TI Electronic

TOMMY - INVEST ELECTRONIC LLC

TI Electronic

PHILIPS NIVELCO KEB SIEMENS GRUNDIG Business Systems

BECOM power-one Visteon Roche AT&S

INTRODUCTION

Tommy Invest Electronic Llc. was founded in 1992 and in its early years was mainly engaged in research. Production was carried out by Electronic and Mechanic Llc (EM), founded in the same year. The two companies became leaders in electronics within the areas of research, development and production in Hungary. 2005 EM's industrial park in Szécsény was bought by TI Electronic, becoming an important CEM / EMS producer in Central Europe.
Currently our company utilizes a production area of 12. 000 square meters with a production staff of 300 people, complemented by colleagues responsible for development and quality control. Our company offers high-quality production, speedy delivery dates, favorable prices, combined with a flexible and friendly relationship with our customers.

STRATEGY

- Reliable, timeous delivery dates
- Flexibility, pride ourselves on customer service
- Competitive prices
- High-quality production based on considerable experience
- Training combined with continual improvement and
- Technological development
- An ethical approach to business

MAIN ACTIVITIES

- Installation of electronic plates
- Precision engineering installation
- Production of magnetic heads
- Production of inductive elements
- Nanocrystal and ferrite technologies
- Lighting technology

PRODUCTS ARE USED IN THE FOLLOWING AREAS

- Medical diagnostics
- Automobile industry
- Banking services
- Industrial electronics
- Office technology
- Home electronics
- Lighting technology
- Entertainment electronics

STRENGTH

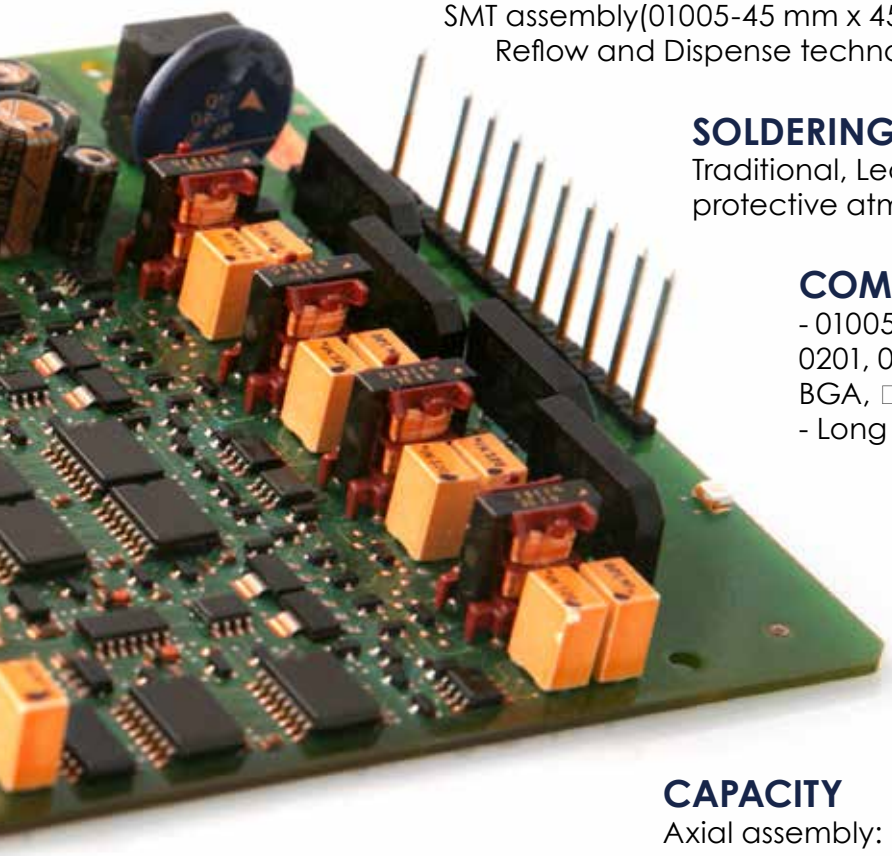
- **EXPERIENCE** Our company has many years of experience in both the production of high volume electronic products and professional electronics. Between 1994 and 2003 the company produced 3,5 million electronic parts for Grundig televisions every year. Currently we also undertake the production of digital dictaphones.
- **PRODUCTION** Installation of finished products, printed circuit assembly and development, precision engineering installation, production, planning and development of magnetic heads, production and development of inductive elements, cable confection, lighting technology installations – production of ballasts, planning and production of measurement devices.
- **PRICES** Our favorable prices are assured courtesy of 20 years of customer satisfaction and our geographical location.
- **FLEXIBILITY** Our company boasts its own plastic injection moulding and mechanical treatment plant, enabling us to react to our customers' immediate needs. The development of our new products is carried out in-house. We also boast a first-rate delivery service.

