

Dube TradePort

Export fact sheet: Electronics



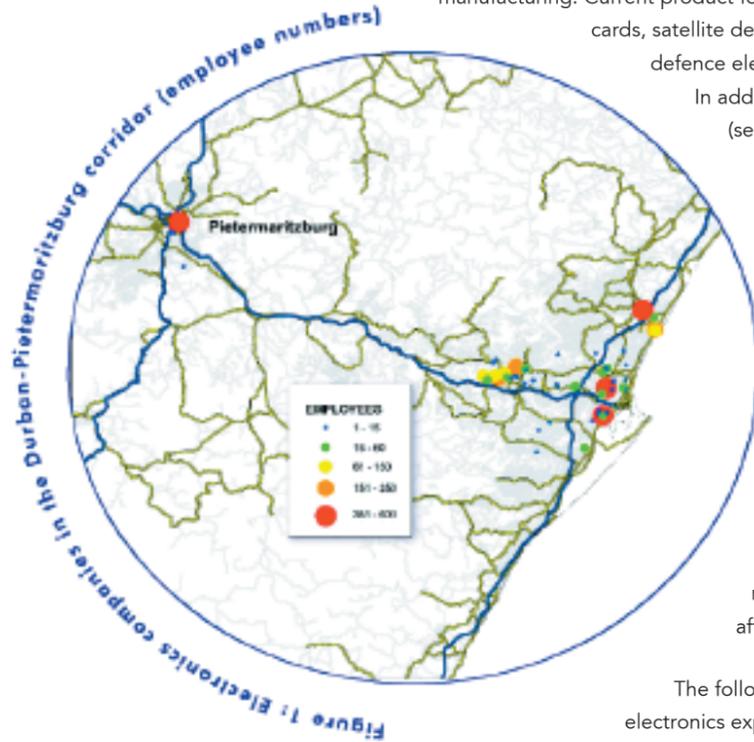
1 Overview of electronics manufacturing and exports within the DTP catchment area

The electronics sector within KZN is focused largely on product development, systems integration and manufacturing. Current product focus areas include security electronics, smart cards, satellite decoders, prepaid meters, wireless devices, defence electronics, traffic monitoring and asset tracking.

In addition, there is a focus on automotive electronics (see also the export fact sheet on automotive components). The KZN electronics sector is heavily concentrated in eThekweni/Durban and Msunduzi/Pietermaritzburg, as indicated on the adjacent map which shows the size of identified players in the electronics sector. There is additional electronics activity in the wider DTP catchment area, particularly in Gauteng.

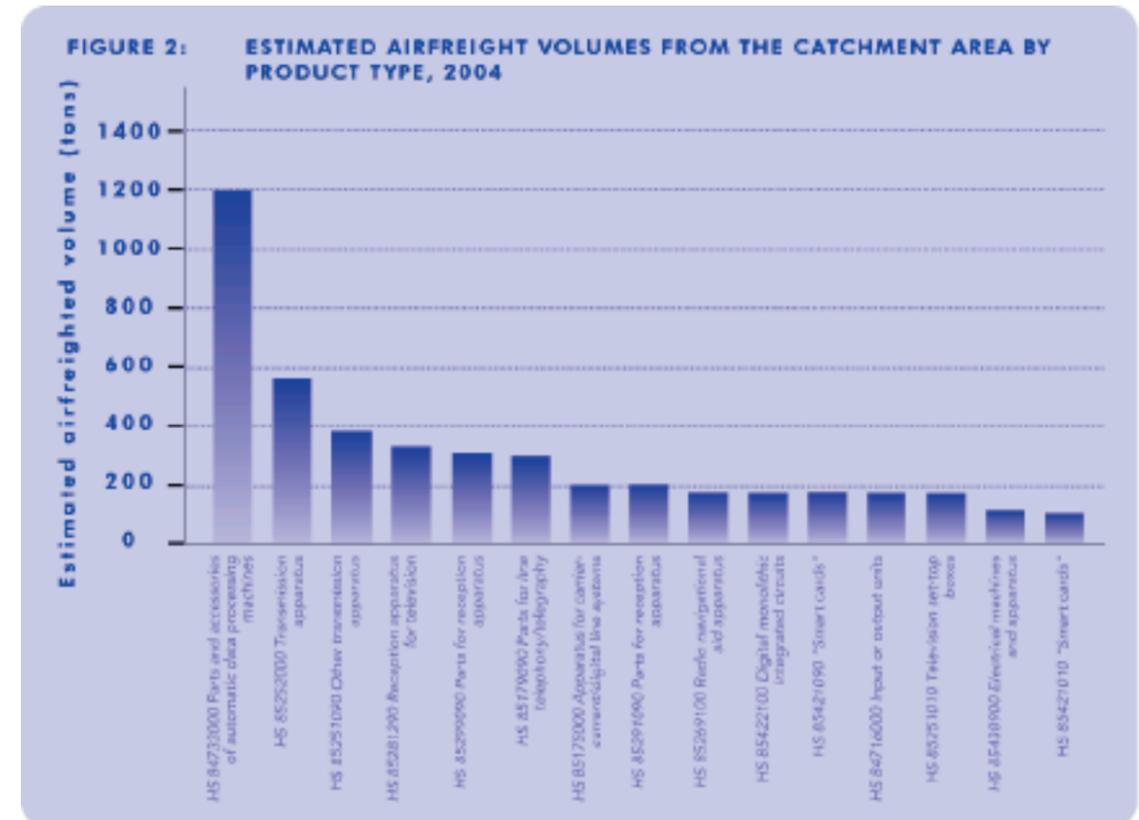
From within this catchment area, items with the highest value-to-weight ratio are more likely to be airfreighted, although other products may occasionally be airfreighted to meet urgent orders or to meet delivery deadlines after delays in production.

