

# Information Meeting 2009

**November, 2009**

**Murata Manufacturing Co., Ltd.**



# Recognition of and Posture toward the Market Environment

## Existing Markets

### ■ Sustained demand for more functional sophistication and convenience in developed nations

- Markets of developed countries will continue to drive new demand
- Murata will enhance its ability in development and other areas to help its customers resolve their issues and problems.

### ■ Popularity of lower-priced end products in emerging economies

- Markets of developed countries also tend to welcome equipment priced at lower levels at the sacrifice of functionality.
- Murata will commit itself to addressing these low-price-oriented markets to meet the growing demand.

## New Markets

- Murata will proactively explore the possibility of launching new operations and extending the operations in new markets that are likely to grow rapidly in the future, including energy/environmental sector, health care sector, and automotive market.

# Profit Targets

- **Murata aims to post a stable double-digit operating income to net sales ratio.**
- **We expect to reinstate the growing trend with continuous profitability.**

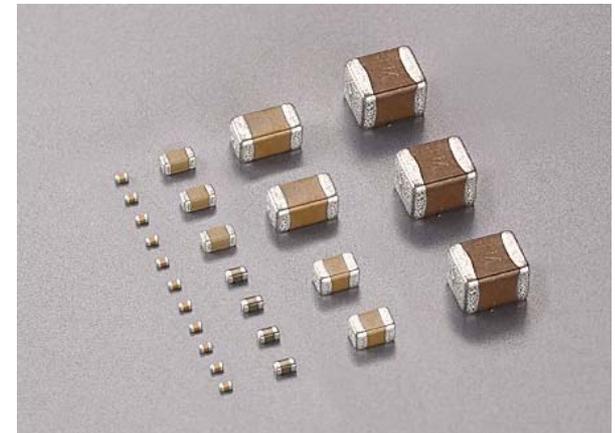
# Market trends and Murata initiatives

## (1) Capacitors

### Initiatives to strengthen our business position

#### a. Strengthening the ability to develop new products

- Focus on strengthening our ability to develop cutting-edge technology for small-size, low-profile, and large-capacitance products; expanding the market for ceramic capacitors to include markets for non-ceramic capacitors
- Development of application specific capacitors



Ceramic Capacitors

#### b. Increasing cost competitiveness

- Initiative aimed at increasing our productivity two-fold
- Expansion of overseas production
  - To achieve lower costs that will allow us to compete successfully with our Asian competitors

# Market trends and Murata initiatives

## (1) Capacitors



### c. Securing production capacity

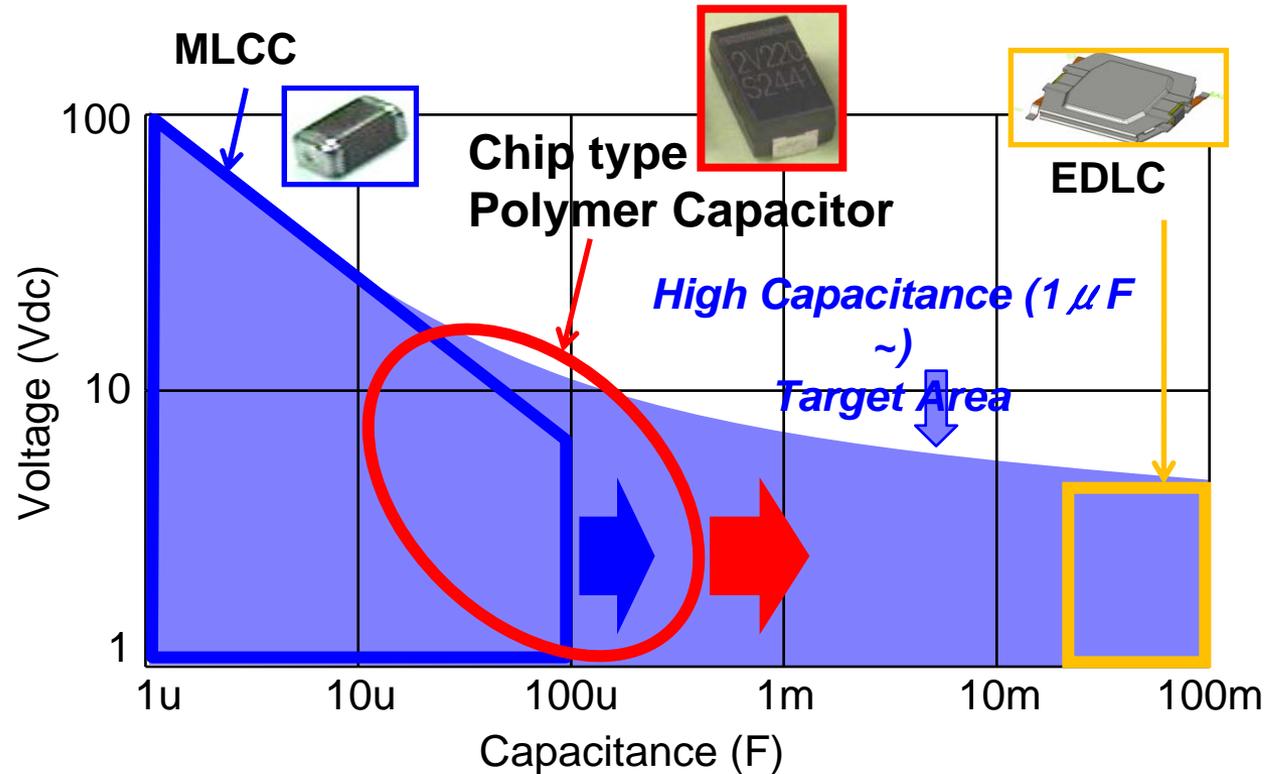
- Precise identification of products likely to grow in the future; securing necessary production capacity for such products

