

# ALTECH MULTIMEDIA GROUP



**Company  
Profile**

## Vision

Altech Multimedia Group, as a high-technology multimedia solutions group, believes in the power of harnessing leading technologies combined with smart innovation. Our vision is to continue to be recognised as one of the most sought after providers of value added products, services and solutions in the global Multimedia, Automotive and Home Automation industries

## Mission

Our mission is to remain at the forefront of technology and provide our global partners and customers with smart innovative products, services, and solutions that are value-adding and will keep them abreast of the latest technology trends

## About Our Group

Altech Multimedia Group incorporates Altech Multimedia International (AMMI), Altech UEC (UEC), and Altech GDL (GDL).

## About AMMI



### About our business

Altech Multimedia International (AMMI) is a world-leading provider of products, professional services and competitive solutions to the digital Broadcast and Broadband industries. AMMI's solutions include a number of innovative world-first applications that are currently deployed in several digital television networks around the world.

As a pioneer of the DVB STB industry AMMI (then UEC) launched a world-first DVB STB in 1995. Since that time, AMMI has consistently been in the forefront of digital technical innovation, developing ground-breaking products custom designed to suit each Network Operator's unique technical and commercial requirements, thus enabling the capture of significant market share across the world.

AMMI boasts a Blue-Chip client base and an award winning product portfolio as well as an enviable reputation amongst its partners and peers as one of the most technologically capable businesses in the industry.

Driven by smart innovation and grounded by experience, our products reflect the leading edge of digital technology evolution. Each product is thoughtfully created to empower our partners to maximise their unique business imperatives.

### **about our design and development**

Design and development is key to AMMI's success, ensuring their products are innovative, future-proof and of the highest quality, to deliver the platform for easy and convenient enjoyment of digital content anywhere in the home.

As the backbone of our business, the AMMI design and development division employs engineers and technicians that specialises in innovative product design, rapid development of complex STB solutions and integration of complex systems and solutions. AMMI holds several patents in the area of Secure Transactional Media Distribution Solutions and more than 10% of income is designated for product development projects.

AMMI has been the driving force in the development of the global digital TV market, developing strong partnerships with some of the world's leading operators and broadcasters to deliver the very best TV experience.

AMMI has developed partnerships with some of the world's leading conditional access and middleware solution providers to ensure uncompromising quality and the continued advancement in digital technology.

## About UEC



With 25% ownership by a South African Broad-Based Black Economic Empowerment (B-BBEE) consortium, Altech UEC (UEC) forms part of the Altech Multimedia Group of companies servicing the converged telecommunications, multimedia, information technology and automotive markets.

### our manufacturing facility

The UEC factory, located in Mount Edgecombe, KwaZulu-Natal, South Africa, is a world-class, 13 500m<sup>2</sup> manufacturing facility that produces five million consumer electronic devices per annum destined for local and international markets. Ideally situated within fifteen minutes of King Shaka International Airport and thirty minutes of the Port of Durban, one of Africa's busiest harbours, the plant manufactures flat panel televisions, set-top boxes and vehicle tracking systems. The plant is ISO9001 and ISO14001 certified with three lines of business, namely electronic assembly of printed circuit boards, plastic injection moulding, and final integration which is supported by the following process systems:

- Track and trace with serialisation control
- Climate controlled PCB storage system
- Onsite contingency electricity generation
- ERP management
- HALT and ALT capability
- Lean manufacturing and standardised work systems
- TS16949 ready

UEC's engineers have access to Cam350 PCB DFM software, Solid Edge CAD/Cam modelling software, environmental duty cycle testing, plastic injection moulding MFA-finite element analysis, jig and fixtures tool room and a process engineering failure mode investigation laboratory.

## our manufacturing facility



### electronic assembly of printed pcbs

The electronic assembly area consists of a temperature controlled environment with EDS-safe flooring. It houses five high speed SMT lines, consisting of Panasonic and Fuji NXT platforms machines. The line also holds SPI, SAKI (AOI), optical inspection, and Panasonic radical insertion equipment. Flash Programming is done pre-SMT placement on one of three BPMicrosystem Automatic NAND programming machines. Altech UEC currently runs mainstream production on Pin and Paste components.

