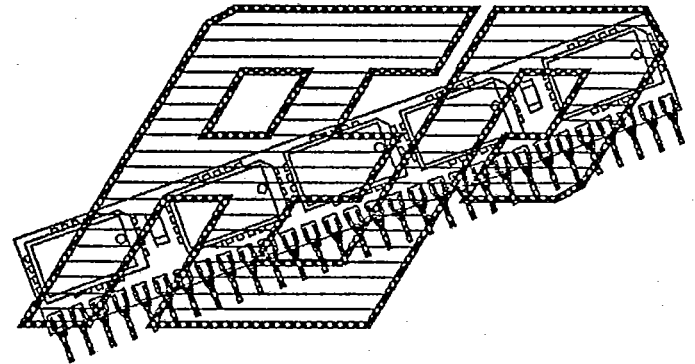


August 6, 1990

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.



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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.


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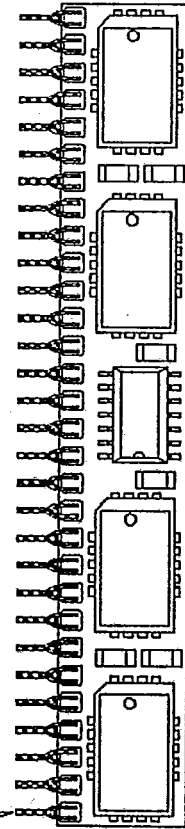
AEPDX256K9  
DYNAMIC RAM MODULE

T-46-23-15

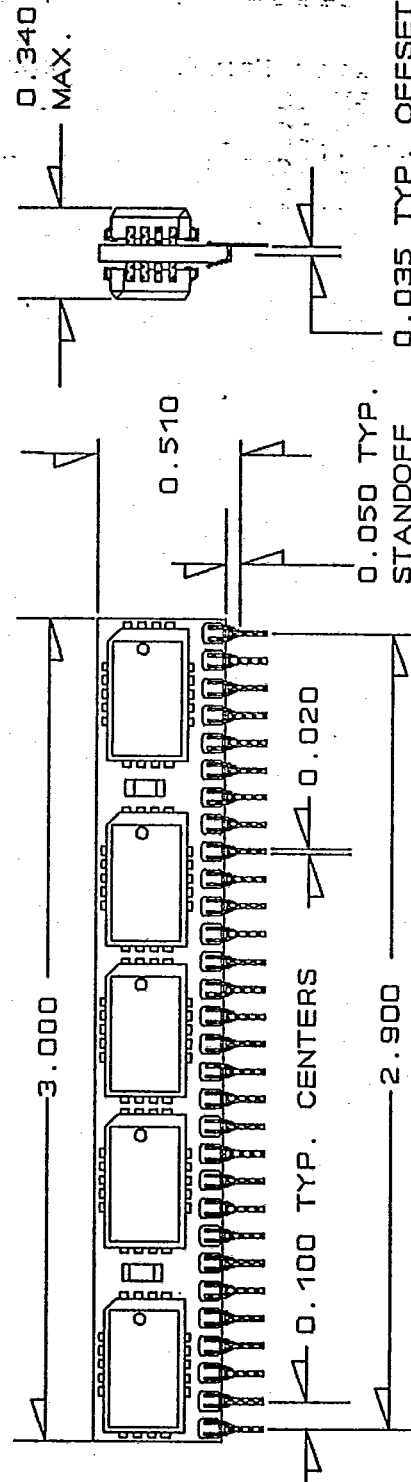
# ADVANCED ELECTRONIC PACKAGING 256KX9 LOW PROFILE DRAM MODULE WITH PARITY CHECKER

DIMENSION IN INCHES, TOLERANCE:  $\pm 0.010$  UNLESS SPECIFIED.

NO. 1 PIN



REAR VIEW



30 PIN SIP

FRONT VIEW

SIDE VIEW



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## 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
16	—	DQ5
17	—	A8
18	—	NC
19	—	PEVEN**
20	—	DQ6
21	—	WE*
22	—	VSS
23	—	DQ7
24	—	PODD**
25	—	DQ8
26	—	Q9
27	—	RAS*
28	—	CAS9*
29	—	D9
30	—	VCC

A0 - A8  
DQ1 - DQ8  
D9  
Q9  
RAS\*  
CAS\*  
CAS9\*  
WE\*  
NC  
VCC  
VSS  
PEVEN  
PODD

ADDRESS INPUTS  
DATA I/O'S  
PARITY DATA IN  
PARITY DATA OUT  
ROW ADDRESS STROBE\*  
COLUMN ADDR STROBE\*  
PARITY CAS\*  
WRITE ENABLE\*  
NO CONNECT  
POWER +5V  
GROUND  
PARITY EVEN SIGNAL\*\*  
PARITY ODD SIGNAL\*\*

\* ACTIVE LOW

\*\* NO CONNECT WHEN OPTIONAL  
PARITY CHECKER IS OMITTED.



