bid solicitation is not sufficient. 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 compliance. Each mandatory technical requirement should be addressed separately and in the order presented in Annex D. Bids not meeting all of the mandatory requirements will be given no further consideration.

4.1.2 Financial Evaluation

1. Bidders must submit pricing in accordance with Annex B, Basis of Payment, with their bid at bid closing.
2. The evaluated price is the extended price, calculated by multiplying the Quantity by the Unit Price offered by the Bidder. The Total Evaluated Bid Price will be based on the unit extended price less the trade-in extended price.
3. The bidder must quote firm unit prices in Canadian dollars, DDP Delivered Duty Paid (destination). Freight charges to destination and all applicable Custom duties and Excise taxes included. GST/HST not included. The price of the bid will be evaluated in Canadian dollars.

4.2 Basis of Selection – Mandatory Technical Criteria

A bid must comply with the requirements of the bid solicitation and meet all mandatory technical evaluation criteria to be declared responsive. The responsive bid with the lowest Total Evaluated Bid Price will be recommended for award of a contract.



PART 5 - CERTIFICATIONS

Bidders must provide the required certifications and associated information to be awarded a contract.

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare a bid non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority may render the bid non-responsive or constitute a default under the Contract.

5.1 Certifications Precedent to Contract Award and Additional Information

The certifications and additional information listed below should be submitted with the bid but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame specified will render the bid non-responsive.

5.1.1 Integrity Provisions

In accordance with the section titled Information to be provided when bidding, contracting or entering into a real property agreement subject to the *Ineligibility and Suspension Policy* (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process:

- Declaration of Convicted Offences - Integrity Declaration Form (as applicable)
- Required Documentation (List of names for integrity verification form)

Please see the *Forms for the Integrity Regime* website for further details (<http://www.tpsgc-pwgsc.gc.ca/ci-if/formulaires-forms-eng.html>).

5.1.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list available at the bottom of the page of the *Employment and Social Development Canada (ESDC) – Labour's* website (<https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#>).

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "*FCP Limited Eligibility to Bid*" list at the time of contract award.



PART 6 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

6.1 Security Requirements

6.1.1 The following security requirements (SRCL and related clauses) apply and form part of the Contract.

The Contractor is required to be security cleared at the level of Facilities Access as verified by the personal Security Unit (PSU) of the Royal Canadian Mounted Police (RCMP).

The Contractor SHALL NOT remove or make copies of any DESIGNATED or CLASSIFIED information or assets from the identified work site(s).

6.2 Requirement

The contractor must provide the goods in accordance with the technical requirements stated herein.

One (1) Vector Signal Generator as detailed at Annex A attached.

6.3 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Revision to Departmental Name: As this contract is issued by Royal Canadian Mounted Police (RCMP), any reference to Public Works and Government Services Canada or PWGSC or its Minister contained in any term, condition or clause of this contract, including any individual SACC clauses incorporated by reference, will be interpreted as reference to RCMP or its Minister.

6.3.1 General Conditions

2010A ([2018-06-21](#)), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

6.3.2 Warranty Period

Section 09 of general conditions 2010A is amended by replacing the period of twelve (12) months by sixty (60) months. All other provisions of the warranty section remain in effect.

6.3.3 SACC Manual Clauses

B1501C (2018-06-21) – Electrical Equipment
B7500C (2006-06-16) – Excess Goods



6.4 Term of Contract

6.4.1 Period of the Contract

The “Contract Period” is the entire period of time during which the Contractor is obliged to perform the Work, which includes:

The “Contract Period”, which begins on the date the Contract is awarded and ends March 29st, 2019.

6.4.2 Delivery Date

All the deliverables must be received on or before March 29, 2019.

6.4.5 Delivery Points

Delivery of the requirement will be made to delivery point(s) specified at Annex “B” of the Contract.

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Robyn Dagg
Title: Procurement Officer
Organization: Royal Canadian Mounted Police
Royal Canadian Mounted Police
Address: 73 Leikin Drive, Mailstop #15, Ottawa, Ontario K1A 0R2

Telephone: 613-843-3872
E-mail address: Robyn.dagg@rcmp-grc.gc.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

6.5.2 Technical Authority

The Technical Authority for the Contract is: (Contact information will be specified at contract award)

Name: _____
Title: _____
Organization: _____
Address: _____

Telephone : _____
Facsimile: _____
E-mail address: _____



The Technical Authority named above is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority, however the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

6.5.3 Contractor's Representative (*The Bidder is requested to provide the following information*)

Name: _____
Telephone number: _____
E-mail address: _____
For delivery follow-up:

