goodram
enterprise



EUROPEAN SSD AND DRAM SOLUTIONS FOR SERVERS, DATA CENTERS AND ENTERPRISE INFRASTRUCTURE

EUROPEAN MEMORY SOLUTIONS

EUROPEAN MEMORY MANUFACTURER

Goodram is a Polish brand of memory and data storage products owned by Wilk Elektronik S.A. As the only manufacturer of DRAM modules and SSDs in the European Union, we combine access to global semiconductor technologies with our own engineering and manufacturing facilities in Poland.

Full control over the production process, rigorous validation and multi-stage quality testing translate into the reliability of solutions used in servers, data centers, industrial systems and modern IT infrastructure.

A presence in more than 40 markets and local manufacturing expertise strengthen supply chain security and support the development of European technological sovereignty.

GOODRAM IN NUMBERS

35 YRS

of experience in the semiconductor market

No.1

in Poland in the DRAM memory and SSD category according to Futuresource

6M

memory modules per year – our production capacity

100%

of production tested by the quality and R&D teams

40+

markets worldwide

EU

the only manufacturer of DRAM and SSD products in the European Union

Our brands

One Goodram brand. Five specialized product lines.

goodram

Memory and data storage for personal computers, laptops and the public sector.

goodram RIVAL

High-performance memory and storage for gamers, technology enthusiasts, gaming PCs and consoles.

goodram PRO

Solutions for professionals, workstations, and manufacturers of computers and specialized systems.

goodram industrial

Memory and storage for automation, robotics, surveillance systems, embedded devices and IoT, as well as industrial and military applications.

goodram enterprise

Solutions for rack server manufacturers, data centers, AI infrastructure and specialized workstations.

MARKET POSITION AND COMPANY HISTORY

Three decades of manufacturing experience, full control over the production process and distribution throughout Europe are the foundations trusted by our partners in the server, data center and AI infrastructure sectors.



Company milestones

1991
Wilk Elektronik S.A. is established.

1995
The company becomes the RAM market leader in Poland.

2003
Launch of in-house memory production under the Goodram brand.

2008
SSDs are added to the product portfolio.

2013
Launch of the industrial product line.

2016
Launch of the gaming product line.

2021
Major expansion of production capacity.

2024
Launch of AI and server product lines.

2026
New Goodram brand architecture – one strong umbrella brand and the new RIVAL and PRO lines.

WHAT SETS GOODRAM ENTERPRISE APART?

Choosing enterprise-class memory is not only about selecting the right product. It also means choosing a supplier that will support qualification, deployment and long-term infrastructure planning.

Goodram combines European manufacturing with engineering expertise and a transparent supply model, helping customers reduce operational risk at every stage of the project.



European manufacturing

Manufacturing in Poland enables closer cooperation with European customers, shorter communication paths and better alignment with regional business and regulatory requirements.

Long-term availability

Lifecycle planning supports server platforms that need to remain stable for many years of operation.

Flexible MOQ

Minimum order quantities support evaluation, pilot projects and phased infrastructure deployments.

Direct engineering support

Customers work directly with technical specialists when selecting products, assessing compatibility and performing qualification.