PRINTED CIRCUIT ASSEMBLY AND INSTALLATION

Tommy Invest Electronic Llc. benefits from 20 years experience of installation, planning and construction of electronic circuits. We are happy to deal with orders of any size, maintaining close contact to ensure we meet our customers' exacting requirements.

TECHNOLOGIES

Thru-Hole axial, radial assembly, manual installation,
SMT assembly(01005-45 mm x 45 mm, BGA, uBGA),
Reflow and Dispense technologies



SOLDERING TECHNOLOGIES

Traditional, Lead-free, Nitrogen
protective atmosphere, Plate protection by coating

COMPONENT RANGE

- 01005 to 45 mm x 45 mm (1206, 0805, 0603, 0402, 0201, 02001)
BGA, □BGA, Flip Chips, CSP, Connectors
- Long Connectors 100 mm

ASSEMBLY MACHINES

Philips Assembleon,Siemens,
Universal, Fuji

CAPACITY

Axial assembly:	24.000 parts/hour
Radial assembly:	10.000 parts/hour
SMD assembly:	60.000 parts/hour

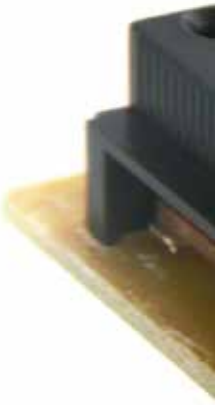
Manual assembly on request

PURCHASING

TI Electronic Llc. has contacts with many distributors of electronic parts and this enables us to undertake, on the customers' request, the purchasing of necessary components at the most cost effective prices. We also offer assembly of components supplied by customers.

TESTING

In Circuit Test (ICT) Automatic Optic Test (AOI) Function Test (FT) Visual Test (VT) X-ray Test



PRECISION ENGINEERING INSTALLATION

Our company has extensive experience in a variety of installation technologies. We undertake the installation of printed circuits in complex finished products, the installation and production of precision engineering instruments (tape devices, pyrotechnical installation, AIRBAG, parts for the automobile industry). Plastic parts are manufactured in our own factory for injection moulding. Currently we undertake precision engineering installation for blue chip companies such as Messrs. Philips and Grundig.

SOLUTIONS FOR INSTALLATION

- individual workplaces
- production lines

TECHNOLOGIES AND MACHINES FOR INSTALLATION

- If the installation technologies and the machines are secured by the customer, we are able to undertake the adaptation and work according to the customer's instructions and installation times.
- We undertake the preparation of the appropriate technology needed for installation and the planning and fit-out of production lines.

PERSONAL AND MATERIAL CONDITIONS

The installation is carried out by qualified staff who areprovided with continual technical support. The production area, energy, compressed air, nitrogen protective atmosphere, sprayed and painted coating facilities are available on site.

MAGNETIC HEAD PRODUCTION

Magnetic heads are intrinsic parts of traditional audio equipment and magnetic card systems (ATM). Tommy Invest Llc. has developed and produced such heads for 25 years. We continue to develop standard and tailored head units. All magnetic heads developed by our company are manufactured according to the customers' requirements. Our references: Philips, Roche and Grundig. A detailed description of our products is available within our magnetic head catalogue or on the internet: **www.ti-electronic.com**

CURRENTLY PRODUCED HEADS

For magnetic tapes

- playing – recording heads
- playing-recording-erasing heads
- erasing heads

For magnetic cards (HI-CO ; LO-CO) and magnetic papers (channels 1-9)

- Writing
- Reading
- Writing-reading
- Erasing

SUPPORT OF THE MAGNETIC HEAD PRODUCTION

Technical development

We are engaged incintinual research and development. This enables us to satisfy new market demands and be in the vanguard of the industry.

