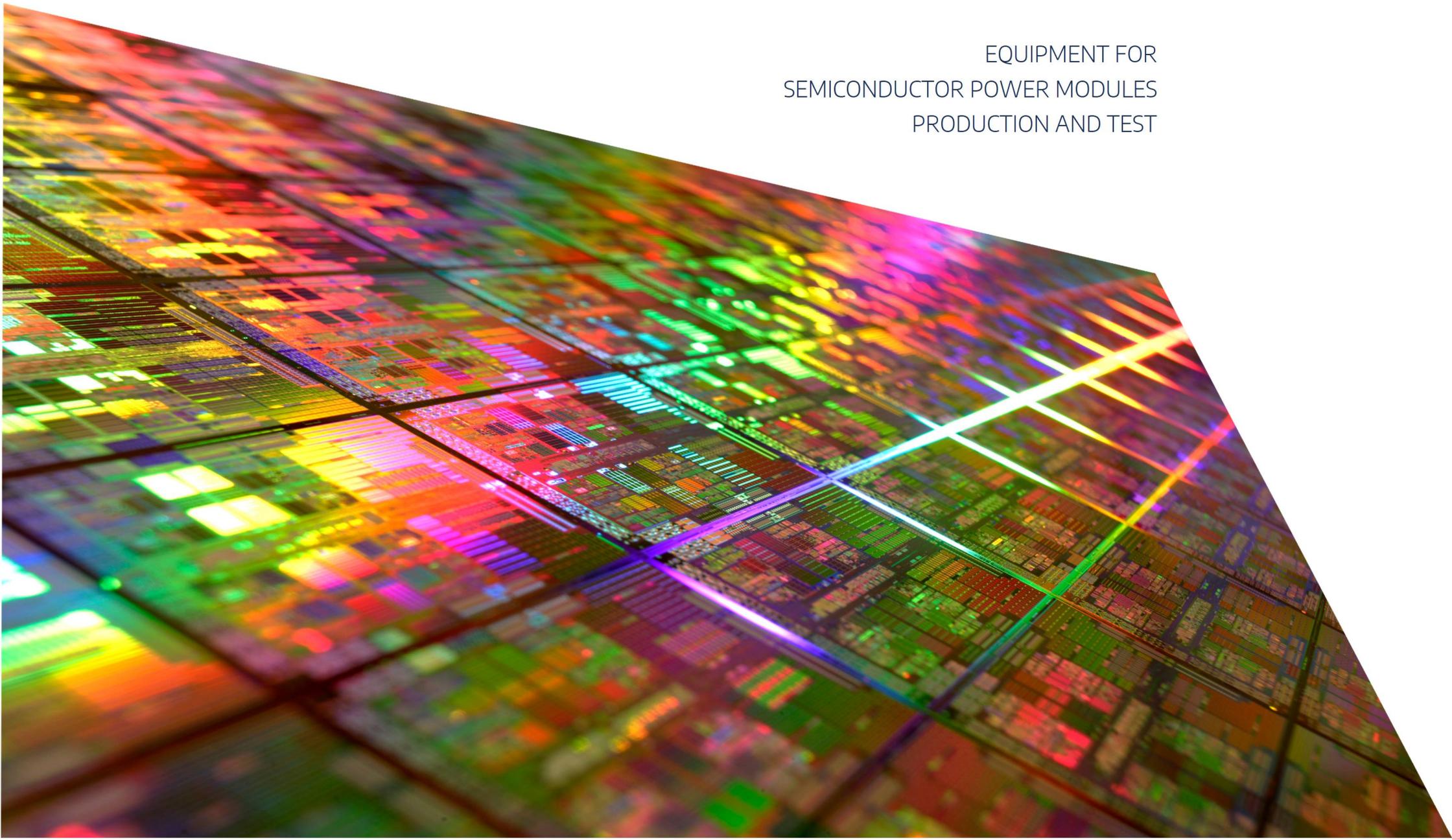


SINERGO[®]
ELECTRONIC ENGINEERING

EQUIPMENT FOR
SEMICONDUCTOR POWER MODULES
PRODUCTION AND TEST



DCB MASTERCARD DIVIDER

from mastercard magazine
to magazines of single modules
MV inspection
no any human touch
fully automatic

**SELECTIVE SOLDERING
Of POWER LEADS on DCB**

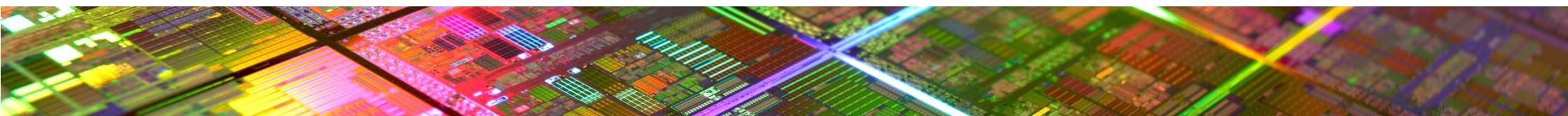
no oven required
no fixtures
multiproduct
quick set-up
fully automatic