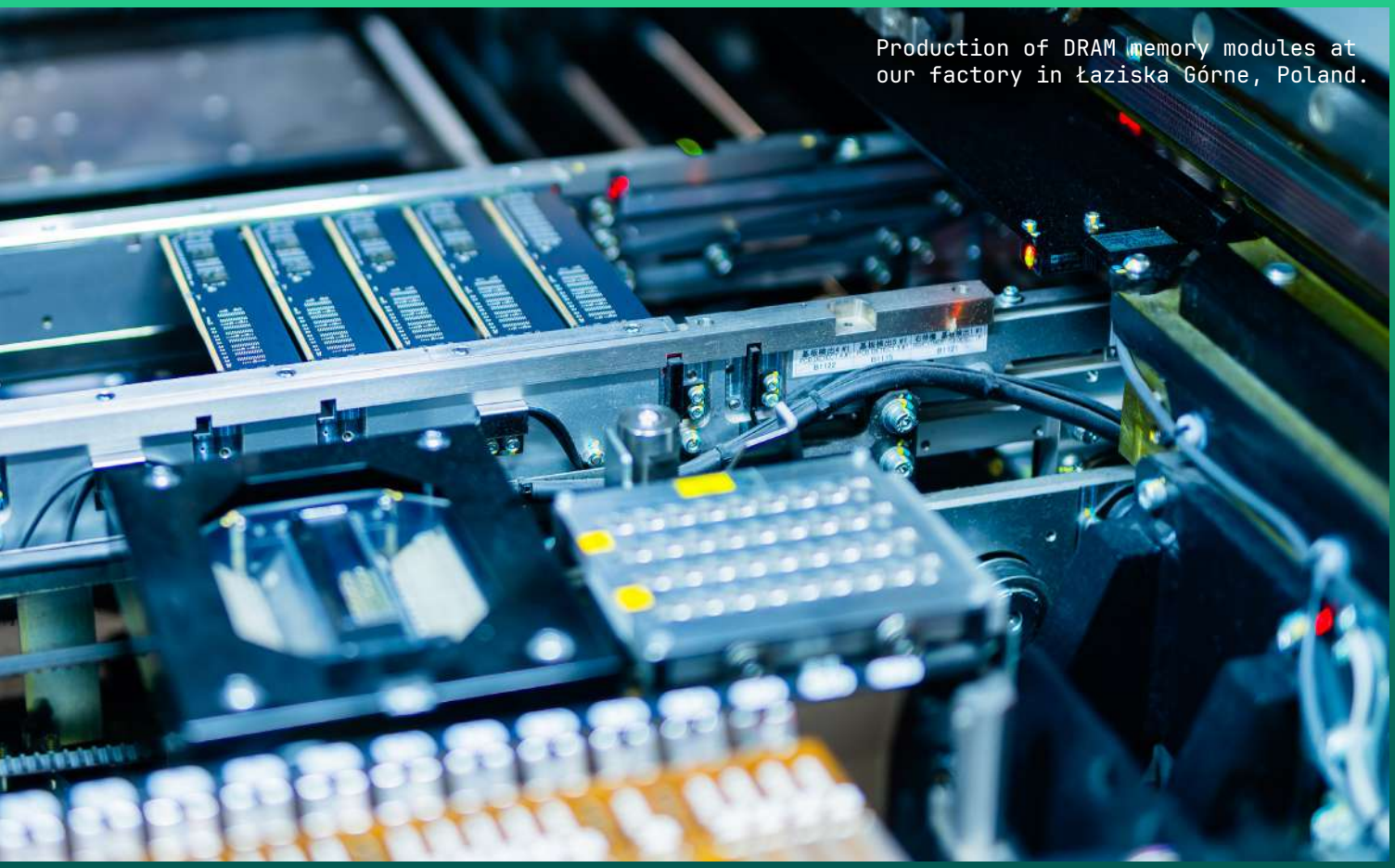
Fixed BOM

The ability to maintain a fixed component configuration allows customers to qualify a product once and deploy it repeatedly without unexpected hardware changes.

RIGOROUS TESTING AND VALIDATION

Enterprise qualification is about reducing risk before deployment.

The Goodram validation process confirms compatibility, stability and parameter consistency across a broad range of platforms and usage scenarios.



Production of DRAM memory modules at our factory in Łaziska Górne, Poland.

Multi-stage validation process

1 Incoming components are inspected and verified before the production process begins to ensure consistent product quality from the very start.

2 Every manufactured DRAM module and SSD undergoes automated functional and performance testing at all stages of production, confirming correct operation and repeatability.

3 Products are validated on more than 600 platforms to confirm compatibility with a broad range of enterprise hardware configurations.

4 Final quality validation. Before shipment, every product undergoes a final validation process confirming compliance with Goodram quality requirements for enterprise applications.

QUALITY, COMPLIANCE AND SUPPLY CHAIN SECURITY

Memory qualification in projects is a key element of risk management. Companies today require a transparent supply chain and compliance with legal regulations.

Goodram meets these criteria through manufacturing and operations located in Europe, which ensure full quality control and a transparent product lifecycle.