Support of production

Head production is carried out under controlled conditions in our own factory:

- plate extruding, fine blanking
- vacuum heat treatment in a nitrogen protected atmosphere
- plastic injection moulding
- winding
- high-precision grinding
- laser welding
- vacuum epoxy pouring

QUALITY ASSURANCE

At each step of production quality assurance tests are carried out:

- control of mechanical sizes
- test of the coercitive force
- shielding test
- inductivity tests at several points
- soldering test
- tests of synthetic resin bond
- record and record-play test
- damping test (signal to noise ratio)
- wear tests
- climate control

PRODUCTION OF INDUCTIVE ELEMENTS

Our inductive elements are used in the areas of telecommunications, home and industry electronics. Our company has developed and produced inductive elements for a quarter of a century. Our products have either an open or closed design, and the plastic parts used for our elements are manufactured by our in-house.
Our references: KEB, Magnetec, Nivelco

MAIN PRODUCTS

- transformers
- filters
- current transformers

TYPES OF CHOKES

The chokes are manufactured from various coils and cores according to our customers' specifications. The weight of the cores varies from several grams to 80 kg. The material of the cores: various ferrites and nanocrystal cores developed by our company.
The size of the wires varies from Ø 0, 02 and Ø 5 mm.
We are also experienced in the production of specialist chokes. We manufacture special multi-layer transformers with more choke outputs for an electric strength of 6000 V.

APPLIED TECHNIQUES OF PRODUCTION

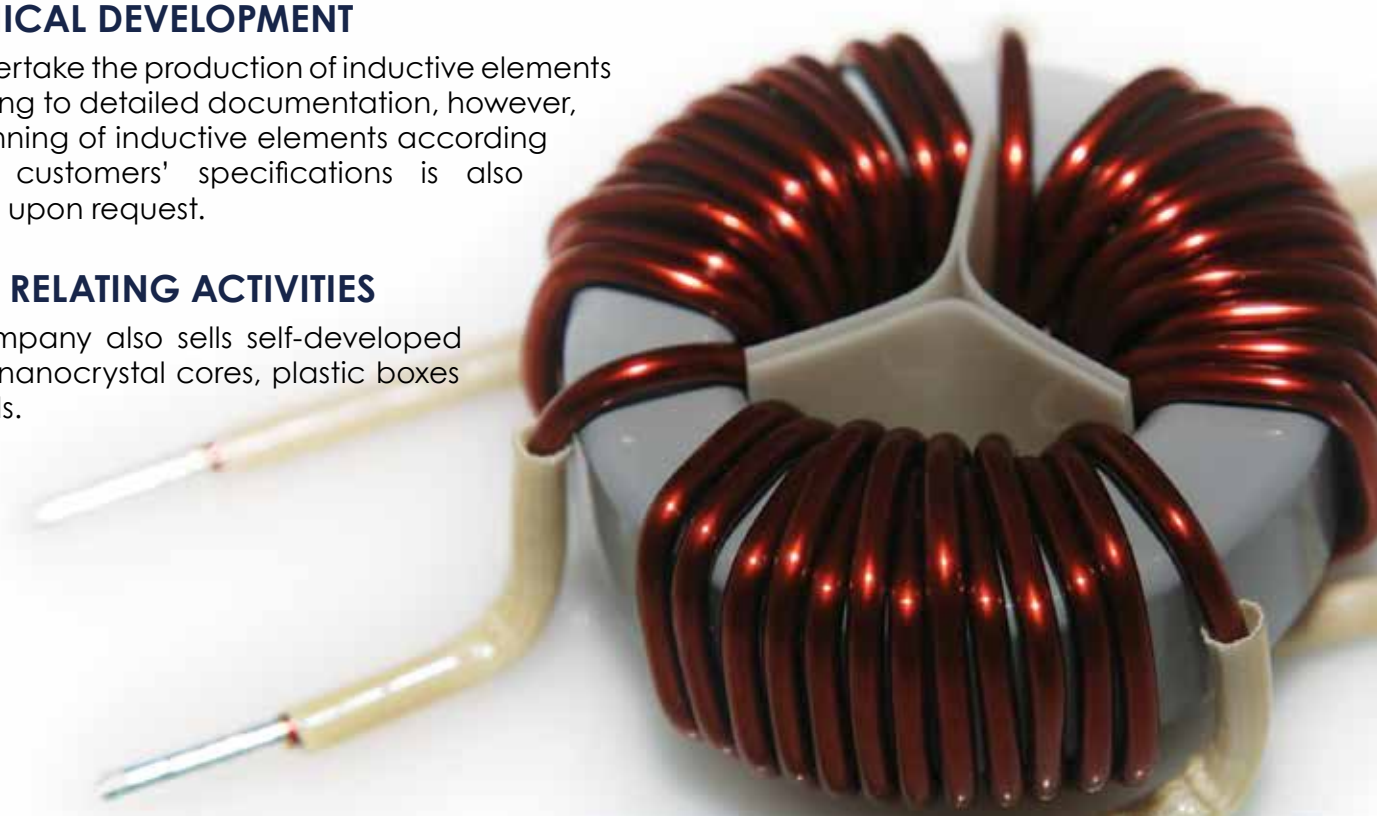
- Automatic winding
- manual winding
- soldering
- different adhesive techniques
- impregnation, vacuum impregnation
- isolation of the cores with special epoxy coating
- injection moulding of plastic coils and boxes
- different testing methods

