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Serial I2C EEPROM in DFN5 package

STMicroelectronics – October 2020



EEPROM

Designed for applications where **space and weight constraints** and **manufacturing robustness** are key factors

Headsets



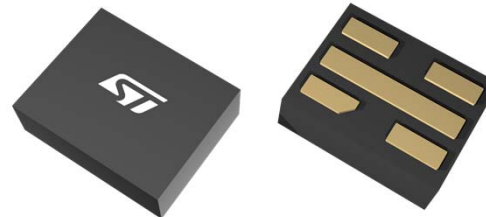
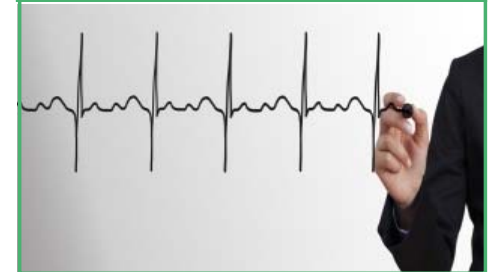
Wi-Fi and Bluetooth



Drones



Smart Medical devices





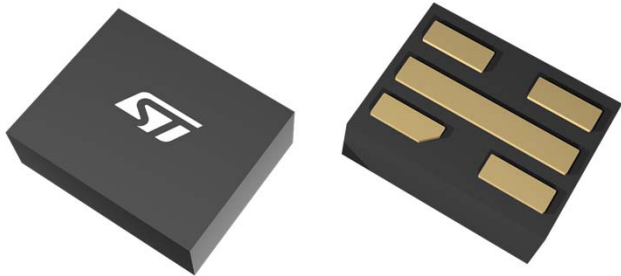
EEPROM

DFN5 package features

DFN5 package features provide significant improvement VS DFN8

DFN5

Other market package names
UDFPN5* or MLP5



* UDFPN: Ultra-thin Fine-pitch Dual Flat Package
No lead

DFN5	Features	DFN8
Package size	1.4 x 1.7 mm	2 x 3 mm
Thickness	0.55 mm	0.55 mm
Weight	7 mg	16 mg
Pin count	5 pin	8 pin
Pin type	Leadless package	Leadless
Solder Pitch	0.4 mm	0.5 mm

Package information and soldering guidelines available in [TN1171](#)



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DFN5 package benefits

Features	Benefits
Wide I ² 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 PCB footprint and gain at least 60% space versus DFN8
5 pin count and no leads	Reduce soldering budget and wire routing on PCB
Weight: 7mg	Gain on application weight
Robust molded package & 0.4mm pitch	Small package with easy handling and mounting
ECOPACK2®	RoHS-compliant and Halogen-free



EEPROM

I2C EEPROM DFN5 Portfolio

Select an I2C EEPROM in DFN5 package when

- PCB footprint must be reduced
- Application weight must be reduced
- Easy handling and manufacturing robustness are important
- Thickness is not a key factor

Profile description	Part number	Memory density (Kbits)	Dimension (X/Y) (mm)		Profile (typ.) (mm)	Nb of pins	Weight (mg)
DFN5 (UFDFPN5 – MLP5)	M24C02-FMH6TG	2	1.7	1.4	0.55	5	7
	M24C04-FMH6TG	4	1.7	1.4	0.55	5	7
	M24C08-FMH6TG	8	1.7	1.4	0.55	5	7
	M24C16-FMH6TG	16	1.7	1.4	0.55	5	7
	M24C32-FMH6TG	32	1.7	1.4	0.55	5	7
	M24C64-FMH6TG	64	1.7	1.4	0.55	5	7
	M24128-BFMH6TG	128	1.7	1.4	0.55	5	7



Serial EEPROM - make it easy

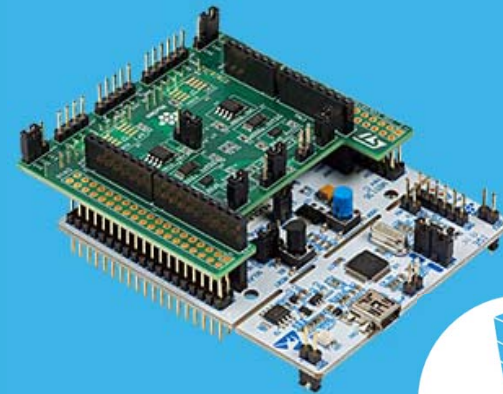
ST EEPROM Finder app

*Select & order the right EEPROM
for your design*



X-Nucleo-EEPRMA2 *Plug-in shield*

Prototype and validate





I2C EEPROM in DFN5 package summary

Suited for small & light modules where robustness is a key factor

- Wide I2C portfolio up to 128Kbits
- Robust ROHS and lead-free package
- Samples available now

- Download EEPROM finder mobile APP
- Apply for free ST samples or buy from e-store
- Prototype with X-Nucleo-EEPROMA2 shield
- IBIS & soldering guidelines available on st.com

Thank you

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