

**Customer:**

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Philip Morris International Research  
Laboratories Pte. Ltd.  
50 Science Park Road  
The Kendall, Singapore Science Park II  
Singapore 117406

Email : ashish.saxena@pmi.com

**XevoTQ-GC System**

**Quotation No. 21964293 - Expiration Date : 13.04.2019**

**General information**

249189/11904042

**Provider:**

Waters Pacific Pte Ltd  
Joanna Ang  
1 Science Park Road  
#02-1/06 The Capricorn  
Singapore Science Park II  
Singapore 117528

Email : Joanna\_Ang@Waters.com

**Quotation**  
**XevoTQ-GC System**

**Price Details in USD**

**Please reference this quotation when purchase order is issued**

| Itm                                      | Part No.  | Description                              | Unit Price | Qty | Gross Price       | Disc %  | Net Price         |
|------------------------------------------|-----------|------------------------------------------|------------|-----|-------------------|---------|-------------------|
| XevoTQ-GC System                         |           |                                          |            |     |                   |         |                   |
| <i>With the following configuration:</i> |           |                                          |            |     |                   |         |                   |
| 1                                        | 176004290 | XevoTQ-GC System                         | 308,600.00 | 1   | 308,600.00        |         | 308,600.00        |
| 2                                        | 700002878 | Waters GCT Premier(EI,CI,DCI,SIP)ChemKit | 1,111.00   | 1   | 1,111.00          |         | 1,111.00          |
| 3                                        | 176004292 | Xevo TQ-GC Backing pump                  | 2,100.00   | 1   | 2,100.00          |         | 2,100.00          |
| 4                                        | 668000273 | MONITOR, Lenovo ThinkVision Flat Panel   | 730.00     | 1   | 730.00            |         | 730.00            |
| 5                                        | 176004291 | Xevo TQ-GC CI Option                     | 4,000.00   | 1   | 4,000.00          |         | 4,000.00          |
| 6                                        | 186009152 | Xevo TQ-GC Front Split Splitless Option  | 6,800.00   | 1   | 6,800.00          |         | 6,800.00          |
| 7                                        | 186008926 | Xevo TQ-GC Hydrogen Kit Option           | 2,300.00   | 1   | 2,300.00          |         | 2,300.00          |
| 8                                        | 186005238 | 7693 Autoinjector                        | 7,400.00   | 1   | 7,400.00          |         | 7,400.00          |
| 9                                        | 176002807 | NIST Library                             | 4,400.00   | 1   | 4,400.00          |         | 4,400.00          |
| 10                                       | 176003376 | NIST MS/MS Library                       | 660.00     | 1   | 660.00            |         | 660.00            |
| 11                                       | 741000509 | Xevo TQ-GC Installation Certificate      | 8,300.00   | 1   | 8,300.00          |         | 8,300.00          |
| 12                                       | 750000529 | On-Site MS/App Training -ROW (2 Days)    | 10,200.00  | 1   | 10,200.00         |         | 10,200.00         |
| <b>Total</b>                             |           |                                          |            |     | <b>356,601.00</b> |         | <b>356,601.00</b> |
| System Discount                          |           |                                          |            |     |                   | 25.00 % | -89,150.25        |
| <b>Total excluding GST</b>               |           |                                          |            |     |                   |         | <b>267,450.75</b> |
| GST                                      |           |                                          |            |     |                   | 7.00 %  | 18,721.55         |
| <b>Total</b>                             |           |                                          |            |     |                   |         | <b>286,172.30</b> |

**Joanna Ang**  
Account Manager

**Julius Hiu**  
Sales Manager, Singapore

**Quotation**

**XevoTQ-GC System**

**Price Details in USD**

**Please reference this quotation when purchase order is issued**

**Terms of Payment**

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CASH ON DELIVERY

**Shipping Information**

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DDP

## Quotation

### XevoTQ-GC System

## Detail Product Descriptions

| Item | Part No. | Description |
|------|----------|-------------|
|------|----------|-------------|

|   |           |                         |
|---|-----------|-------------------------|
| 1 | 176004290 | <b>XevoTQ-GC System</b> |
|---|-----------|-------------------------|

The Xevo TQ-GC is a sensitive, robust, accessible tandem quadrupole EI and (optional) CI GC/MS/MS analytical platform and able to routinely achieve required detection limits of complex samples. The ionization source and transfer optics are designed to be able to cope with the rigour of complex sample analysis and high matrix background and not require frequent removal and cleaning.

Following the design principle of poka-yoke or #mistake-proofing# user-serviceable components are designed to only fit one way to prevent mistakes and allow replacement or cleaning of parts to be quick, simple and require little training.