TECHNICAL DEVELOPMENT

We undertake the production of inductive elements according to detailed documentation, however, the planning of inductive elements according to the customers' specifications is also possible upon request.

OTHER RELATING ACTIVITIES

Our company also sells self-developed ferrites, nanocrystal cores, plastic boxes and coils.



FERRITE AND NANOCRYSTAL TECHNOLOGY

Tommy Invest Llc. has especial experience in the production of inductive elements. We are delivering, installing and developing soft ferrite materials and iron powder cores. The produced inductive cores are installed and delivered to our customers as inductive elements in either standard or specific variations.

The Hungarian Central Physical Research Institute are collaborators in the development of our cores.

At the moment our company offers inductive elements prepared from metal type nanocomposites. These are nanocrystalline alloys obtained by heat treatment from an amorphous precursor ribbon prepared by rapid quenching from the melt. We are able to prepare precursor ribbons with a width corresponding to the particular application within a range of 2-40 mm. Wider components can be prepared by attaching the thinner cores to each other.

CABLE RANGE

We undertake the installation and manufacturing of unique design cables with accessories.

Cables installed with connectors

- single insulated ribbon cables up to 2-7 poles
- double insulated ribbon cables up to 2-10 poles
- double insulated screened cables
- one-pole cables with rubbing pieces
- network cables
- speaker cables