Name: _____
Telephone number: _____
E-mail address: _____

6.6 Payment

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 a *firm unit price(s) as specified in Annex "B", Basis of Payment for a cost of \$ _____ (to be specified at contract award)*. Customs duties are *included* and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

6.6.3 Method of Payment – Single Payment

Canada will pay the Contractor upon completion and delivery of the Work in accordance with the payment provisions of the Contract if:

- a. an accurate and complete invoice and any other documents required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- b. all such documents have been verified by Canada;
- c. the Work delivered has been accepted by Canada

6.6.4 Insurance

SACC Manual clause G1005C (2016-01-28) Insurance

6.7 Invoicing Instructions



6.7.1 The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.

6.7.2 Invoices must be distributed as follows:

- a) The original and one copy must be forwarded to the Technical Authority identified under the section entitled "Authorities" of the Contract for certification and payment.
- b) Upon request, one copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.

6.8 Certifications and Additional Information

6.8.1 Compliance

Unless specified otherwise, the continuous compliance with the certifications provided by the Contractor in its bid or precedent to contract award, and the ongoing cooperation in providing additional information are conditions of the Contract and failure to comply will constitute the Contractor in default. Certifications are subject to verification by Canada during the entire period of the Contract.

6.9 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

6.10 Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) the general conditions 2010A (2018-06-21) General Conditions Goods Medium Complexity;
- (c) Annex A, Requirement;
- (d) Annex B, Basis of Payment;
- (e) Annex C, Security Requirement Check List;
- (f) the Contractor's bid dated _____ (*to be specified at contract award*)

6.11 Procurement Ombudsman

6.11.1 Dispute Resolution Services

The parties understand that the Procurement Ombudsman appointed pursuant to Subsection 22.1(1) of the *Department of Public Works and Government Services Act* will, on request, and consent of the parties, to participate in an alternative dispute resolution process to resolve any dispute between the parties respecting the interpretation or application of a term or condition of this contract and their consent to bear the cost of such process, provide to the parties a proposal for an alternative dispute resolution process to resolve their dispute.

The Office of the Procurement Ombudsman may be contacted by telephone at 1-866-734-5169 or by e-mail at boa-opo@boa-opo.gc.ca.



6.11.2 Contract Administration

The parties understand that the Procurement Ombudsman appointed pursuant to Subsection 22.1(1) of the *Department of Public Works and Government Services Act* will review a complaint filed by [*the supplier or the contractor or the name of the entity awarded this contract*] respecting administration of this contract if the requirements of Subsection 22.2(1) of the *Department of Public Works and Government Services Act* and Sections 15 and 16 of the *Procurement Ombudsman Regulations* have been met, and the interpretation and application of the terms and conditions and the scope of the work of this contract are not in dispute.

The Office of the Procurement Ombudsman may be contacted by telephone at 1-866-734-5169 or by e-mail at boa-opo@boa-opo.gc.ca.

6.12 Shipping Instructions – Delivery at Destination

Goods must be consigned to the destination specified in the Contract and delivered:

- a. Delivered Duty Paid, DDP Destination Ottawa, Ontario Incoterms 2010 for shipments from a commercial contractor.



ANNEX A - STATEMENT of REQUIREMENT

Requirement

The RCMP has a requirement for one (1) **Vector Signal Generator**.

Delivery is to, the RCMP – National Radio Services, as specified in Basis of Payment.

Scope of Work

The following are the minimum specifications of the Vector Signal Generator:

1 **General Requirements**

- 1.1 Vector Signal Generator must be a commercially available product.
- 1.2 Vector Signal Generator must be a Bench Top model comprising of no more than one piece of equipment.
- 1.3 A hard transit case must be provided.
- 1.4 Non-volatile memory must be removable.

2 **Radio Frequency Specifications**

- 2.1 Vector Signal Generator must have a frequency range of 5 MHz to 6 GHz.
- 2.2 Vector Signal Generator must have a Reference Frequency with a Frequency Error of $1 \times (10 \exp - 7)$ or lower.
- 2.3 The reference oscillator must have an aging rate of $1 \times (10 \exp - 7)$ / year or lower.
- 2.4 The Reference Frequency Temperature effects from 18 degrees Celsius to 30 degrees Celsius is less than plus or minus $2 \times (10 \exp - 8)$.
- 2.5 Vector Signal Generator must have a frequency sweep mode dwell time range of 5 ms to 100 s.

3 **Amplitude specifications**

- 3.1 The amplitude setting range below 3 GHz must be -140 dBm to +23 dBm.
- 3.2 The amplitude resolution level accuracy CW with ALC: "ON" from 100 MHz to 3 GHz and power from -110 to -127 dBm is plus or minus 1.5 dB.

