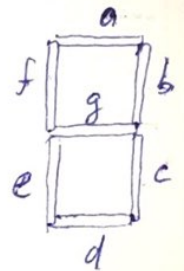


# Дешифратор для семисегментного индикатора

## 1) Таблица истинности

Цифра	вход				выход						
	$x_1$	$x_2$	$x_3$	$x_4$	a	b	c	d	e	f	g
0	0	0	0	0	1	1	1	1	1	1	0
1	0	0	0	1	0	1	1	0	0	0	0
2	0	0	1	0	1	1	0	1	1	0	1
3	0	0	1	1	1	1	1	1	0	0	1
4	0	1	0	0	0	1	1	0	0	1	1
5	0	1	0	1	1	0	1	1	0	1	1
6	0	1	1	0	1	0	1	1	1	1	1
7	0	1	1	1	1	1	1	0	0	0	0
8	1	0	0	0	1	1	1	1	1	1	1
9	1	0	0	1	1	1	1	1	0	1	1



## 2) Логическая схема

$$\bar{a} = \bar{x}_1 \bar{x}_2 \bar{x}_3 x_4 + \bar{x}_1 x_2 \bar{x}_3 \bar{x}_4$$

$$\bar{b} = \bar{x}_1 x_2 \bar{x}_3 x_4 + \bar{x}_1 x_2 x_3 \bar{x}_4$$

$$\bar{c} = \bar{x}_1 \bar{x}_2 x_3 \bar{x}_4$$

$$\bar{d} = \bar{x}_1 \bar{x}_2 \bar{x}_3 x_4 + \bar{x}_1 x_2 \bar{x}_3 \bar{x}_4 + \bar{x}_1 x_2 x_3 x_4$$

$$e = \bar{x}_1 \bar{x}_2 \bar{x}_3 \bar{x}_4 + \bar{x}_1 \bar{x}_2 x_3 \bar{x}_4 + \bar{x}_1 x_2 x_3 \bar{x}_4 + x_1 \bar{x}_2 \bar{x}_3 \bar{x}_4$$

$$\bar{f} = \bar{x}_1 \bar{x}_2 \bar{x}_3 x_4 + \bar{x}_1 \bar{x}_2 x_3 \bar{x}_4 + \bar{x}_1 x_2 x_3 x_4 + \bar{x}_1 x_2 x_3 \bar{x}_4$$

$$\bar{g} = \bar{x}_1 \bar{x}_2 \bar{x}_3 \bar{x}_4 + \bar{x}_1 \bar{x}_2 \bar{x}_3 x_4 + \bar{x}_1 x_2 x_3 x_4$$