Supply chain transparency

Our comprehensive database enables identification of each batch and its origin at every stage of production.

Traceability

Documented manufacturing and quality processes support audits, lifecycle planning and infrastructure maintenance.

Regulatory readiness

Goodram monitors European regulatory initiatives, including CRA, NIS2 and CSF, and adapts its processes accordingly.

Controlled manufacturing and validation

Manufacturing, testing and quality assurance are carried out at the Goodram factory in Poland.

European technical support

Direct access to technical specialists improves communication during qualification, deployment and after-sales support.



Memory testing area under sustained load.

HOW WE SUPPORT YOUR PROJECT

Successful deployments require technical validation, stable product configurations and cooperation with a memory supplier throughout the entire project lifecycle. Goodram supports customers from initial assessment through qualification and deployment, helping reduce risk.

Project requirements

Understanding the target platform, workload profile, technical requirements and long-term infrastructure goals.

Technical consultation

Recommendation of SSD and memory configurations based on performance, compatibility and project-specific needs.

Evaluation samples

Possibility to obtain sample units for testing in a specific project.

Compatibility and validation

Verification against target server platforms and infrastructure environments.

Product qualification

Support with qualification procedures and technical documentation.

Deployment and deliveries

Project execution supported by transparent communication, flexible quantities and planned deliveries.



Lifecycle management

Long-term availability and lifecycle planning to maintain infrastructure continuity.

After-sales support

Diagnostics, technical assistance and direct communication with dedicated specialists.

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A EUROPEAN FOUNDATION FOR SECURE INFRASTRUCTURE

For cloud providers, OEMs and integrators, selecting DRAM and SSDs is a matter of hardware stability and security. Goodram – as the only manufacturer of DRAM and SSD products in the EU – eliminates geopolitical risk by ensuring full control over the hardware.

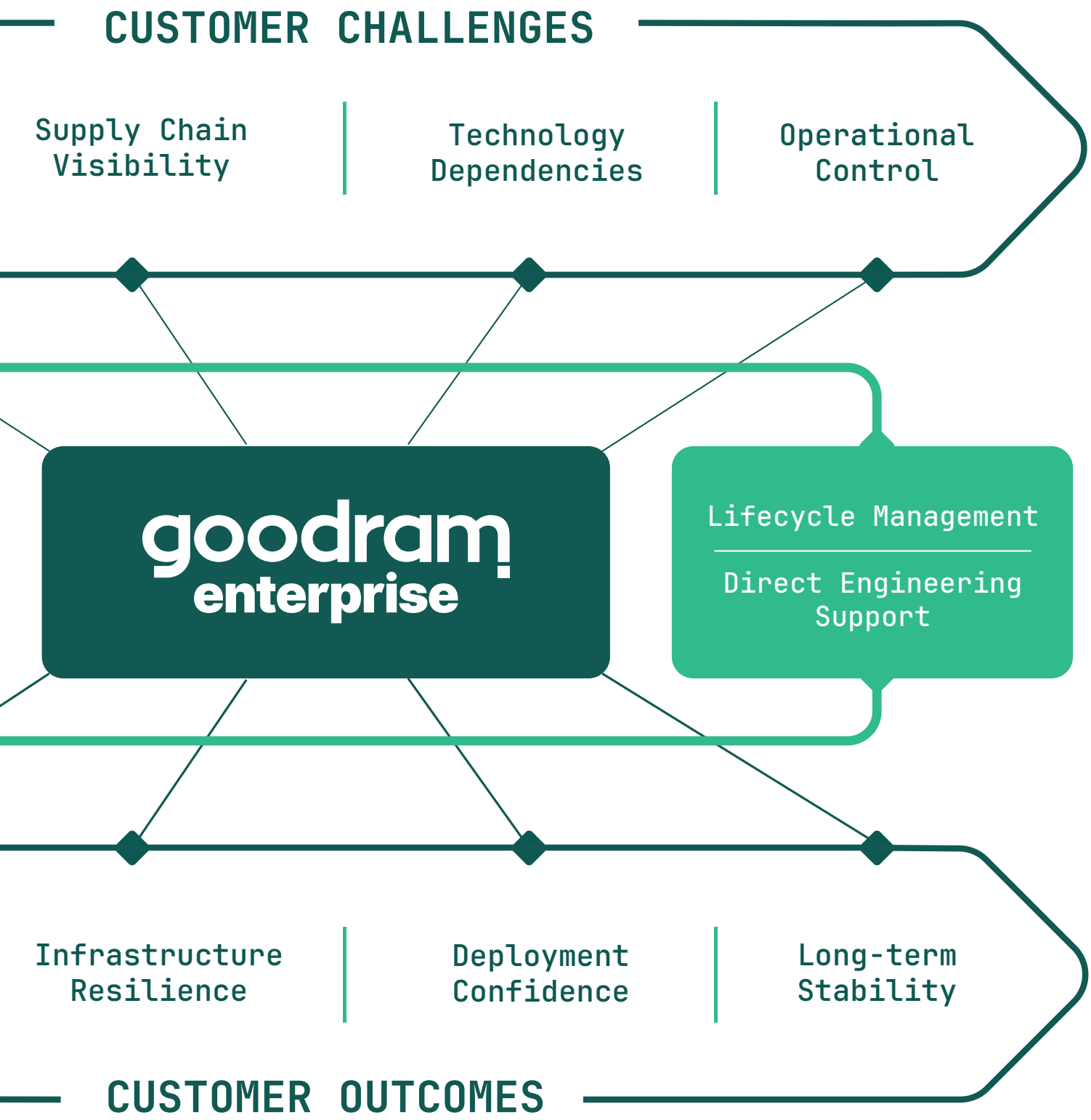
We control 100% of the production process: from R&D and rigorous testing to packaging. For business customers, we offer Fixed BOM configurations and Firmware Lock, eliminating unauthorized modifications and ensuring full hardware consistency.

