

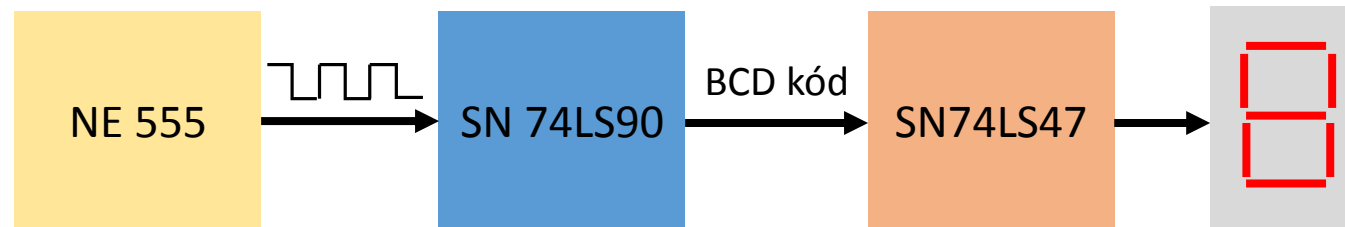
TECHNICKÁ UNIVERZITA V KOŠICIACH
FAKULTA ELEKTROTECHNIKY A INFORMATIKY
KATEDRA ELEKTRONIKY A MULTIMEDIÁLNYCH TELEKOMUNIKÁCIÍ

ČÍSLICOVÁ ELEKTRONIKA
KOMBINAČNÉ OBVODY

Praktické cvičenie 2

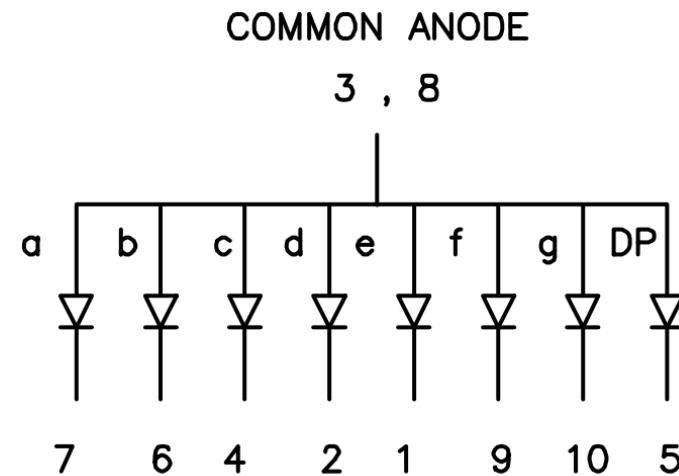
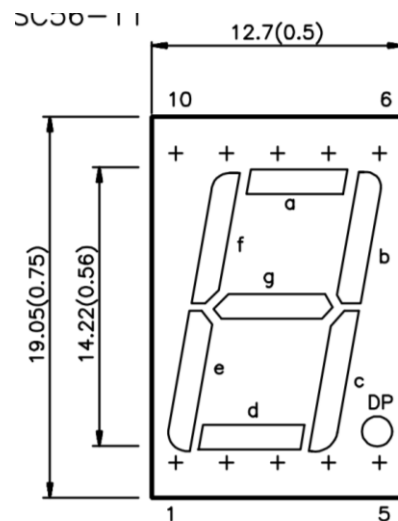
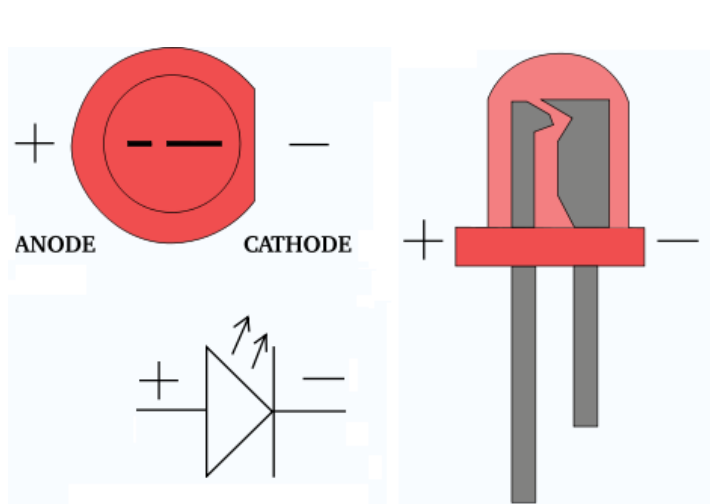
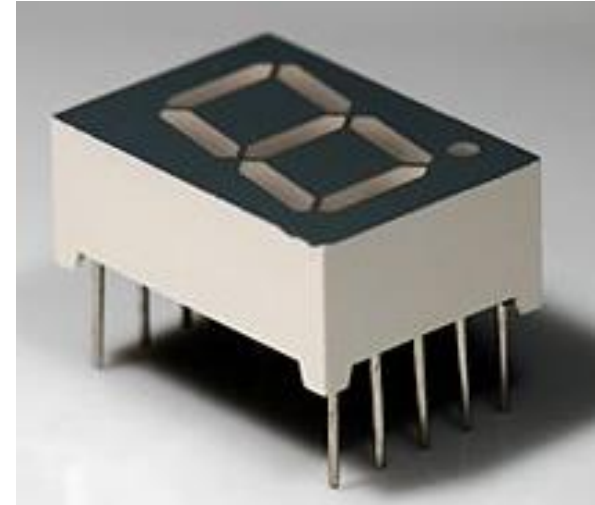
CV_2 Kombinačné obvody

