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Date: _____

Student: _____

Design a 16-segment decoder using PLDs. It must decode as a minimum the 26 letters of the alphabet (A → Z) and the 10 digits (0 → 9). Use two 22V10 since a 22V10 provides only 10 outputs.

Information to help in this design is attached on the next slides:

- 22V10 pin out
- 16 segment display naming convention
- 16 segment display pin numbering scheme
- An example of possible codes to use

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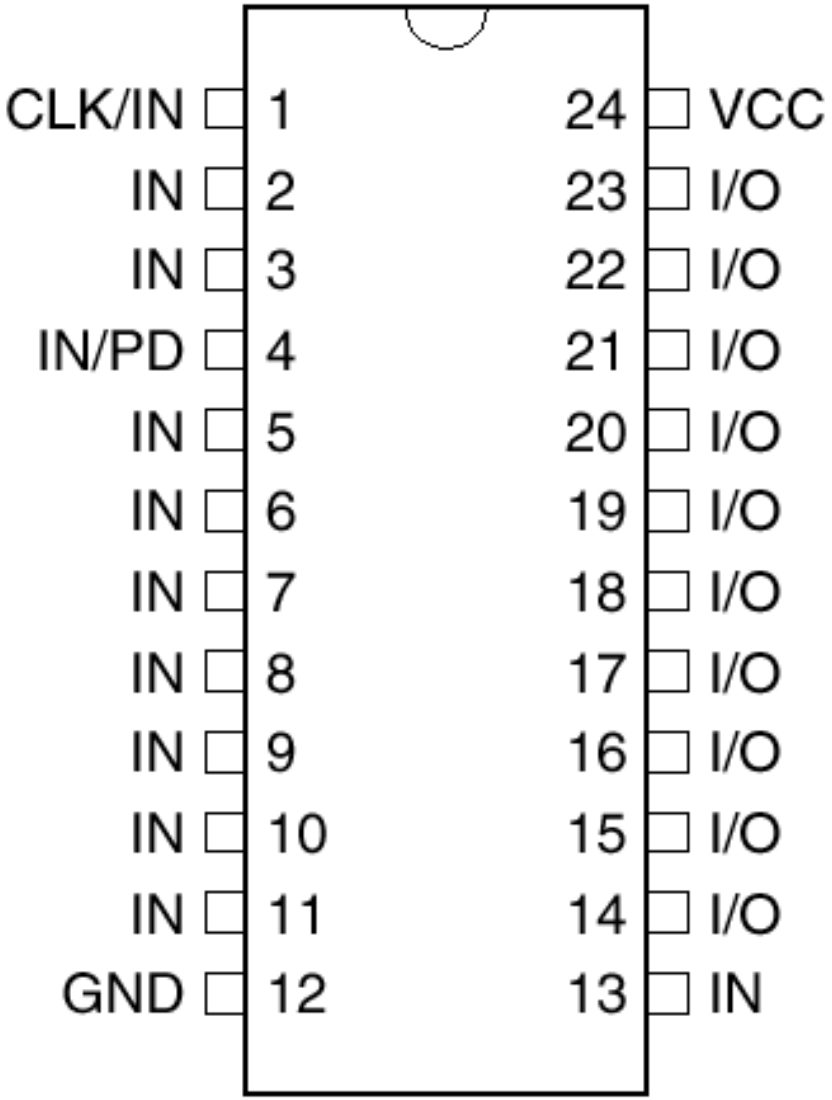
22v10 – Pin Diagram



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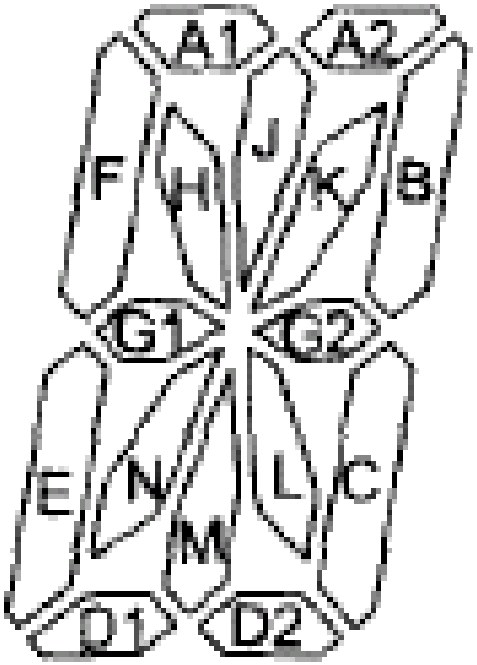
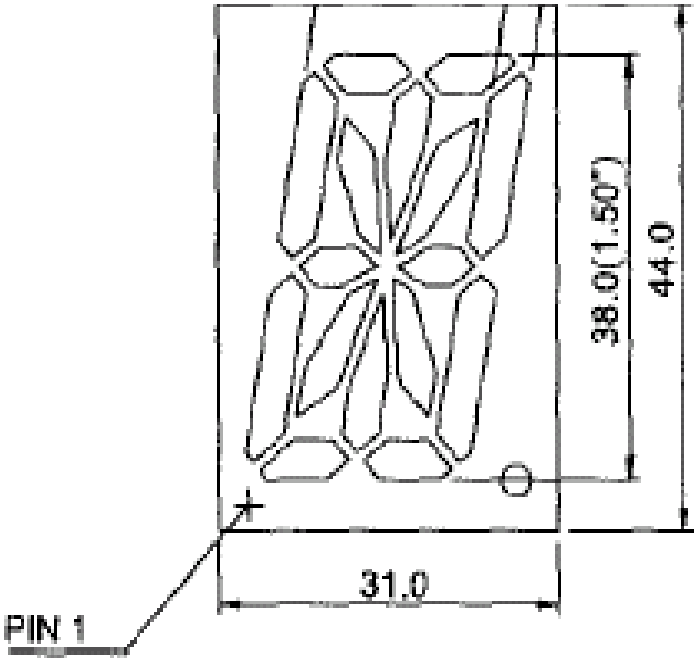
FYS-15012Bx





