



# Serial EEPROM DFN5 package offer

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[www.st.com/standardeeprom](http://www.st.com/standardeeprom)



# Key applications - DFN5

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STMicroelectronics offers **I<sup>2</sup>C EEPROMs** in **DFN5 package** to fit applications where **space constraints** and **manufacturing robustness** are key factors



DFN5 = UFDFPN5\* = MLP5

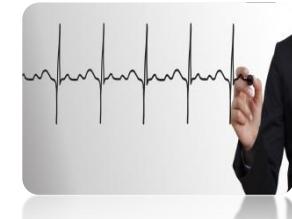
Modules



Headsets



Portable medical devices



Drones



Wi-Fi and Bluetooth modules





# DFN5 package advantages

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Features	Benefits
Complete I <sup>2</sup> C portfolio Available in 2, 4, 8, 16, 32, 64 and 128 Kbits	Easy upgrade thanks to same footprint for all densities
Package size: 1.4 x 1.7 mm	Minimize EEPROM footprint on PCB
5 pin count only, no leads	Reduce soldering budget
Weight: 7 mg	Gain on application weight
Robust molded package	Easy handling and mounting
ECOPACK2®	RoHS-compliant and Halogen-free

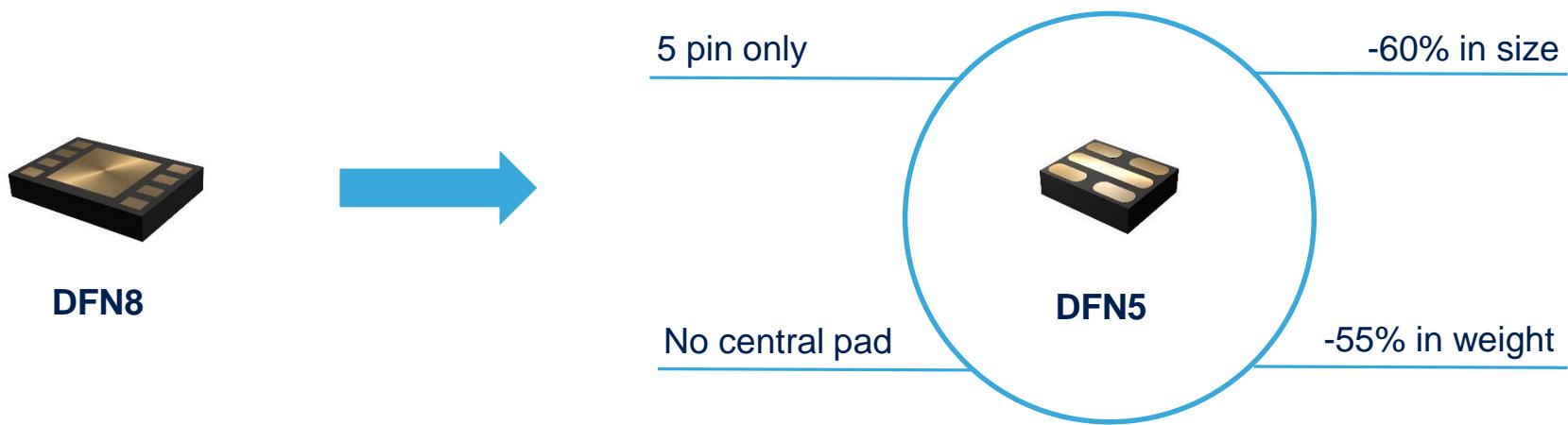
Package information and soldering guidelines available  
at [www.st.com/standardeeprom](http://www.st.com/standardeeprom)



# DFN8 versus DFN5 package

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Switch from DFN8 to DFN5 package and benefit from **significant board space reduction** and cost improvements.



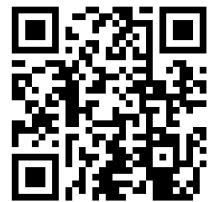
DFN8	DFN5	Advantages
2 x 3 mm	1.4 x 1.7 mm	Reduced footprint area (-60%)
8 pin	5 pin	Reduced pin count for easier routing
16 mg	7 mg	Reduced weight (-55%)
Central pad	No pad	Reduced soldering costs
0.55	0.55	Same thickness
Pitch 0.5	Pitch 0.4	Smaller pitch for PCB manufacturing



# Conclusion

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- Select an I<sup>2</sup>C EEPROM in DFN5 package when
  - PCB footprint must be reduced
  - Easy handling and manufacturing robustness are important
  - Thickness is not a key factor
- Switching from DFN8 to DFN5 brings
  - 60% gain in footprint area
  - 55% gain in weight
  - Gain in soldering spending
  - Improved cost solution
- ST offers a wide DFN5 portfolio for maximum design flexibility
  - Free samples available at [www.st.com](http://www.st.com)
  - Fast samples delivery with our E-distributors
  - Technical docs for DFN5 usage in Resources widget at [www.st.com/standardeeprom](http://www.st.com/standardeeprom)



# I<sup>2</sup>C EEPROM - DFN8 & DFN5 packages

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Available products

Profile description	Part number	Memory density (Kbits)	Dimension (X/Y) (mm)	Profile (typ.) (mm)	Nb of pins
<b>I<sup>2</sup>C bus</b>					
<b>DFN5</b> (UFDFPN5 – MLP5)	M24C02-FMH6TG	2	1.7	1.4	0.55
	M24C04-FMH6TG	4	1.7	1.4	0.55
	M24C08-FMH6TG	8	1.7	1.4	0.55
	M24C16-FMH6TG	16	1.7	1.4	0.55
	M24C32-FMH6TG	32	1.7	1.4	0.55
	M24C64-FMH6TG	64	1.7	1.4	0.55
	M24128-BFMH6TG	128	1.7	1.4	0.55
<b>DFN8</b> (UFDFPN8 – MLP8)	M24C02-FMC6TG	2	2	3	0.55
	M24C04-FMC6TG	4	2	3	0.55
	M24C08-FMC6TG	8	2	3	0.55
	M24C16-FMC6TG	16	2	3	0.55
	M24C32-FMC6TG	32	2	3	0.55
	M24C64-FMC6TG	64	2	3	0.55
	M24128-BFMC6TG	128	2	3	0.55
	M24256-BFMC6TG	256	2	3	0.55
	M24512-FMC6TG	512	2	3	0.55

Up to 128 Kbits in DFN5 package

# Thank you!



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