4 **Spectral Purity**

- 4.1 All harmonics of the fundamental emission must less than -30 dBc.
- 4.2 All non-harmonic emission must be less than -60 dBm.
- 4.3 All suppression of Single Side Band (SSB) phase noise (CW mode – carrier offset 20 kHz, bandwidth 1 Hz) must be less than or equal to -130 dBc between 100 MHz and 1 GHz.
- 4.4 Vector signal generator must allow for phase-coherent RF outputs of two or more instruments in I/Q mode.

5 **Modulation**

- 5.1 Vector Signal Generator must provide the following analog modulation schemes: Amplitude Modulation (AM), Frequency Modulation (FM), and Phase Modulation (PM).
- 5.2 Vector Signal Generator must provide the following modulation sources: internal, external & combination of internal + external.
- 5.3 Vector Signal Generator must have a multifunction generator for analog modulation to support simultaneous 2 signal modulation.



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- 5.4 Vector Signal Generator must generate signals compliant with the following digital standards: APCO Phase 1, APCO Phase 2, TETRA and LTE.
 - 5.5 Vector Signal Generator must support the following data source: Pseudo-random pattern: 9, 11, 15, 20, 23 and user file.
 - 5.6 Vector Signal Generator must generate the following LTE waveform patterns: LTE FDD (E-TM1.1 to E-TM3.3), LTE TDD (E-TM1.1 to E-TM3.3).
 - 5.7 Vector Signal Generator must have an Error vector magnitude for W-CDMA with QSPK modulation, 1 DPCH channel configuration, frequency 1800 to 2200 MHz, Power level less than 7 dBm is less and or equal to 1.2 percent.
 - 5.8 Vector Signal Generator must have an Adjacent channel leakage ratio for W-CMDA Test model 1 with 64 DPCH, 1800 MHz to 2200 MHz, average channel power of less and or equal to 0 dBm and 5 MHz offset is greater than 69 dB.
 - 5.9 Vector Signal Generator must include an Additive White Gaussian Noise generator with a settable range from 1kHz to greater than or equal to 80 MHz.
 - 5.10 Vector Signal Generator must include a pulse modulator and generator.

6 RF Output port:

- 6.1 Vector Signal Generator must have a VSWR less than 1.5:1 between 100 MHz and 1 GHz.
- 6.2 The maximum DC voltage that can be applied to the RF Output Port must be greater than or equal to 50 VDC.
- 6.3 The maximum reverse input power that can be applied to the RF Output Port from 100 MHz to 1 GHz must be greater than or equal to 20 W.

7 Connectors:

- 7.1 The RF Output port connector must be located on the front panel.
- 7.2 The RF Output port connector must be N-type connector with an impedance of 50 ohms.
- 7.3 Vector Signal Generator must be equipped with USB and Ethernet (LAN) interface for remote programming.
- 7.4 Vector Signal Generator must be equipped with at least 2 USB for connection to external peripherals.
- 7.5 Vector Signal Generator must be equipped with an External input connector BNC type for external analog modulation.

8 Software

- 8.1 Vector Signal Generator must include a Labview software driver for Windows 7 Enterprise and Windows 10 Enterprise.
- 8.2 Any proposed software must run natively on Windows 7 Enterprise and Windows 10 Enterprise.

9 Maintenance

- 9.1 Vector Signal Generator must be delivered with a certificate of calibration.
- 9.2 Vector Signal Generator must include five year warranty and calibration coverage.



ANNEX B - BASIS OF PAYMENT

The bidder must quote firm unit prices in Canadian dollars. The price of the bid will be evaluated in Canadian dollars, Applicable Taxes excluded, Delivery Duty Paid (DDP) Destination, Incoterms 2010, Canadian customs duties and excise taxes included.

The Royal Canadian Mounted Police is seeking additional value in any potential trade-in offer for an existing Vector Signal Generator in order to bring maximum value and savings to Canada. If the contractor elects to take delivery of the RCMP's existing Vector Signal Generator, the RCMP will deliver within the National Capital Region. If the contractor is outside of the National Capital Region they will be responsible for all shipping arrangements or to pick up the equipment at the RCMP's facilities at National Radio Services at 1426 St. Joseph Blvd., TPOF Building Room, Ottawa, Ontario.

