

Calibration/ service offered	Range Covered
Calibration of Signal Analyzers (Modulation & spectrum analyzers, Communication test sets/monitors, site masters)	0.5 Hz – 26.5 GHz
Calibration of Radio Navigation and communication equipment for aviation and marine transport sector (Transponder and DME Test Set – 3300, ATC 600, IFR 1200Y3, 2200, RD 300/301, 401/402 etc)	0.5 Hz – 26.5 GHz and related measurements
Calibration of Radio Frequency Attenuators, Loads, Splitters, Detectors	-120 dBm to +26dBm
Calibration of Radio Frequency Power Meters/sensors, Millivoltmeters, Wattmeters	-120 dBm to +26dBm
Calibration of Speed Guns(	Radar and Laser based
Training in basic and advanced time and frequency metrology and 17025 based QMS	N/A

Contact

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We offer traceability nationwide and regionally to the SI through calibrations to our reference standards, the Cesium atomic clocks.

TIME AND FREQUENCY LABORATORY

Introduction

The KEBS Time and Frequency Laboratory is the national custodian for the SI unit for time – the Second and the derived unit for frequency the Hertz. The laboratory offers traceability nationwide and regionally to the SI through calibrations to its reference standards, the Cesium atomic clocks.

The laboratory also contributes to the Coordinated Universal Time (UTC) that is managed by the International Bureau of Weights and Measures (BIPM), the custodian of SI. The laboratory operates under ISO/IEC 17025 – General requirements for testing and calibration laboratories quality system and uses both in house developed calibration methods and standard calibration methods (Manufacturers, ISO/IEC, OIML, RMOS, BIPM, customer supplied methods etc) on the various equipment.

A pool of qualified scientists undertakes the calibrations, and also offer beginner and advanced training courses in time and frequency measurements and calibration.

KEBS Calibration Services Offered

Calibration/ service offered	Range Covered
Time and frequency (timing) system operation and maintenance training	N/A
Calibration of Reference Atomic and Quartz Standards/Clocks	1PPS, and 1, 5, 10 MHz
Calibration of GPS Master Clocks / Timing Receivers	GNSS timing and frequency
Calibration of Oscilloscope Calibration Systems	DC – 600 MHz
Calibration of Stopwatches and Timers	≥ms
Calibration of Function and Signal Generators with or without modulation (AM, FM, ϕ M)	0.5 Hz – 26.5 GHz
Calibration of Oscilloscopes	DC – 600 MHz
Calibration of Frequency Counters and Timers	0.5 Hz – 1 GHz
Calibration of Circuit Breaker Time Analyzers	≥ns
Calibration of Eddy Current Flaw Detectors	0.5 Hz – 26.5 GHz