The following table highlights the rand value of airfreighted electronics exports from the entire DTP catchment area in 2002:



Electronics	R
Estimate of DTP catchment area exports airfreighted (2002)	507,190,000
Estimate of total exports by sector (2002) - ICT and electronics	1,857,180,000

The graph on the next page summarises statistics derived from customs data for current electronics exports airfreighted from the catchment area. Please note that the HS Code product categories used by customs do not match industry terminology closely; however, industry consultations have confirmed that these exports are primarily made up of satellite decoders and electronic security systems.



2 International market trends

The size of the global electronics market was estimated to be almost US\$1,100bn in 2002. The table below provides a forecast of 2002 to 2007 global growth rates for subsectors within this market.

	2002 (US\$bn)	2002-07 *
Consumer Electronics	192.8	5.8%
Computers	349.3	5.9%
Telecommunications	184.2	6.5%
Avionics, Aerospace, Defence	84.2	4.2%
Automotive	88.0	10.6%
Energy, Industry and Services	177.4	5.5%
TOTAL	1075.9	6.2%

* Compound Annual Growth Rate

Important subsectors identified as global growth opportunities include the following:

- ◆ **Automotive**, identified by some industry experts as by far the fastest growing segment – the value share of electronics in car production was expected to grow from 18% in 2002 to 25% by 2005
- ◆ **Mobile transmission infrastructure**, with “System on Chip” (SoC) solutions offering new possibilities for integration
- ◆ **Contract manufacturing**, in particular component manufacture and Electronic Manufacturing Services (EMS) – the electronic components market has been estimated at US\$287.5bn and is expected to grow rapidly
- ◆ **Set-top boxes** (satellite decoders) – global demand is expected to grow from 45 million units in 2002 to 120 million units (worth US\$14.5bn) by 2008, driven by rapid growth in the satellite platform and a move to more integrated systems
- ◆ **Security systems** – forecast to grow at 9% per annum until 2006 to reach US\$65bn. Major growth products are burglar alarms for residential and small business use, fire alarms and the higher-end “identification” market

Geographically, more than 75% of the global electronics market is in the US, Western Europe and Japan. However, these markets are expected to grow at rates of only 3% to 5% annually. In contrast, the Chinese market is forecast to grow at 17.7% annually to over US\$200bn in 2007. Other parts of Asia/Pacific (outside Japan) are expected to grow at rates nearing 10% annually.