Compliance ready

Hard production data and full traceability of manufactured memory products provide cloud providers with input data for assessing digital sovereignty under SOV-5 (European Sovereign Cloud Framework).

Our procedures help meet NIS2 security audit requirements, while under the Cyber Resilience Act (CRA) we provide support with vulnerability reporting. Customers receive direct access to R&D engineers and the assurance of a long product lifecycle.




CUSTOMER CHALLENGES
Supply Chain Visibility
Technology Dependencies
Operational Control
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Lifecycle Management
Direct Engineering Support
Infrastructure Resilience
Deployment Confidence
Long-term Stability
CUSTOMER OUTCOMES

ENTERPRISE SSD PORTFOLIO

Goodram Enterprise SSDs are designed for servers, data centers and professional IT environments where fast data access, stability and reliability are critical.



Series	Role	Interface	Form factor	Capacity range	Main selection criteria
UltraSpeed	High-performance enterprise SSD	PCIe Gen4 / Gen5	U.2, U.3, E3.S	800 GB - 30.72 TB	Maximum throughput and high IOPS
DataCore	Data center capacity and performance	PCIe Gen4 / Gen5	M.2 2280, M.2 22110, E1.S, U.2, E3.S, E3.L	480 GB - 122.88 TB	Balanced performance, capacity and density
SATADrive	Enterprise SSDs	SATA III	2.5”	480 GB - 15.36 TB	Upgrade from HDD to SSD in legacy platforms
BootSystem	Boot and system drive	SATA III / PCIe Gen4 / Gen5	2.5”, M.2 2280	240 - 3.84 TB	Dedicated storage for the operating system

Enterprise SSD features

Data protection	Security	Management	Reliability
PLP E2EDPP Metadata protection	AES-XTS 256-bit TCG Opal 2.0 ISE	NVMe-MI SMBus S.M.A.R.T. Namespaces	DWPD MTBF UBER SECDED

UltraSpeed Series



Typical applications

- AI/ML infrastructure
- High-performance databases
- Enterprise virtualization
- High-speed storage arrays
- Performance-critical server workloads

