

Capacitor Market in Japan: Key Research Findings 2009

Research Outline

Yano Research Institute has conducted a study on the capacitor market based on the following research outline.

1. Research period: From June to October 2009
2. Research targets: Japanese capacitor manufacturers, oversea capacitor manufacturers, etc. (26 firms in total)
3. Research methodologies:
Face-to-face interviews with relevant personnel by our specialized researchers, and literature research

<What is the capacitor market?>

The types of capacitors covered in this study include multilayer ceramic capacitors (hereinafter called MLCCs), aluminum electrolysis capacitors (hereinafter called Al electrolysis capacitors), electro conductive polymer aluminum solid electrolytic capacitors (hereinafter called functional Al capacitors), tantalum capacitors (both dry and wet) (hereinafter called Ta capacitors), electro conductive polymer tantalum solid electrolytic capacitors (hereinafter called functional Ta capacitors), film capacitors and electric double layer capacitors (hereinafter called EDLCs). Basically the EDLCs referred to in this research summary represent the products with a few F (farads) of capacitance or lower.

Key Findings

- ◆ **World market size for capacitors in 2009 is projected to be 1,291.7 billion JPY in value, and 1,725.3 billion pieces in quantity.**

The size of the world capacitor market in 2009 is projected to be 1,291.7 billion yen in value, 88.9% year-on-year, and 1,725.3 billions in number of pieces, 105.6% year-on-year. Due to the deterioration of economy started around the fall of 2008, manufactures of finished products, the end users of capacitors, have reduced production and adjusted inventories. The demand has been gradually recovering since April 2009, but operating rate of the capacitor production has just started to rise in full swing in July of the same year. Also, the impact of decrease in parts price is even larger than positive impact of increase in production since majority of demands is for low-end models. Therefore, we do not anticipate that the market size in value grow in proportion to the increase in volume.

- ◆ **World capacitor market in 2011 is forecasted to be 1,600.1 billion JPY in value, and 2,412.4 billion pieces in quantity.**

The market size is considered to be on the increase in terms of volume due to some factors including the demand recovery for such completed products as mobile phones and PCs, the further sophistication and increased functions of equipment and the increased number of applications associated with environment and energy including LED illumination and smart meter on one hand. On the other hand, significant increase in market size in terms of value can hardly be expected as the most popular price range is further going down. In consequence, the world market size for capacitors is forecasted to amount to 1,600.1 billions in yen value in 2011, which is 108.6% of the year before but not as much as the level of 2007. However, the market should steadily grow in volume and is expected to be 2,412.4 billions in quantity in 2011, which is 115.5% year-on-year.

- ◆ **End of competition for higher specifications and rise of oversea manufacturers who compete in the most popular price range**

Manufactures from other Asian countries such as Taiwan, South Korea and China have been increasing their market shares backed by improved technological capabilities and provision of low-cost products. This trend is most typical in the case of MLCC market. The Asian manufactures have been taking market shares from Japanese manufacturers by lowering the prices of the most popular product types including the products with the size of 1005 (JIS standard) or 0402 (EIA standard) (1.0mm x 0.5mm), those with lower than 47 μ F (farads) of capacitance, etc. As countermeasures to this movement of Asian manufactures, Japanese manufactures are broadening their product lines and offering more comprehensive and generous services to the manufactures of finished products.

➤ **Report format:**

Published report: "Capacitor Market 2009"

Issued in: October 2009

Language: Japanese

Format: 299 pages in A4 format

Price: 140,000 yen (7,000 yen of consumption tax will be additionally charged for sales in Japan.)

Contacts:

Public Relations

Yano Research Institute Ltd. (URL: <http://www.yanoresearch.com>)

Phone: +81-3-5371-6912

E-mail: press@yano.co.jp

➤ **Research Summary**

1. Overview of the market

- There was a slump in demand during the period between January and March 2008 due to the inventory adjustment by the finished products manufactures that had continued since the second half of the previous year. After that, the demand further slowed down during the period between April and June. Although the demand recovered in the third quarter of the year to prepare the year-end sale, the economy entered a recessionary phase in fall due to the subprime mortgage crisis, and the finished products manufacturers were forced to adjust inventories and deferred capital investment again. In accordance with this movement, the demand for capacitors began to decrease again in around November 2008.
- As a consequence, the Japanese capacitor manufacturers were forced to reduce their production to 60 to 70% of their capacities in the first quarter of 2009. Finally, the world capacitor market shrunk in fiscal 2008 in terms not only of value, but also of volume, and we have estimated the size of the world capacitor market in 2008 to be 1,452.6 billion in terms of yen value, 80.5% of the previous year, and 1,634.1 billions in terms of quantity, 94.2% of the previous year.
- Since around April 2009, the demand has shown a sign of recovery with the advancement of inventory adjustment. Because the demand for such finished products as mobile phones and notebook PCs has been on the clear increase since July of the year and these types of products have been becoming more and more sophisticated and increasing their functions, we consider that the capacitor market is on the upward trends in terms of volume. In consequence, we finally projected that the market size in 2009 would be 1,291.7 billion yen in value, 88.9% year-on-year, and 1,725.3 billion pieces in volume, 105.6% year-on-year, based on the facts that the impact of the business downturn in the previous year remained in the first half of the year and that the demand has been driven mainly by low-end models of the finished products whose unit values of parts are very low compared to those of expensive models.

