

Microwave Tubes and Radar Components

Main products

This division covers broadly the following two fields; electron tubes and radar components for defense and meteorology (governmental-use) field, and marine radars (consumer-use) field.

[Business results in fiscal 2003]

Sales of electron tubes and radar components for defense and meteorology remained favorable because of stable order from our main customers, government-related, although a little below the previous term.

Sales of consumer-use electron tubes and radar components for marine radars exceeded the previous year because major customers have completed inventory adjustment and the market was recovering.

Total sales for the entire division were ¥4,576 million (up 0.7% from the previous year).

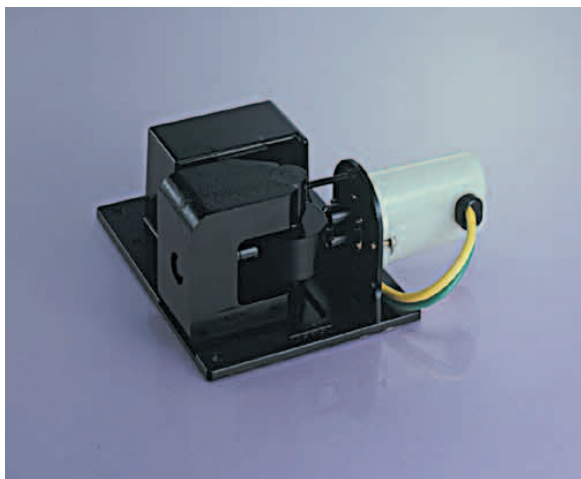
• Governmental-use products

Sales were almost stable because of our high market share based on our long-established achievements and few competitors, etc.

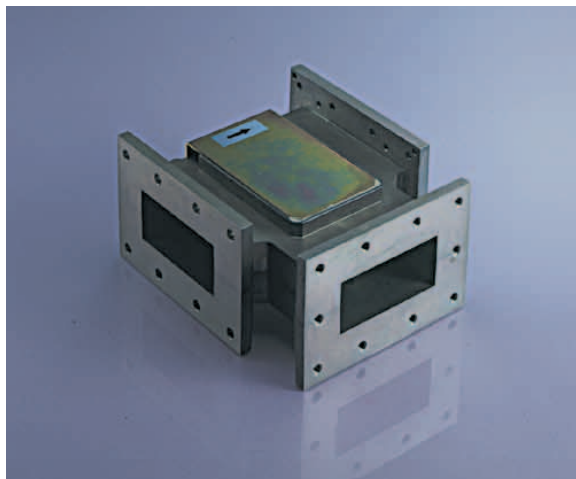
• Consumer-use products

We launched electron tubes and radar components that cope with the “spurious-noise regulations” into the market to expand the share of the marine radar market. Sales were up 12% and volume was up 15% compared to the previous year. Especially, sales volume of electron tubes and radar components for pleasure boat radars were up 20% from the previous year, which gives us the world’s leading share.

In fiscal 2004, we continue to strengthen the sales of mainly electronic tubes and radar components that cope with “spurious-noise regulations”. To achieve size and weight reduction, we will start development of microwave parts using semiconductor devices (silicon carbide).



M1302/M5020 is a magnetron for S-band marine radar system.



NJC3310 is a circulator for S-band marine radar system.



NJT1946A is a front end for X-band marine radar system.

[General overview]

The products of this division are used worldwide, as essential parts in all sizes of radar ranging from large radars for governmental-use to small radars for consumer-use (pleasure boat etc.).

Recently, with legislation of the “spurious-noise regulations” by international organizations, further reduction of spurious-noise has been needed. In response to the needs, we continue to launch new products into the market ahead of other companies, achieving a good reputation. We continue to develop new products compliant with the “spurious-noise regulations” for a larger market share.

As for radars for small pleasure boats, the existing electron tubes were too heavy to allow market penetration despite being in high demand. In view of the circumstances, we will start development of microwave parts using semiconductor (silicon carbide) and plan to increase sales in this market through early commercialization.



NJS6930 is a high power limiter for X-band marine radar system.

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