



# High-Performance Solutions for Industrial Applications

## W25Q-RV Series Flash Memories

Industrial Automation and Smart Home Control

### Overview

Winbond's 8Mb W25Q80RV series, the newly launched RV series Flash memories, combines high performance with energy efficiency for applications such as connected Internet of Things (IoT) edge devices.

Designed to serve both industrial and consumer sectors, the compact form-factor RV series reflects Winbond's commitment to innovation and meeting the evolving demands of the expanding IoT landscape. To ensure compatibility with industrial-plus grade applications, the RV series provides an operating temperature range of 105°C. Ranging from 1Mb to 32Mb, these Flash memories offer versatile solutions for diverse IoT implementations.

Density	Part Number	Datasheet	Application Note	Verilog Model
32Mb	W25Q32RV	<a href="#">Download</a>	<a href="#">Download</a>	<a href="#">Download</a>
16Mb	W25Q16RV	<a href="#">Download</a>	<a href="#">Download</a>	<a href="#">Download</a>
8Mb	W25Q80RV	<a href="#">Download</a>	<a href="#">Download</a>	<a href="#">Download</a>
4Mb	W25Q40RV	<a href="#">Download</a>	<a href="#">Download</a>	<a href="#">Download</a>
2Mb	W25Q20RL	<a href="#">Contact Us</a>	<a href="#">Contact Us</a>	<a href="#">Contact Us</a>
1Mb	W25Q10RL	<a href="#">Contact Us</a>	<a href="#">Contact Us</a>	<a href="#">Contact Us</a>

# Key Features

## High performance of program and erase

This accelerated programming boosts factory throughput, decreases manufacturing costs, and improves efficiency.

- tPP/tSE/tBE(64KB) improves to 0.25ms/30ms/120ms

## Die shrink for KGD segment and small package

This compact solution is ideal for space-constrained applications, allowing integration of Flash Known Good Die (KGD) with the System-on-Chip (SoC) in a streamlined System-In-Package (SIP) design, effectively reducing the overall footprint.

- W25Q32RV can fit in XSON2x3

## Industrial plus (105°C)

The RV series ensures compatibility with demanding industrial applications, providing a robust operating temperature range of 105°C. This makes it suitable for deployment in industrial-grade environments where reliability is of utmost importance.

## Excellent in XIP mode

These enhanced transfer rates empower controllers to execute code (XIP) directly from the SPI interface or accelerate boot time by shadowing code to RAM.

- 133MHz Qual Read
- 84MHz DTR normal read (03h) improved from 50MHz to 66MHz

## Fast Software Updates

Swift execution of Over-The-Air (OTA) firmware updates minimizes downtime, enhancing system availability and helping boost the end-user experience.

## Longevity support

- Keep Longevity support for already MP projects.
- Encourage new design-in by using RV series to have more competitiveness

# Press Release

[Winbond introduces the next generation 8Mb Serial Flash – W25Q80RV for low power and small form factor IoT devices](#)

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