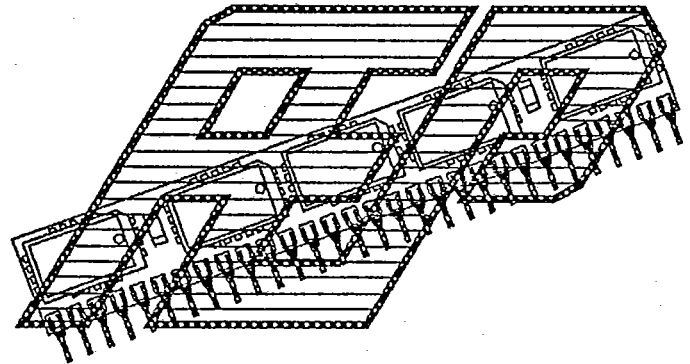


August 6, 1990

ADVANCED ELECTRONIC PKG

AEPDX256K9
DYNAMIC RAM MODULE

- >> 262,144 x 9 Organization
- >> Low 0.510 inch stand-off height
- >> 30 pin SIP
- >> Optional PARITY CHECKER on board
- >> Single +5V power supply
- >> TTL compatible
- >> Pin for pin compatible with standard modules (without parity checker)
- >> Available in 256K x 8 organization



256K WORD BY 9 BIT LOW PROFILE DYNAMIC RAM MODULE WITH PARITY CHECKER

DESCRIPTION:

The AEPDX256K9 is a low profile 262,144 word by 9 bit dynamic random access memory module in a 30 pin single in-line package format. Physically it consists of an FR4 PC material substrate mounted with nine 256K x 1 PLCC (plastic leaded chip carrier) ICs, eight 0.1 microfarad capacitors, and 30 edge clip I/O pins.

The module can use any of the 256K x 1 PLCCs available from multiple manufacturers in both NMOS and low power CMOS technologies and with a variety of access speeds.

Power dissipation is also determined by the ICs used but is typically 200 milliwatts in standby and 3.2 watts when active (ratings for module without the optional parity checker). A single 5V power supply is required.

Mechanical dimensions are 0.510 in. high (including the I/O pin stand-off) by 3.00 in. long by 0.340 in. wide.

Variations available are a 256K x 9 without the parity checker (making it compatible with standard 256K x 9 modules); a 256K x 8 (by omitting the 9th DRAM IC and the parity checker); or any of these with 90 degree lead pins, allowing them to be mounted on their sides thus giving a 0.350 stand-off height.

**ADVANCED ELECTRONIC PACKAGING**21562 SURVEYOR CIRCLE, HUNTINGTON BEACH, CA 92646
(714) 969-1150 / FAX: (714) 536-0936

August 6, 1990

ADVANCED ELECTRONIC PKG

AEPDX256K9
DYNAMIC RAM MODULE

T-46-23-15

EXAMPLE PART NUMBERING CHART

	Vertical lead pins	Horizontal lead pins
256K x 9 with Parity Checker		
100ns DRAM ICs	AEPDS256K9L-10	AEPDH256K9L-10
120ns DRAM ICs	AEPDS256K9L-12	AEPDH256K9L-12
256K x 9 without Parity checker		
100ns DRAM ICs	AEPDS256K9L-10-NP	AEPDH256K9L-10-NP
120ns DRAM ICs	AEPDS256K9L-12-NP	AEPDH256K9L-12-NP
256K x 8		
100ns DRAM ICs	AEPDS256K8L-10	AEPDH256K8L-10
120ns DRAM ICs	AEPDS256K8L-12	AEPDH256K8L-12

Device Use Notes:

Memory access speeds indicated in the above part numbers are maximums. AEP reserves the right to use faster rated devices unless requested not to. As an example 100ns parts may be substituted for 120ns parts depending on stocks on hand.

Device Specification Notes:

The example IC device specification information which may be included is typical and does not limit AEP to that manufacturer. The actual devices used will be those or equivalent depending on price and availability. AEP will gladly use or exclude particular manufacturers upon request and if it is possible to do so. Note also that the example specification is for only one of the three possible memory types.

Disclaimers:

The information in this document has been carefully checked and is believed to be reliable. However, Advanced Electronic Packaging Inc. assumes no responsibility for inaccuracies. AEP also reserves the right to change products or specifications without notice.