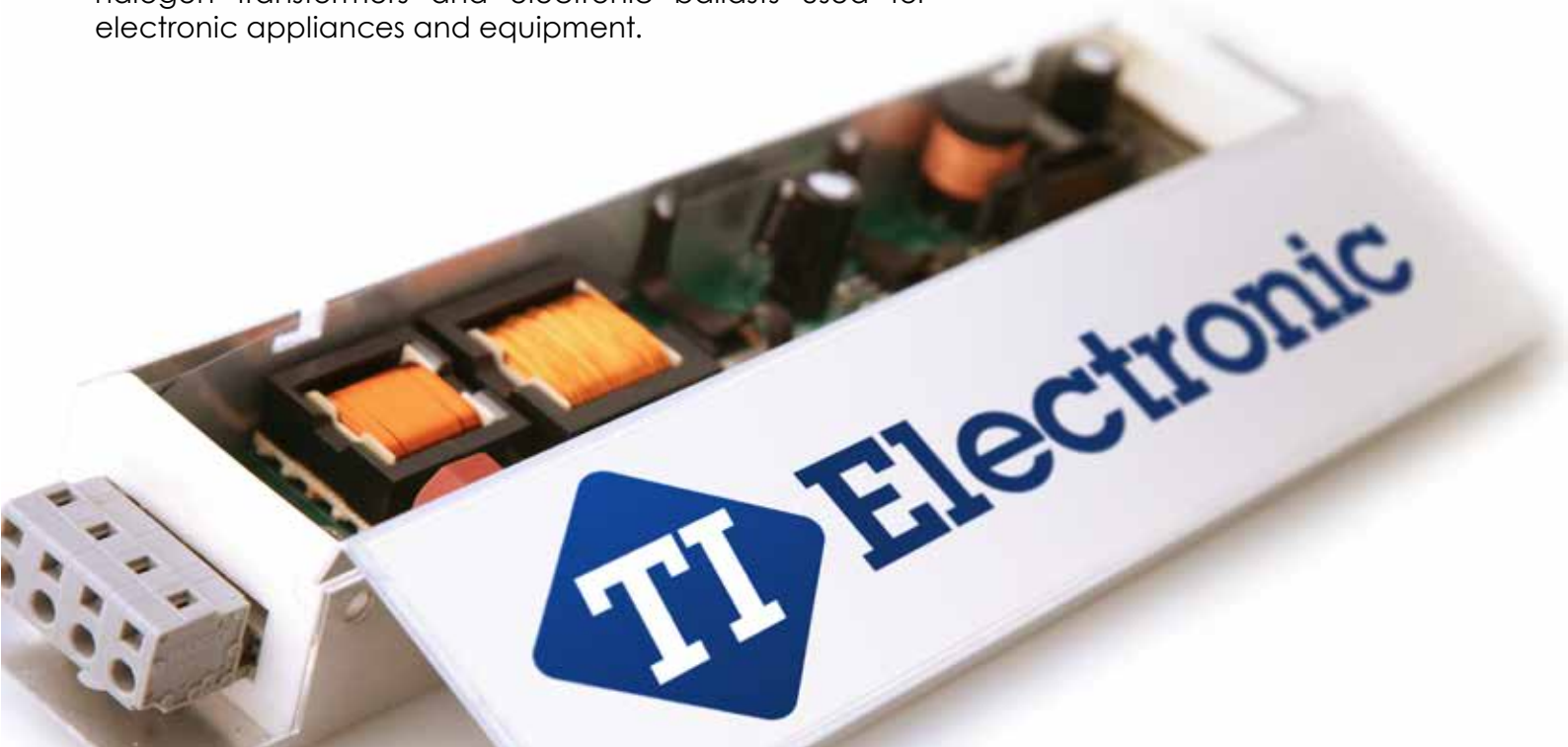
Cables without connectors

- split
- skinned
- with leaded ends

LIGHTING TECHNOLOGY

Our company also produces inductive elements for lighting technologies. In this area we mainly deal with the production of inductive ballasts having an electricity limiting function so that they enable an optimal effect víz. tube lights, LED, high-pressure quicksilver, sodium and metal halogen lamps.

Our scope of activities also includes the installation of LED systems (LED boards), such as the production of ferrite core chokes, transformers, radio frequency filters, small transformers with laminated core plates, electronic halogen transformers and electronic ballasts used for electronic appliances and equipment.



QUALITY

Quality assurance is the main tenet of the philosophy and strategy of **TI-ELECTRONIC.** Our company defines strict quality requirements, not only in the area of production processes, but also puts great emphasis on keeping delivery deadlines,and satisfying our customers' exacting needs.

Quality of production

Our staff benefit from a policy of continuous profesional development. Our machines are permanently maintained and our machine plant is the subject of continual upgrading.

Every single product at TI Electronic is tested separately, the procedure is determined by the company in collaboration with the clients. We are permanently developing our quality control systems.

Certificates

We continuously develop and renew the ISO 9001:2000 & ISO 14001 certificate, which grants the appropriate working production processes and quality control systems. Upon request we are able to guarantee the quality of our products with UL, VDE, RohS, TÜV certificates.

