

STORM Lab

The *Sensors, Transducers, Optics, RF and MEMS (STORM) lab* in the Electrical and Computer Engineering Department provides access to a suite of electronic, optical and photonic characterization equipment. The available hardware is listed below. Not listed is the extensive number of required cabling, adapters, probes and calibration (mechanical and ECal) hardware, as well as software to assist in running the equipment.

Major Equipment

1. Keysight M8196A 44GHz Arbitrary Waveform Generator
2. Keysight E8267D 44GHz RF Vector Signal Generator
3. Keysight N5183B 40GHz Microwave Analog Signal Generator
4. Keysight N9020B 44GHz Microwave Signal Analyzer
5. Keysight Fieldfox N9951A 44GHz Microwave Network Analyzer
6. Rohde and Schwarz ZNA 43.5GHz Microwave Network Analyzer
7. Rohde and Schwarz FSW 26.5GHz Signal and Spectrum Analyzer
8. Tektronix AWG70002B 10GHz Arbitrary Waveform Generator
9. Tektronix MSO64 4CH Oscilloscope
10. Yokogawa AQ6370D-10 Optical Spectrum Analyzer with wavelength reference source
11. Tektronix MDO3104 4CH Oscilloscope with 4GHz Spectrum Analyzer and Arbitrary Function Generator Options
12. Tektronix MDO4054 4CH Oscilloscope with 6GHz Spectrum Analyzer and 24 Channel Logic Analyzer Options
13. Tektronix AFG3252C Arbitrary Function/Signal Generator (240MHz)
14. Tektronix FCA3103 Frequency Counter (3GHz)
15. Tektronix TSG 4102A RF Signal Generator (DC-2GHz)
16. Tektronix RSA306B 6.2GHz Spectrum Analyzer
17. Keithley DMM7510 7.5 Digit Multimeter
18. Keithley 2000 Multimeter
19. Keithley 2260B-800-1 Programmable High Voltage DC supplies
20. LPKF Protomat S62 Circuit Board Plotter
21. LPKF Protomat S103 Circuit Board Plotter
22. Coherent Solutions IQTLS C-band Tunable Laser
23. Thorlabs LDC205C Laser Diode Driver
24. Thorlabs TED200C TEC Controller and Mount
25. Thorlabs Nexus 6' x 4' Optical Table with Vibration Isolation
26. Newport 8' by 4' Optical Table with Vibration Isolation
27. Weller WXR3 Surface Mount Solder Rework Station
28. Makerbot 5th Generation 3D Printer
29. Makerbot 2X Experimental 3D Printer
30. Makerbot Method 3D Printer
31. FormLabs Form 3 SLA 3D Printer
32. Nikon SMZ8000N Stereoscope
33. VWR UV-6300PC Spectrophotometer
34. Laurel WS-650MZ Spinner

35. VWR Hotplates, Oven and Balance
36. Pike High Sensitivity CCD FireWire™ Camera
37. Miscellaneous free space and fiber optomechanical hardware
38. Numerous laboratory grade DC power supplies and handheld multimeters

Computing, EDA/TCAD Tools, Design Kits

1. Cadence IC and PCB Design Suites, along with design kits (PDKs) for multiple commercial foundry technologies
2. Synopsys Design Suite
3. Agilent ADS / ICCAP
4. ANSYS / Ansoft Design Suites (including HFSS, SIWave, Designer, etc.)
5. COMSOL Multiphysics
6. Altium Designer
7. Zemax Optics Studio
8. AGI STK