

# List of calibration services provided by NMC

## LENGTH AND DIMENSIONAL

### Laser Wavelengths

Laser head  
Wavelength meter

### Length Measurements

Bore gauge  
Depth gauge  
Calliper checker  
Dial gauge calibrator  
Dial gauge  
Dial test indicator  
Feeler gauge  
Fineness of grind gauge  
Gauge block  
Glass scale  
Height gauge  
Height setting micrometer  
Indicator inspector  
Linear transducer & stage  
Micrometer  
Optical parallel  
Optical flat  
Pin gauge  
Plastic thickness  
Plug gauge  
Profile projector  
Screw pitch gauge  
Stage micrometer  
Steel rule  
Test sieve  
Thickness gauge  
Thread gauge  
Thread measuring cylinder  
Toolmaker microscope  
Vernier/dial/digital caliper

### Angle Measurements

Angle gauge  
Autocollimator  
Bevel protractor  
Clinometer  
Indexing table  
Polygon  
Rotary table  
Sine bar/spirit level

### Geometrical Measurements

1D/2D coordinate measurement by non-contact probing  
3D coordinate measurement  
CMM performance verification  
Diameter  
Roundness  
Straightness  
Squareness  
Surface flatness  
Surface profile  
Surface roughness

### Nanoscale Measurements

Lateral Standards (1D&2D pitch gratings)  
Nano-stage movement  
Nano-scale surface roughness  
Step Height

## TEMPERATURE AND HUMIDITY

### Temperature

Radiation thermometer  
Variable temperature blackbody furnace  
Thermocouple (fixed point method)  
Thermocouple (comparison method)  
Industrial platinum resistance thermometer  
Liquid in glass thermometer  
Fixed points (for contact thermometry)  
Fixed points (for radiation thermometry)

## OPTICAL RADIATION

### Photometry

Illuminance (lux) meter  
Luminance meter  
Luminous flux of lamps  
Luminous intensity of lamps  
colour temperature of lamps  
Emitted colour of lamps  
Colorimeter  
Colour rendering index of lamps  
CIE Averaged LED intensity,  
LED flux  
Gloss meter

### Radiometry

Spectral irradiance of lamps  
Laser power meter (power)  
Laser source (wavelength and power)  
UV radiometer (irradiance and radiant exposure)  
Photodiode (spectral responsivity)  
UV appliance (total effective irradiance)

### Spectrophotometry

Spectral regular transmittance  
Spectral regular reflectance  
Spectral diffuse reflectance  
Peak wavelength of optical filter  
Surface colour of material  
Spectral optical density of material  
Refractive index of material (prism)

### Fibre optics

Fibre optic power meter (power)  
Wavelength meter (wavelength)  
Fibre optic light sources (wavelength and power)  
Optical spectrum analyser (wavelength and power)  
Optical time domain reflectometer (distance, attenuation and return loss)

## ACOUSTICS AND VIBRATION

### Acoustic

Microphone  
Sound calibrator  
Sound level meter  
Acoustics piston-phone  
Audiometer  
Noise measurement

### Vibration

Accelerometer  
Charge amplifier  
Power supply coupler  
Vibration calibration exciter  
Vibration meter  
Vibration measurement

## MASS AND FORCE

### Mass

Balances (Electronic)  
Mass standards  
Dead Weights  
Volume/Density of mass standards  
Magnetic susceptibility of mass standards

### Torque

Torque driver

## ELECTRICAL

AC voltage reference meter  
AC-DC current transfer device  
AC-DC voltage transfer device  
Capacitance meter  
Capacitance standard  
Clamp meter  
Current shunt  
Earth/ Continuity tester  
Electrometer  
Electronic load  
Electrostatic analyser  
Electrostatic voltage meter  
Energy calibrator  
Energy meter  
High voltage divider  
High voltage generator  
High voltage meter  
High voltage probe  
Highpot tester  
Impedance tester  
Impulse tester  
Inductance meter  
Inductance standard  
Insulation tester  
Low current meter  
Low current source  
Low magnetic field coil  
Megger tester  
Multifunction calibrator  
Multimeter  
Oil dielectric tester  
Potentiometer  
Power analyser  
Power calibrator  
Power converter  
Power meter  
Resistance bridge  
Resistance standard  
Resistivity meter  
Transconductance amplifier  
Voltage divider  
Watt converter  
Watt-hour meter  
Wattmeter  
Zener voltage standard

## RF AND MICROWAVE

AC measurement standard (broad band option)  
AC-DC (RF-DC) transfer standard  
Air line  
Amplifier  
Attenuator  
Attenuator calibrator  
Audio analyzer  
Calibration kit  
Current probe  
Curve tracer  
Digital stroboscope  
Directional coupler  
Distortion analyser  
Filter  
Frequency calibrator  
Function generator  
Leveled sine wave generator  
Micropotentiometer  
Microwave power meter  
Microwave power sensor  
Microwave power splitter  
Modulation analyzer  
Measuring receiver  
Oscilloscope  
Oscilloscope calibrator  
Pulse generator  
RF voltmeter  
RF voltmeter calibrator  
RMS voltmeter  
Scalar network analyser

Standard platinum resistance thermometer  
Surface probes  
Dry block calibrator  
Multi-Function calibrator (temperature)

#### Humidity

Dew point meter  
Digital RH meter  
Thermohygrograph  
Psychrometer

#### **GAS**

Gas detectors/analyzers

Torque gauge  
Torque tester  
Torque wrench

#### Hardness

Rockwell hardness test blocks

#### Force

Durometer  
Dynamometer  
Force gauge  
Force transducers  
Gram gauge  
Hydraulic jack  
Load cell  
Load column  
Proving ring  
Push pull gauge  
Spring tester  
Tension gauge  
Compression testing machines  
Concrete Compression testing machines  
Tensile testing machines  
Universal testing machines

#### **PRESSURE AND FLOW**

Anemometer( Air velocity meter)  
Deadweight pressure tester  
Gas flow meter  
Leak rate meter  
Manometer  
Pressure indicator  
Pressure transducer  
Vacuum gauge  
Vacuum transducer

Signal analyser  
Signal generator  
Spectrum analyser  
SWR bridge  
Termination/Load  
Thermal voltage converter  
Thermister/Bolometric mount  
Thermistor mount  
Time mark generator  
Vector network analyzer  
Verification kit

#### **TIME AND FREQUENCY**

##### Time & Frequency Standards:

Caesium standards  
Rubidium standards  
Quartz oscillators  
GPS standards

##### Time & Frequency Measurement Devices:

Frequency/Universal counter  
Timer interval counter  
Stop watch  
Timer