Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!
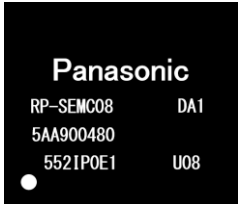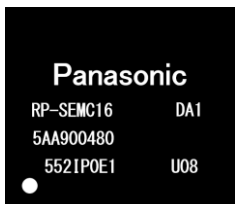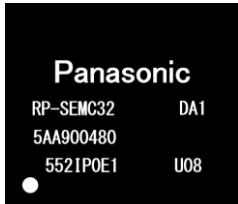
# MC Series

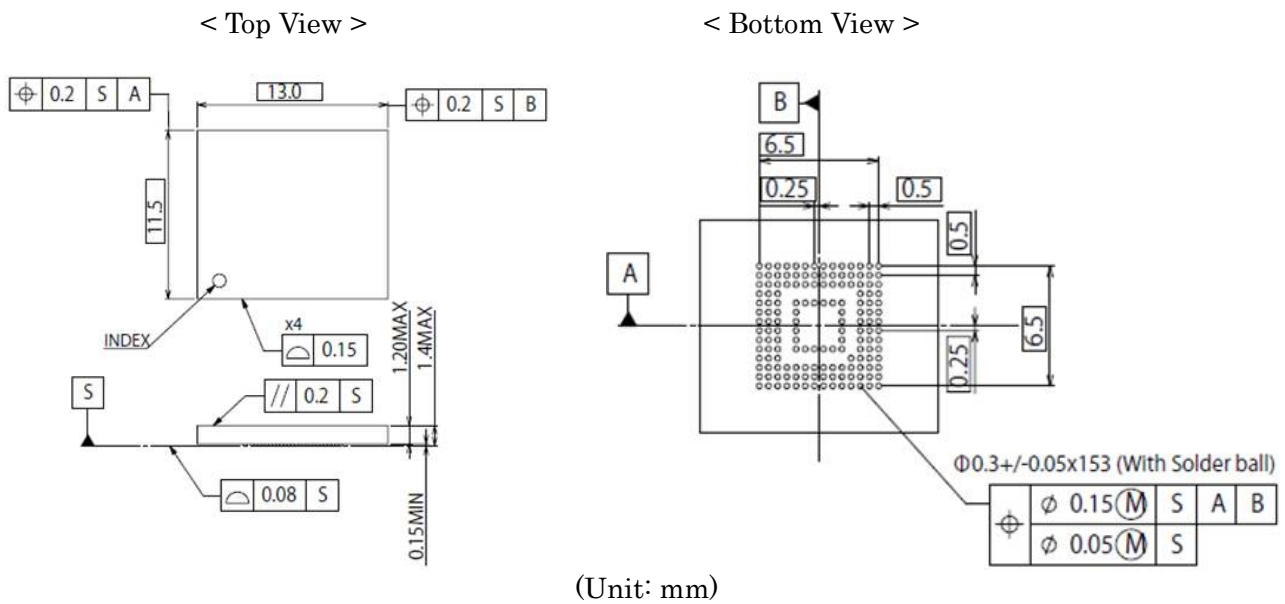## eMMC, Industrial MLC Model

■ **Product Outline**

MC series are eMMC (Embedded Multi-Media Card) adopting built-in MLC NAND flash memory, and suitable for industrial applications where embedded reliability (mechanical vibration, shock, etc.) is required.

■ **Product Specification** (specifications and appearances are subject to be changed without notice.)

| | | 8GB | 16GB | 32GB |
|---|---|---|---|---|
| Appearance | |  |  |  |
| Part Number | | RP-SEMC08 | RP-SEMC16 | RP-SEMC32 |
| Capacity | User data area capacity | 7,818,182,656 byte | 15,636,365,312 byte | 31,272,730,624 byte |
| Compliant Specification | JEDEC Standard | eMMC 5.0 | | |
| | Bus Speed Modes | Backwards Compatibility with legacy MMC card, High Speed SDR, High Speed DDR, HS200, HS400 | | |
| Form Factor | Package | FBGA153 (153 balls / 0.5 mm pitch) | | |
| | Dimensions | 11.5 mm x 13.0 mm x Max 1.4 mm | | |
| Read/Write Performance (up to) | Read | 260 MB/s (HS400) | 280 MB/s (HS400) | 280 MB/s (HS400) |
| | Write | 25 MB/s (HS400) | 22 MB/s (HS400) | 45 MB/s (HS400) |
| Power Supply Voltages | Supply Voltage for Core (VCC) | Min: 2.7 V,  Max: 3.6 V | | |
| | Supply Voltage for I/O (VCCQ) | Min: 2.7 V,  Max: 3.6 V<br>Min: 1.7 V,  Max: 1.95 V | | |
| Environmental Specification | Operating Temperature | -40 degree C to +85 degree C | | |
| | Storage Temperature | -40 degree C to +85 degree C | | |
| Recommended reflow condition | | JEDEC J-STD-020D.1 / moisture sensitivity: LEVEL 3 | | |

Products comply with EU RoHS directives.

(2016.11.17)

## ■ Package specifications (FBGA153)

< Top View >                    < Bottom View >



(Unit: mm)

## ■ System Reliability
a. Powerful error detecting and correcting function
b. Dynamic/Static wear leveling
c. Data recovery in case of power failure in writing
d. Automatic refresh function
e. Bad block management

## ■ Notice and Caution
  If you think about the usage for which special quality or reliability of the products is needed and failure or malfunction of the products may directly threaten life or injury for the special usage (aeronautic or cosmic usage, military usage, combustion machine, life support applications or safety applications), please counsel with our contacts in advance.
  Write frequency and storage temperature will affect data retention time. Please make a backup for important data.

## ■ Warranty
  If the product cannot be used because of failure which is determined as defect in design or in production of the product, it is replaced by same product or equivalent one within 12 months from the delivery date of product.