Parameter	US10	US20
Interface	PCIe 4.0 1 x 4 | 2 x 2	PCIe 5.0 1 x 4 | 2 x 2
Protocol	NVMe 1.4	NVMe 2.0
NAND	3D TLC	3D TLC
Form factor	U.2, U.3	U.2, E3.S
Capacity	800 GB - 30.72 TB	1.6 TB - 30.72 TB
Sequential read	Up to 7 400 MB/s	Up to 14 800 MB/s
Sequential write	Up to 7 000 MB/s	Up to 8 700 MB/s
Random read	Up to 1 750 000 IOPS	Up to 3 300 000 IOPS
Random write	Up to 480 000 IOPS	Up to 930 000 IOPS
DWPD	1/3	1/3
Warranty	5 years	5 years

Choose this series if...

Your applications require the highest storage performance.

Low latency and sustained throughput are essential to service quality.

You deploy AI/ML, HPC or database environments where performance is mission-critical.

You need PCIe Gen5 performance with enterprise-class endurance and protection features.

Enterprise features

PCIe Gen5 NVMe 2.0 | PCIe Gen4 NVMe 1.4 | E2EDPP | NVMe-MI | TCG Opal 2.0 | SMBus | ISE | PLP | Metadata protection | Namespaces | AES-XTS 256-bit

Learn more about the UltraSpeed Series

DataCore Series



Typical applications

- Virtualization platforms
- Cloud infrastructure
- Enterprise-class storage
- Database servers
- High-density server platform

Parameter	DC10	DC20	DC25
Interface	PCIe Gen 4.0 1 x 4	PCIe 5.0 1 x 4 | 2 x 2	PCIe 5.0 1 x 4 | 2 x 2
Protocol	NVMe 1.4	NVMe 2.0	NVMe 2.0
NAND	3D TLC	3D TLC/ 3D QLC	3D QLC
Form factor	M.2 2280, M.2 22110, E1.S	U.2, E3.S, E3.L	U.2, E3.L
Capacity	480 GB – 3.84 TB	30.72 – 61.44 TB	30.72 – 122.88 TB
Sequential read	Up to 6 800 MB/s	Up to 14 000 MB/s	Up to 14 600 MB/s
Sequential write	Up to 2 000 MB/s	Up to 3 000 MB/s	Up to 3 200 MB/s
Random read	Up to 900 000 IOPS	Up to 3 000 000 IOPS	Up to 3 000 000 IOPS
Random write	Up to 70 000 IOPS	Up to 34 000 IOPS	Up to 35 000 IOPS
DWPD	1	0.3/1/3	0.3
Warranty	5 years	5 years	5 years

Choose this series if...

You are building virtualization or cloud infrastructure.

Storage density is an important design factor.

Capacity and performance must be balanced for the target workload.

You want to standardize on one product family across multiple server platforms.

Enterprise features

AES-XTS 256-bit | E2EDPP | NVMe-MI | Namespaces | Data integrity protection | TCG Opal 2.0 | SMBus | PLP

Learn more about the DataCore Series

SATADrive Series



Typical applications

- Legacy servers
- Storage expansion
- Backup and archival systems
- Enterprise-class storage

Parameter	SD05
Interface	SATA III
NAND	3D TLC
Form factor	2.5”
Capacity	480 GB – 15.36 TB
Sequential read	Up to 530 MB/s
Sequential write	Up to 500 MB/s
Random read	Up to 98 000 IOPS
Random write	Up to 77 000 IOPS
DWPD	0.4/1/3
Warranty	5 years

Choose this series if...

Your infrastructure is based on SATA server drives.

Platform replacement is not part of the current project.

You want to extend the lifecycle of existing server platforms.

You need enterprise-class reliability with controlled operating costs.

