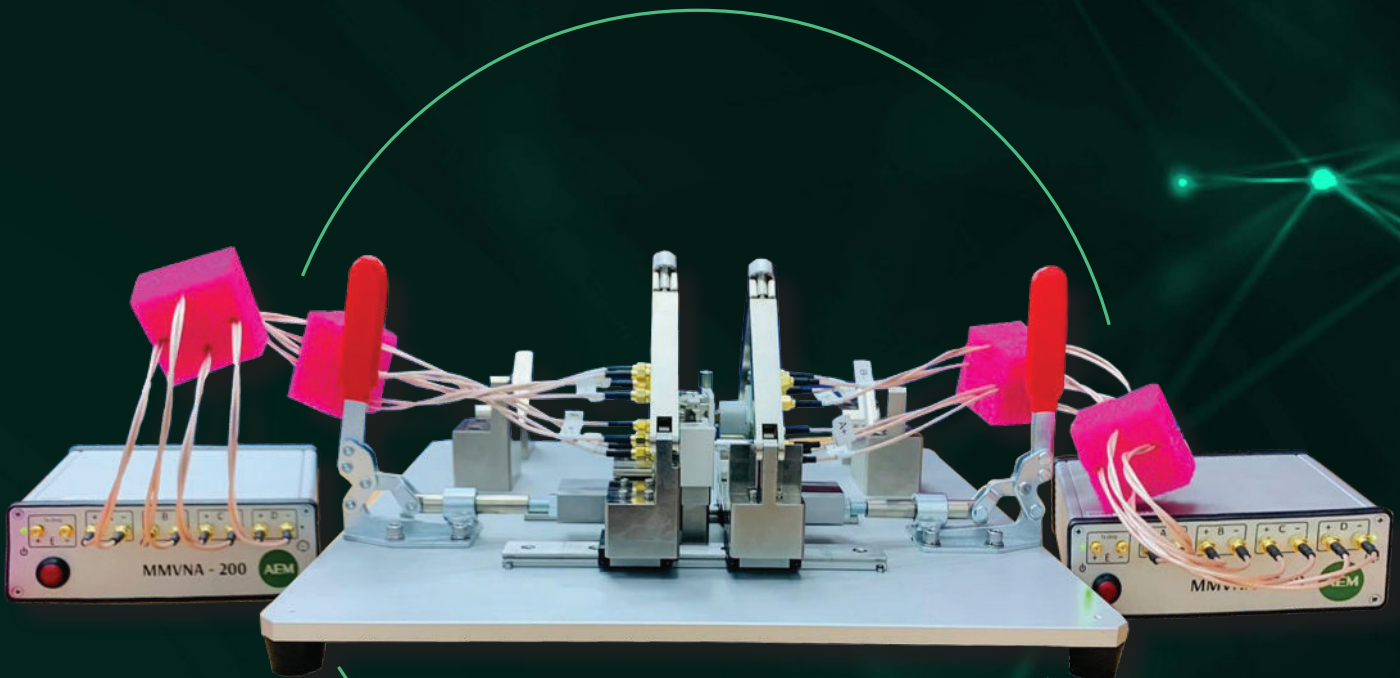




Connector Test System

RJ45 Connector



Universal Connector Test System

Connector Test System RJ45 Connector

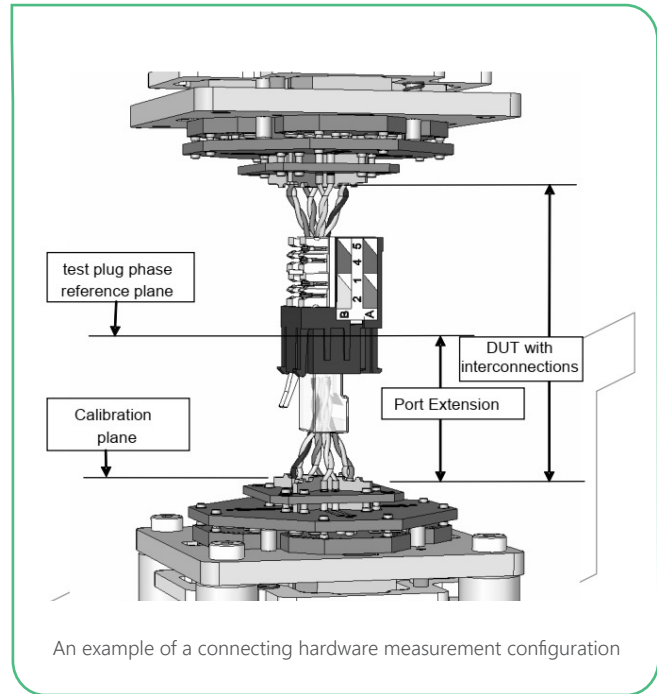


Custom Fixtures

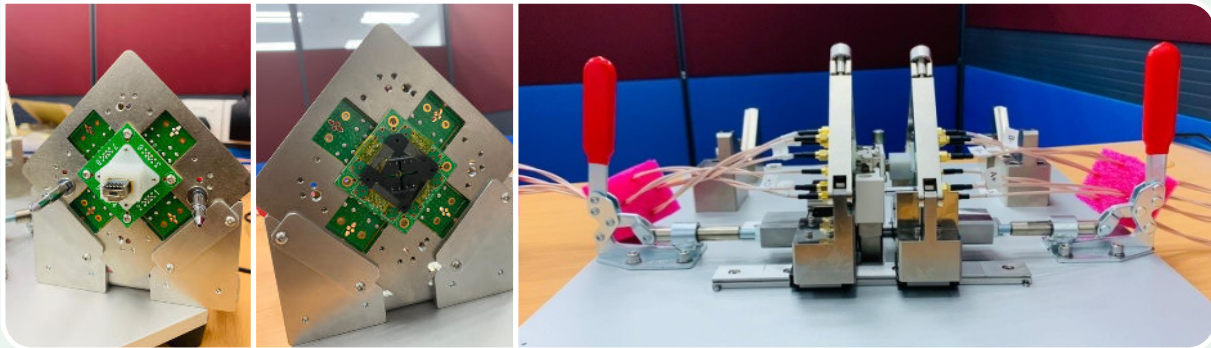
The Balanced Twisted-Pair Telecommunications Cabling and Components Standard ANSI/TIA-568-C has described the test method for RJ45 connecting hardware. However, even using PCB based test plug assembly to improve test accuracy and efficiency, the RJ45 jack is needed still to be connect to VNA with lead wires soldered. Thus adverse effects of such manual operations are inevitably introduced.

Moreover, testing all parameters of RJ45 connecting hardware, which is dual-ended 4 channels (16 ports) component, requires the VNA either with enough test ports, or with switch array. All these requirements will increase the cost of test.

If using a 4-port generic VNC to do the test, it will be necessary to exchange test leads between fixture ports continually during test, which this will reduce the test efficiency and increase working hours cost.



THE MAIN FUNCTION



- Testing with precise mechanical system
- Certifying connection hardware transmission performance
- No need to solder wires in RJ45 jack
- Minimizing influence due to manual operation
- Reducing test cost
- Ensuring test consistency and repeatability
- Supporting batch testing at product line
- Built-in ISO11801, TIA568 limits
- Propagation Delay & Delay Skew
- Return Loss, Insertion Loss
- NEXT, FEXT
- TCL, ELTCTL
- PSNEXT, PSFEXT

Connector Test System RJ45 Connector



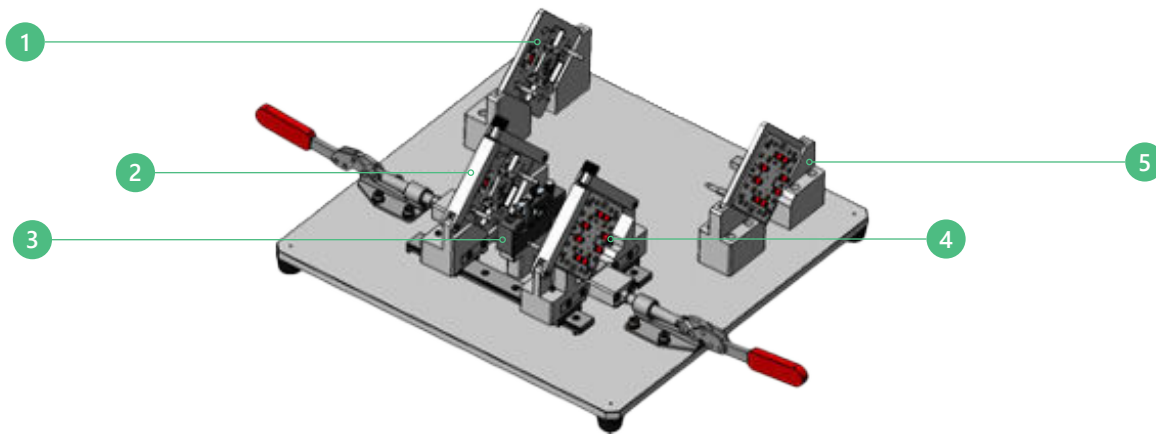
Network Sub-Unit and Control Software