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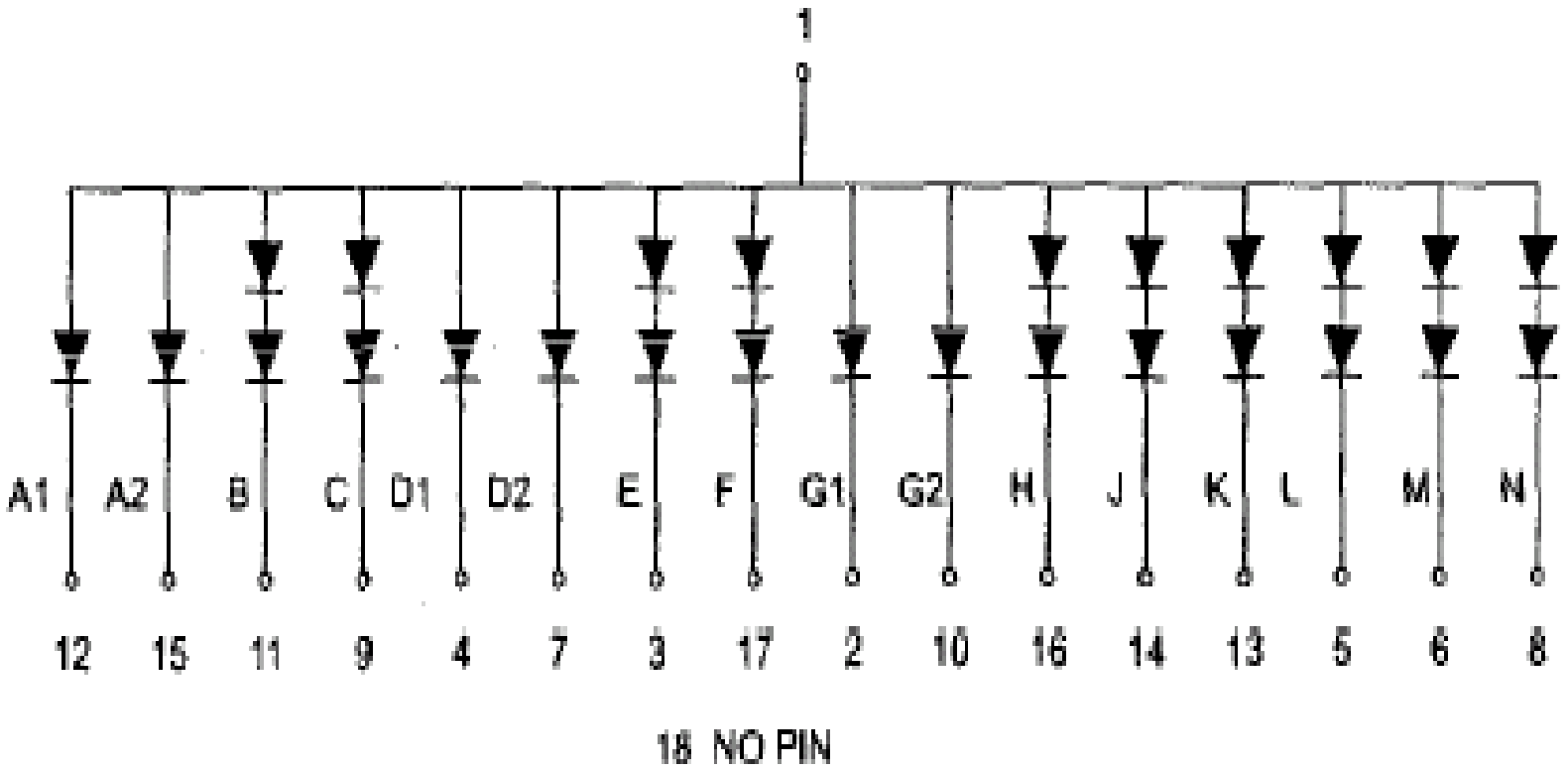
FYS-15012Bx



18 NO PIN

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A possible decoding solution

Character Set

BITS	D_3 D_2 D_1 D_0	0 0 0 0	0 0 0 1	0 0 1 0	0 0 1 1	0 1 0 0	0 1 0 1	0 1 1 0	0 1 1 1	1 0 0 0	1 0 0 1	1 0 1 0	1 0 1 1	1 1 0 0	1 1 0 1	1 1 1 0	1 1 1 1
D_6 D_5 D_4	HEX	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0 1 0	2	(space)	!	"	#	$	%	&	'	(	)	*	+	,	-	.	/
0 1 1	3	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
1 0 0	4	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1 0 1	5	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_