PLANNING

PCB design
3D models to print
Inductive development
Production technologies
Planning of production processes
Production cost optimalising
Prototypes
AI powered R&D

PRODUCTION

PCB Assembly
Production of parts
Mechanicl installation
Production of inductive elements
Magnetic head production
Cable installation
Installation of devices
Plastic injection moulding

QUALITY ASSURANCE

Testing
Visual Test VT
Automatic Optic Test AOI
In Circuit Test ICT
Function Control FC
X-Ray Test
Mechanical tests

SERVICES

Purchasing of material
Logistics
Packing and marketing
Repair and rework
Warehousing
Quality control
Testing
Wage work

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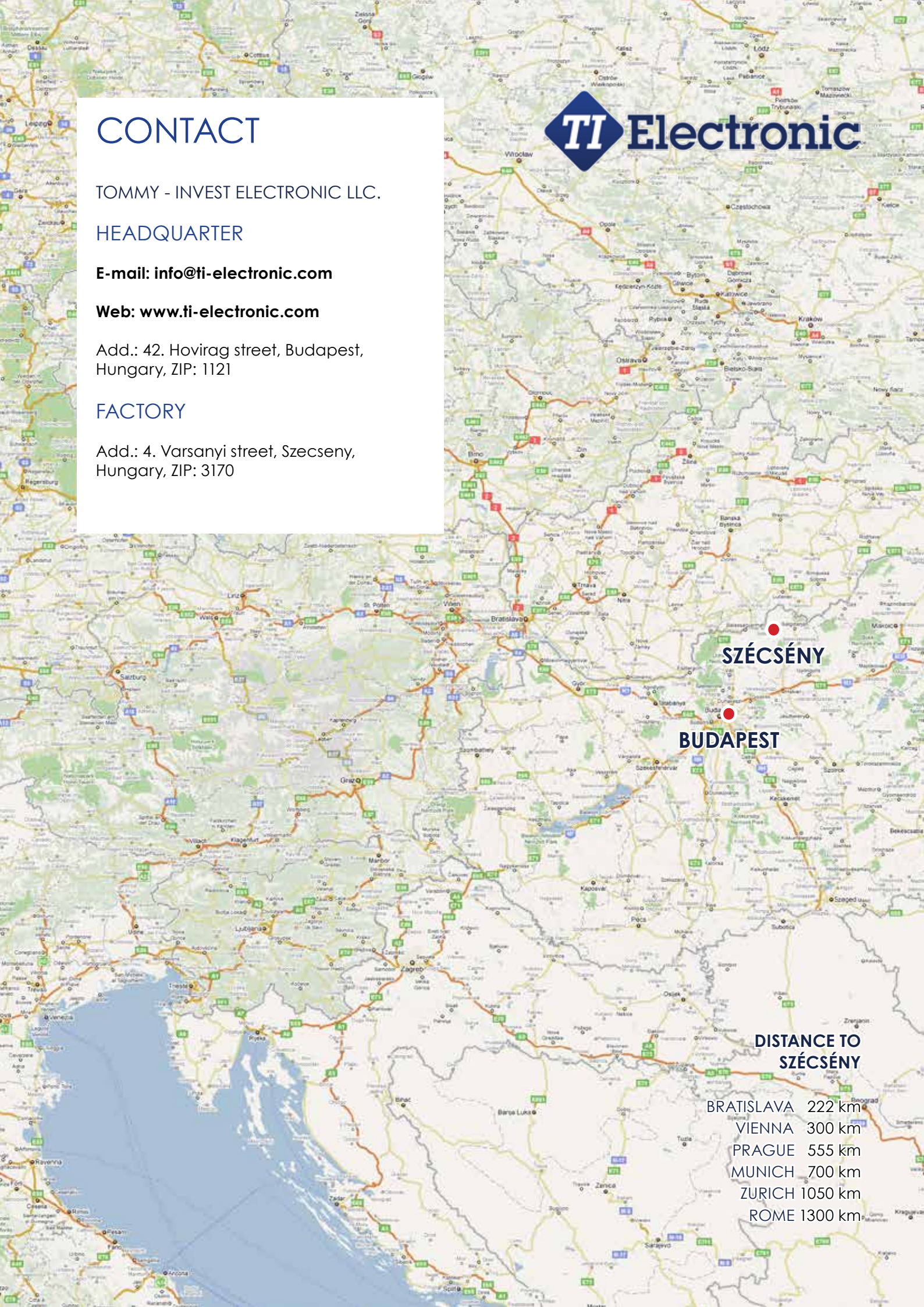

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