Enterprise features

AES-XTS 256-bit | E2EDPP | TCG Opal 2.0 | Broad DWPD options | SATA III 6Gb/s | PLP

Learn more about the SATADrive Series

BootSystem Series



Typical applications

- Operating systems
- Edge computing platforms
- Recovery and service partitions

Parameter	BS05	BS10	BS20
Interface	SATA III	PCIe 4.0 1 x 4	PCIe 5.0 1 x 4
Protocol	SATA	NVMe 1.4	NVMe 2.0
NAND	3D TLC	3D TLC	3D TLC
Form factor	2.5”/M.2 2280	M.2 2280	M.2 2280
Capacity	240 – 960 GB	480 – 960 GB	480 GB – 3.84 TB
Sequential read	Up to 530 MB/s	Up to 5 000 MB/s	Up to 13 800 MB/s
Sequential write	Up to 500 MB/s	Up to 700 MB/s	Up to 6 900 MB/s
Random read	Up to 98 000 IOPS	Up to 450 000 IOPS	Up to 2 200 000 IOPS
Random write	Up to 30 000 IOPS	Up to 30 000 IOPS	Up to 220 000 IOPS
DWPD	1	1	1
Warranty	5 years	5 years	5 years

Choose this series if...

You need dedicated storage for operating systems or hypervisors.

Your platform requires enterprise-class protection features and stable lifecycle support.

Boot reliability is more important than application storage performance.

You deploy server platforms based on SATA, PCIe Gen4 or PCIe Gen5.

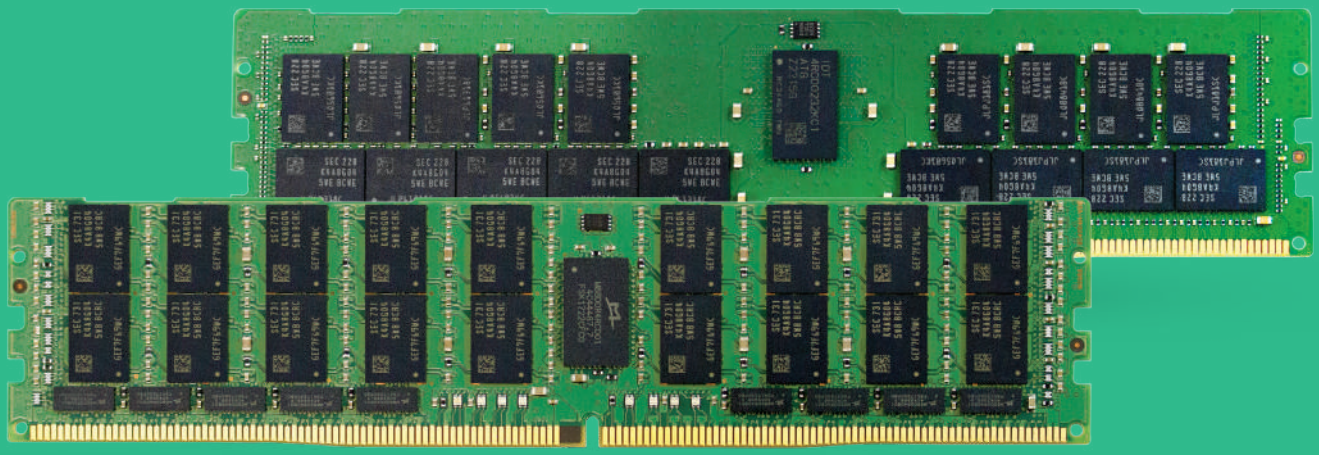
Enterprise features

AES-XTS 256-bit | E2EDPP | NVMe-MI | PLP | SATA III 6Gb/s | TCG Opal 2.0

Learn more about the BootSystem Series

ENTERPRISE DRAM PORTFOLIO

Goodram Enterprise DRAM modules are designed for modern server and data center infrastructure. The availability of different configurations enables precise module selection for the platform architecture, expected performance and the nature of the workloads being handled.