- Čítač, časovač, dekodér
- Kontaktné pole
- LED dióda, 7 segmentový displej
- IO NE555, SN74LS90, 74LS47N
 - Blikanie s LED
 - Pripojenie čítača
 - Pripojenie prevodníka a 7 seg. displeja



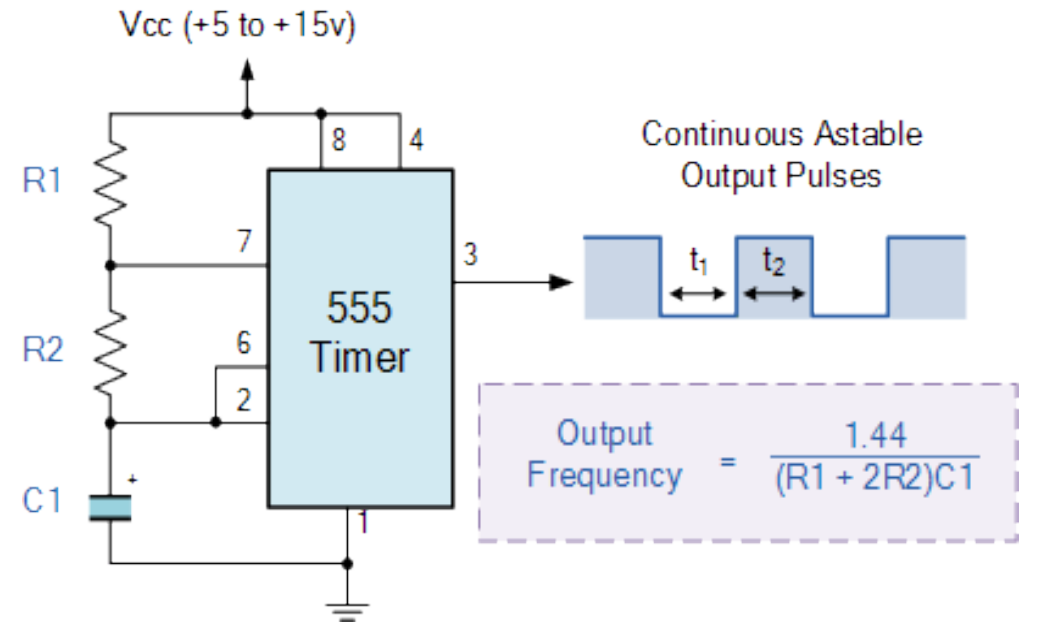
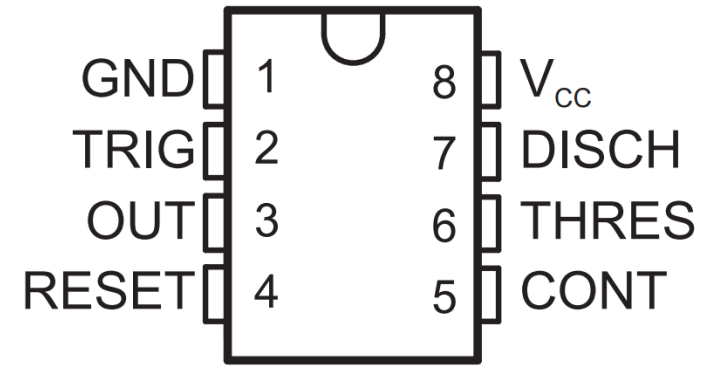
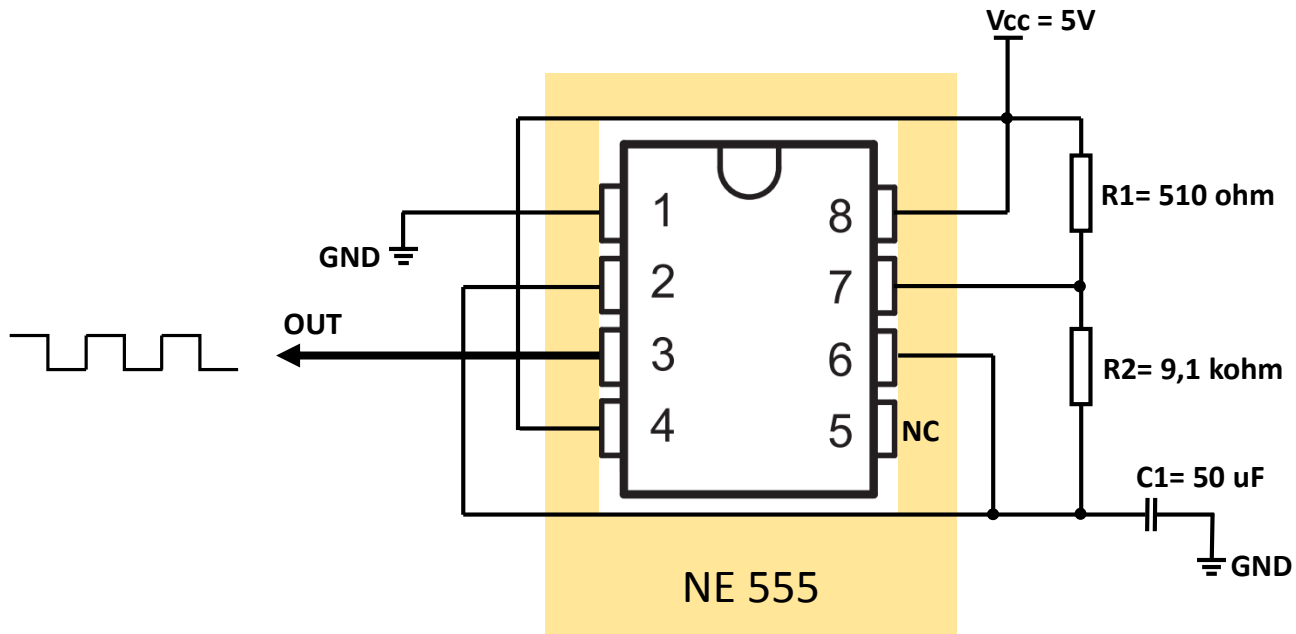
CV_2 Kombinačné obvody