The use of System Health Check, Auto-tune enables less experienced MS users to set-up, optimize and prepare the system for analysis. This also means consistency in operation and reduction in loss of samples due to incorrect instrument set-up. Xtended Dynamic Range" (XDR) technology provides accessible sensitivity and method transfer.

Using RADAR," which enables rapid switching between MS full scan and MS/MS acquisition modes, analysts can get more from their MS/MS analysis. RADAR enables NIST library searchable spectra to be generated alongside MRM data, meaning simplified method development and background or interference identification.

The Xevo TQ-GC is tested as a system in Wilmslow as part of the System Integration Testing (SIT). The following items are included as part of the SIT system:

A7890B GC oven with a split/splitless injector in the rear position, Plinth, Heated Transfer Line, EI source, MS, Standard Workstation with MassLynx License. The MassLynx software includes TargetLynx XSTM application manager, Quanpedia, QC monitor and TrendPlot as standard.

The standard system does not include the following items, which must be specified separately:

Monitor

Autoinjector

Vacuum backing pump (rotary)

#### 1. EI source

This instrument is equipped with an EI source as standard. Easily assembled source designed to be tolerant for complex matrices. Rapid tool-free source chamber removal and ionisation mode change. One-click complete system shutdown for any routine maintenance.. User changeable internal calibrant. Source temperature limited to 250oC to avoid excess fragmentation whilst retaining high chromatographic performance.

#### 2. IntelliStart" Technology

This system is designed to be easily accessible and will automatically perform source tuning, mass resolution and calibration from a reference compound. In addition there are multiple system health checks for temperatures, filament settings, peak shapes, peak resolutions, peak positions, peak ratios and instrument vacuum.

#### 3. TANDEM QUADRUPOLE ANALYSER

The instrument is equipped with two high performance quadrupole mass analysers with inter-element beam focusing and a mass range of 2-1,250 amu. Pre-filters are fitted to the mass analysers to maximise resolution and transmission. The pre-filters also eliminate the need for cleaning of the quadrupole mass analysers. All lens and analyser voltages are digitally controlled. Analyser parameters may be programmed with respect to mass for optimal performance. Analyser parameters

## Quotation

### XevoTQ-GC System

## Detail Product Descriptions

| Item | Part No. | Description |
|------|----------|-------------|
|------|----------|-------------|

used for data acquisition are automatically recorded and appended to the relevant data file.

#### 4. COLLISION CELL

The is equipped with the innovative curved T-Wave" collision cell which blocks meta-stable helium ions and neutral molecules reducing baseline noise. The T-Wave" assigned for optimal MS/MS performance at high data acquisition rates, with a minimal performance loss.

#### T-Wave™:

The cell can be operated as a high efficiency travelling wave (T-Wave) device for collision induced dissociation. The travelling wave enables rapid cell clearance and refill for fast MRM transition switching while maintaining optimum signal to noise.

#### RADAR™:

An information-rich acquisition approach that allows you to collect highly specific quantitative MRM data for target compounds while providing additional library searchable spectral data to help visualize all other components in the sample.

#### 5. VACUUM SYSTEM

Clean, differentially pumped, automated vacuum system comprising: Air-cooled Pfeiffer splitflow turbomolecular drag pump evacuating both the source & analyser. Vacuum read backs and system vent/pump cycles are digitally monitored and controlled, to provide total software control and ensure fail-safe operation in the event of power failure. The backing option must be ordered separately (See Backing Pump Options for part numbers and descriptions)

#### 6. DETECTOR

The instrument is equipped with an Xtended Dynamic Range" (XDR) low noise dynolite photomultiplier detector. The detector is positioned after the second analyzer. A High Voltage conversion dynode and phosphor are positioned at 90° off-axis to the analyser for the elimination of neutral noise. The detector features novel, integral focusing optics, which provides a detection efficiency approaching 100% for single ions. The photomultiplier is enclosed in its own vacuum envelope for long life. The detector operates in both positive and negative ion mode, which can be switched rapidly under software digital control.

