Annex 9

Calibration Fees for National Measurement Laboratories

System No.	System name	Device to be calibrated	Fees
A01	Calibration System of Laboratory Standard Microphones by Reciprocity Technique	Condenser Microphone	(1) NTD 41,100 per piece (1/3 Octave, Frequency: 10 Hz to 25 kHz) (2) NTD 22,800 per piece (1/1 Octave, Frequency: 16 Hz to 16 kHz)
A02	Calibration System of Standard Microphones by Comparison	Condenser Microphone	(1) 250 Hz: NTD 5,900 for base fee (2) 100 Hz ~ 8 kHz: NTD 6,800 for base fee and NTD 500 for each additional point (3) 1/1 Octave (31.5 Hz to 16 kHz, 10 points): NTD 10,500 (4) 1/3 Octave (20 Hz to 20 kHz, 31 points): NTD 13,300
A03	Calibration System of Sound Calibrators	(1) Sound Level Meter (2) Sound Calibrator, Pistonphone	(1) Sound level meter: 1. 250 Hz or 1 kHz: NTD 3,500 for base fee and NTD 1,500 for each additional point 2. 31.5 Hz to 1 kHz: NTD 6,000 for base fee and NTD 4,000 for additional frequency range (2 kHz to 16 kHz) (2) Sound calibrator, pistonphone: NTD 4,800 for base fee and NTD 1,500 for each additional point
A04	Microphone Free-Field Sensitivity Calibration System	Condenser Microphone	(1) Reciprocity Method (1/3 Octave, Frequency: 1 kHz to 40 kHz): NTD 29,000 for base fee (1 kHz to 20 kHz, 14 points) and NTD 1,000 for each additional point (1 kHz to 40 kHz) (2) Comparison Method (1/3 Octave, Frequency: 250 Hz to 40 kHz): NTD 14,800 for base fee (250 Hz to 20 kHz, 20 points) and NTD 500 for each additional point (250 Hz to 40 kHz)
B01	NMR Magnetic Flux Density Measurement System	Gaussmeter, Magnetometer, Reference Magnet	NTD 5,500 for base fee and NTD 300 for each additional point
B02	Magnetic Flux Measurement System	Fluxmeter, Coil	NTD 5,000 for base fee and NTD 250 for each additional point
B03	Low Magnetic Field Measurement System	Gaussmeter, Magnetometer Reference Magnet	NTD 5,500 for base fee and NTD 300 for each additional point
C03	Gas Concentration Measurement System	(1) Verification of CO, NO, SO_2, CH_4, C_3H_8, CO_2, O_2 cylinder gas concentration (2) Verification of C_2H_5OH/Air cylinder gas concentration	(1) NTD 9,100 per piece (For each gas component) (2) NTD 12,000 per piece
C07	Gas Measurement System	Gas concentration detection tube, siren, leakage detector, gas concentration analyzer	NTD 5,000 for base fee and NTD 1,000 for each additional point
C09	Gas Concentration Measurement System for Low	(1) Species Concentration in Synthetic Natural Gas	(1) NTD 22,500 per set (2) NTD 9,800 per set

System No.	System name	Device to be calibrated	Fees
	Carbon Fuels	(2) Gas Concentration in Binary Gas Mixtures (Choose one from CH_4/N_2, C_3H_8/N_2, CO_2/N_2)	
C10	Gas Concentration Dilution Device and Analysis Equipment Calibration Systems	Gas Concentration Dilution Device (CO/N_2, CO_2/N_2, CH_4/Air, NO/N_2, SO_2/N_2)	NTD 27,800 (5 points, for each gas component) and NTD 2,000 for each additional point
C11	Formaldehyde Gas Analyzer Calibration System	Formaldehyde Gas Analyzer / Detector	NTD 53,000 (3 points) and NTD 5,000 for each additional point
C14	Isotope Ratio Measurement System	Si	NTD 80,000 per piece
D01	Gauge Block Calibration System - Comparator	Gauge Blocks	NTD 1,400 per piece
D02	Gauge Block Calibration System - Interferometer	Gauge Blocks	NTD 3,600 per piece
D03	End Dimensional Measurement System	(1) Ring Gauge (2) Pin Gauge, Plug Gauge	(1) Ring Gauge: NTD 5,800 per piece (diameter ≤ 100 mm) NTD 7,400 per piece (diameter > 100 mm) (2) Pin Gauge, Plug Gauge: NTD 2,400 per piece
D05	Line Scale Calibration System	Standard Glass Scale, Standard Scale, Microscope Standards	(1) 0.01 mm ~ 200 mm: NTD 11,400 for base fee and NTD 500 for each additional point (2) 0.01 mm ~ 500 mm: NTD 13,500 for base fee and NTD 500 for each additional point (3) 0.01 mm ~ 1000 mm: NTD 15,600 for base fee and NTD 500 for each additional point
D06	Angle Block Calibration System	(1) Angle Blocks (2) Angular Encoder	(1) NTD 2,000 per piece (2) NTD 32,000 per piece
D07	Large Angle Calibration System	(1) True Squares, Polygons (2) Indexing Table (3) Polygon & Indexing Table	(1) True Squares, Polygons: NTD 1,800 per face (2) Indexing Table: NTD 19,800 per piece (12 divisions) NTD 24,600 per piece (18 divisions) NTD 28,700 per piece (24 divisions) (3) Cross calibration of Polygon and Indexing Table: NTD 92,000 and NTD 3,000 for each additional point of calibration
D08	Small Angle Calibration System	Electronic Level	NTD 7,200
D09	Squareness Calibration System	Cylindrical Squares, Triangular Squares, I-Type Squares	NTD 2,000 per piece (single right angle) NTD 5,900 per piece (four right angles) (add NTD 500 per piece for dimension over 450 mm or weight over 20 kg)