The plant is also able to perform top-side and bottom-side surface mounting. These machines ensure a capacity of 700k CPH. The remainder of the electronic assembly consists of re-flow soldering, Vector guard foil clamping, Vario- pin board support, automated stencil washing systems, odd form hand placement, wave solder and functional testing of PC boards.

Important support functions in this area are the x-ray solder inspection system, the stencil control zone and the BGA repair rework station.

All critical plant equipment is operated on an uninterrupted power supply system to mitigate against power dips.

## pad printing and mechanical sub assembly

Printing on buttons, lenses and fascias is also managed in-house on a multi-colour 16 pallet high speed carousel pad printer. Mechanical sub-assemblies of the various assemblies are assembled, tested, serialised and scanned into the track and trace database.

## injection moulding

The mechanical parts are constructed from various raw materials such as ABS and acrylic using Engel and Toshiba plastic injection moulding machines. The moulding tonnage ranges from 30 tons to 280 tons. Quality control checks for the plastic injection operation are conducted by taking a sample of the mechanical parts and analysing them for dimensional accuracy and aesthetic compliance. Post-moulding operations such as rubber feet, buttons, and smartcard and lens fitment are executed online, thereby ensuring the operation remains competitive in terms of efficiencies. Robotic part extraction is used to increase machine efficiency.

## final integration

Final integration entails assembly of the PC boards with moulded mechanical parts by utilising a fastening system with screws or by clipping the parts together. Each sub-assembly is paired to the main assembly by means of a dedicated barcode which is produced automatically. All products are loaded onto the in-house track and trace system which allows the manufacturing plant to keep track of all assemblies.

Dependent on product type, software can be programmed into the product. The products are subjected to a customer acceptance test once completed.

The plant also offers peripheral packaging for customers, from packing of cables and remotes, to user manuals and other accessories. These are weight scale-based as an additional quality control check before being sealed and packaged to ensure that all accessories are included. The completed package is then sealed and palletised, ready to be shipped to the customer.





### **risk management**

With the increasing electricity supply issues experienced in South Africa, the plant has mitigated against incidents of load shedding by investing in heavy-duty industrial generators with enough fuel capacity to keep the plant running for more than a week.

The plant is equipped with power smoothing equipment to protect against power surges and subsequent damage. It also has fire protection facilities consisting of an overhead sprinkler system, attached to 200 000 litre water tanks powered by a diesel fuel pump system.

### **carbon footprint**

When it comes to the plant's carbon footprint, there is an environmental management policy in place that complies in the following manner:

- Any packaging material in the form of cardboard paper is compacted and recycled. The compactor has the capacity to compress half a ton of cardboard into a bale ready to be transported to the recycling depot.
- The plant also recycles all electronic scrap as well as all by-products of the solder process. Wire clippings, cartons and polystyrene, wood, paper, plastic and steel are also recycled.

Products that cannot be recycled are disposed of through certified third party disposal services. The plant strives to be a responsible corporate citizen.

## **Contract manufacturing capability**

UEC is capable of taking a product from concept to full scale production with main focus being on electronics plastics and final integration and test.

UEC has achieved advanced quality systems allowing that plant to produce to international and automotive quality levels.

The factory comprises of three main divisions Plastics, SMD, and Final Integration.

### **Plastics**

UEC has a well-established injection moulding facility and tool room. UEC is capable of designing, building prototypes and sourcing tooling right through to Manufacturing.

The machinery range from 50T through to 280T all machines are Engle or Full electric Toshiba and are specifically for precision parts.

The plastics division also boasts a paint plant that can apply 1k applications at automotive level. There is also a pad printing facility where UEC has the ability to print up to eight colours and manufacture their own printing plates.

### **SMD**

There are four SMD lines using NXT and Panasonic equipment this equipment has the capacity to place up to 80 000 components per hour.

The SMD division also has flash programming capability and camera inspection of PCBA. UEC also has Radial and hand insertion with wave solder.

UEC has a component sourcing office in Shenzhen China to ensure that the most competitive pricing.

### **Final Integration**

Final integration consists of three lines Flat panel TV assembly up to 65", Set Top Box assembly and Automotive Satellite Tracking device. Final assembly can easily be configured to suit any process.