### d. “Capacitor House”

- Functional polymer aluminum electrolytic capacitors
- Electrical double-layer capacitors (EDLC)
  - Higher capacitance than our ceramic capacitors
  - Getting ready to provide a broader range of capacitor solutions

# Market trends and Murata initiatives

## (1) Capacitors



# Market trends and Murata initiatives

## (2) Microwave Components



### Growth of the mobile communications market

#### ■ Growth of multimode and multiband mobile phones

- Component ratio of 3G terminals within the entire mobile phone market is around 20% in 2009, and is expected to grow up to 40% in 2012.
- Multibanding of 3G, and expansion of LTE products supporting GSM and UMTS...Number of bands that can be received by a mobile phone will continue to increase.

#### ■ Growth of the new market

##### (Demand for high-speed data communication)

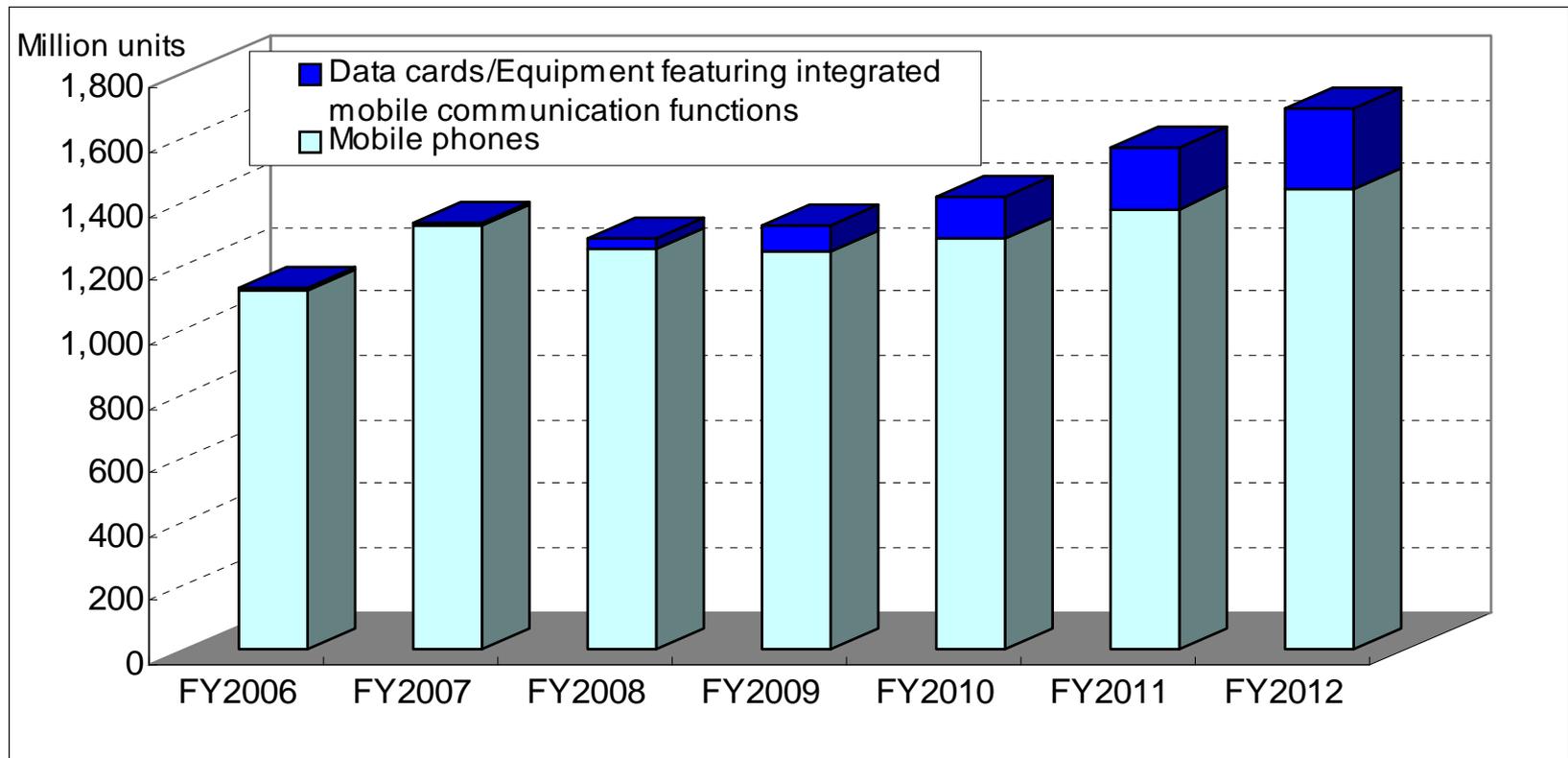
- Increase of notebook PC data cards with 3G communication functions
- Growth of netbooks and other equipment featuring integrated mobile communication functions
- Expansion of the market for smartphones
- Addition of diversity reception circuits

# Market trends and Murata initiatives

## (2) Microwave Components

### Growth of the mobile communications market

- Forecast of the mobile communications market  
(based on the demand of components)



# Market trends and Murata initiatives

## (2) Microwave Components

### Growth of the mobile communications market

- Demand for SAW devices is expected to increase substantially
- Demand for multilayer ceramic modules will also grow