System No.	System name	Device to be calibrated	Fees
D12	Roundness Measuring System	Roundness Standards (sphere, hemisphere, cylinder)	NTD 9,300 per piece
D13	Surface Roughness Measuring System	Surface Roughness Standards	NTD 6,500 (single measuring surface) per piece NTD 11,000 (double measuring surfaces) per piece
D14	Geodetic Length Instruments Calibration System	Total Station, Electronic Distance Meter (EDM)	NTD 10,000 per set
D15	Geodetic Angle Instruments Calibration System	Optical Theodolite, Electronic Theodolite, Total Station	NTD 9,000 per set
D16	Frequency Stabilized He-Ne Laser Calibration System	(1) I_2 Stablized He-Ne Laser (2) Absolute Frequency Measurement by Optical Comb	(1) NTD 15,400 per piece (2) NTD 20,000 per piece
D17	Long Scales Calibration System	(1) Standard Tape (2) Invar Bar Code Staff	(1) Standard Tape: NTD 8,200 (ten points) for base fee and NTD 500 for each additional point (2) Invar bar code staff: NTD 8,200 (ten points) for base fee and NTD 500 for each additional point
D18	Laser Interferometer Calibration System	(1) Laser Interferometer (including environmental sensor) (2) Dial Indicator Calibrator	(1) Laser Interferometer • Displacement: NTD 15,000 for base fee • Wavelength: NTD 15,000 per piece • Temperature sensor: NTD 3,500 (three points) for base fee and NTD 1,000 for each additional point • Pressure sensor: NTD 5,000 (five points) for base fee and NTD 1,000 for each additional point • Humidity sensor: NTD 3,500 (three points) for base fee and NTD 1,000 each for additional point (2) Dial Indicator Calibrator: NTD 9,500 (fifteen points) for base price and NTD 500 for each additional point
D19	Pitch Standards Calibration System	(1) Pitch Standard (by AFM) (2) Pitch Standard (by Diffractometer) (3) Line Width Standard (by AFM)	(1) Pitch Standard: NTD 16,000 (2) Pitch Standard: NTD 8,900 (3) Line Width Standard: NTD 20,000
D20	Calibration System for Global Positioning System Satellite Receivers	GPS Satellite Receivers	(1) NTD 10,000 for static relative positioning (2) NTD 10,000 for kinematic relative positioning (3) NTD 5,000 for single absolute positioning
D21	Step-Height Calibration System	Step Height Standard	(1) Single step height: NTD 7,500 per piece (2) Double step height: NTD 15,000 per piece
D22	Thin Film Measurement System	(1) Silicon Dioxide Standard Reference	(1) NTD 13,000 (one point) (2) NTD 32,500 (one point)

System No.	System name	Device to be calibrated	Fees
		Material (2) Thin film (by X-Ray-Reflectometry)	
D23	Precision Long Gauge Block Calibration System	Long gauge block	(1) NTD 1,600 per piece (Comparison method) (2) NTD 8,900 per piece (Interference method)
D25	2D Optical Image-Based Standards Calibration System	Image Standards	(1) Nominal Size ≥ 500 μm: NTD 9,000 for base fee and NTD 800 for each additional point (2) Nominal Size < 500 μm: NTD 9,000 for base fee and NTD 1,500 for each additional point
D26	Nano Particle Size Measurement System	Standard Particles (Polystyrene, PSL) (1) Dynamic Light Scattering (DLS) (2) Electro-gravitational Aerosol Balance (EAB) (3) Differential Mobility Analysis (DMA)	(1) NTD 7,200 per piece (2) NTD 40,000 per piece (3) NTD 10,000 per piece
D27	Nano Particle Functional Property Measurement System	Standard Particles, Standard Particle Counter (1) Counting Efficiency of Standard Particle Counter (2) Zeta Potential (Polystyrene Standard Particle) (3) Specific Surface Area of Standard Particle	(1) NTD 43,200 per piece (Concentration: 1 cm^{-3} ~ 1000 cm^{-3}) NTD 36,000 per piece (Concentration: 1000 cm^{-3} ~ 10000 cm^{-3}) (2) NTD 11,000 per piece (3) NTD 12,000 per piece
D28	Scanning Electron Microscope Calibration System	Pitch Standard, Nanoparticle Size Standard	NTD 14,000 per piece
D29	Coordinate Measuring Machine Calibration System	Coordinate Measuring Machine	NTD 68,400
D30	Step Gauge Calibration System	Step Gauge, Caliper Checker	NTD 31,700 (51 points) and NTD 300 for each additional point
E01	Josephson Voltage Measurement System	Solid State Voltage Standard, Voltage Meter	NTD 17,900 (one point) for base fee and NTD 3,000 for each additional point
E03	DC Voltage, 1-10 V,	Solid State Voltage Standard, DC Voltage	NTD 10,700 (four points) for base fee and NTD 2,675 for each additional point