UEC has strong working relationship with packaging supplies to provide a complete solution.

## About GDL



Altech GDL (GDL), a division of Altech Multimedia Group, was formed to deliver after sales support or decoder repair capability to our clients globally. This support is delivered by enabling third party agents to perform repairs to our decoders local to their country of deployment, by on site decoder repair support from GDL field service support technicians or by GDL establishing and running a decoder repair centre.

The spectrum of support services include:

- Warranty support of all products
- Repairs to all brands
- Life extension programs
- Quality and reliability analytics service
- Hardware upgrades and modifications
- Refurbishment services
- Product reconfiguration

For more than 10 years Trac-‘n-Trace Service Resource Planning has provided CPE logistics and service providers with industry leading real time tracking, routing, and monitoring of serialised equipment from receipt to dispatch.

Trac ‘n Trace SRP enables service providers to achieve higher production throughput and business growth by providing a solution that is:

- Easy to implement and use
- Highly configurable
- Flexible and adaptable to market driven process changes.

Trac ‘n Trace SRP’s streamlined interfaces enables your workforce to capture data faster through bar-coded commands, configurable drop-down and check lists allowing more time to perform repairs and refurbishments than documenting it.

Features include:

- Intuitive user interface for ease of use and minimal staff training requirements
- Stable and scalable through standardising on the Microsoft SQL database
- Elective modules available include; quality assurance, performance management, remote service centre, time and attendance, human resources and extended cloud based reporting
- Easily in house extendable with through the optional developer module.

## Key Facts

### our history as a group

The original UEC Company was acquired in 1986 by the Altech Group and, as a pioneer of the DVB STB industry, UEC launched a world-first DVB STB in 1995. By 1999 we exceeded 1 million STBs sold globally. By 2010, we had delivered more than 15 million STBs and the number keeps growing with STB sales averaging between 2 million and 3 million a year.

Since then, we have established GDL to maintain and support STB's specifically for the South African market and serve as an aftersales support centre and accessories reseller.

The formation of AMMI was necessitated by the need for an internationally focussed commercial entity to service the international STB markets. As such, UEC was refocused to serve the Sub-Sahara Africa market and serve as the manufacturing entity for electronic devices.

All three entities, AMMI, UEC, and GDL form individual commercial entities within the Altech Multimedia Group.

### our recent highlights

We have restructured our international business under AMMI, consolidating various entities and we now have a focused team of sales and product professionals servicing Sub-Sahara Africa, South East Europe / Middle East as well as Asia Pacific.

We continue to make significant investment in product development and we recently launched a number of exciting products that include Hybrid OTT, broadcast Media Gateway 4K PVR, multi-tenant Home Media Gateway 4K PVR, and Android-based platforms for selected telecoms and broadcast networks.

Our new 13 500sqm electronics manufacturing facility in Mount Edgecombe, South Africa, has an 8 million STBs per annum capacity. In 2014, UEC manufacturing obtained the TS16949 Automobile Quality Standard Certification and in 2017 we will surpass 30 million STBs delivered. We also opened the India Design Centre in Bangalore and was awarded the contract to manufacture Samsung Flat panel TV's.

In 2012, our supply chain office was opened in Shenzhen, China.

## Our Guiding Principles

### Our People

By stimulating innovation and rewarding creativity, we attract and retain the extraordinary talent required to develop and produce a focussed range of leading digital **multimedia solutions**.

### Our Partners

We regard our shareholders, our staff, our suppliers and our customers as our partners in our journey and as such we strongly value their company and continually strive to earn their respect. We share our successes with our partners and reward their loyalty and believe that all relationships should benefit each partner equally.

### Our Planet

We treasure our planet and employ sustainable and environmentally sound manufacturing and waste management practices. We encourage our partners to perpetuate this philosophy in the handling of our products once they leave our hands.

### Our Business Philosophy

Our perennial success can be ascribed to a business philosophy that is built on partnering with our clients and empowering them to realise their business imperatives. Through a resolute commitment to innovation, value and quality, we have earned an enviable reputation for delivering market leading products and solutions.

### Our Social Responsibility

Altech Multimedia, through a variety of initiatives, is committed to empowering the community. For more information please refer to [www.altech-multimedia.com](http://www.altech-multimedia.com).

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