

Specification

• Addition of 2 decimal digits in BCD

$$- \{C_o, S\} = A + B + C_i$$

1 • $S = S_3S_2S_1S_0$, $A = A_3A_2A_1A_0$, $B = B_3B_2B_1B_0$

– A digit in BCD cannot exceed 9, add 6 (0110) for final correction.

$$\begin{array}{r}
 10 \quad \quad \quad 10000 \\
 8_{10} \quad \mathbf{A} \quad \quad 1000_2 \\
 9_{10} \quad \mathbf{B} \quad \quad 1001_2 \\
 \hline
 17_{10} \quad \mathbf{KZ} \quad \quad \mathbf{10001_2} \\
 \quad \quad \quad 0110_2 \\
 \hline
 0001011_2
 \end{array}$$

2 **3**

binary coded results

if >9, add 6

BCD coded results

Decimal symbol	BCD digit
0	0000
1	0001
2	0010
3	0011
4	0100
5	0101
6	0110
7	0111
8	1000
9	1001