System No.	System name	Device to be calibrated	Fees
	Measurement System	Standard	
E04	DC Voltage Measurement System	DC Voltage Standard	NTD 6,500 (three points) for base fee and NTD 1,000 for each additional point
E05	DC High Voltage Measurement System	DC High Voltage Divider, DC High Voltage Meter, DC High Voltage Source	NTD 6,500 (five points) for base fee and NTD 1,300 for each additional point
E06	AC Voltage Measurement System	Thermal Voltage Converter, Thermal Transfer Standard	NTD 9,000 (five points) for base fee and NTD 1,800 for each additional point
E07	Potential Transformer Measurement System	(1) Potential Transformer (2) AC High Voltage Divider, AC High Voltage Meter, AC High Voltage Source	(1) Potential transformer: NTD 7,900 (four points) for base fee and NTD 1,975 for each additional point (2) AC high voltage divider, AC high voltage meter, AC high voltage source: NTD 7,000 (five points) for base fee and NTD 1,400 for each additional point
E08	DC Low Current Measurement System	(1) DC Current Shunt (2) Current Source, Current Meter	(1) DC current shunt: NTD 6,400 (two points) for base fee and NTD 3,000 for each additional point (2) Current source, current meter: NTD 3,500 for base fee and NTD 1,000 for each additional point
E09	DC Medium Current Measurement System	(1) DC Current Shunt (2) Current Source, Current Meter	(1) DC current shunt: NTD 6,400 (two points) for base fee and NTD 3,000 for each additional point (2) Current source, current meter: NTD 3,500 for base fee and NTD 1,000 for each additional point
E10	DC High Current Measurement System	(1) DC Current Shunt (2) Current Source, Current Meter	(1) DC current shunt: NTD 6,400 (two points) for base fee and NTD 3,000 for each additional point (2) Current source, current meter: NTD 3,500 for base fee and NTD 1,000 for each additional point
E11	AC Current Measurement System	AC Current Shunt, Thermal Current Converter, AC Current Source, AC Current Meter	NTD 9,000 (five points) for base fee and NTD 1,800 for each additional point
E12	Current Transformer Measurement System	Current Transformer, AC Current Shunt, AC Current Converter	NTD 8,800 (five points) for base fee and NTD 1,760 for each additional point
E13	DC Resistance Measurement System	(1) Standard Resistor (2) Multimeter/ Calibrator, Decade Resistance Box	(1) NTD 9,400 per piece (2) NTD 3,500 for base fee and NTD 1,000 for each additional point
E14	DC High Resistance Measurement System	(1) Standard (High) Resistor (2) Multimeter/ Calibrator, Teraohmmeter, High Resistance Decade Box	(1) NTD 9,400 (2) NTD 3,500 for base fee and NTD 1,000 for each additional point
E15	Standard Capacitor Measurement System	(1) Standard Capacitor (2) Precision Capacitance	(1) Standard Capacitor: NTD 6,900 for base fee and NTD 3,000 for each additional point (2) Meter: NTD 3,500 for base fee and NTD 1,000 for each additional point

System No.	System name	Device to be calibrated	Fees
		Gauge, RLC Meter	
E16	Standard Inductor Measurement System	(1) Standard Inductor (2) RLC meter	(1) Standard inductor: NTD 5,600 for base fee and NTD 1,000 for each additional point (2) Meter: NTD 3,500 for base fee and NTD 1,000 for each additional point
E18	AC Power Measurement System	(1) Single Phase AC Power Source, Single-Phase AC Power Meter, Single-Phase AC Watt Converter (2) Single-Phase AC Energy Meter, Single-Phase AC Watthour Converter (3) Three-Phase AC Energy Meter (4) Three-Phase AC Power Source, Three-Phase AC Power Meter	(1) NTD 14,500 (six points) for base fee and NTD 2,000 for each additional point (2) NTD 14,500 (six points) for base fee and NTD 2,000 for each additional point (3) NTD 14,500 (six points) for base fee and NTD 2,000 for each additional point (4) NTD 14,500 (six points) for base fee and NTD 2,000 for each additional point
E21	Phase Angle Measurement System	Phase Meter, Phase Signal Generator	NTD 9,900 (five points) for base fee and NTD 1,980 for each additional point
E23	AC Power Primary Measurement System	Single Phase Watt Converter, Single Phase Watthour Converter, Single-Phase AC Power Meter	NTD 10,000 (two points) for base fee and NTD 5,000 for each additional point
E24	Quantized Hall Resistance Measurement System	Standard Resistor	NTD 39,000 per piece
E27	Sheet Resistance System	Silicon Sheet Resistance Standard Reference Material	NTD 10,000 per piece
E29	Capacitance Traceability Measurement System	Standard Capacitor	NTD 18,000 (one point) per piece
F01	Large Water Flow Calibration System	Turbine flowmeter, positive-displacement flowmeter, time-of-flight ultrasonic flowmeter, electromagnetic flowmeter, mass flowmeter, vortex flowmeter, differential pressure flowmeter, variable area flowmeter, paddle-wheel	NTD 35,700 per set (eight points) for base fee and NTD 1,000 for each additional point

