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# High density I<sup>2</sup>C EEPROM with new F9V process



**EEPROM**

# New F9V process addressing customers needs

Industrial



Mobile



Consumer



Volume in high-density EEPROM

Optimized footprint

Competitive pricing

Consumption effectiveness

# F9V

High retention  
High endurance

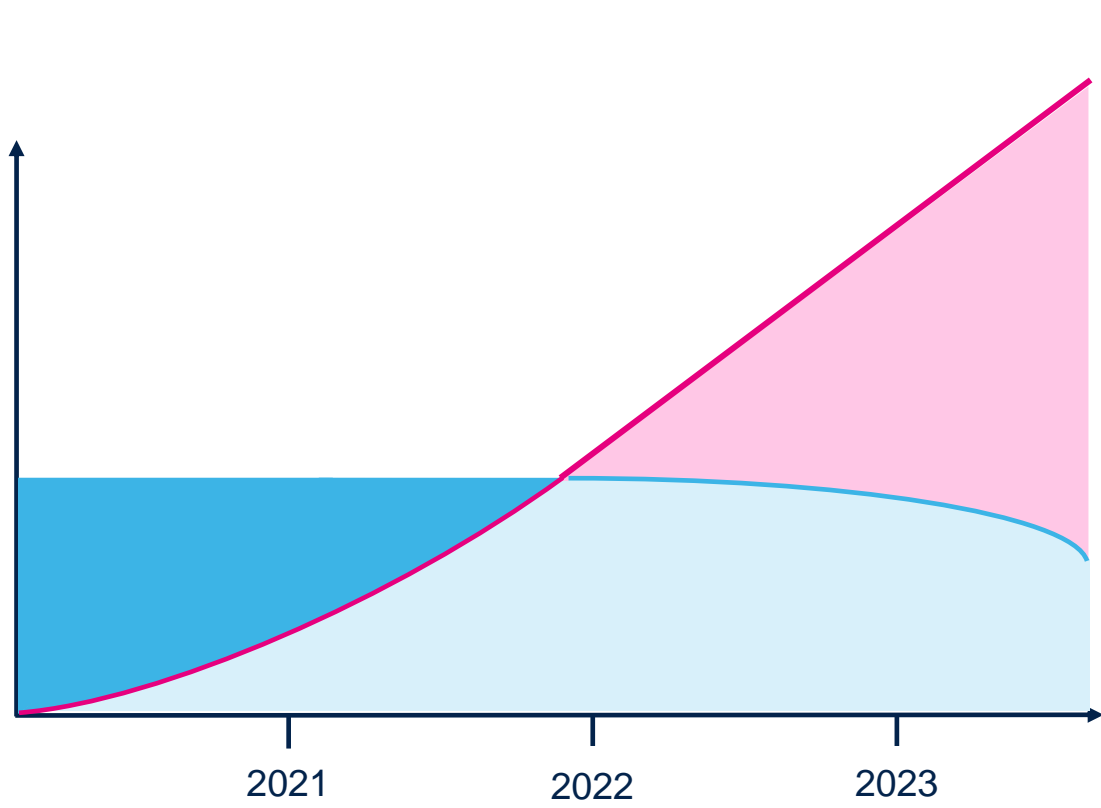
+ new features



# ST Technology roadmap

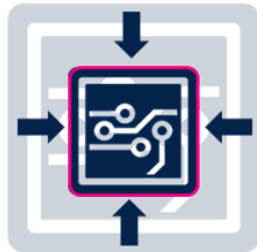
## F9V for new design

New design



F9V

Smaller die



New features



F8H

Consumption optimization

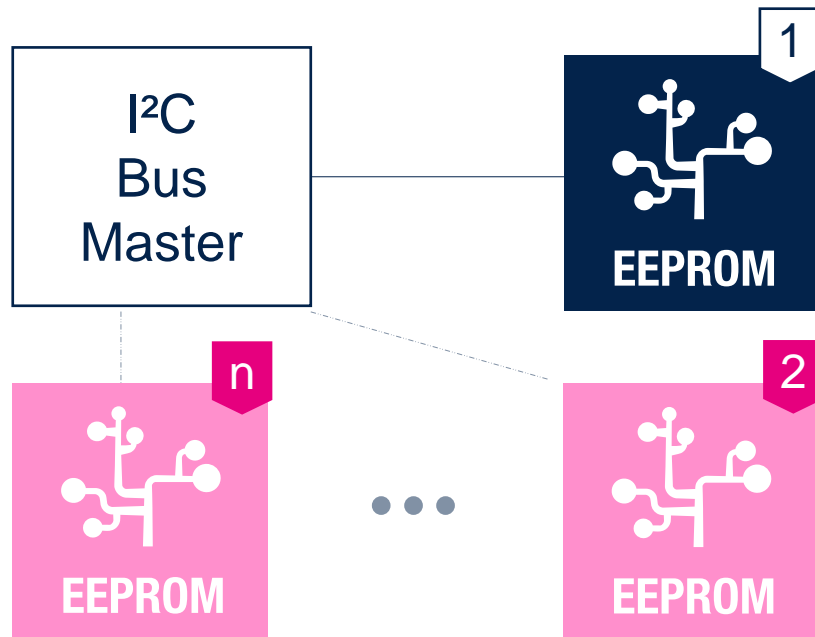