**PRESSFIT PIN on DCB
SELECTIVE SOLDERING**

pin cutting from reels
3D AOI control
robotic arm handling
no oven, no fixtures required
multiproduct; quick set-up
fully automatic

DISPENSING

glue dispensing
UV curing
in vacuum dispensing
silicones (A+B)
precision weighing



... FROM DCB MASTERCARD TO THE FINISHED MODULE, READY FOR THE SHIPMENT

ASSEMBLING - CASING

DCB & BASEPLATE DEVICES

glue dispensing
UV curing
case attaching
silicone (A+B) filling
precision weighing
bushes pressing 1 ton
multiproduct
quick setup
fully automatic

HOT IRON SELECTIVE SOLDERING

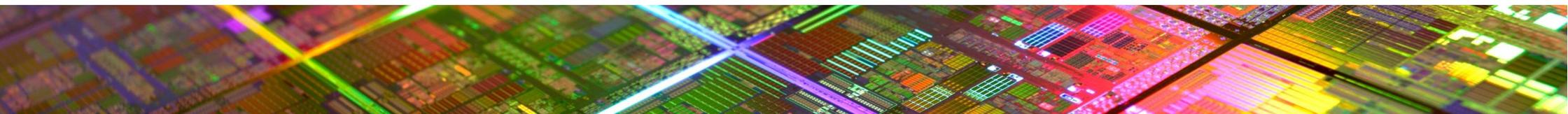
of
power modules on PCB
boards,
... odd components
... power connectors
... automotive parts
4 axis CNC equipment
manual loading or
fully automatic

HANDLER - MARKER for PARAMETRIC TESTER DCB & baseplate modules

cold & hot parametric test,
high voltage insulation test
laser marking
class sorting,
machine vision controls.
multiproduct
fully automatic

HANDLER - MARKER for FULL POWER TESTER DCB & baseplate modules

cold & hot dynamic test,
high voltage insulation test
laser marking
class sorting,
machine vision controls
multiproduct
fully automatic



**BLUE POWER
LASER SOLDERING**

Sinax LB 35

Selective soldering robot
BLUE wavelength laser
cleanroom ready
traceability functions
AOI function optional

LASER SELECTIVE SOLDERING for
power leads, wires, ceramic sensor,
microelectronic devices, ...

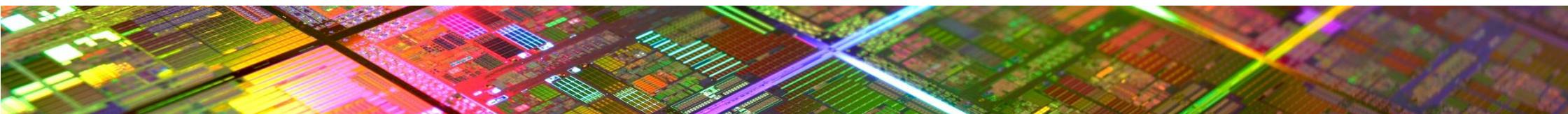
powered by Sinergo Sinlas IR laser
fully automatic
very high speed
wire cutting + trimming
wire from reels
cleanroom ready
3D AOI controls

WAFER TESTING
TRR measurement
by robotic arm driven
by machine vision

test handler equipment
diode TRR measurement
fully automatic
wafer handling
cleanroom ready
traceability functions

WAFER TESTING,
MARKING,
LASER ABLATION

TRR measuring
robotic wafer handling
die laser ablation/killing
cleanroom ready
5"-6" wafer; dice > 40 mils
fully automatic



... FROM DCB MASTERCARD TO THE FINISHED MODULE, READY FOR THE SHIPMENT

TWIN PIN TWISTING + AOI

AOI input controls
Pressfit pins measurement
Twin Pin twisting:
controlled torque and angle
high performance AOI
fully automatic
Multi-products
Traceability functions
clean room ready



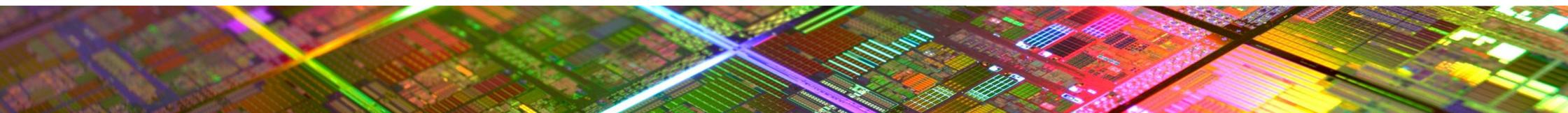
"E-MOBILITY INVERTER"