#### 7. MASSLYNX SOFTWARE / MS Workstation

The MS Workstation and MassLynx License for the application software for instrument control, data acquisition and processing is included as part of the system. Post acquisition processing and general data manipulation can be carried out by an additional computer workstation and software installation (See the MassLynx Process-only Workstations section of the MassLynx Variant configurator 176706000).

|          |                  |                                                                                             |
|----------|------------------|---------------------------------------------------------------------------------------------|
| <b>2</b> | <b>700002878</b> | <b>Waters GCT Premier(EI,CI,DCI,SIP)ChemKit</b><br>GCT Premier(EI,CI,DCI,SIP) Standards Kit |
|----------|------------------|---------------------------------------------------------------------------------------------|

|          |                  |                                |
|----------|------------------|--------------------------------|
| <b>3</b> | <b>176004292</b> | <b>Xevo TQ-GC Backing pump</b> |
|----------|------------------|--------------------------------|

|          |                  |                                                                                         |
|----------|------------------|-----------------------------------------------------------------------------------------|
| <b>4</b> | <b>668000273</b> | <b>MONITOR, Lenovo ThinkVision Flat Panel</b><br>Monitor, Lenovo Thinkvision Flat Panel |
|----------|------------------|-----------------------------------------------------------------------------------------|

**Quotation**  
**XevoTQ-GC System**

**Detail Product Descriptions**

| <b>Itm</b> | <b>Part No.</b>  | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                    |
|------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            |                  | 22 inch monitor                                                                                                                                                                                                                                                                                                                                                                       |
| <b>5</b>   | <b>176004291</b> | <b>Xevo TQ-GC CI Option</b>                                                                                                                                                                                                                                                                                                                                                           |
| <b>6</b>   | <b>186009152</b> | <b>Xevo TQ-GC Front Split Splitless Option</b>                                                                                                                                                                                                                                                                                                                                        |
| <b>7</b>   | <b>186008926</b> | <b>Xevo TQ-GC Hydrogen Kit Option</b>                                                                                                                                                                                                                                                                                                                                                 |
| <b>8</b>   | <b>186005238</b> | <b>7693 Autoinjector</b><br>G7693 Autoinjector<br>Agilent 7693 automated liquid sampler for use with the A7890 GC.<br>Includes transfer turret, 16-sample turret, mounting post, "parking" post for GC, 10 µL syringe, and solvent bottles<br>Features normal, on-column and multiple injection modes.<br>Note : Does not include sample tray option (186005239 7693A Tray, 150 Vial) |
| <b>9</b>   | <b>176002807</b> | <b>NIST Library</b>                                                                                                                                                                                                                                                                                                                                                                   |
| <b>10</b>  | <b>176003376</b> | <b>NIST MS/MS Library</b>                                                                                                                                                                                                                                                                                                                                                             |
| <b>11</b>  | <b>741000509</b> | <b>Xevo TQ-GC Installation Certificate</b>                                                                                                                                                                                                                                                                                                                                            |
| <b>12</b>  | <b>750000529</b> | <b>On-Site MS/App Training -ROW (2 Days)</b><br>On-Site MS/Application Training - ROW (2 Days)                                                                                                                                                                                                                                                                                        |