Availability

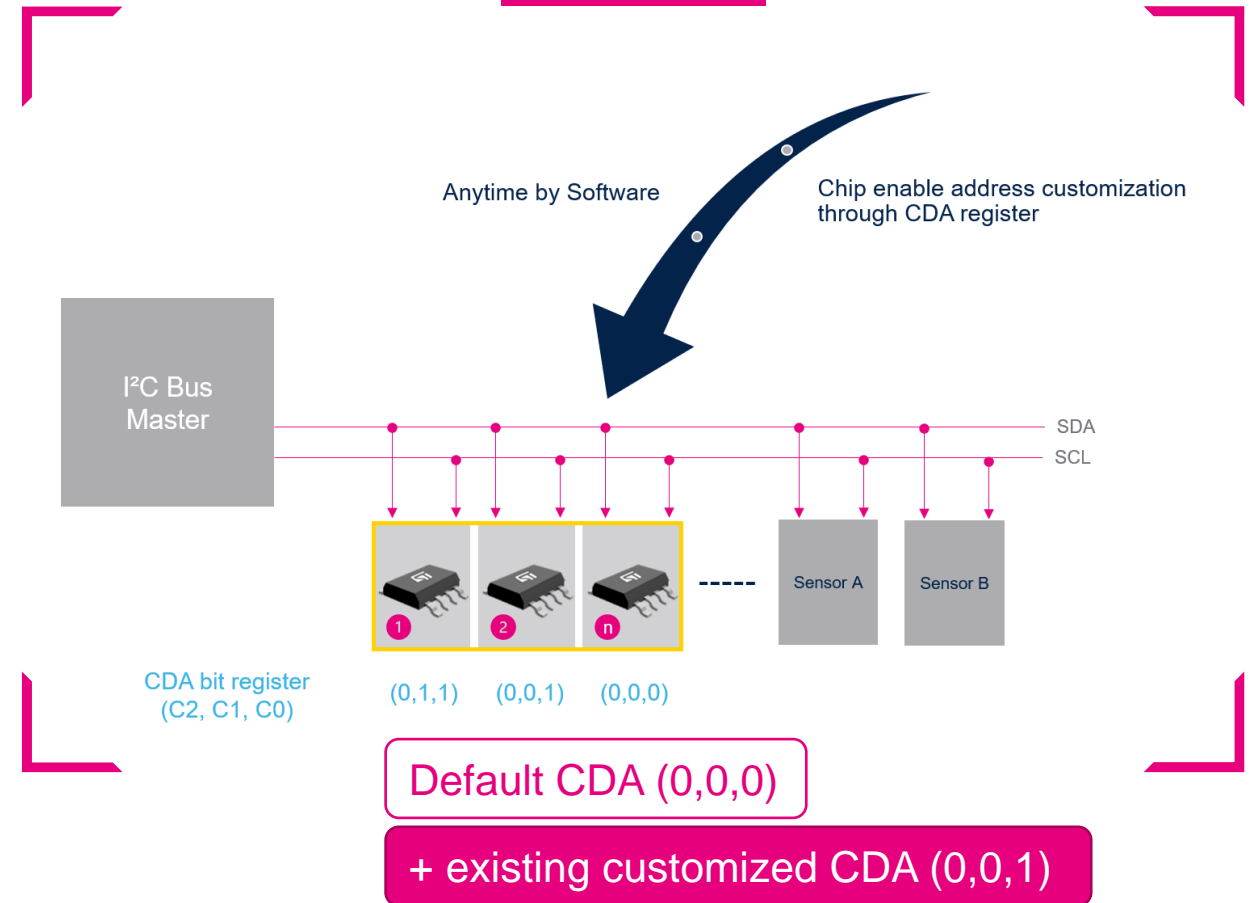


# CDA register for multiple EEPROM on same bus

Customer request

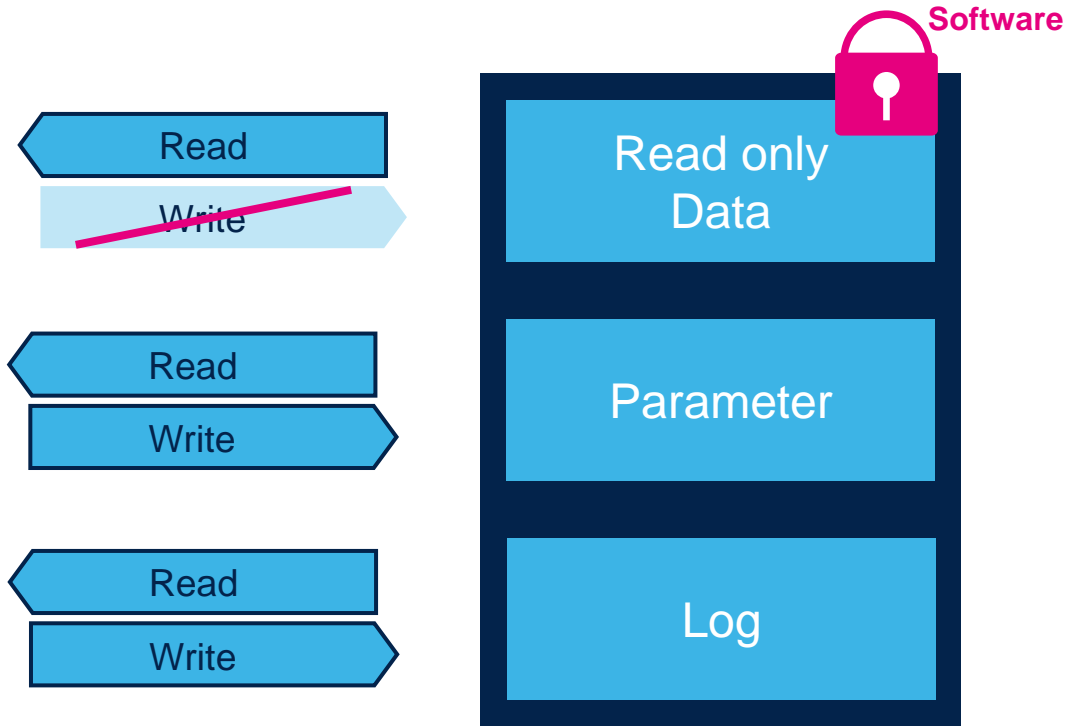


ST feature

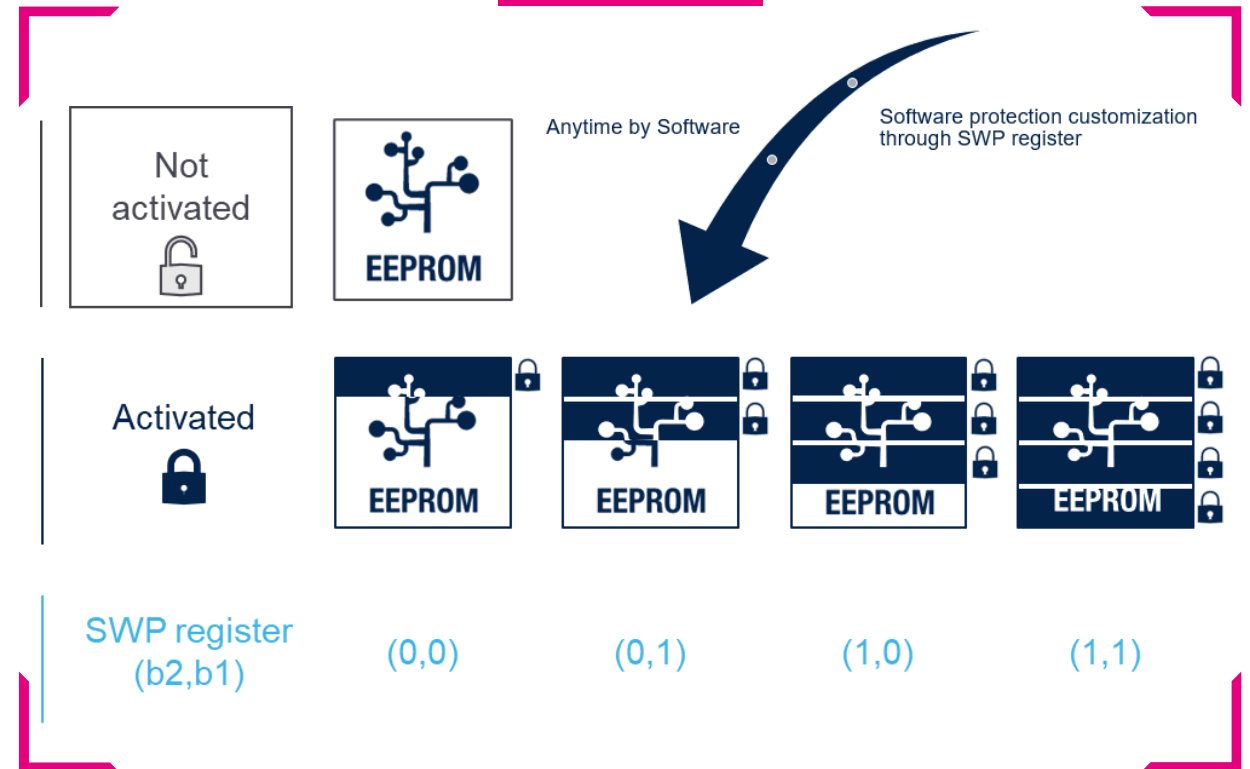


# Write Protect Software for data protection

Customer request



ST feature

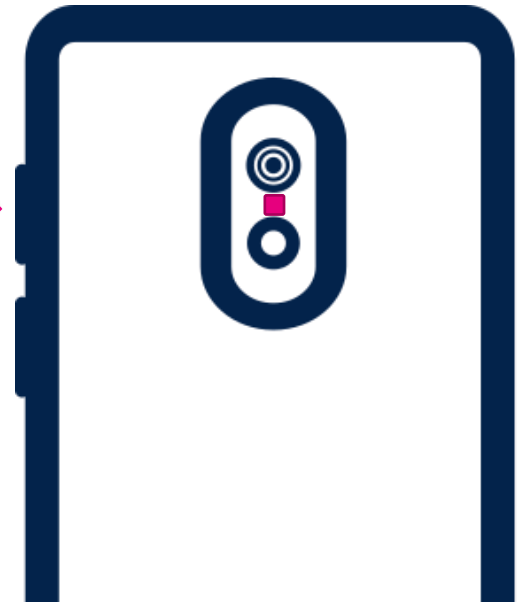
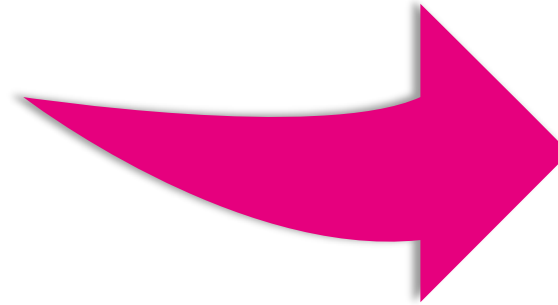
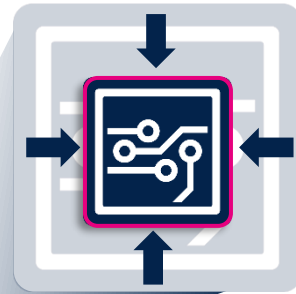


# WLCSP designed for mobile

## Die size reduced

Improved thickness and footprint






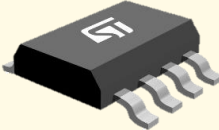




ST advanced  
in-house  
process