Series	Module type	Memory generation	Capacity range	Main selection criteria
ECC UDIMM	Unbuffered ECC	DDR4 / DDR5	8 – 64 GB	Entry-level servers and professional workstations
ECC SODIMM	Unbuffered ECC SODIMM	DDR4 / DDR5	8 – 64 GB	Compact, embedded and edge platforms
RDIMM	Registered ECC	DDR4 / DDR5	8 – 128 GB	Enterprise servers and virtualization

Enterprise DRAM features

Reliability	Compatibility	Validation	Standards
ECC Registered architecture	JEDEC compliance Broad platform compatibility	High-grade DRAM ICs Burn-in testing	DDR3 DDR4 DDR5

ECC UDIMM Series



Typical applications

- Entry-level servers
- Professional workstations
- Enterprise IT infrastructure
- Embedded systems

Parameter	DDR4	DDR5
Capacity	8 - 32 GB	16 - 64 GB
Voltage	1.2 V	1.1 V
Data rate	2 400 / 2 666 / 2 933 / 3 200 MT/s	4 800 / 5 600 / 6 400 MT/s
Latency	CL17 / CL19 / CL21 / CL22	CL40 / CL46 / CL52
ECC error correction	YES	YES
On-Die ECC	NO	YES
Module profile	LP, VLP	LP
Warranty	5 years	5 years

Choose this series if...

You are building entry-level server platforms.

You need reliable memory for professional workstations.

Your system requires ECC protection without registered memory.

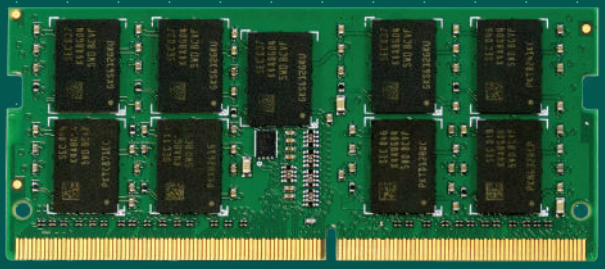
Cost efficiency matters without sacrificing stability.

Enterprise features

ECC error correction | JEDEC compliance | Broad platform compatibility | Burn-in testing | High-grade DRAM ICs

Learn more about the UDIMM Series

ECC SODIMM Series



Typical applications

- Edge servers
- Embedded systems
- Industrial computing
- Networking devices
- Compact enterprise platforms
- Edge computing

Parameter	DDR4	DDR5
Capacity	8 – 32 GB	16 – 64 GB
Voltage	1.2 V	1.1 V
Data rate	2 400 / 2 666 / 2 933 / 3 200 MT/s	4 800 / 5 600 / 6 400 MT/s
Latency	CL17 / CL19 / CL22	CL40 / CL46 / CL52
Warranty	5 years	5 years

Choose this series if...

Your platform requires compact SODIMM modules.

ECC protection is required for continuous operation.

You are building embedded or edge computing systems.

Long-term platform availability is a key requirement.

Enterprise features

ECC error correction

JEDEC compliance

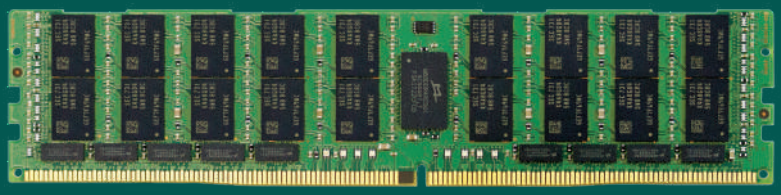
Broad platform compatibility

Burn-in testing

High-grade DRAM ICs

Learn more about the SODIMM Series

RDIMM Series



Typical applications

- Enterprise servers
- Virtualization platforms
- Cloud infrastructure
- Database servers
- Memory-intensive computing
- Business-critical applications

Parameter	DDR4	DDR5
Capacity	8 – 64 GB	16 – 128 GB
Voltage	1.2 V	1.1 V
Data rate	2 400 / 2 666 / 2 933 / 3 200 MT/s	4 800 / 5 600 / 6 400 MT/s
Latency	CL17 / CL19 / CL21 / CL22	CL40 / CL46 / CL52
Warranty	5 years	5 years

Choose this series if...

You deploy enterprise or data center servers.

Platform stability and long-term reliability are critical.

Your workloads require high memory capacity and scalability.

You need registered ECC memory for virtualization, databases or cloud infrastructure.