System No.	System name	Device to be calibrated	Fees
		flowmeter, impeller flowmeter	
F02	Small Water Flow Calibration System	Turbine flowmeter, positive-displacement flowmeter, time-of-flight ultrasonic flowmeter, vortex flowmeter, electromagnetic flowmeter, mass flowmeter, variable area flowmeter, paddle-wheel flowmeter, impeller flowmeter	NTD 21,200 per set (eight points) for base fee and NTD 1,000 for each additional point
F03	Low-Viscosity Oil Flow Calibration System	Positive-displacement flowmeter, mass flowmeter, turbine flowmeter	NTD 32,500 per set (eight points) for base fee and NTD 1,000 for each additional point
F04	High-Viscosity Oil Flow Calibration System	Positive-displacement flowmeter, mass flowmeter, turbine flowmeter	NTD 32,500 per set (eight points) for base fee and NTD 1,000 for each additional point
F05	High Pressure Gas Flow Calibration System	(1) Sonic Nozzle Comparison Method: turbine flowmeter, positive-displacement flowmeter, ultrasonic flowmeter, mass flowmeter, orifice plate flowmeter, differential pressure flowmeter, Venturi tube flowmeter, nozzle flowmeter, velocity-based flowmeter, laminar flowmeter, vortex flowmeter, specially designed gas flowmeter (2) Circulating Flow Comparison Method: turbine flowmeter, positive-displacement flowmeter, ultrasonic flowmeter, mass flowmeter, orifice plate flowmeter,	(1) NTD 25,000 per set for base fee and add the following additional fee for the selected flow rate: (15 ~ 400) m^3/h: NTD 1,000 (400 ~ 800) m^3/h: NTD 2,000 (800 ~ 1600) m^3/h: NTD 4,000 (1600 ~ 3200) m^3/h: NTD 8,000 (3200 ~ 6400) m^3/h: NTD 16,000 (6400 ~ 12800) m^3/h: NTD 32,000 (12800 ~ 18000) m^3/h: NTD 64,000 (2) Nominal caliber of 50 mm and 75 mm: NTD 125,000 (single pressure condition, six flow rate points) for base fee and NTD 1,000 for each additional flow rate point Nominal caliber of 100 mm, 150 mm and 200 mm: NTD 140,700 (single pressure condition, six flow rate points) for base fee and NTD 1,000 for each additional flow rate point

System No.	System name	Device to be calibrated	Fees
		differential pressure flowmeter, Venturi tube flowmeter, velocity-based flowmeter, laminar flowmeter, vortex flowmeter, specially designed gas flowmeter	
F06	Low Pressure Gas Flow Calibration System-Piston Prover	(1) Piston Prover: sonic nozzle, thermal mass flowmeter, differential pressure flowmeter, laminar flowmeter, piston-based flowmeter, variable area flowmeter (2) Master Meter Method: thermal mass flowmeter, differential pressure flowmeter, sonic nozzle, laminar flowmeter, bubble flowmeter, variable area flowmeter, piston-based flowmeter, positive-displacement flowmeter	(1) Piston Prover: NTD 7,500 per set for base fee and add the following additional fee for each additional point at the selected flow rate q 0.05 L/min ≤ q ≤ 40 L/min: NTD 1,000 0.01 L/min ≤ q < 0.05 L/min: NTD 2,000 0.002 L/min ≤ q < 0.01 L/min: NTD 4,000 (2) Master Meter Method: NTD 8,000 per set for base fee and add the following additional fee for each additional point at the selected flow rate q 1 L/min ≤ q ≤ 40 L/min: NTD 1,500 0.2 L/min ≤ q < 1 L/min: NTD 2,000 0.05 L/min ≤ q < 0.2 L/min: NTD 4,000 0.01 L/min ≤ q < 0.05 L/min: NTD 6,000 0.002 L/min ≤ q < 0.01 L/min: NTD 10,000
F07 F08	Low Pressure Gas Flow Calibration System-Small and Large Bell Provers	Sonic nozzle, thermal mass flowmeter, differential pressure flowmeter, laminar flowmeter, piston-based flowmeter, variable area flowmeter, turbine flowmeter, positive-displacement flowmeter	NTD 10,000 (five points) for base fee and NTD 1,000 for each additional point
F10	Air Speed Calibration System	Anemometry	NTD 9,600 (eight points) for base fee and NTD 1,000 for each additional point
F11	Micro Flow Calibration System	Micro liquid flowmeter, liquid metering pump	NTD 13,000 for base fee and NTD 1,000 for each additional point