2. Future outlook of the market

- Manufacturers from Asian countries such as Taiwan, South Korea and China have been acting aggressively pushing down the price, and the price of capacitors has been decreasing due to lowered costs of capacitor materials. Therefore, the growth of the market in terms of value in proportion to the increase of volume cannot be expected also in future.
- As for the market size in volume, we can expect that it is continuously on the increase trend as the demand for the finished products has been on the rise and the range of applications related to environment and energy such as LED illuminations, LED flashes, smart meters, etc. is expected to be broadened, although there are some negative factors such that the number of parts used on the finished products has decreased due to the increase of low cost models and it is difficult to expect that the number of parts increase even for the high-end models.
- Finally, we forecast the size of the world capacitor market to be 1,473.2 billion yen in value, 114.1% year-on-year, and 2,088.8 billion pieces in volume, 121.1% year-on-year in 2010, and be 1,600.1 billion yen in value, 108.6% year-on-year, and 2,412.1 billion pieces in volume, 115.5% year-on-year in 2011.

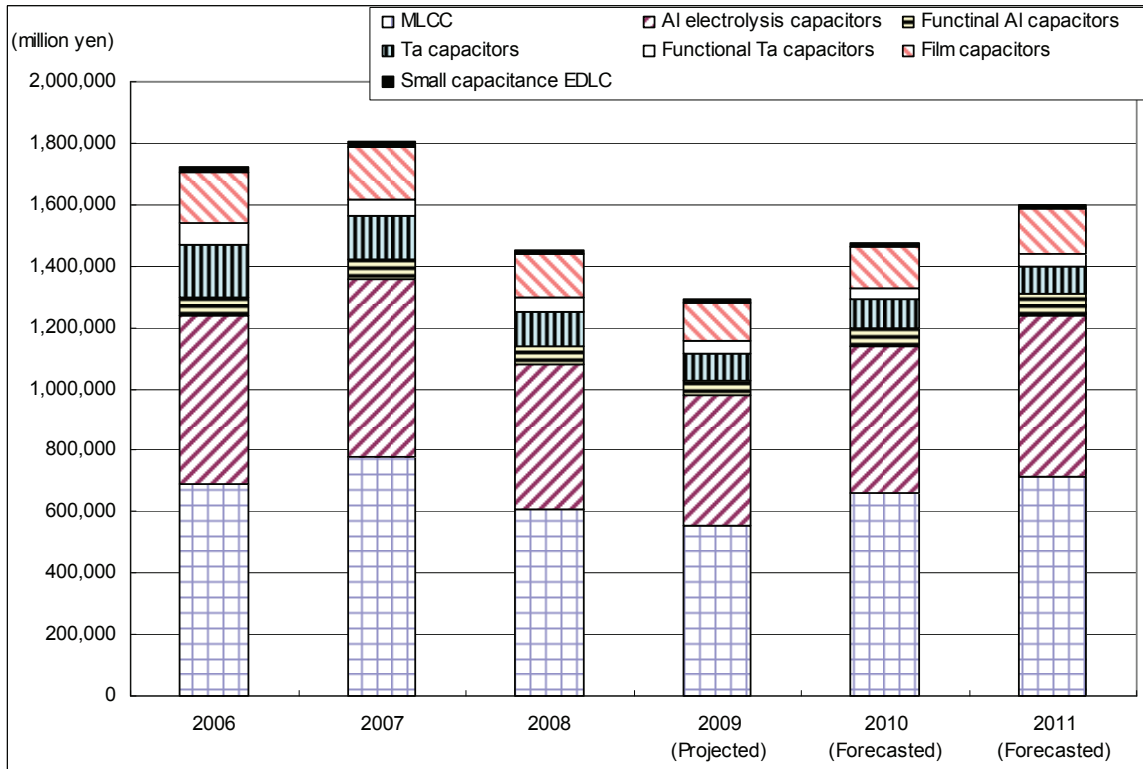
3. Remarkable market trends

- In the past, the Japanese capacitor manufacturers have maintained or expanded their market shares by pursuing higher specifications in terms of compactness, high capacitance, long life, heat resistance, low ESR (Equivalent Series Resistance), low ESL (Equivalent Series Inductance), etc. After the economic recession started in 2008, however, this trend of the Japanese manufacturers' strategies started to change. Firstly, the standard of specifications of the Japanese manufacturers has been more and more comparable to each other and early-started manufacturers cannot always enjoy advantages over the others. In addition, the Asian manufacturers' focus on lowering the prices of the most popular types of products, aiming at taking market shares, also had an impact on the change of strategies of the Japanese manufacturers. This trend is particularly prominent in MLCC market. Asian manufactures targeted the products with