

Republic of the Republic of the Philippines
Department of the Interior and Local Government
NATIONAL POLICE COMMISSION
Quezon City

RESOLUTION NO. 2015-598

PRESCRIBING THE MINIMUM STANDARD SPECIFICATIONS
FOR LIQUID CHROMATOGRAPH-MASS SPECTROMETER
QUADRUPOLE-TIME OF FLIGHT (LCMS-QTOF) SYSTEM

WHEREAS, Section 14, paragraphs (i) and (m) of Republic Act No. 6975, as amended by Section 5, paragraph (a), sub-paragraphs (5) and (8) of the Republic Act No. 8551, empowers the Commission to “approve or modify plans and programs on education and training, logistical requirements, communications, records, information system, crime laboratory, crime prevention and crime reporting as well as prescribe minimum standards for arms, equipment and uniforms and, after consultation with the Philippine Heraldry Commission, for insignia of ranks, awards and medals of honor”;

WHEREAS, pursuant to the aforecited legal prescription, the PNP Uniform and Equipment Standardization Board (UESB) Resolution No. 2014-073 dated September 18, 2014, submitted and favorably indorsed the proposed standard specifications for Liquid Chromatograph-Mass Spectrometer Quadrupole-Time of Flight (LCMS-QTOF) System as basis for the procurement and used of the PNP Crime Laboratory Group, for the consideration and approval by the Commission;

WHEREAS, the subject equipment specifications can capably perform the separation, general detection and potential identification of chemicals of particular masses even with the presence of other chemicals i.e. complex mixtures of natural products extracts, and pure substances from mixtures of chemical intermediates;

WHEREAS, the Hardware and other requirements such as Computer Desktop, Printer, Uninterrupted Power Supply (UPS) and Nitrogen Generator are separate equipment not considered basic integral parts of the LCMS-QTOF System specifications hence, should be covered by separate NAPOLCOM Resolution to prescribe specifications, therewith;

WHEREAS, the “other requirements” mentioned as supplies/items are considered as consumables/expendable not requiring a NAPOLCOM Resolution to prescribe specifications thereto;

WHEREAS, after thorough review and evaluation, the subject specification is found in order and in conformity with the requirement of Republic Act No. 6975 as amended by Republic Act No. 8551 the Government Procurement Act under RA No. 9481 and its Implementing Rules and Regulations (IRR), meet the requirements of the PNP;

NOW, THEREFORE, the Commission, in the exercise of its constitutional powers to administer and control the PNP, HAS RESOLVED, AS IT HEREBY RESOLVES, to adopt and prescribe the minimum standard specifications for Liquid Chromatograph-Mass Spectrometer Quadrupole-Time of Flight System with slight modifications, to read as follows:

I. Liquid Chromatograph

- A. Total System
 - 1) Dwell Volume : 200uL maximum
 - 2) Leak Management System : Safe Leak Handling/ Leak Sensors
 - 3) pH range : Between 1 to 12.5
- B. Pump
 - 1) Type of Pump : Binary high pressure gradient
 - 2) Settable flowrate : 0.010 to 2.00 mL/min @ 0.001 mL/min increments
 - 3) Operating pressure : 1034 bar
- C. Auto Sampler
 - 1) Injection volume range : 0.1 to 10.0uL
 - 2) Precision : 1% RSD maximum
 - 3) Cooling/ thermostating : 4 to 40°C
 - 4) Sample capacity : 96 of 2-mL vials
 - 5) Carryover : 0.004% maximum
- D. Column Oven
 - 1) Temperature range : covers 20 to 80°C temperature gradient
 - 2) Temperature Stability : ± 0.3°C maximum
 - 3) Column capacity : 1
- E. Online SPE : Online SPE

II. MSMS

- A. Mass Analyzer : Quadrupole-Time of flight (QToF)
 - 1) Mass Range : 50 to 4,000 m/z (Quadrupole)
25 to 20,000 m/z (ToF)
 - 2) Mass Resolution : 20,000 FWHM
 - 3) Sensitivity : Based on Manufacturer's Product
Brand Brochure Specification, as offered
- B. Ion Source
 - 1) Ionization Mode : Multi mode source
 - 2) Access to the Ion Source : Tool-free
 - 3) Samples/Calibrant Introduction : Direct Infusion/ Built-in
 - 4) Reference Mass Introduction : Built-in mass correction
- C. Ion Optics : Based on Manufacturer's Product
Brand Brochure Specification, as offered
- D. Detector : ADC (analog to digital converter)
- E. Vacuum System : Differentially pumped automated
vacuum system, with roughing/backing
pump

III. SOFTWARE

- A. Capabilities
 - 1) MS Scanning
 - MS/MS product *ion* scanning
 - Data Dependent Acquisition

- 2) Automated calibration and tuning
- 3) Ability to control both the MS and the HPLC device
- 4) Combines all the data acquisition, processing and reporting functionality within one program
- 5) With built-in relational database
- 6) With built-in scientific library containing at least 1000 toxicologically-relevant compounds with accurate mass and retention time information
- 7) Can be linked to multiple external database
- 8) Fully compliant with 21 CFR Part 11

IV. MUST PASS PNP TEST AND EVALUATION.

ADOPTED this 24th day of NOVEMBER, 2015, in Quezon City, Metro Manila, Philippines.


MEL SENEN SARMIENTO
Chairman, NAPOLCOM




EDUARDO U. ESCUETA


Commissioner

Vice-Chairman & Executive Officer

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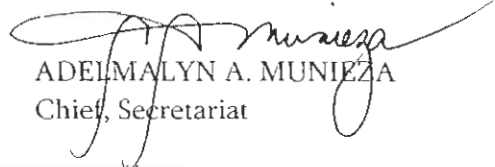

LUISITO T. PALMERA, DPA, CSEE
Commissioner


ALEJANDRO S. URRO
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CONSTANCIA P. DE GUZMAN, Ph.D., CESO III
Commissioner


RICARDO C. MARQUEZ
Ex-Officio Commissioner

Attested by:


ADELMALYN A. MUNIEZA
Chief, Secretariat