System No.	System name	Device to be calibrated	Fees
F12	Low Pressure Gas Flow Calibration System-PVTt	(1) PVTt Method: sonic nozzle, laminar flowmeter, differential-pressure flowmeter (2) Master Meter Method: sonic nozzle, thermal mass flowmeter, laminar flowmeter, differential-pressure flowmeter, variable-area flowmeter, positive-displacement flowmeter	(1) PVTt Method: NTD 19,900 per set for base fee and add the following additional fee for each additional point at the selected flow rate q 100 cm^3/min ≤ q ≤ 300 L/min: NTD 2,000 50 cm^3/min ≤ q < 100 cm^3/min; NTD 3,500 10 cm^3/min ≤ q < 50 cm^3/min: NTD 5,500 An additional fee of NTD 16,800 shall be added, if the gas used is other than air. (2) Master Meter Method: NTD 9,300 per set for base fee and add the following additional fee for each additional point at the selected flow rate q 100 cm^3/min ≤ q ≤ 300 L/min: NTD 1,000 50 cm^3/min ≤ q < 100 cm^3/min; NTD 1,500 10 cm^3/min ≤ q < 50 cm^3/min: NTD 2,000 An additional fee of NTD 10,800 shall be added, if the gas used is other than air.
H01	Two Pressure Humidity Generator Measurement System	(1) Thermo-hygrometer (2) Dew Point Meter	(1) Thermo-hygrometer: NTD 7,500 (including three standard points, relative humidity of (30%, 50%, 80%) @ 20 °C) for base fee and NTD 2,400 for each additional non-standard point at a combination of one temperature and one relative humidity (2) Dew Point Meter: NTD 7,500 (one point) for base fee and NTD 2,400 for each additional point
L01	Vacuum Gauge Comparative Calibration System	(1) Capacitance Diaphragm Gauge (2) Low and Medium Vacuum Gauge	(1) Capacitance Diaphragm Gauge: NTD 15,000 (nine points) for base fee and NTD 2,000 for each additional point (2) Low and Medium Vacuum Gauge: NTD 10,800 (nine points) for base fee and NTD 1,000 for each additional point
L02	Dynamic Expansion Method Vacuum Gauge Calibration System	Ionization Gauge, Spinning Rotor Viscosity Gauge	NTD 15,000 (nine points) for base fee and NTD 2,000 for each additional point
M01	Small Mass Weighing System	Standard Weight	NTD 4,200 per piece
M03	Large Mass Weighing System	Standard Weight	(1) NTD 8,500 per piece (2 kg, 5 kg, 10 kg, or 20 kg) (2) NTD 11,600 per piece (1000 kg)
N01 N02	Deadweight Measurement system (I, II)	(1) Proving Ring (2) Force Transducer, Load Cell (3) Ring Dynamometer, Force Gauge (5 kgf ~ 5000 kgf) (4) Force Transducer (Dynamic Force)	(1) Proving ring: NTD 9,500 per piece (three cycles of ten points) (2) Force Transducer, load cell: NTD 8,100 per piece (three cycles of ten points) (3) Ring dynamometer, force gauge: NTD 6,100 per set (three cycles of ten points) (4) NTD 40,900 (nine points) for base fee and NTD 1,000 for each additional point
N03	Force Comparison Calibration System (I)	Force Transducer, Load Cell, Ring Dynamometer, Force Gauge (10000 kgf ~	NTD 21,600 (three cycles of ten points)

System No.	System name	Device to be calibrated	Fees
		200000 kgf)	
N04 N05	Force Comparison Calibration System (II, III)	(1) Proving Ring (2) Force Transducer, Load Cell (3) Ring Dynamometer, Force Gauge (500 kgf ~ 50000 kgf)	(1) Proving ring: NTD 9,500 per piece (three cycles of ten points) (2) Force Transducer, load cell: NTD 8,100 per piece (three cycles of ten points) (3) Ring dynamometer, force gauge: NTD 6,100 per set (three cycles of ten points)
N06	Rockwell and Superficial Rockwell Hardness Standard System	Rockwell Hardness Standard Block	NTD 1,500 per block
N07	Vickers Hardness Standard System	Vickers Hardness Standard Block	NTD 2,500 per block
N08	Micro Vickers Hardness Standard System	Micro Vickers Hardness Standard Block	NTD 2,500 per block
N09	500 N Dead Weight Machine System	Force Transducer, Load Cell, Ring Dynamometer, Force Gauge (1 N ~ 500 N)	NTD 7,800 (thirty points) per piece
N10	Nanoindentation Measurement System	Bulk Material, Thin Film Specimen	NTD 3,800 (five points) for base fee and NTD 700 for each additional point
N11	Force Comparison Calibration System (IV)	(1) Wire Material (Young's Modulus Measurement) (2) Force Transducer	(1) NTD 4,100 per piece (2) NTD 4,100 (three points) for base fee and NTD 1,000 for each additional point
N12	Torque Calibration System	Torque Transducer	(1) < 2000 N·m: NTD 15,500 (ten points) (2) (2000 to 5000) N·m: NTD 25,000 (ten points)
O02	Total Luminous Flux System	(1) Total Luminous Flux Standard Lamp (2) Gloss Standard Plate, Gloss Meter (3) Averaged LED Intensity Standard LED (4) Total Luminous Flux Standard LED (5) Chromaticity Standard LED	(1) Total Luminous Flux Standard Lamp: NTD 7,000 (2) Gloss Standard Plate and Gloss Meter: NTD 4,500 for base fee and NTD 1,000 for each additional kind of geometric angle (3) Averaged LED Intensity Standard LED: NTD 6,000 (4) Total Luminous Flux Standard LED: NTD 6,500 (5) Chromaticity Standard LED: NTD 6,500
O03	Spectro radiometric System	(1) Spectral Irradiance Standard Lamp (2) Si Detector (3) V(λ) Detector (4) Luminance Meter (5) Luminance Colorimeter	(1) Spectral Irradiance Standard Lamp: NTD 9,500 (ten points) for base fee and NTD 100 for each additional point (2) Si Detector: NTD 7,900 (300 nm ~ 1100 nm) for base fee and NTD 1,000 for addition range of (200 nm ~ 290 nm) (3) V(λ) Detector: NTD 7,000 (380 nm ~ 780 nm) (4) Luminance Meter: NTD 6,500 (three points) for base fee and NTD 900 for each additional point (5) Luminance Colorimeter: NTD 7,400 for base fee (including