Enterprise features

ECC + registered architecture

High-grade DRAM ICs

Burn-in testing

Broad platform compatibility

Long-term product availability

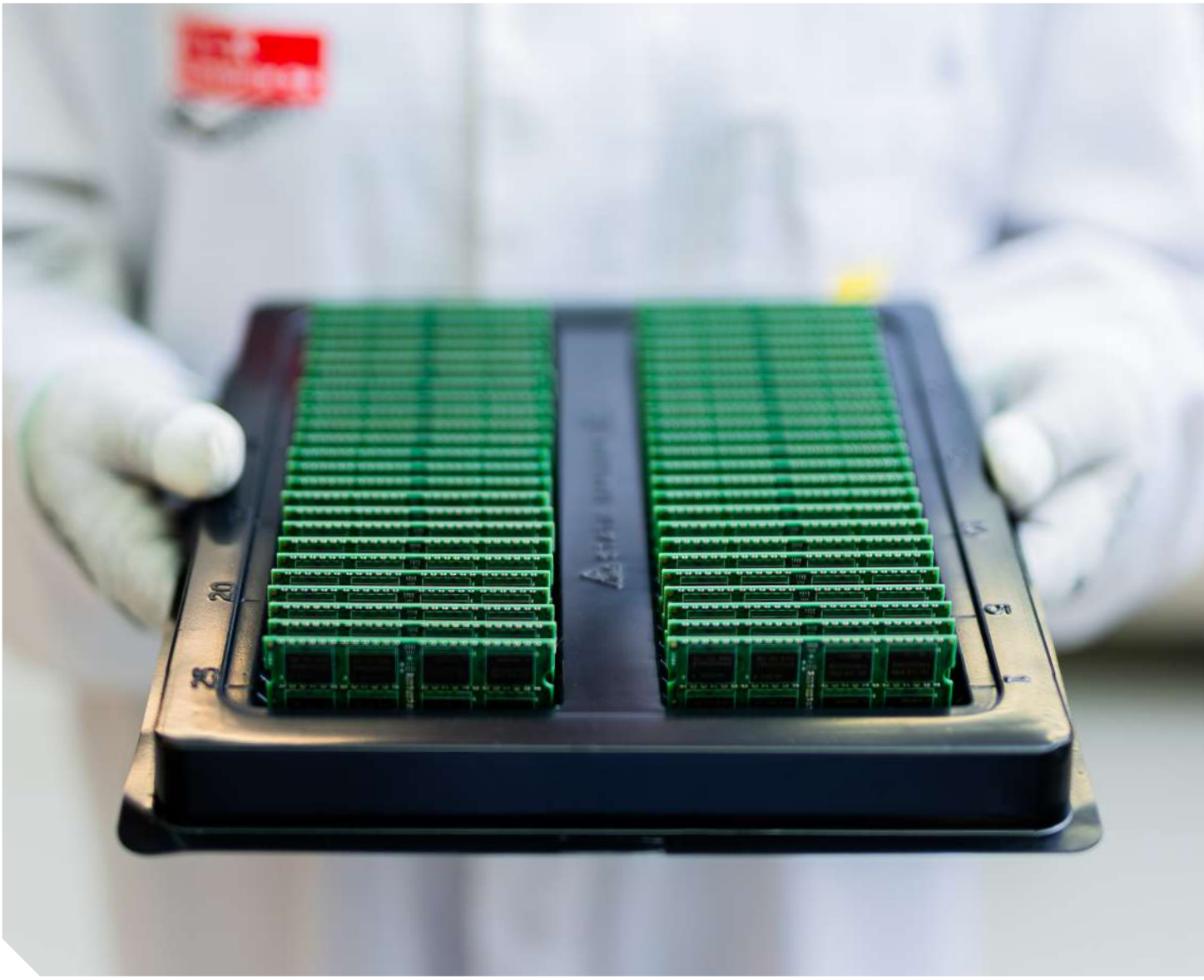
JEDEC compliance

Learn more about the RDIMM Series

Work with Goodram Enterprise

Goodram Enterprise is more than a supplier of SSDs and DRAM modules. We support customers throughout the entire infrastructure lifecycle – from component selection and qualification, through deployment, to delivery planning and post-sales engineering support.

Whether you are designing a new server platform, expanding a data center or modernizing existing infrastructure, our team will help you select, validate and deploy the right solution.



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