Unit trade-in information:

Manufacturer: Rohde & Schwarz
Model: SMT02
Serial Number: 838055/ 030)
See attached picture (Annex E)

If a trade-in option is not part of your bid, enter at Item 2 below, \$0.00 under the Unit Price and Extended Price.

| Table 1. Initial Quantities to be delivered to Ottawa site on or before March 29, 2019. | | | | | | |
|--|--------------------|--|-------------------|----------------------|------------|-----------------------|
| Item | Part Number | Description | Unit Price | Unit of Issue | QTY | Extended Price |
| 1 | | Vector Signal Generator (in accordance with specification outlined in Annex A) Delivery Address: RCMP O.T.S.U. – 1426 St. Joseph Blvd., TPOF Building Room 1900B, Ottawa, Ontario, K1A 0R2 | \$ | Each | 1 | \$ |
| 2 | | Trade-In offer for existing Vector Signal Generator if offered by supplier. (See above for trade-in information) | \$ | Each | 1 | Minus \$ |
| Total Evaluated Bid Price: (excluding taxes) | | | | | | \$ |



ANNEX C – SECURITY REQUIREMENTS CHECK LIST

Government of Canada / Gouvernement du Canada

20181131697

| |
|--|
| Contract Number / Numéro du contrat 201904225 |
| Security Classification / Classification de sécurité |

**SECURITY REQUIREMENTS CHECK LIST (SRCL)
LISTE DE VÉRIFICATION DES EXIGENCES RELATIVES À LA SÉCURITÉ (LVERS)**

| | | |
|---|---|--|
| PART A – CONTRACT INFORMATION / PARTIE A – INFORMATION CONTRACTUELLE | | |
| 1. Originating Government Department or Organization / Ministère ou organisme gouvernemental d'origine RCMP | 2. Branch or Directorate / Direction générale ou Direction NRSS | |
| 3. a) Subcontract Number / Numéro du contrat de sous-traitance | 3. b) Name and Address of Subcontractor / Nom et adresse du sous-traitant | |
| 4. Brief Description of Work / Brève description du travail Vector Signal Generator | | |
| 5. a) Will the supplier require access to Controlled Goods? Le fournisseur aura-t-il accès à des marchandises contrôlées? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Non <input type="checkbox"/> Oui | | |
| 5. b) Will the supplier require access to unclassified military technical data subject to the provisions of the Technical Data Control Regulations? Le fournisseur aura-t-il accès à des données techniques militaires non classifiées qui sont assujetties aux dispositions du Règlement sur le contrôle des données techniques? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Non <input type="checkbox"/> Oui | | |
| 6. Indicate the type of access required / Indiquer le type d'accès requis | | |
| 6. a) Will the supplier and its employees require access to PROTECTED and/or CLASSIFIED information or assets? Le fournisseur ainsi que les employés auront-ils accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS? (Specify the level of access using the chart in Question 7. c.) (Préciser le niveau d'accès en utilisant le tableau qui se trouve à la question 7. c.) <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Non <input type="checkbox"/> Oui | | |
| 6. b) Will the supplier and its employees (e.g. cleaners, maintenance personnel) require access to restricted access areas? No access to PROTECTED and/or CLASSIFIED information or assets is permitted. Le fournisseur et ses employés (p. ex. nettoyeurs, personnel d'entretien) auront-ils accès à des zones d'accès restreintes? L'accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS n'est pas autorisé. <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Non <input type="checkbox"/> Oui | | |
| 6. c) Is this a commercial courier or delivery requirement with no overnight storage? S'agit-il d'un contrat de messagerie ou de livraison commerciale sans entreposage de nuit? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Non <input type="checkbox"/> Oui | | |
| 7. a) Indicate the type of information that the supplier will be required to access / Indiquer le type d'information auquel le fournisseur devra avoir accès | | |
| Canada <input type="checkbox"/> | NATO / OTAN <input type="checkbox"/> | |
| Foreign / Étranger <input type="checkbox"/> | | |
| 7. b) Release restrictions / Restrictions relatives à la diffusion | | |
| No release restrictions Aucune restriction relative à la diffusion <input type="checkbox"/> | All NATO countries Tous les pays de l'OTAN <input type="checkbox"/> | |
| Not releasable À ne pas diffuser <input type="checkbox"/> | | |
| Restricted to: / Limité à: <input type="checkbox"/> | Restricted to: / Limité à: <input type="checkbox"/> | |
| Specify country(ies): / Préciser le(s) pays: | Specify country(ies): / Préciser le(s) pays: | |
| 7. c) Level of information / Niveau d'information | | |
| PROTECTED A PROTÉGÉ A <input type="checkbox"/> | NATO UNCLASSIFIED NATO NON CLASSIFIÉ <input type="checkbox"/> | PROTECTED A PROTÉGÉ A <input type="checkbox"/> |
| PROTECTED B PROTÉGÉ B <input type="checkbox"/> | NATO RESTRICTED NATO DIFFUSION RESTREINTE <input type="checkbox"/> | PROTECTED B PROTÉGÉ B <input type="checkbox"/> |
| PROTECTED C PROTÉGÉ C <input type="checkbox"/> | NATO CONFIDENTIAL NATO CONFIDENTIEL <input type="checkbox"/> | PROTECTED C PROTÉGÉ C <input type="checkbox"/> |
| CONFIDENTIAL CONFIDENTIEL <input type="checkbox"/> | NATO SECRET NATO SECRET <input type="checkbox"/> | CONFIDENTIAL CONFIDENTIEL <input type="checkbox"/> |
| SECRET SECRET <input type="checkbox"/> | COSMIC TOP SECRET COSMIC TRÈS SECRET <input type="checkbox"/> | SECRET SECRET <input type="checkbox"/> |
| TOP SECRET TRÈS SECRET <input type="checkbox"/> | | TOP SECRET TRÈS SECRET <input type="checkbox"/> |
| TOP SECRET (SIGINT) TRÈS SECRET (SIGINT) <input type="checkbox"/> | | TOP SECRET (SIGINT) TRÈS SECRET (SIGINT) <input type="checkbox"/> |

