



Automated test solutions for the entire product lifecycle



midUTS

## Functional test, diversified.

Combining bench-top portability with powerful automated test functionality, the midUTS is an extremely versatile yet cost-effective solution for your electronics functional test needs. Comprised of high-performance commercial, off-the-shelf (COTS) instruments, Bloomy's medium-density signal-routing PCBAs, a built-in or USB-connected PC, and a pair of high-integrity production-grade cables connected to an adjacent benchtop fixture, the midUTS can be used in engineering for PCBA bring up, scaled to manufacturing to perform high-volume PCBA and sub-assembly functional testing, as well as depot diagnostic test, debug and repair of field returns. The two mass-interconnected cables connect the midUTS to as many as 320 test points on the under test (UUT), supporting an extreme wide variety of products using bed-of-nails as well as cable-connected UUT test fixtures. Most importantly, the midUTS helps you automate sequences of functional tests using NI TestStand and the Bloomy EFT Module for TestStand.

Does your test program require a different set of instrumentation or interconnect?

Inquire about Bloomy's compactUTS, UTS, extendedUTS, as well as custom turnkey test systems.

## FEATURES

- Up to 320 test points
- Portable 6U enclosure
- Precision NI DMM, multifunction DAQ
- LXI chassis, switch matrix controllers
- Bloomy signal routing PCBAs
- Two VPC i1 mass interconnects
- Built-in or USB-connected PC
- NI TestStand and Bloomy EFT test development software

## APPLICATIONS



- Robotics and autonomous systems test
- Printed circuit board assembly (PCBA) and subassembly functional test
- Engineering development, manufacturing, quality assurance and repair depot testing
- Electronic product OEM, CM and EMS firms
- Transporting and sharing automated test assets among multiple stakeholders
- Typical UUTs include robot and autonomous vehicle controls, computers and sensors

## CONNECTIVITY

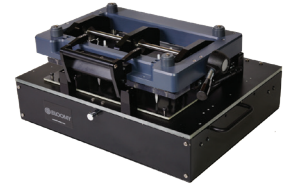
The UUT is typically placed into a custom bed-of-nails or cable-connected UUT test fixture. The test fixture is then connected to the midUTS via the two VPC i1 mass interconnect cables. Together, the mass interconnect cables and fixture form an interface test adapter (ITA) packed with high-density connector module that route signals to and from the instrumentation and switch matrix in the midUTS. You can create your own fixtures or take advantage of our vast fixture-design experience.



**i1 MASS INTERCONNECT CABLE**



**CABLE-CONNECTED UUT TEST FIXTURE**



**BED-OF-NAILS TEST FIXTURE**

## HARDWARE SPECIFICATIONS

The following specifications are standard. Systems can be customized to accommodate specific requirements.

INSTRUMENTATION	
<b>NI USB-4065 Digital Multi Meter (DMM)</b>	
Resolution	6 ½ digit, 22-bit
Functions	VDC, IDC, VAC, IAC, 2- or 4-wire resistance
<b>NI USB-6341 X-Series Data Acquisition</b>	
Analog Input	16 SE / 8 differential ±10V, 16-bit, 500k S/s
Analog Output	2 SE ±10V, 16-bit, 900k S/s
Digital I/O	8-ch, TTL, bi-directional, 1MHz
Counter/Timer	4-ch, TTL, 100MHz
<b>Mux/Matrix Switching</b>	
Topologies	Two 2x16 1-wire matrix Two 2x8 1-wire matrix Two 64x4 1-wire matrix
Switch Ratings	2x16, 2x8: 37 VDC, 0.5A, 10W max., 1MHz BW 64x4: 300 VDC max., 2A, 60W max., 4 MHz BW
<b>General Purpose Relays</b>	
Relay Configurations	Two SPDT, 30 VDC @ 5A
<b>Fixed Power Supplies</b>	
Quantity	Up to 3
Power Options	5, 12, ±15, 24 VDC; up to 5A each
<b>Programmable Power Supplies</b>	
Quantity	Up to 2 (1U half rack size)
Power Options	0-6 VDC/0-100A to 0-600 VDC/0-1.3A

COMMUNICATION	
Number of Ports	2 (can be expanded)
Port Options	RS-232, RS-422/485, CAN, SPI, I2C
INTERFACES	
Mass Interconnect	Two VPC i1, 160 pin
USB	5 (type A or B)
Network	1 (Cat5e RJ45 8x8)
CONTROLLER	
Type	NeouSys low-profile fanless PC, i7, 8GB RAM, 64 GB SSD, Windows 10
User Interface	Bluetooth (wireless) keyboard and mouse, 22" LED desktop display
PHYSICAL	
Dimensions	20" W x 36" D x 10.5" H
Weight	60 lbs



Call 860-298-9925 or visit  
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