System No.	System name	Device to be calibrated	Fees
		(6) Spectroradiometer (7) Spectral Radiance Standard Lamp (8) Ge Detector	one point of luminance and chromaticity (x, y) value) and NTD 1,300 for each additional luminance point (6) Spectroradiometer: NTD 10,800 (including one spectral radiance and one luminance) for base fee and NTD 5,000 for each additional point of spectral radiance and NTD 2,000 for each additional point of luminance (7) Spectral Radiance Standard Lamp: NTD 8,000 (including one spectral radiance and one luminance) for base fee and NTD 5,000 for each additional point of spectral radiance and NTD 2,000 for each additional point of luminance (8) Ge Detector: NTD 8,000 (900 nm ~ 1600 nm)
O05	Spectro photometric System	(1) Standard Color Plate, Filter (2) Reflectance Standard	(1) Standard Color Plate, Filter: NTD 8,000 per piece (2) Reflectance Standard: NTD 8,000 (380 nm ~ 780 nm) for base fee and NTD 100 for addition wavelength point
O06	Absolute Radiometer System	(1) Luminous Intensity Standard Lamp (2) Illuminance Meter (3) Chroma Meter (4) Optical Detector (5) Laser Light Source	(1) Luminous Intensity Standard Lamp: NTD 12,000 (2) Illuminance Meter: NTD 4,500 (three points) for base fee and NTD 1,000 for each additional point (3) Chroma Meter: NTD 5,300 for base fee (including one point of illuminance and chromaticity (x, y) value) and NTD 1,000 for each additional point (4) Optical Detector: NTD 6,500 (5) Laser Light Source: NTD 6,500
O07	Absolute Cryogenic Radiometer Measurement System	(1) Si Photodiode, Ge Photodiode (2) Trap Detector (3) V(λ) Detector (Detector-based Scale Realization) (4) V(λ) Detector (Substitution Method) (5) Luminous Intensity Standard Lamp	(1) NTD 60,800 per set (2) NTD 178,800 (forty points) for base fee and NTD 2,000 for each additional point (3) NTD 99,300 per piece (4) NTD 14,400 per piece (5) NTD 14,400 per piece
O08	Haze Measurement System	Transmittance Haze Standard Plate	NTD 6,000 per piece
O09	Spectral Scattering Measurement System	White Standard Plate (Bidirectional Reflectance Distribution Function Measurement)	NTD 7,700 for one angle and one wavelength range per piece and NTD 2,000 for each angle additional wavelength range
O10	Total Spectral Radiant Flux Calibration System	Total Spectral Radiant Flux Standard Lamp	NTD 20,000 (total spectral radiant flux) for base fee and NTD 1,000 for each additional item, such as total radiant flux, chromaticity coordinates or correlated color temperature
P01	Mercury Manometer Pressure Measurement System	(1) Mercury Barometer (2) Mercury Manometer (3) Digital Pressure Gauge	(1) Mercury Barometer: NTD 13,000 (five points) for base fee and NTD 2,000 for each additional point (2) Mercury Manometer: NTD 3,100 (five points) for base fee and NTD 600 for each additional point (3) Digital Pressure Gauge: NTD 15,000 (five points) for base fee and NTD 2,000 for each additional point
P03	Hydraulic Pressure Measurement	(1) Oil piston Pressure Gauge (2) Oil Pressure	(1) Oil Piston Pressure Gauge: NTD 23,700 per point (2) Oil Pressure Gauge: NTD 10,000 (five points) for base fee and NTD 1,500 for each additional point

