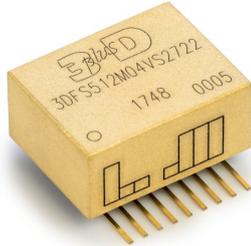


3DFS512M04VS2722



GENERAL DESCRIPTION

The 3DFS512M04VS2722 is a Quad SPI Flash NOR memory organized in 4 banks of 128 Mbit each with distinct chip enable CEn# (n from 0 to 3) controls. It requires only a single 3.0 V power supply for both read and write functions.

Thanks to dual SPI and quad SPI interfaces, and Fast Read mode feature, our serial NOR Flash memory can achieve high throughput (up to 133 MHz), which makes it suitable for high speed circuit applications. It is highly suitable for code storage in embedded systems

Thanks to the SPI interface, the 3DFS512M04VS2722 achieves a very low pin count. It is packaged in a 18 pin SOP.

KEY FEATURES

Single Power Supply operation: 3.0 V

Supports standard SPI, Fast, Dual, QPI, SPI DTR, and Dual SPI DTR I/O

50 MHz in Normal mode and 133 MHz in Fast Read mode

More than 100,000 erase/program cycles

More than 20-year data retention

Program 1 to 256 bytes per page

Program/Erase Suspend & Resume

Low Instruction Overhead Operations

Continuous Read 8/16/32/64-byte burst

Selectable burst length

QPI for reduced instruction overhead

Available Temperature Range:

0°C to +70°C

-40°C to +85°C

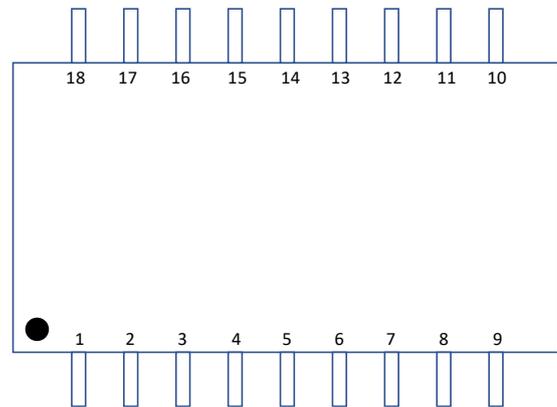
-55°C to +105°C

Available with screening options for high reliability application up to grade S

ITAR free

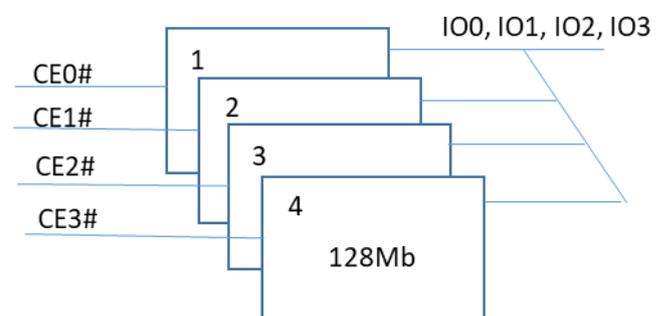
PIN ASSIGNMENT (top view)

SOP 18 - Pitch 1.27 mm



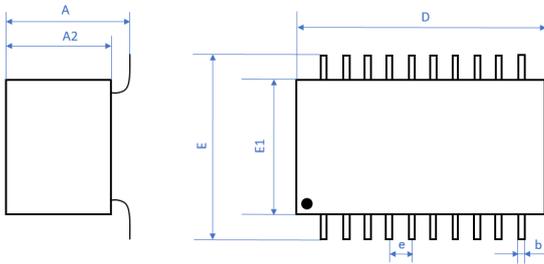
1	CE1#	10	SI/IO0
2	RFU	11	SCK
3	NC	12	HOLD#/IO3
4	GND	13	VCC
5	RFU	14	CE2#
6	CE0#	15	RFU
7	SO/IO1	16	RFU
8	WP#/IO2	17	CE3#
9	GND	18	VCC

FUNCTIONAL BLOCK DIAGRAM



All other signals are common to all memories

MECHANICAL DRAWING



Dimensions (mm)

	MIN	MAX
A	6.95	7.85
A2	5.85	6.45
D	13.80	14.20
E	15.70	16.10
E1	10.90	11.10
b	0.35	
e	1.27	

Max. weight: 2.40 g

DC Operating Conditions and Characteristics

Parameter	Symbol	Min	Max	Unit
Supply Voltage	V_{CC}	2.3	3.6	V
Input logic High Voltage	V_{IH}	$0.7 \times V_{CC}$	$V_{CC} + 0.3$	V
Input logic Low Voltage	V_{IL}	-0.3	$0.3 \times V_{CC}$	V
Output logic High Voltage	V_{OH}	$V_{CC} - 0.2$	—	V
Output logic Low Voltage	V_{OL}	—	0.2	V

Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Input voltage relative to V_{SS}	V_T	-0.5 to $V_{CC} + 0.3$	V
Storage temperature	T_{STG}	-65 to +150	°C

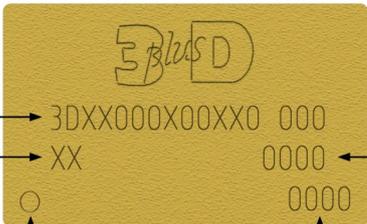
DC Characteristics

Parameter	Symbol	Value	Unit
V_{CC} active read current	I_{CC1}	14	mA
V_{CC} active write current	I_{CC2}	25	mA

Note: Permanent device damage may occur if "Absolute maximum ratings" are exceeded. Functional operation should be restricted to recommended operating condition.

Exposure to higher than recommended voltage for extended periods of time could affect device reliability.

MODULE MARKING



PART NUMBER MARKING → 3DXX000X00XX0 000

PART OPTION MARKING → XX

PIN 1 INDICATOR

DATE CODE (YYWW) ← 0000

SERIAL NUMBER (optional) ← 0000

3DFS512M04VS2722 X X

Temperature Range ————

C = (0°C to +70°C)

I = (-40°C to +85°C)

S = Specific

Quality Level ————

N = Commercial Grade

B = Industrial Grade

S = Space Grade

3D PLUS SALES OFFICES

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