  - High-frequency circuits will become increasingly complex with the progress in multiband and multimode, thus increasing the demand for modules integrating these circuits
  - We aim to expand our front-end module business in the market for mobile communication by using our LTCC technology to downsize modules.

### Short-range wireless communication modules

- Growing ratio of mobile phones that feature wireless LAN
- Initiatives to improve profitability



Wireless LAN module

# Market trends and Murata initiatives

## (3) Chip coils and Noise suppression products



### Chip coils for high frequency circuits

- Increase of the number of coils used in mobile phones with an increase in the number of bands available.
- Have been meeting customer needs for downsizing



Chip coils for high frequency circuits

### Power inductors

- Have so far developed our business with a focus on mobile phones and other small-sized equipment.
- Will strengthen the product lineup for AV and EDP equipment.

### Noise suppression products

- Chip ferrite beads, our core product, have enjoyed a rapid increase in sales.

# Market trends and Murata initiatives

## (4) Sensors

### Gyro sensors

- Piezoelectric gyro sensors for image stabilization of digital cameras
- MEMS gyro sensors for car navigation systems



MEMS gyro sensors

### Shock sensors

- The average number of shock sensors employed per hard disk drive is on the rise.
- Used to detect impact on the hard disk drive, and also used to detect angular acceleration acting on the hard disk drive and, thereby, preventing the head from being dislocated due to inertia.