System No.	System name	Device to be calibrated	Fees
	System	Gauge (3) Digital Pressure Gauge	(3) Digital Pressure Gauge: NTD 14,000 (five points) for base fee and NTD 2,000 for each additional point
P04	Pneumatic Pressure Measurement System	(1) Gas Piston Pressure Gauge (2) Gas Pressure Gauge (3) Digital Pressure Gauge	(1) Gas Piston Pressure Gauge: NTD 25,000 per point (2) Gas Pressure Gauge: NTD 5,800 (five points) for base fee and NTD 600 for each additional point (3) Digital Pressure Gauge: NTD 15,000 (five points) and NTD 2,000 for each additional point
P06	Laser Interferometer Mercury Manometer for Low Pressure Standard	(1) Piston Pressure Gauge (2) Vacuum Gauge, Differential Pressure Gauge, Digital Pressure Gauge	(1) Piston Pressure Gauge: NTD 39,000 (2) Vacuum Gauge, Differential Pressure Gauge, Digital Pressure Gauge: NTD 15,000 (five points) for base fee and NTD 2,000 for each additional point
T01	Radiation Thermometer Measurement System	(1) Radiation Thermometer (Comparative Calibration) (2) Room/Low Infrared Radiation Thermometer (Comparative Calibration) (3) Radiation Thermometer, Linear Pyrometer (Fixed-point Calibration)	(1) 300 °C ~ 3000 °C: NTD 13,200 per piece (five points at 300 °C ~ 1500 °C) for base fee, NTD 1,500 for each additional point at 300 °C ~ 1500 °C, NTD 2,500 for each additional point at 1501 °C ~ 2000 °C and NTD 15,000 for each additional point at 2001 °C ~ 3000 °C (2) -40 °C ~ 300 °C: NTD 13,400 per piece (five points at 10 °C ~ 300 °C) for base fee, NTD 1,500 for each additional point at 10 °C ~ 300 °C and NTD 2,500 for each additional point at -40 °C ~ 9 °C (3-1) 156.5975 °C ~ 1084.62 °C: NTD 78,100 per piece (four points, including the fixed-point of Sn (231.928 °C), the fixed-point of Zn (419.527 °C), the fixed-point of Al (660.323 °C) and the fixed-point of Ag (961.78 °C)) for base fee, NTD 20,600 for an additional point at the fixed-point of In (156.5975 °C) and NTD 20,600 for an additional point at the fixed-point of Cu (1084.62 °C) (3-2) 1084.62 °C ~ 2474 °C: NTD 93,800 per piece (four points, including the fixed-point of Cu (1084.62 °C), the eutectic fixed-point of Co-C (1324 °C), the eutectic fixed-point of Pt-C (1738 °C) and the eutectic fixed-point of Re-C (2474 °C)) for base fee
T03	Thermocouple Thermometer Measurement System	Type B, R, S or Pt/Pd Thermocouple (Fixed-point Calibration)	NTD 30,000 per piece (three points at 0 °C ~ 962 °C) for base fee, NTD 6,000 for each additional point at 0 °C ~ 962 °C, NTD 20,600 for an additional point at 1324 °C and NTD 33,000 for an additional point at 1492 °C
T04	Resistance Thermometer Measurement System	Resistance Temperature Sensor, Digital Thermometer, Thermistor	NTD 4,000 (two points) for base fee and NTD 1,500 for each additional point NTD 10,000 per piece for emulation fixed-point calibration or linear regression calibration
T05	Fixed Point Measurement System for Platinum Resistance Thermometer	(1) Standard Platinum Resistance Thermometer (2) Long-stem Standard Platinum Resistance Thermometer, Capsule Standard Platinum Resistance Thermometer	(1) NTD 30,000 per piece (0 °C ~ 661 °C) NTD 32,000 per piece (0 °C ~ 962 °C) NTD 33,000 per piece (-190 °C ~ 157 °C) NTD 33,000 per piece (-190 °C ~ 420 °C) NTD 27,200 per piece (-190 °C ~ 0 °C, 0 °C ~ 30 °C) NTD 27,200 per piece (0 °C ~ 157 °C, 0 °C ~ 231 °C) NTD 27,200 per piece (0 °C ~ 420 °C) (2) NTD 149,400 per piece (three points, including 234.3156 K, 273.16 K and 302.9146 K) for base fee

System No.	System name	Device to be calibrated	Fees
U01	Microwave Power Measurement System	(1) Microwave Power Sensor (calibration factor measurement) (2) Microwave Power Meter	(1) Microwave Power Sensor: NTD 6,800 for base fee (nine frequency points selected at random) and NTD 250 for each additional point (2) Microwave Power Meter: NTD 5,100
U02	Microwave S-parameter Measurement System	Air Line, Open Circuit, Short Circuit, Sliding Short Circuit, Load, Sliding Load, Mismatch, Coaxial Line, Attenuator (scattering parameter measurement)	NTD 4,400 for base fee (one point selected at random for single parameter) and NTD 200 for each additional point
U06	Electromagnetic Field Strength Measurement System	Electromagnetic Intensity Meter, Microwave Leakage Tester	NTD 7,100 for base fee (including one intensity value of one frequency point) and additional fees specified below: (1) NTD 1,400 for each additional frequency point (including one field intensity value) (2) NTD 500 for each additional field intensity value (at the same frequency point)
V01	Calibration System of Vibration by Laser Interferometry	(1) Standard Accelerometer (2) Charge Amplifier	(1) Standard Accelerometer: NTD 26,500 for base fee and NTD 2,000 for each additional point (2) Charge Amplifier: NTD 10,600
V02	Calibration System of Vibration by Comparison	(1) Piezo-Resistance or Piezo-Electric Accelerometer (2) Vibration Meter	(1) Piezo-Resistance or Piezo-Electric Accelerometer: NTD 8,900 (five points) for base fee and NTD 1,000 for each additional point (2) Vibration Meter: NTD 11,300 (five points) for base fee and NTD 1,200 for each additional point
V03	Calibration System of Shock by Comparison	Piezo-Resistance or Piezo-Electric Accelerometer	NTD 10,300 (two points) for base fee and NTD 2,000 for each additional point
V04	Calibration System of Low Frequency Vibration	(1) Low Frequency Vibration Meter (2) Low Frequency Accelerometer (3) Low Frequency Standard Accelerometer	(1) Low Frequency Vibration Meter: NTD 11,400 (five points) for base fee and NTD 1,200 for each additional point (2) Low Frequency Accelerometer: NTD 9,700 (five points) for base fee and NTD 1,000 for each additional point (3) Low Frequency Standard Accelerometer: NTD 21,900 (three points) for base fee and NTD 1,500 for each additional point
V06	Primary Shock Vibration Calibration System	Shock Accelerometer	NTD 16,000 (three points) for base fee and NTD 2,000 for each additional point
kk1001 kk1002	Gamma ray air Kerma calibration system	Standard ionization chamber (attached with expanded jacket)	NTD 9,600 (energy range Cs-137、Am-241、Co-60) for base fee and NTD 2,000 for each additional energy point
k1003 kk1004	X-ray air Kerma calibration system	(1) Standard ionization chamber (2) CT Ion Chamber (3) DAP measuring devices	(1) NTD 9,600 (energy range 20kV~300kV) for base fee and NTD 2,000 for each additional energy point (2) NTD 9,600 per piece (3) NTD 9,600 per piece
kk1005	Co-60 absorbed dose to water calibration	(1) Standard ionization chamber	(1) NTD 9,600 per set (energy range Co-60) for base fee and NTD 2,000 for each additional energy point (2) NTD 30,000 per set