TBS/SCT 350-103(2004/12)

Security Classification / Classification de sécurité



Government of Canada / Gouvernement du Canada

20181131697

| |
|--|
| Contract Number / Numéro du contrat 201904225 |
| Security Classification / Classification de sécurité |

PART A (continued) / PARTIE A (suite)

8. Will the supplier require access to PROTECTED and/or CLASSIFIED COMSEC information or assets?
Le fournisseur aura-t-il accès à des renseignements ou à des biens COMSEC désignés PROTÉGÉS et/ou CLASSIFIÉS?
If Yes, indicate the level of sensitivity.
Dans l'affirmative, indiquer le niveau de sensibilité: No / Non Yes / Oui

9. Will the supplier require access to extremely sensitive INFOSEC information or assets?
Le fournisseur aura-t-il accès à des renseignements ou à des biens INFOSEC de nature extrêmement délicate?
Short Title(s) of material / Titre(s) abrégé(s) du matériel:
Document Number / Numéro du document: No / Non Yes / Oui

PART B PERSONNEL (SUPPLIER) / PARTIE B PERSONNEL (FOURNISSEUR)

10. a) Personnel security screening level required / Niveau de contrôle de la sécurité du personnel requis

| | | | |
|--|---|---|--|
| <input type="checkbox"/> RELIABILITY STATUS COTE DE FIABILITE | <input type="checkbox"/> CONFIDENTIAL CONFIDENTIEL | <input type="checkbox"/> SECRET SECRET | <input type="checkbox"/> TOP SECRET TRÈS SECRET |
| <input type="checkbox"/> TOP SECRET – SIGINT TRÈS SECRET – SIGINT | <input type="checkbox"/> NATO CONFIDENTIAL NATO CONFIDENTIEL | <input type="checkbox"/> NATO SECRET NATO SECRET | <input type="checkbox"/> COSMIC TOP SECRET COSMIC TRÈS SECRET |
| <input type="checkbox"/> SITE ACCESS ACCÈS AUX EMPLACEMENTS | | | |

Special comments:
Commentaires spéciaux: FACILITY ACCESS II – ESCORT REQUIRED
IF SITE ACCESS IS NEEDED

NOTE: If multiple levels of screening are identified, a Security Classification Guide must be provided.
REMARQUE: Si plusieurs niveaux de contrôle de sécurité sont requis, un guide de classification de la sécurité doit être fourni.

10. b) May unscreened personnel be used for portions of the work?
Du personnel sans autorisation sécuritaire peut-il se voir confier des parties du travail?
If Yes, will unscreened personnel be escorted?
Dans l'affirmative, le personnel en question sera-t-il escorté? No / Non Yes / Oui

PART C SAFEGUARDS (SUPPLIER) / PARTIE C MESURES DE PROTECTION (FOURNISSEUR)

INFORMATION / ASSETS / RENSEIGNEMENTS / BIENS

11. a) Will the supplier be required to receive and store PROTECTED and/or CLASSIFIED information or assets on its site or premises?
Le fournisseur sera-t-il tenu de recevoir et d'entreposer sur place des renseignements ou des biens PROTÉGÉS et/ou CLASSIFIÉS? No / Non Yes / Oui

