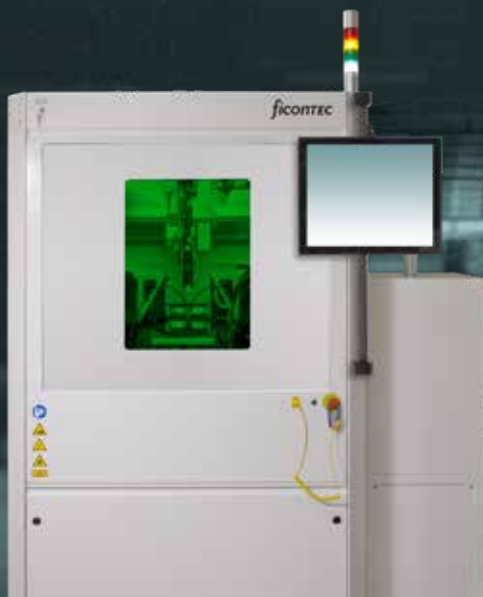


TESTLINE

T800 / T1200 / T1600



Automated, mixed-signal electro-optical testing for single chip and on-wafer photonic devices. A new, configurable and modular approach with production-optimized housing layout. Suitable for R&D, cassette-to-cassette and in-line high-volume manufacturing.



NEW
Next-generation
In-line TESTLINE systems

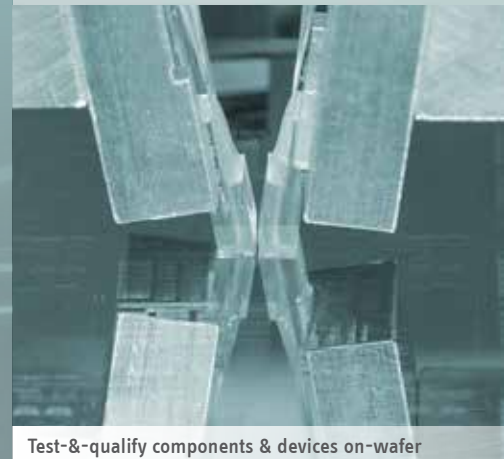
ficonTEC
photonics assembly & testing

Automated electro-optical testing

TestLINE production systems are fully-automated machine solutions for LIV testing as well as for spectral and near/far-field beam characterization of single laser chips, VCSELs, unmounted laser diode bars and chip-on-submount (CoS) sources. They also routinely undertake other complex tasks such as singulated opto-electronic chip testing and optical facet inspection. High-end models can be optionally equipped for wafer handling and wafer-level testing.

Traditional stand-alone systems are designed to provide as much multi-functional test-&-qualify capability as possible in a single cell format and are best suited to complex testing requirements requiring multiple steps within a single machine.

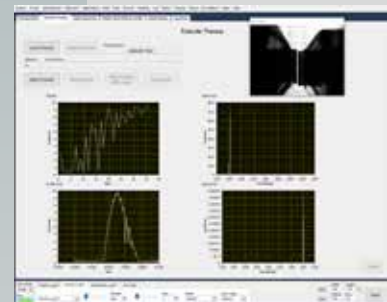
Alternatively, our next-generation TestLINE systems utilize a re-designed layout and state-of-the-art feed in/out capabilities, making them production-line-capable from the ground up. They can be supplied individually as a versatile tester cell designed to complement an existing or proposed production line, or they can be supplied in combination with multiple, task-optimized ASSEMBLYLINE and/or BONDLINE systems as entire production segments.



Software Control

PROCESS CONTROL MASTER (PCM) is our user-friendly and process-oriented software control interface that is shipped with all turn-key systems and multiple machine configurations. PCM features an intuitive UI that includes all machine vision, high-resolution positioning and system management routines required to reliably and repeatably drive test process hardware.

PCM comes fully enabled for automated electro-optical test and characterization tasks and employs AI-based Deep Learning capability for chip facet defect recognition and classification. PCM also monitors and logs single or multiple production line performance and can even sync parallel lines remotely.



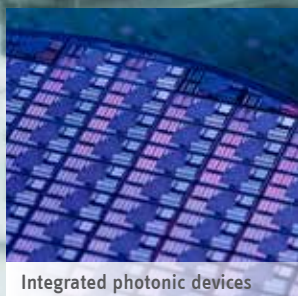
Spectral and beam characterization functions displayed in real time

TESTLINE

T800 / T1200 / T1600



characterization



Integrated photonic devices



PXI instrumentation integration

TESTLINE now PXI capable

New is compatibility with PXI-based electrical & optical instrumentation modules that leverage National Instruments™ LabVIEW. Integration with PCM is seamless, thus enabling sophisticated, combined electro-optical test solutions to match individual requirements. A similar goal can also be achieved within non-LabVIEW and alternative instrumentation environments using modular bench-top and IOT-focused test equipment.

Key features

- ✓ High-precision motion system
- ✓ Mixed-signal electro-optical testing
- ✓ On-wafer waveguide I/O measurement
- ✓ Chip & wafer-level handling/processing
- ✓ Optional AI-managed facet inspection
- ✓ PXI instrumentation integration

General tasks & applications

- Full LIV testing
- Spectral and near/far-field beam characterization
- Test-&-qualify chips, single emitters, laser bars
- Wafer-level components and devices
- PICs, Silicon Photonics, hybrid integrated devices



Flexible, modular & (re-)configurable

- State-of-the-art feed IN/OUT options
- FAB & HVM-ready – scalable and parallelizable
- Single systems to complement production line strategy
- Combine with multiple systems for production line segments
- Operate, monitor and sync parallel lines remotely
- Add and/or swap modules to re-configure & re-purpose

What we do

ficonTEC is a recognized market leader for automated assembly and testing systems for high-end opto-electronic components and photonic devices, including PICs. Considerable process capability and dedicated assembly technologies have been accumulated in serving requirements for telecom and datacom, high-power diode laser assembly, micro-optical systems, sensing from bio-med to automotive to IoT, and more.

A unique and modular approach to production equipment design means that each system delivered is the automated and optimized embodiment of a customer-defined process.

Contact us




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Core system specifications	 T800	 T1200	 T1600
Motion system	gantry system with minimum 6-axis high-precision alignment*	gantry system with minimum 6-axis high-precision alignment* or cantilever system w/o multi-axis system	cantilever system with minimum 6-axis high-precision alignment*
Handling options	single conveyor	single or dual conveyor	
Wafer capable	no	up to 6"	up to 12"
Machine vision	standard/dual positioning and observation camera options		
Feed options	suitable for Jedec or Auer boats, or for customer trays		
Software features	ergonomic, flexible and powerful process software – extended operator-less control – remote control server option		
Physical features	rugged steel-base production cell - access door lifts vertically without affecting footprint		
Minimum connections	400 VAC (or country specific), air/vacuum, 100 Mbit/s network		
Cleanroom compliance	ISO 6**		
Dimensions (w x b x h, mm)	800 x 1200 x 1600/2000	1200 x 1200 x 1600/2000	1600 x 1200 x 1600/2000
Weight (typ., kg)	1300	1800	2500

* alternative multi-axis configurations optional ** others available on request

TESTLINE electro-optical tester systems are suitable for in-line applications in high-volume manufacturing (HVM), including multiple remotely-controlled production lines operating in parallel and in sync. Custom systems, special purpose cells and robotic systems can be flexibly incorporated to suit customer requirements. Some TESTLINE functionality is available for ASSEMBLYLINE systems.