ADVANCED ELECTRONIC PACKAGING

 21562 SURVEYOR CIRCLE, HUNTINGTON BEACH, CA 92646
 (714) 969-1150 FAX: (714) 536-0936

August 6, 1990

ADVANCED ELECTRONIC PKG

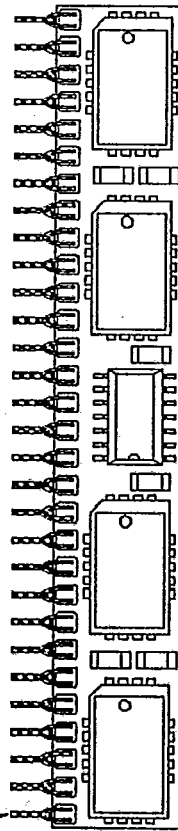
AEPDX256K9
DYNAMIC RAM MODULE

T-46-23-15

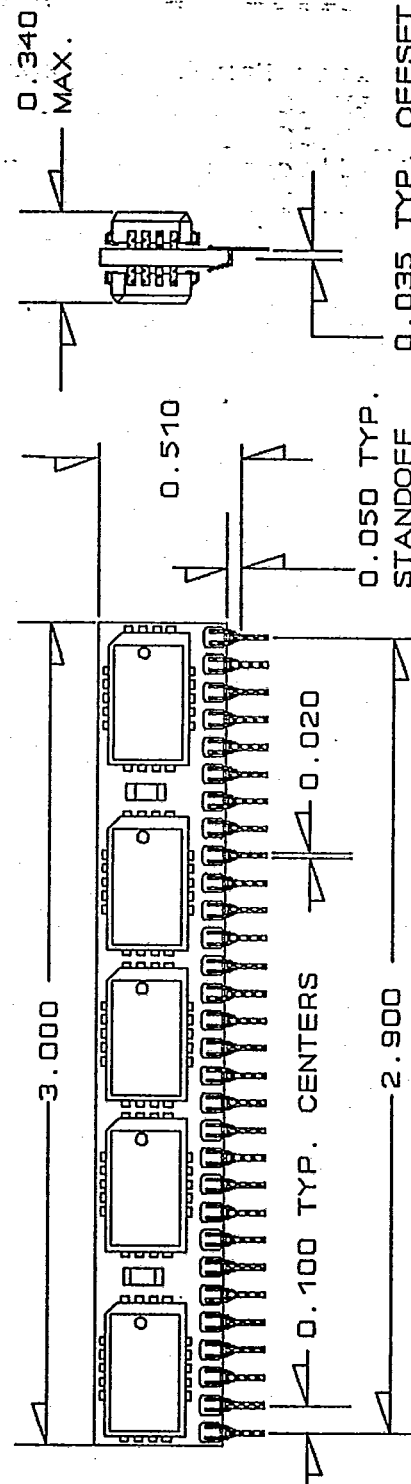
ADVANCED ELECTRONIC PACKAGING 256KX9 LOW PROFILE DRAM MODULE WITH PARITY CHECKER

DIMENSION IN INCHES, TOLERANCE: ± 0.010 UNLESS SPECIFIED.

NO. 1 PIN



REAR VIEW



0.340
MAX.

0.035 TYP. OFFSET
BOARD CENTER
TO LEAD CENTER

SIDE VIEW

3.000

2.900

0.100 TYP. CENTERS

0.020

0.510

0.050 TYP.
STANDOFF

30 PIN SIP

FRONT VIEW



ADVANCED ELECTRONIC PACKAGING

21562 SURVEYOR CIRCLE, HUNTINGTON BEACH, CA 92646
(714) 969-1150 FAX: (714) 536-0936

August 6, 1990

ADVANCED ELECTRONIC PKG

AEPDX256K9
DYNAMIC RAM MODULE

T-46-23-15

256K x 9 DYNAMIC RAM MODULE WITH PARITY CHECKER SIP PIN-OUT CONFIGURATION

1	VCC		
2	CAS*		
3	DQ1		
4	A0		
5	A1		
6	DQ2		
7	A2		
8	A3		
9	VSS		
10	DQ3		
11	A4		
12	A5		
13	DQ4		
14	A6		
15	A7	A0 - A8	ADDRESS INPUTS
16	DQ5	DQ1 - DQ8	DATA I/O'S
17	A8	D9	PARITY DATA IN
18	NC	Q9	PARITY DATA OUT
19	PEVEN**	RAS*	ROW ADDRESS STROBE*
20	DQ6	CAS*	COLUMN ADDR STROBE*
21	WE*	CAS9*	PARITY CAS*
22	VSS	WE*	WRITE ENABLE*
23	DQ7	NC	NO CONNECT
24	PODD**	VCC	POWER +5V
25	DQ8	VSS	GROUND
26	Q9	PEVEN	PARITY EVEN SIGNAL**
27	RAS*	PODD	PARITY ODD SIGNAL**
28	CAS9*		
29	D9		
30	VCC		