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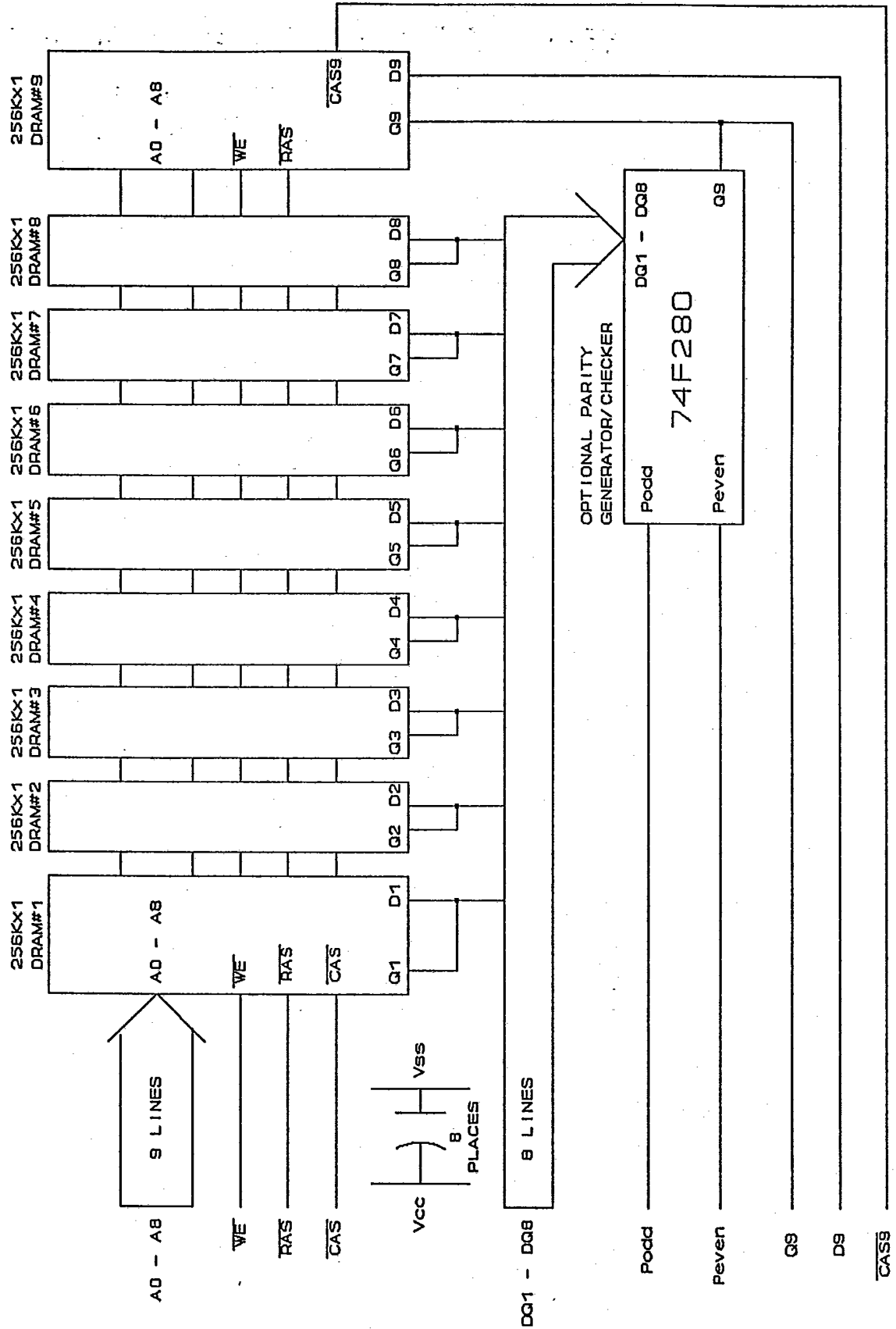
August 6, 1990

ADVANCED ELECTRONIC PKG

AEPDX256K9  
DYNAMIC RAM MODULE

T-410-23-15

AEP 256KX9 LOW PROFILE DRAM WITH PARITY CHECKER  
FUNCTIONAL DIAGRAM



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