Secondly, an extraordinary test engine comes from MMVNA modules of AEM works as professional VNA with 16 ports (with 2 sets of MMVNA) and acquires Cat.6A and lower categories RJ45 connecting hardware transmission parameters accurately, including forward test, reverse test, and dual-ended test.

So the high-speed, non-destructive test has been implemented which minimizes the effect due to manual operation, and ensures the consistency and repeatability of test results of every jack.

With the software VNA Manager Pro, users can perform calibration, select S-parameters, choose test dynamics and ranges, edit and load test configurations, plot curve of test result, save and review test data and convert test data format, etc.

Fixture Assembly



NO.	NAME	MODEL	DESCRIPTION
1	Jack Termination Pogo Fixture	8370-0003	For reverse single-end test
2	SMA-Pogo Jack Fixture	8730-0004	For dual-ended test
3	Test Fixture Base	TMS2-ENG01-AHA00	Hold fixtures and RJ45 jack to be tested
4	SMA-Plug Jack Fixture	8370-0002	For dual-ended test
5	Plug Termination Fixtures	8370-0005	For forward single-end test

Connector Test System

RJ45 Connector



MMVNA Specifications



PARAMETER	SPECIFICATION
Frequency Range	0.1-3,000 MHz
Frequency Resolution	0.1 MHz
Sweep Speed	0.3 msec/step (80 dB noise floor) 3.4 msec/step (110 dB noise floor)
Measurement floor - cross-talk	80 dB (fast sweep mode) 110 dB (slow sweep mode)
Measurement floor - Return Loss	60 dB
DC Measurement parameters - dul end	End-to-end connectivity, DC resistance, pair-to-pair and wire-to-wire resistance unbalance
File format	CSV file for S-parameter results
Size	300mm x 150mm x 50 mm
Power Consumption	3W/set