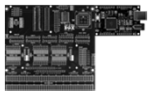


EEL3744
Lookup Table (LUT)

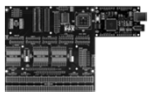
- Assume that you have fixed-sized text messages in a table (for unsigned 12-bit, for example):

0.000V (0x000)
0.001V (0x001)
0.002V (0x002)
…
0.045V (0x025)
…
2.499V (0x7FF)
2.501V (0x800)
…
5.000V (0xFFF)

Dec	Hex	0-5V
0	000	0.000
1	001	0.001
2	002	0.002
3	003	0.004
4	004	0.005
5	005	0.006
37	025	0.045
28	01C	0.034
2047	7FF	2.499
2048	800	2.501
4095	FFF	5.000

0.045V (0x025)

Char	ASCII
0	30
.	2E
0	30
4	34
5	35
V	56
	20
(	28
0	30
x	78
	…
)	29



EEL3744
Storing and Retrieving Messages

- How many bytes (ASCII characters) per message?
  - > Examples: `0.045V (0x025)` / `2.499V (0x7FF)`
    `123456789ABCDE  123456789ABCDE`
  - > So one answer:
  - > Is there a better answer?
- In memory can store as follows:
  - > For 0.045V (0x025), store 0045025
  - > For 2.499V (0x7FF), store 24997FF
- How do you know where to lookup your message?
  - > Make a formula to determine the message address for each of the numbered messages

- What if the messages have uneven lengths?