## Quotation

### XevoTQ-GC System

## General Sales Terms and Conditions

1. General  
Waters Pacific Pte Ltd ("Seller") hereby agrees to sell the products to buy upon the terms and conditions set forth herewith. Seller shall not be bound by any standard or printed terms furnished by the Buyer in any of its documents, unless the Buyer specifically states in writing separately from such terms that it intends such terms to apply and the Seller acknowledges such notification in writing.
2. Price
  - a. Unless otherwise agreed at the time of sale, the price stated is ex-works and exclusive of Goods & Services Tax which shall be chargeable in addition upon supply of goods.
  - b. All quotations and estimates used by Seller are, unless otherwise stated, based on current costs and are subject to amendment on or after acceptance of order by Seller to meet any rise in such costs.
  - c. Any variation to prices quoted as a result of government taxes and levies will be for the Buyer's accounts.
  - d. Written quotations automatically expire 30 calendar days from the date issued and are subject to termination by notice within that period. All orders based on written quotations are subject to Seller's acceptance at its office in 1 Science Park Road #02-01 The Capricorn, Singapore Science Park II, Singapore 117528.
3. Delivery
  - a. Stock items are processed for prompt delivery. Whilst there is no minimum order value there is a minimum charge in respect of packing, handling and delivery. Details of these charges are available on request.
  - b. Notwithstanding that the Seller and the Buyer may agree to deliver the goods at some specified place the delivery of goods to a carrier for the purpose of transmission to the Buyer is deemed to be a delivery of the goods to the Buyer and risk in the goods shall pass accordingly at the moment of delivery to the carrier.
  - c. Inspection and testing and/or installation of the goods is not provided by Seller unless otherwise agreed at the time of sale.
  - d. Seller retains ownership of the goods the property in which shall not pass to Buyer and Buyer shall keep any goods delivered to it as bailee for and on behalf of Seller until Seller has received payment of the price of all the goods (whether or not the goods are delivered in instalments and some have been paid for by Buyer pursuant to these terms) and until such time the Buyer shall store the goods separately or in some other way ensure that the goods are readily identifiable as the property of Seller and at Seller's request either shall deliver up to the goods to Seller or shall permit Seller to enter Buyer's business or other premises to repossess the goods and subsequently re-sell them.
  - e. The provisions of this clause 3(d) shall survive the determination of the contract for whatever reason.
4. Payment
  - a. Payment terms are strictly Net Cash 30 days after delivery of the goods, provided Buyer's credit has been approved or specified in the quote. If the Buyer's credit had not been established with Seller, terms are payment in advance.
  - b. All payments made by Buyer shall be made without any deduction of deferment in respect of any disputes or claims whatsoever and/or in respect of any taxes imposed by or under the authority of any government or public authority.
  - c. Where Seller does not receive payment of any of its invoices within 30 days of the date thereof interest shall thereafter accrue on the sum due and owing to Seller at the rate of 2% per month calculated on a daily basis without prejudice to Seller's right to receive payment within such 30 day period.
  - d. Time for payment shall be of the essence.
5. Confidentiality/Intellectual Property
  - a. Any order received by Seller will be treated as confidential and will not be disclosed or publicised to any third party for any reason without the prior written consent of Buyer. Neither shall Seller use Buyer's name or other identify for advertising or publicity purposes without Buyer's prior written consent.
  - b. The sale of the goods by Seller to Buyer does not confer any right or license upon buyer to use, exploit or otherwise utilise any intellectual property rights subsisting in or relating to the goods of which Seller is a proprietor or to which Seller is otherwise entitled.
6. Specifications  
The characteristics and specifications of Seller's products are documented in Seller's technical literature and are approximately only Seller reserves the right to change product specifications without prior notice.
7. Cancellation  
An order accepted by Seller may be cancelled only before delivery of the goods and only with the consent of Seller upon terms that Buyer will indemnify Seller against any loss incurred.
8. Return  
In no case are products to be returned without first obtaining the consent of the Seller. Only unused products as currently manufactured which have been invoiced by the Seller within 30 days will be considered for return. Products accepted for credit are subject to a 20 per cent service charge plus all transportation charges. Products built to order or not of the original manufacturer of the Seller are not subject to return for credit under any circumstances. Products must be securely packed to reach the Seller without damaged. No returns shall be authorised after 90 days following shipment to buyer.
9. Warranty  
The Products and/or services shall be covered by the applicable Waters' standard warranty, a copy of which is supplied with the Products and/or services or upon request. NO OTHER WARRANTY, WHETHER EXPRESS OR IMPLIED, IS MADE WITH RESPECT TO THE PRODUCTS AND/OR SERVICES. WATERS EXPRESSLY EXCLUDES THE IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE. Any model or sample furnished to the Buyer is merely illustrative of the general types and quality of goods and does not represent that the Products will conform to Waters applicable standard warranty. WATERS SHALL NOT BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL OR ANY OTHER INDIRECT DAMAGES RESULTING FROM ECONOMIC LOSS OR PROPERTY DAMAGE SUSTAINED BY BUYER FROM THE USE OF ITS PRODUCTS OR SERVICES.
10. Termination
  - a. It prior to the delivery of the goods (or any instalment thereof) Seller has reason to believe that Buyer is unable to pay it's debts or if Buyer enters into liquidation (other than for the purpose of effecting a reconstruction or amalgamation) whether compulsory or voluntary or compounds with or conveys a meeting of its creditors or has a receiver appointed over all or any part of its assets or takes or suffers any similar action in consequence of a debt or ceases for any reason to carry on business, Seller may terminate the contract by notice in writing to Buyer.
  - b. Termination of the contract personate to Clause 10(a) shall not effect the accrued rights of the parties arising in any way out of such contract as of the date of termination.
11. Variation  
Neither Seller or Buyer shall be bound by any variation, waiver of or an addition to, those terms and conditions except as agreed by both parties in writing.
12. Time  
Seller will endeavour to dispatch the products on the promised delivery date but does not guarantee to do so.
13. Force Majeure  
Waters shall have no liability for failure to perform or delay in performance, in the delivery of any and all equipment manufactured or sold by Waters including instruments, supplies, components, systems, chemistry, accessories, replacement spare parts, or any and all services provided by Waters, caused by circumstances beyond its reasonable control including, but not limited to, acts of God, acts of nature, floods, fire, explosions, war or military mobilisation, United States governmental action or inaction, request of governmental authority, delays of any kind in transportation or inability to obtain material or equipment, acts of other governments, strikes or labour disturbances.
14. Law  
The contract shall be deemed to have been made in Singapore and the Parties to the contract hereby submit to the jurisdiction of Singapore courts. Singapore law shall be the proper law of the contract.