SPECIAL FOCUS: ELECTRONIC SECURITY SYSTEMS

It is estimated that the size of the global electronic security systems market will exceed US\$65bn by the end of 2006, of which Western Europe will account for 34%, the US market 25%, Asia/Pacific 20%, Eastern Europe 7% and Africa/Middle East 5%. By 2011, the industry is forecast to grow to US\$96bn. Growth of private security in developed markets is expected to remain strong,

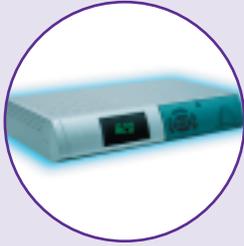
driven partly by the increased fear of terrorism and continued media attention to crime. However, the strongest growth is expected to come from developing countries in Asia, Latin America, Eastern Europe, Africa and the Middle East. For example, the electronic security market in India is expected to grow at over 15% per annum to 2006, and the Chinese market at 20% per annum. These markets currently have largely unpenetrated private security markets and are characterised by rising crime rates, expanding economies, new business formation, heightened foreign investment, emerging middle and upper classes, and privatisation of formerly state-owned industries such as banking and air travel.

The UK and the US however remain important markets for electronic security systems. The total UK security and fire protection market is valued at approximately US\$10bn and is expected to grow by 4% per annum in value terms through to 2006 – electronic security systems account for approximately 27% of the total market in terms of value. Strong growth in the output of new commercial sector buildings has boosted demand for electronic security. There is also increased demand for integrated security systems. As a result, equipment manufacturers need to co-operate with systems integrators by using standard protocols or making their protocols available, so that their products can be used alongside the products of other manufacturers. There is also an increasing trend towards compliance with industry standards and regulations such as those set by the British Security Industry Association. Many manufacturers sell to distribution companies (for supply to the installation sector) or directly to the larger installers, as most electronic security products require specialist installation. The distribution of electronic security products has become concentrated, and there are two particularly large players in the UK - Upperpoint Distribution Ltd and Gardiner Group PLC.

The US electronic security products and systems market grew steadily throughout the 1990s. Demand is now forecast to grow by 9% to 10% per annum to a value of US\$11.5bn by 2006. There is a major trend towards increased digitalisation of security components and integration into more “intelligent” monitoring systems. Industry experts expect US-based suppliers such as Honeywell, Tyco International and GE Interlogix to dominate the domestic market; they already jointly account for one third of the US market. However, there are also expectations of increasing margin pressure, hence the market could be attractive to suppliers who can offer reliable technologies at competitive prices.

The following product groups are considered to have strong growth potential:

- ◆ *Burglar alarms for the residential and small business markets – this growth is driven by falling system prices, performance improvements and the increased bundling of monitoring equipment with telecommunications and home automation services*
- ◆ *Fire alarms – due to widespread implementation of stricter fire safety codes*
- ◆ *Higher-end electronic security systems including digital recording devices and wireless systems*



SPECIAL FOCUS: SATELLITE DECODERS

Satellite decoders form part of the Digital Signal Processor (DSP) market. Worldwide demand for digital television set-top boxes was estimated at 45 million units in 2002, driven by the 103 million households watching digital television in that year. Global demand is expected to rise to 120 million units (worth US\$14.5bn) by 2008, driven by rapid growth in the satellite platform and a move to more integrated systems. This means that manufacturers will move away from traditional stand-alone set-top box devices towards personal video recorders with integrated satellite and digital TV receivers.

The Asia/Pacific region is showing good growth potential due to factors such as China's acceptance into the WTO, Korea's adoption of broadband technology, and new digital satellite launches in Japan. In contrast, Western Europe is not expected to be a growth market due to a focus on reducing costs. This has left little prospect for differentiation and adding value to product offerings, and may lead to industry consolidation.

Along with cost, quality, and after sales service, time to market is also critical to the success of exporters, in particular to access the Australian market, an important market for South African DSP producers. A short lead time to market is necessary to compete with rival Asian manufacturers and to counter the drive by satellite decoder wholesale and retail buyers to reduce stockholding costs through more frequent and smaller shipments. Therefore, South African suppliers have to ship the majority of products by air to this market, raising their logistics costs above those of their Asian competitors, who typically ship their goods by sea.

There are three main purchasing criteria for satellite decoders:

- ◆ *Cost: The total cost of supplying to the distributor (including shipping costs) must be competitive enough to ensure a profit on sale to end users*
- ◆ *Quality: The product must be of a high technical standard, reliable and not prone to failure*
- ◆ *After sales service and support: This is critical to ensure customer loyalty and hence a sustainable market*