11. b) Will the supplier be required to safeguard COMSEC information or assets?
Le fournisseur sera-t-il tenu de protéger des renseignements ou des biens COMSEC? No / Non Yes / Oui

PRODUCTION

11. c) Will the production (manufacture, and/or repair and/or modification) of PROTECTED and/or CLASSIFIED material or equipment occur at the supplier's site or premises?
Les installations du fournisseur serviront-elles à la production (fabrication et/ou réparation et/ou modification) de matériel PROTÉGÉ et/ou CLASSIFIÉ? No / Non Yes / Oui

INFORMATION TECHNOLOGY (IT) MEDIA / SUPPORT RELATIF À LA TECHNOLOGIE DE L'INFORMATION (TI)

11. d) Will the supplier be required to use its IT systems to electronically process, produce or store PROTECTED and/or CLASSIFIED information or data?
Le fournisseur sera-t-il tenu d'utiliser ses propres systèmes informatiques pour traiter, produire ou stocker électroniquement des renseignements ou des données PROTÉGÉS et/ou CLASSIFIÉS? No / Non Yes / Oui

11. e) Will there be an electronic link between the supplier's IT systems and the government department or agency?
Disposera-t-on d'un lien électronique entre le système informatique du fournisseur et celui du ministère ou de l'agence gouvernementale? No / Non Yes / Oui

TBS/SCT 350-103(2004/12)

Security Classification / Classification de sécurité

Canada



20181131697

| |
|--|
| Contract Number / Numéro du contrat 201904225 |
| Security Classification / Classification de sécurité |

PART C - (continued) / PARTIE C - (suite)

For users completing the form **manually** use the summary chart below to indicate the category(ies) and level(s) of safeguarding required at the supplier's site(s) or premises.
Les utilisateurs qui remplissent le formulaire **manuellement** doivent utiliser le tableau récapitulatif ci-dessous pour indiquer, pour chaque catégorie, les niveaux de sauvegarde requis aux installations du fournisseur.

For users completing the form **online** (via the Internet), the summary chart is automatically populated by your responses to previous questions.
Dans le cas des utilisateurs qui remplissent le formulaire **en ligne** (par Internet), les réponses aux questions précédentes sont automatiquement saisies dans le tableau récapitulatif.

SUMMARY CHART / TABLEAU RÉCAPITULATIF

| Category / Catégorie | PROTECTED / PROTÉGÉ | | | CLASSIFIED / CLASSIFIÉ | | | NATO | | | | COMSEC | | | | | |
|--|------------------------|---|---|--------------------------------|--------|-----------------------------|--|--|-------------|---|------------------------|---|---|--------------------------------|--------|-----------------------------|
| | A | B | C | CONFIDENTIAL / CONFIDENTIEL | SECRET | TOP SECRET / TRÈS SECRET | NATO RESTRICTED / NATO DIFFUSION RESTREINTE | NATO CONFIDENTIAL / NATO CONFIDENTIEL | NATO SECRET | COSMIC TOP SECRET / COSMIC TRÈS SECRET | PROTECTED / PROTÉGÉ | | | CONFIDENTIAL / CONFIDENTIEL | SECRET | TOP SECRET / TRÈS SECRET |
| | | | | | | | | | | | A | B | C | | | |
| Information / Assets / Renseignements / Biens / Production | | | | | | | | | | | | | | | | |
| IT Media / Support TI | | | | | | | | | | | | | | | | |
| IT Link / Lien électronique | | | | | | | | | | | | | | | | |

12. a) Is the description of the work contained within this SRCL PROTECTED and/or CLASSIFIED?
La description du travail visé par la présente LVERS est-elle de nature PROTÉGÉE et/ou CLASSIFIÉE? No / Non Yes / Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification".
Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire.

12. b) Will the documentation attached to this SRCL be PROTECTED and/or CLASSIFIED?
La documentation associée à la présente LVERS sera-t-elle PROTÉGÉE et/ou CLASSIFIÉE? No / Non Yes / Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification" and indicate with attachments (e.g. SECRET with Attachments).
Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire et indiquez qu'il y a des pièces jointes (p. ex. SECRET avec des pièces jointes).



SRCL Security Guide

NRSS VECTOR SIGNAL GENERATOR
SRCL #: 201811131697



General Security Requirements

All contractors employed on this contract must support the RCMP's security environment by complying with the directives described in this document.