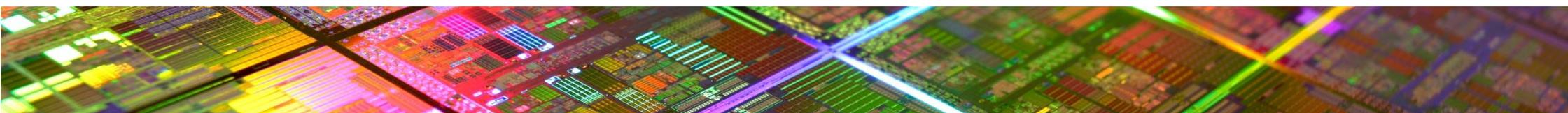
Power board assembling & soldering
3D AOI inspection IPC610
robotic handling
conveyor line model
Traceability functions
MES functions



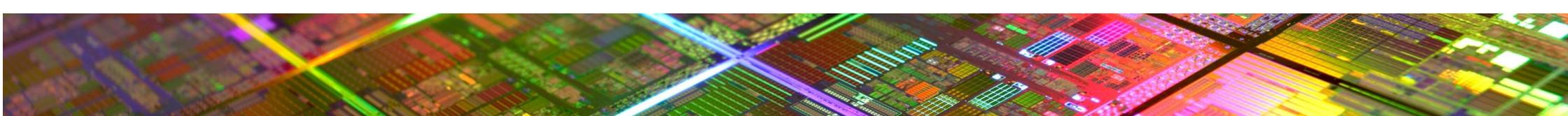
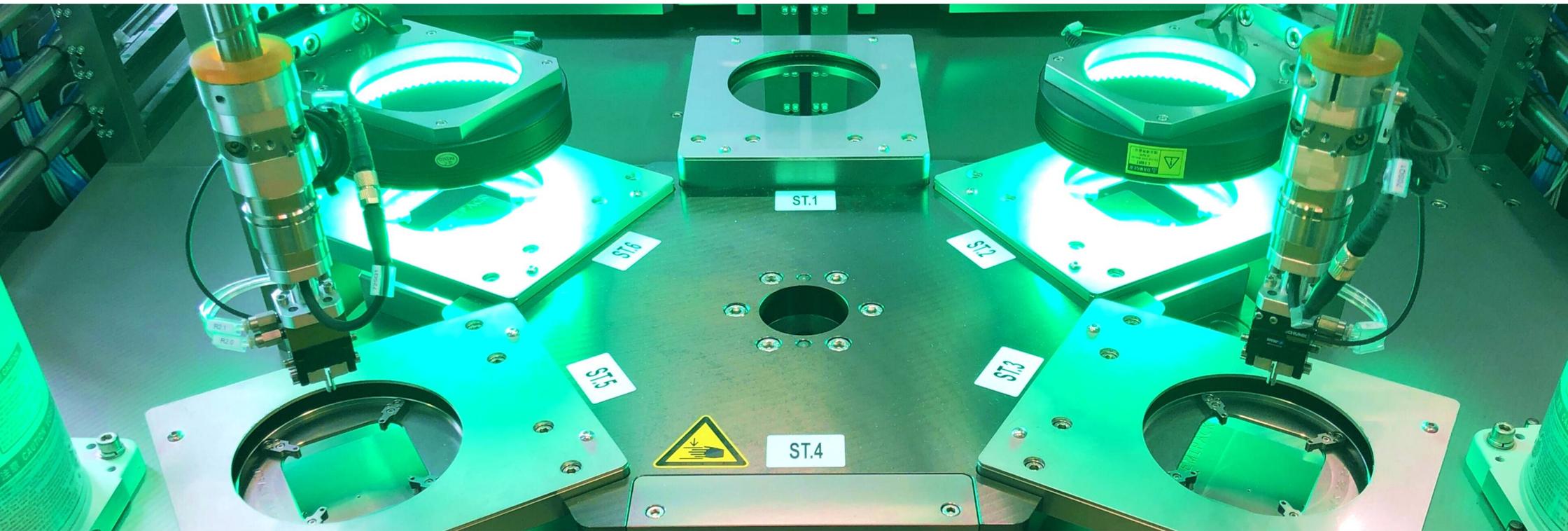
"AUTOMOTIVE SENSOR"

assembling & Soldering
robotic handling
hot & cold test
3D AOI inspection IPC610
in line programming μ P on device
laser marking
conveyor line model
full traceability





... FROM DCB MASTERCARD TO THE FINISHED MODULE, READY FOR THE SHIPMENT



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ELECTRONIC ENGINEERING

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30 years

established 1991

