DELTA Microelectronics

Complete supply chain services
Flexible business models etc.
About us

DELTA Microelectronics is a leading European provider of ASIC supply chain solutions.

DELTA gives its customers a competitive edge in bringing products to market quickly and enabling a predictable path from IC development via testing to mass production.

DELTA’s comprehensive supply chain consists of development, production, packaging, testing, storage and shipping of ICs. DELTA addresses the key challenges faced by fabless IC vendors today from prototypes to mass production. By utilising DELTA’s unique turnkey solutions and professional services, semiconductor vendors achieve faster time-to-market of smaller, more robust and more profitable semiconductor products.

Highest quality standards, management and control

Above and beyond our supply chain services, we take pride in our high standards and total quality control. Over the years we have developed formal test procedures and quality management methodologies that ensure our clients the rigorous process their products receive. We use an ERP system to manage the entire supply chain process – including customers and suppliers, order handling, forecasting, reporting, and communication. Finally, DELTA is approved for ISO 9001 certification of microelectronics design since 1999 and ISO 14001 since 2005.

History

DELTA has supported microelectronics development since 1976, and provided services to hundreds of successful integrated circuit projects for some of the world’s best-known OEMs/IDMs and fabless semiconductor suppliers. We are a business unit of DELTA Danish Electronics, Light & Acoustics which was established in 1941.

1976 ME test activities starts, RAM, PROM & CPUs
1984 ASIC design centre established
1992 First space components delivered
1999 OEM supplier
2001 Mega order of 600,000 toll road chips
2002 RF test centre starts
Engagement levels

*Semiconductor products – the way you want it.*

Whether you are an experienced semiconductor user or not, DELTA offers the solution that suits your company the best. DELTA’s skillful team meets you where you are and takes you through all phases in the process.

**ASIC services**
Have you developed your own microchip and therefore only need wafer procurement, test, or perhaps failure analysis?

**Chip delivery**
Do you have experience with electronics and need someone to design a microchip for you and deliver it packaged and tested?

**Tag and module delivery**
Do you need an electronic module or RFID tag to insert into your non-electronic product?

**The ASIC to COT knowledge flow**
DELTA can offer various business models depending on how much responsibility you are ready and willing to take.

**ASIC model**
When quality is in focus and you want a turnkey partner, then choose the ASIC model. DELTA takes care of the entire supply chain from ASIC design to logistics. DELTA takes full responsibility.

**ASIC to COT model**
Knowledge transfer
When you gradually want to take over the control and management of your supply chain to stay in control at all times, DELTA slowly hand over the manufacturing responsibility to you one step at a time.

**COT model**
When cost is important and you want to take full ownership and responsibility of all steps in the manufacturing process and interface directly with all suppliers from wafer fab to test facility.

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2004
First 10 mill components delivered

2008
Single contract of 10 mill chips

2009
25th anniversary, the DELTA ASIC Design Centre: From hand-drawn chips to nanotechnology and BroBizz

2010
IBM partnership contract

2011
Celebrates more than 100 mill components delivered

2012
GlobalFoundries partnership contract
Our supply chain

DELTA will transparently manage any subcontractors involved in providing microelectronics services to customers – from silicon production to delivery of finished components in batches.

ASIC Design
The cost and risk associated with development of custom silicon ASICs can be very high, and then experience is the best tool to assure a first-time-right outcome.

Wafer supply
Great care needs to be taken throughout the wafer production process to minimise risk, from the initial selection of the best foundry, to the management of the wafer sampling and production process.

Test (Wafer)
DELTA’s team is completely aware of your time-to-market challenge and therefore has developed formal procedures for test development projects over many years to ensure customers high quality and rigorous test solutions.
DELTA has invested heavily in our semiconductor testing resources, and operates one of the largest commercially available microelectronics testing facilities in Europe. We have a variety of equipment to suit various applications, and thus have the ability to optimise the test solution to the individual customised application (in the most optimal way).

Packaging
Packaging is vital for the performance of the IC. DELTA can assist at any stage, from technology selection, through development and fast-turnaround packaging of samples to volume production and analysis of field returns.

Supporting services
Another aspect of DELTA’s packaging service is our in-house ability to decapsulate and analyse failures. Field returns are often related to packaging issues - such as delamination, temperature effects, wirebond wire failures - and DELTA’s specialists and advanced tools will quickly identify the root cause of such problems.

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**Project flow**
1. ASIC Design
2. Wafers
3. Test
4. Packaging
5. Supporting services

**Test (Production - with focus on timely deliveries)**
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Our focus areas

At DELTA Microelectronic we operate in many market applications. Our technologies are mixed-signal, analogue and digital design.

RFID
- Advanced barcodes
- Tools
- Intelligent monitoring
- Transport
- Home automation (metering)
- Temperature logging
- Food chain
- Containers
- Encryption of sensitive information
- Passports

Optical chips
- Industrial & safety
- Production monitoring
- Position detection
- Motion control
- Optical touch detection
- Distance measurement (triangulation)
- Sensor systems
- Intelligent windows
- Colour measurement
- Eye wear
- Welding helmets
- Night vision

Payments
- Contactless payment
- Loyalty cards
- Membership cards
- Credit cards
- Security Standards
- ESD protection
- On-board CPU
- Proven Technology
- Toll road (ETC/ERP)
- Electronic price tags

Medical IC’s
- Blood bags
- Intelligent pill box
- Glucose meter
- Blood pressure monitoring
- Inflammation of wounds
- Female heat cycle/pregnancy prevention/pregnancy support
- Bacteria detection
- Cold chain for medicin
- Body temperature monitoring
- Temperature patches
- Bandages
At least 17 reasons to choose an ASIC

Replacing standard components with a customised ASIC can pave the way for several advantages.

1. Reducing system cost
2. Greater reliability
3. Big savings on space
4. Copy protection
5. Reductions in power consumption
6. Savings on assembly and testing costs
7. Better control of electrical parameters
8. Avoiding obsolete components
9. Lower maintenance cost due to fewer components
10. Savings in inventory and logistics costs due to fewer components
11. Reducing risk
12. Entire development flows
13. System designs and analogue IPs
14. Contracts where software is included
15. You focus only on software for the final application layer
16. Quick access to prototype chips that work
17. Right-first-time ASICs