* ACTIVE LOW

** NO CONNECT WHEN OPTIONAL
PARITY CHECKER IS OMITTED.

ADVANCED ELECTRONIC PACKAGING

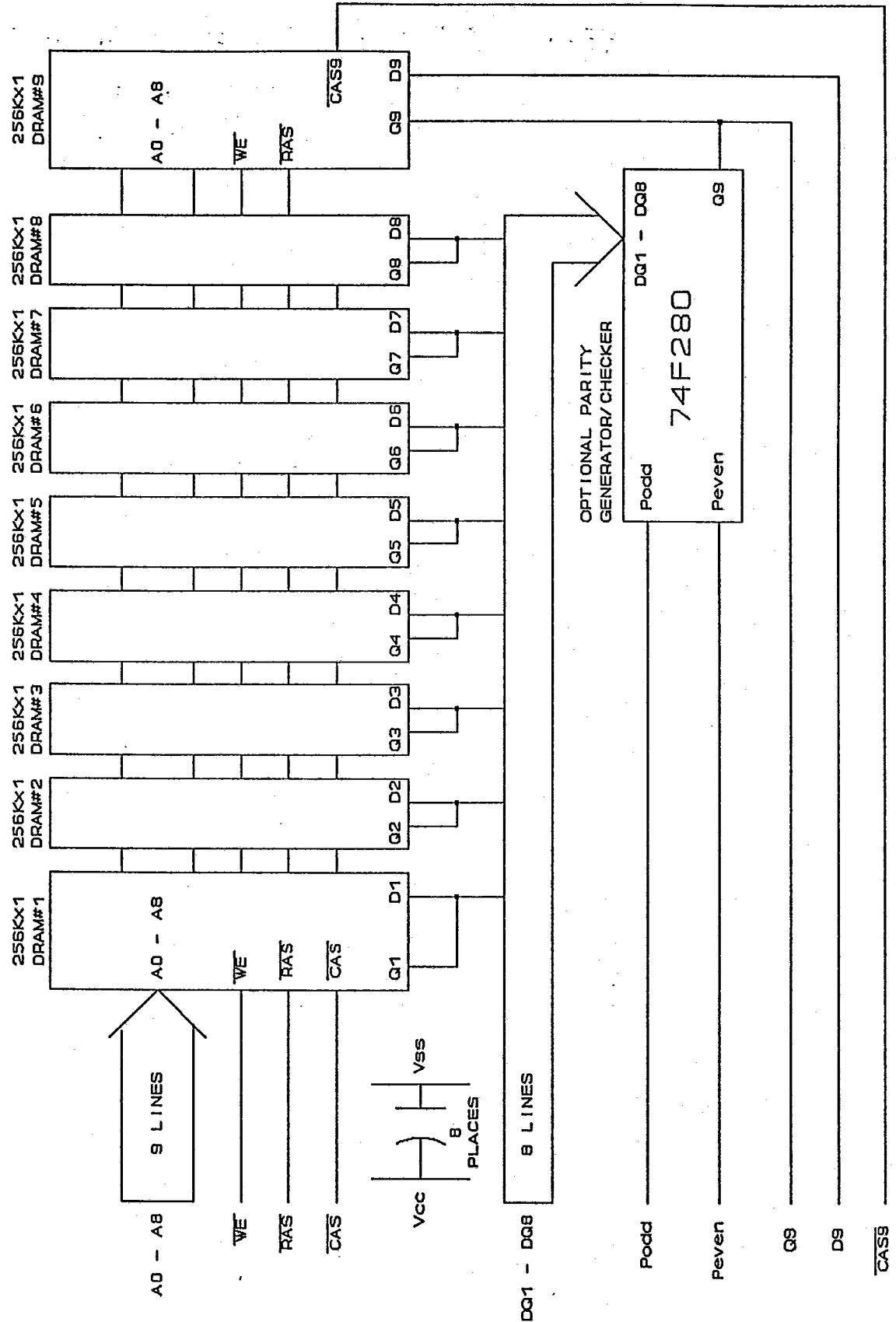
 21562 SURVEYOR CIRCLE, HUNTINGTON BEACH, CA 92646
 (714) 969-1150 FAX: (714) 536-0936

August 6, 1990

ADVANCED ELECTRONIC PKG

AEPDX256K9
DYNAMIC RAM MODULE

T-46-23-15

AEP 256Kx9 LOW PROFILE DRAM WITH PARITY CHECKER
FUNCTIONAL DIAGRAM**ADVANCED ELECTRONIC PACKAGING**21562 SURVEYOR CIRCLE, HUNTINGTON BEACH, CA 92646
(714) 969-1150

FAX: (714) 536-0936