1. All Protected information (hard copy documentation) or other sensitive assets for which the RCMP is responsible will be shared with the contractor through pre-approved processes.
2. The information disclosed by the RCMP will be administered, maintained, and disposed of in accordance with the Contract. At minimum the contractor must follow the Policy on Government Security.
3. The contractor will promptly notify the RCMP of any unauthorized use or disclosure of the information exchanged under this contract and will furnish the RCMP with details of the unauthorized use or disclosure. (i.e. loss of sensitive information, accidental or deliberate.)
4. Photography is not permitted. If photos are required, please contact the Contract Authority and Departmental Security Section.
5. The use of personal property, e.g. desktop peripherals, communication devices, portable storage media such as USB sticks, in conjunction with RCMP technology is prohibited
6. The contractor is not permitted to disclose sensitive information provided by the RCMP, to any sub-contractors, without those individuals having the proper RCMP security level required to access the protected information.
7. The RCMP's Departmental Security Section (DSS) reserves the right to:
 - conduct inspections of the contractor's site/premises. Inspections may be performed prior to sensitive information being shared and/or as required (i.e. if the contractor's work location relocates). The intent of the inspection is to ensure the quality of security safeguards.
 - request photographic verification of the security safeguards. Photographs may be requested prior to sensitive information being shared and/or as required (i.e. if the contractor's work location relocates). The intent of the photographs is to ensure the quality of security safeguards.
 - provide guidance on mandatory safeguards (safeguards as specified in this document and possibly additional site specific safeguards).
8. To ensure Canada's sovereign control over its data, all sensitive or protected data under government control will be stored on servers that reside in Canada. Data in transit will be appropriately encrypted.



Physical Security

1. The contractor shall not have access to any sensitive hard copy (Protected A or higher) RCMP information.
2. At no time during the contract is the contractor to remove any sensitive hard copy information or assets, Protected A or higher, from RCMP sites.
3. The contractor is prohibited from storing, processing, producing or discussing RCMP sensitive information off-site (all actions must occur within RCMP sites).
4. Physical access to RCMP facilities/sites is restricted to those specific areas required to meet the contract's objectives.

IT Security

1. No sensitive information, Protected A or higher, shall be electronically transmitted outside of RCMP networks or processed at the contractor's site.
2. No sensitive electronic information or assets, Protected A or higher, shall be removed from RCMP networks or property.
3. All hard disk drives and memory cards must be removed from the generator prior to being removed from RCMP premises for the purpose of maintenance to be performed at the vendor's site.

Personnel Security

1. Contractor and sub-contractor personnel will be required to obtain and maintain a personnel security clearance/status commensurate with the sensitivity of the work being performed throughout the life cycle of the contract (in accordance with the provisions of the SRCL).
2. The contractor will be responsible for advising the RCMP of any changes in personnel security requirements. For example: Cleared personnel leaving the company or no longer supporting the RCMP contract, new personnel requiring security screening and personnel requiring renewal of their personnel security screening.
3. As the supplier and its employees will only require access to a RCMP Facility or site and will not have access to protected or classified information, systems or assets, an RCMP Clearance at the appropriate level is required. Contractor personnel must submit to local law enforcement verification by the RCMP, prior to being granted access to facility or site. The RCMP reserves the right to deny access to any of the contractor personnel, at any time.



When the RCMP requires Facility Access Level 2; the successful Bidder, Contractor will submit the following to the RCMP:

1. Form TBS 330-23 (LERC Version)
2. Copy of Government Issued Photo Identification (Driver's License Front and Back)

The RCMP:

1. Will conduct personnel security screening checks above the Policy on Government Security requirements.
2. Is responsible for escort requirements on it facilities or sites.



ANNEX D - MANDATORY TECHNICAL EVALUATION CRITERIA

1. General Instructions

The bid must meet the mandatory requirements specified below. **Note:** Simply repeating the statement contained in the bid solicitation is not sufficient. 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 compliance. Each mandatory technical requirement should be addressed separately and in the order presented below. Bids not meeting all of the mandatory requirements will be given no further consideration.

| Item No. | MANDATORY SPECIFICATION | Met (Yes/No) | Substantiation documents must detail how the requirement was met - Cross-reference to proposal (page & paragraph) |
|---------------------------------------|---|--------------|---|
| GENERAL REQUIREMENTS | | | |
| M1 | Vector Signal Generator must be a commercially available product; | | |
| M2 | Vector Signal Generator must be a Bench Top model comprising of no more than one piece of equipment; | | |
| M3 | A hard transit case must be provided; | | |
| M4 | Non-volatile memory must be removable; | | |
| RADIO FREQUENCY SPECIFICATIONS | | | |
| M5 | Vector Signal Generator must have a frequency range of 5 MHz to 6 GHz; | | |
| M6 | Vector Signal Generator must have a Reference Frequency with a Frequency Error of $1 \times (10 \times 10^{-7})$ or lower; | | |
| M7 | The reference oscillator must have an aging rate of $1 \times (10 \times 10^{-7})$ / year or lower; | | |
| M8 | The Reference Frequency Temperature effects from 18 degrees Celsius to 30 degrees Celsius is less than plus or minus $2 \times (10 \times 10^{-8})$; | | |
| M9 | Vector Signal Generator must have a frequency sweep mode dwell time range of 5 ms to 100 s; | | |
| AMPLITUDE SPECIFICATIONS | | | |
| M10 | The amplitude setting range below 3 GHz must be -140 dBm to +23 dBm; | | |
| M11 | The amplitude resolution level accuracy CW with ALC: "ON" from 100 MHz to 3 GHz and power from -110 to -127 dBm is plus or minus 1.5 dB; | | |



