



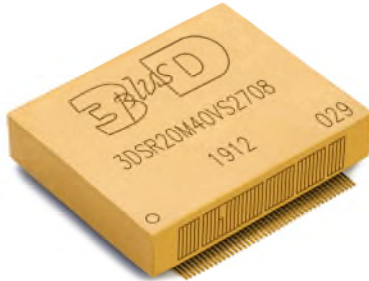
MEMORY MODULE

SRAM

3DSR20M40VS2708

3.3 V, 20 Mbit 40-bit bus width SRAM based on 256K x

3DSR20M40VS2708



GENERAL DESCRIPTION

The 3DSR20M40VS2708 is a high-speed highly integrated Static Random Access Memory containing 20, 971, 520 bit.

It is organized as two 256 x 40bit banks, each bank has 2 group of chip select signals #CS and #WE to control the 32bit and 8bit independently.

The 3DSR20M40VS2708 uses 40 common input and output lines and has an output enable pin which operates faster than address access time at read cycle.

The device is manufactured using 3D PLUS well known MCM-V patented technology designed for high speed circuit applications. It is particularly well suited for use in high reliability, high performance and high density system applications, such as solid state mass recorder, server or workstation.

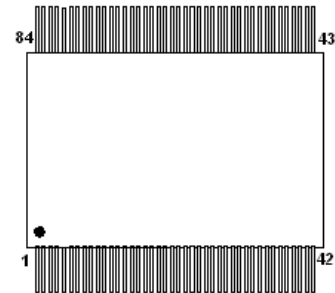
The 3DSR20M40VS2708 is packaged in an 84 pin SOP.

KEY FEATURES

- Fast Access Time : 12 ns.
- Single 3.3 V power supply.
- TTL Compatible Input and Outputs.
- Fully Static Operation
 - No clock or Refresh required.
- Three State Outputs.
- Center Power/Ground Pin Configuration.
- Available Temperature Range :
 - 0°C to +70°C
 - -40°C to +85°C
 - -55°C to +125°C
- Available with screening option for high reliability application (space, etc...)