the largest demand such as those with the size of 1005 (JIS standard) or 0402 (EIA standard) (1.0mm x 0.5mm) and those with 47 μ F (farads) or lower capacitance, and they have been increasing their production and shipment by lowering the prices of those target products, whereas the Japanese manufactures was having problems of very low operation rate of 70 to 80% compared to the previous year.
- As already mentioned above, some of the trends of the capacitor market include that the current level of technological capabilities of the Japanese manufacturers are very close each other and that many oversea manufacturers have newly emerged, armed with very low prices of products. Furthermore, finished products manufacturers have narrowed down their parts suppliers to save costs, and "differentiation" has been becoming more and more important for capacitor manufactures in also other areas than technologies and cost in order to be selected as suppliers. Against such a background, some capacitor manufacturers have acquired capacitor businesses of other manufacturers in order to increase their product lineups. By broadening product lineups, they should be able to offer more comprehensive and generous services to the finished products manufacturers. Consequently, we predict that reorganization of the market will be further accelerated for their survival, and many specialized manufacturers will be integrated into fewer numbers of comprehensive manufacturers.

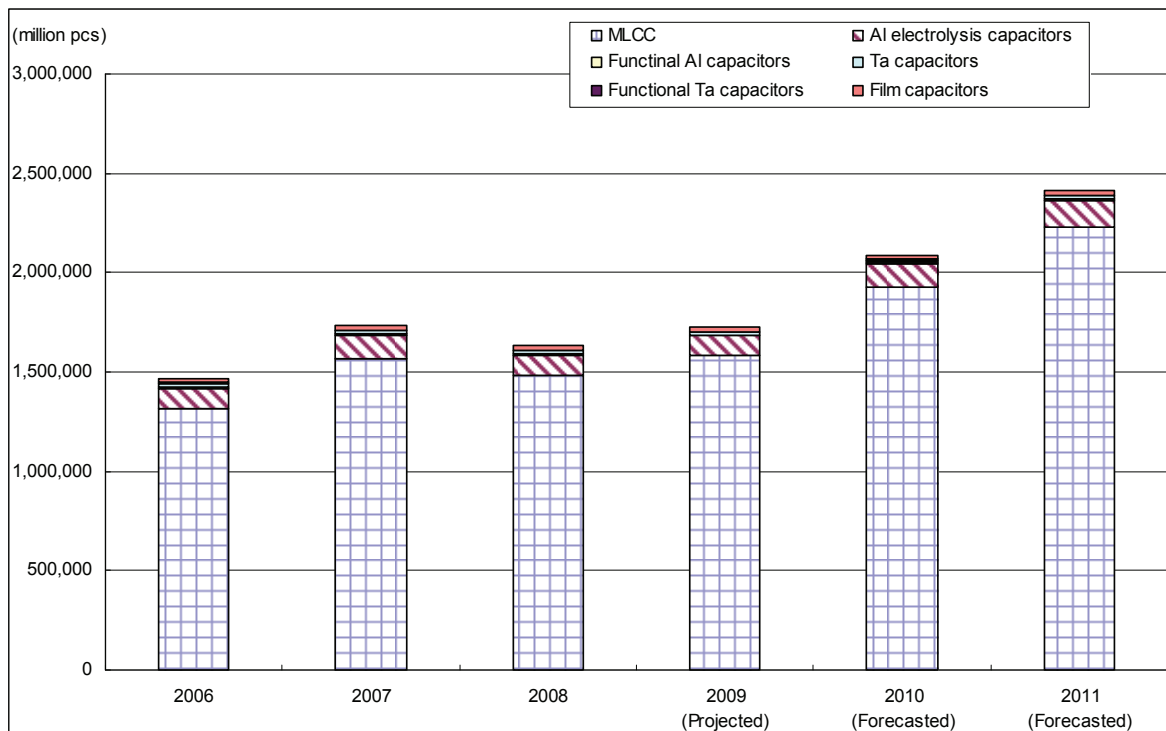
Table & Figure 1. World Capacitor Market (Transition and forecast of market size in value/ quantity)

	2006		2007		2008		2009 (Projected)		2010 (Forecasted)		2011 (Forecasted)	
	Market Size	Year-on-year	Market Size	Year-on-year	Market Size	Year-on-year	Market Size	Year-on-year	Market Size	Year-on-year	Market Size	Year-on-year
Value (Mil. JPY)	1,721,028	-	1,803,974	104.8%	1,452,643	80.5%	1,291,742	88.9%	1,473,241	114.1%	1,600,135	108.6%
Quantity (Mil. Pcs)	1,468,254	-	1,735,311	118.2%	1,634,117	94.2%	1,725,299	105.6%	2,088,767	121.1%	2,412,439	115.5%

Estimated by Yano Research Institute



Estimated by Yano Research Institute



Estimated by Yano Research Institute

NOTE: The market size was estimated based on manufacturers' shipment.