| SPECTRAL PURITY | | | |
|------------------------|---|--|--|
| M12 | All harmonics of the fundamental emission must less than -30 dBc; | | |
| M13 | All non-harmonic emission must be less than -60 dBm; | | |
| M14 | All suppression of Single Side Band (SSB) phase noise (CW mode – carrier offset 20 kHz, bandwidth 1 Hz) must be less than or equal to -130 dBc between 100 MHz and 1 GHz; | | |
| M15 | Vector signal generator must allow for phase-coherent RF outputs of two or more instruments in I/Q mode; | | |
| MODULATION | | | |
| M16 | Vector Signal Generator must provide the following analog modulation schemes: Amplitude Modulation (AM), Frequency Modulation (FM), and Phase Modulation (PM); | | |
| M17 | Vector Signal Generator must provide the following modulation sources: internal, external & combination of internal + external; | | |
| M18 | Vector Signal Generator must have a multifunction generator for analog modulation to support simultaneous 2 signal modulation; | | |
| M19 | Vector Signal Generator must generate signals compliant with the following digital standards: APCO Phase 1, APCO Phase 2, TETRA and LTE.; | | |
| M20 | Vector Signal Generator must support the following data source: Pseudo-random pattern: 9, 11, 15, 20, 23 and user file; | | |
| M21 | Vector Signal Generator must generate the following LTE waveform patterns: LTE FDD (E-TM1.1 to E-TM3.3), LTE TDD (E-TM1.1 to E-TM3.3); | | |
| M22 | Vector Signal Generator must have an Error vector magnitude for W-CDMA with QSPK modulation, 1 DPCH channel configuration, frequency 1800 to 2200 MHz, Power level less than 7 dBm is less and or equal to 1.2 percent; | | |
| M23 | Vector Signal Generator must have an Adjacent channel leakage ratio for W-CMDA Test model 1 with 64 DPCH, 1800 MHz to 2200 MHz, average channel power of less and or equal to 0 dBm and 5 MHz offset is greater than 69 dB; | | |
| M24 | Vector Signal Generator must include an Additive White Gaussian Noise generator with a settable range from 1kHz to greater than or equal to 80 MHz; | | |



| | | | |
|-----------------------|--|--|--|
| M25 | Vector Signal Generator must include a pulse modulator and generator; | | |
| RF OUTPUT PORT | | | |
| M26 | Vector Signal Generator must have a VSWR less than 1.5:1 between 100 MHz and 1 GHz; | | |
| M27 | The maximum DC voltage that can be applied to the RF Output Port must be greater than or equal to 50 VDC; | | |
| M28 | The maximum reverse input power that can be applied to the RF Output Port from 100 MHz to 1 GHz must be greater than or equal to 20 W; | | |
| CONNECTORS | | | |
| M29 | The RF Output port connector must be located on the front panel; | | |
| M30 | The RF Output port connector must be N-type connector with an impedance of 50 ohms; | | |
| M31 | Vector Signal Generator must be equipped with USB and Ethernet (LAN) interface for remote programming; | | |
| M32 | Vector Signal Generator must be equipped with at least 2 USB for connection to external peripherals; | | |
| M33 | Vector Signal Generator must be equipped with an External input connector BNC type for external analog modulation; | | |
| SOFTWARE | | | |
| M34 | Vector Signal Generator must include a Labview software driver for Windows 7 Enterprise and Windows 10 Enterprise; | | |
| M35 | 8.2 Any proposed software must run natively on Windows 7 Enterprise and Windows 10 Enterprise; | | |
| MAINTENANCE | | | |
| M36 | Vector Signal Generator must be delivered with a certificate of calibration; and | | |
| M37 | 9.2 Vector Signal Generator must include five year warranty and calibration coverage. | | |



ANNEX E – UNIT TRADE-IN