# Market trends and Murata initiatives

## (5) Applications of piezoelectric technology



### Mechatronics device business

- **Combination of piezoelectric technology, with the mechanism design, precision-machining, and fluid simulation techniques we have developed in the area of production technology**
  
- **Piezoelectric blowers**
  - Piezoelectric ceramics-based blower devices
  - Thermal measures are becoming a more important design requirement for small mobile products.
  - Blowers are used for air cooling in equipment that is difficult to furnish with traditional fans.
  - We are also looking for other new applications.

# Market trends and Murata initiatives

## (5) Applications of piezoelectric technology

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### Mechatronics device business

#### ■ Piezoelectric pump

- Developed for use in small fuel cell systems that are now under development for mobile applications
- Intend to increase sales of these new piezoelectric pumps in keeping with the expansion of fuel cells

### Other piezoelectric devices

- Piezoelectric actuators
- Thin piezoelectric speakers

# Market trends and Murata initiatives

## (6) Activities in new fields

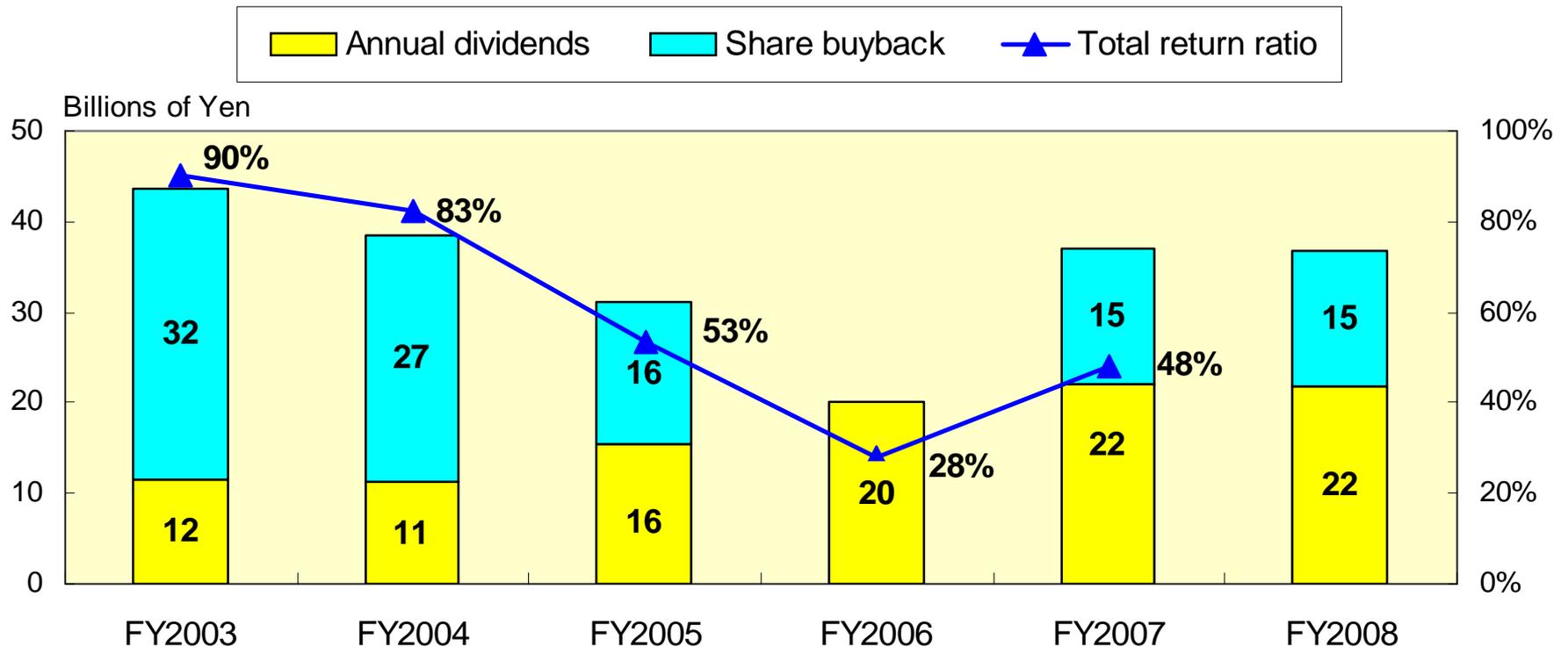


### Future growing markets

- Automotive market
- Energy/environmental sector
- Health care market

# Financial Strategy

## Total Return Ratio



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