System No.	System name	Device to be calibrated	Fees
	system	(waterproof or attached with waterproof jacket) (2) Radiation irradiation facility (3) Blood irradiator	(3) NTD 15,000 per set
kk1006	Beta absorbed dose to tissue calibration system	Sr-90/Y-90 radiation source or extrapolation ionization chamber	NTD 60,000 per chamber
kk1007	Neutron dose measuring system	Medical linear accelerator	(1) neutron dose measurement in radiation beam: NTD 27,000 per set (2) leakage dose measurement: NTD14,000 per set
kk1008	Neutron ambient dose equivalent calibration system	Neutron survey meter	NTD 9,600 (energy range Cf-252 or Am-241/Be-9) for base fee and NTD 2,000 for each additional energy point
kk1001 kk1002 kk1003 kk1004 kk1006 kk1008	Personnel dosimeter calibration system	Personnel dosimeter	NTD 2,400 per energy point (X-ray within an energy range of 20 kV~300 kV, Sr-90/Y-90, Cf-252, Am-241/Be-9, Cs-137, Co-60)
kk1009	Dose calibrator calibration system	(1) Well-type ionization chamber (radio nuclide calibrator) (2) Well-type ionization chamber (Ir-192)	(1) NTD 14,000 per set for base fee and NTD 8,000 for each additional nuclide (2) NTD 14,000 per set for base fee and NTD 8,000 for each additional nuclide
kk1010	Liquid gamma radiation source activity calibration system	Single nuclide liquid radiation source	NTD 9,600 per unit
kk1011	Radiation source particle emission rate calibration system	Electroplate large-area α or β emitted source	NTD 12,000 per unit
kk1001 kk1002 kk1003 kk1004 kk1006 kk1008	Personnel dosimeter Proficiency Testing	(1) IA.01, accident, low-energy photons (2) IA.02, accident, high-energy photons (3) IA.03, protection, low-energy photons (4) IA.04, protection, high-energy photons (5) IA.05, protection, Bata particals (6) IA.06, protection, photons mixtures	(1) 28,800 per unit (2) 28,800 per unit (3) 28,800 per unit (4) 28,800 per unit (5) 28,800 per unit (6) 28,800 per unit (7) 28,800 per unit (8) 28,800 per unit (9) 34,000 per unit

System No.	System name	Device to be calibrated	Fees
		(7) IA.07, protection, photons plus Bata particals (8) IA.08, protection, photons plus neutrons (9) IA.09, protection, varied angles of incidence photons	
kk1002 kk1011	survey meter Proficiency Testing	(1) Gamma radiation dosemeter and Doseratemeter (2) Bata radiation counter (3) Alpha radiation counter	(1) 36,000 per unit (2) 36,000 per unit (3) 36,000 per unit
kk1004	kVp measuring devices calibration system for mammography	kVp measuring devices	NTD 9,600 per piece
KJ01-1	Time interval measuring system	(1) Cs or H-maser time standard (2) Rb time standard or GPS receiver (time) (3) Oven controlled crystal oscillator (OCXO) (4) quartz oscillator	(1) NTD 16,000 per set (2) NTD 16,000 per set (3) NTD 8,500 per set (4) NTD 4,500 per set
KJ02-2	Frequency measuring system	(1) Oven controlled crystal oscillator (OCXO) (2) Quartz oscillator	(1) NTD 8,500 per set (2) NTD 4,500 per set
KJ02-6		(3) Microwave frequency signal generator(with atomic clock external reference) (4) Microwave frequency signal generator(with OCXO internal oscillator)	(3) NTD 25,000 for base fee (≤5 calibration points) and NTD 5,000 for each additional point. (4) N TD 25,000 for base fee (≤5 calibration points) and NTD 5,000 for each additional point.
KJ02-3	Phase comparison system	(1) Rb frequency standard or GPS receiver (frequency) (2) Cs or H-maser frequency standard	(1) NTD 16,000 per set (2) NTD 16,000 per set
KJ02-4	Frequency and phase measuring system	High performance frequency standard	NTD 16,000 per set

System No.	System name	Device to be calibrated	Fees
KJ02-5	Remote frequency calibration system	Cs or H-maser time standard & OCXO	NTD 20,000 per set (with extra NTD 5,000 for one more measurement)
KJ02-7	Portable Cesium clock time scale calibration system	(1) Cs or H-maser time standard (2) Rb time standard or GPS receiver (time) (3) Oven controlled crystal oscillator (OCXO)	NTD 30,000 per set