Die size divided by 2 with F9V vs. F8H

# F9V process

## I<sup>2</sup>C standard EEPROM portfolio

|                |               | PACKAGE  |   |   |   |   |   |
|----------------|---------------|--|---|---|---|---|---|
|                |               | WLCSP 4-ball   | WLCSP 5-ball  | DFN5  | DFN8  | TSSOP8  | SO8N  |
|                |               |  (*)                          |    |  |  |  |  |
| MEMORY DENSITY | 256 Kbit (**) | ●  |   | ●   | ●   | ●   | ●   |
|                | 512 Kbit      | ●  |   |   | ●   | ●   | ●   |
|                | 1 Mbit        | ●  | ●   |   | ●   | ●   | ●   |
|                | 2 Mbit        |  | ●   |   | ●   | ●   | ●   |
|                |               | <b>Mobile</b><br>M24...X<br> | <b>Standard</b><br>M24...E<br>   | <b>APPLICATION</b>  |   |   |   |

**DATASHEET**

[M24256X](#)   [M24256E](#)  
[M24512X](#)   [M24512E](#)  
[M24M01X](#)   [M24M01E](#)  
[M24M02X](#)   [M24M02E](#)



(\*) - No WC (write control) in WLCSP 4-ball package

(\*\*) - No SWP (software write protection) in DFN5, DFN8, TSSOP8, and SO8N packages for 256 Kbit memory density

# Our technology starts with You



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