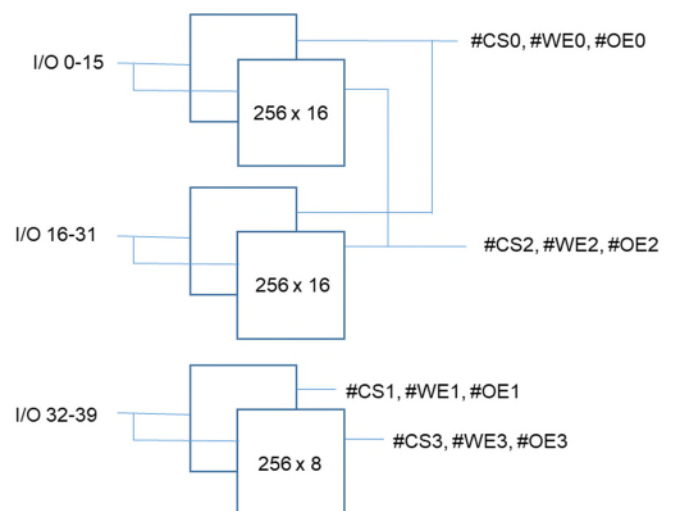
PIN ASSIGNMENT

SOP 84 - Pitch 0.508 mm , package AS2



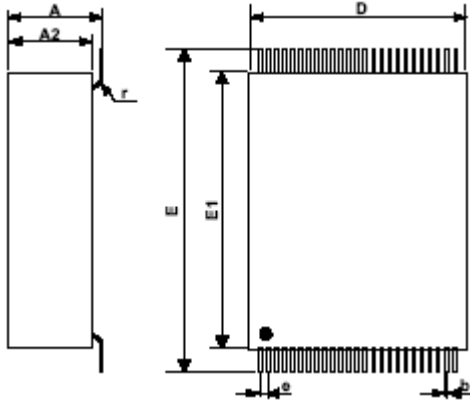
1	I/O0	22	VSS	43	#WE3	64	VSS
2	I/O1	23	I/O20	44	#WE1	65	I/O28
3	I/O2	24	I/O21	45	#OE3	66	I/O29
4	I/O3	25	I/O22	46	#OE1	67	I/O30
5	VCC	26	I/O23	47	VCC	68	I/O31
6	VSS	27	A4	48	VSS	69	A16
7	I/O4	28	A5	49	#CS3	70	A17
8	I/O5	29	A6	50	#CS1	71	#WE2
9	I/O6	30	VSS	51	A9	72	#WE0
10	I/O7	31	A7	52	A10	73	#OE2
11	#CS0	32	A8	53	A11	74	#OE0
12	#CS2	33	I/O32	54	A12	75	I/O8
13	A0	34	I/O33	55	VSS	76	I/O9
14	A1	35	I/O34	56	A13	77	I/O10
15	A2	36	I/O35	57	A14	78	I/O11
16	A3	37	VCC	58	A15	79	VCC
17	I/O16	38	VSS	59	I/O24	80	VSS
18	I/O17	39	I/O36	60	I/O25	81	I/O12
19	I/O18	40	I/O37	61	I/O26	82	I/O13
20	I/O19	41	I/O38	62	I/O27	83	I/O14
21	VCC	42	I/O39	63	VCC	84	I/O15

FUNCTIONAL BLOCK DIAGRAM



All other signals are common to the six devices.

MECHANICAL DRAWING



Dimensions (mm)

	MIN	MAX
A		7.00 max.
A2		5.60 max.
D	27.90	28.10
E	23.40	23.80
E1	20.90	21.10
b		0.20
e		0.508
r		0.40

Max. weight: 10 g

DC operating conditions

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Supply voltage	V_{CC}	3.0	3.3	3.6	V
Input high voltage	V_{IH}	2.0		$V_{CC} + 0.5$	V
Input low voltage	V_{IL}	-0.5		0.8	V
Output high voltage	V_{OH}	2.4		-	V
Output low voltage	V_{OL}	-		0.4	V

Absolute maximum ratings

PARAMETER	SYMBOL	VALUE	UNIT
Voltage on any pin relative to V_{SS}	V_T	-0.5 to +4.6	V
Storage temperature	T_{STG}	-55 ~ +125	°C
Power dissipation	P_D	3	W

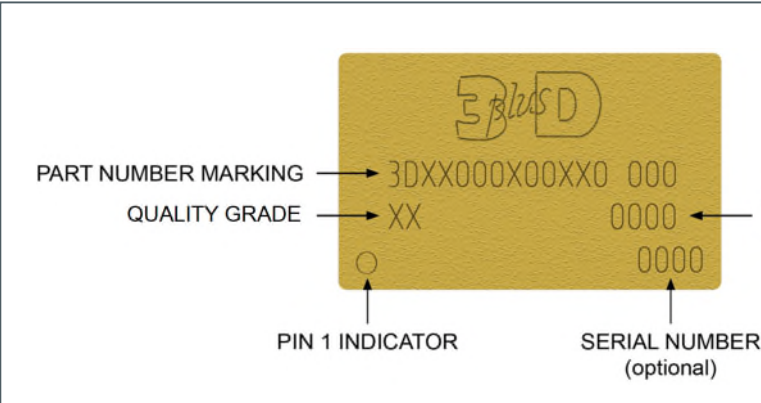
DC Characteristics

PARAMETER	SYMBOL	VALUE	UNIT
Operating current (Read Mode)	I_{CC}	510	mA
Standby Current with address bus active	I_{SB}	240	mA
Standby Current with address bus inactive	I_{SB1}	30	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



3DSR20M40VS2708 X X

Temperature Range

C = (0°C to +70°C)
 I = (-40°C to +85°C)
 M = (-55°C to +125°C)

Screening Level

N = Commercial Grade
 B = Industrial Grade
 S = Space Grade

3D PLUS SALES OFFICES

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