- LED dióda, 7 segmentový displej



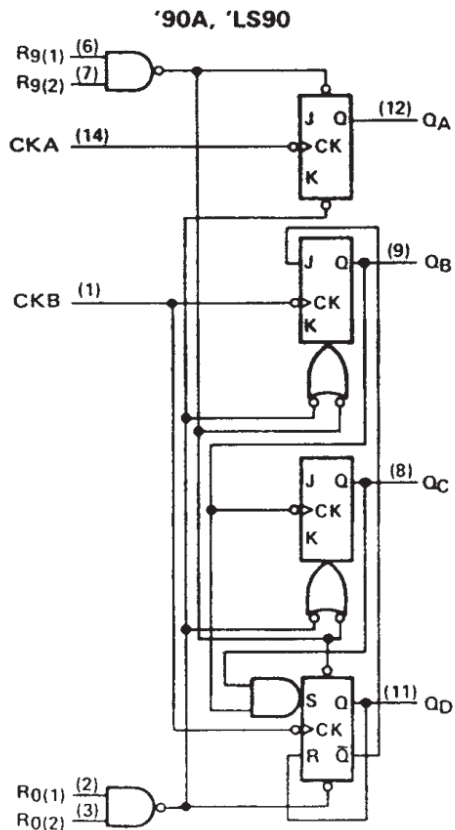
CV_2 Kombinačné obvody

- časovač NE 555



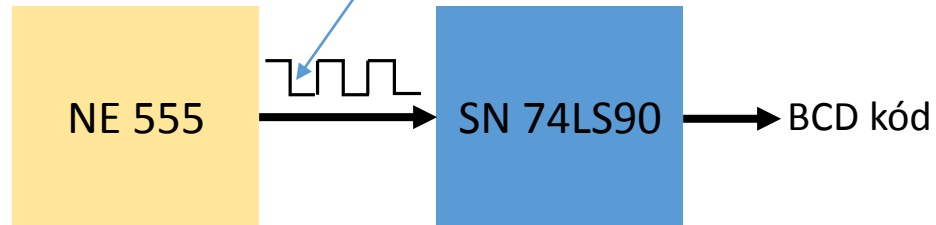
CV_2 Kombinačné obvody

- 10 bitový (dekadický) čítač impulzov SN 74LS90

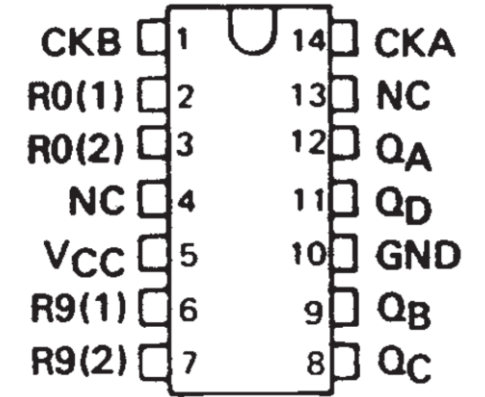


vnútorná štruktúra IO

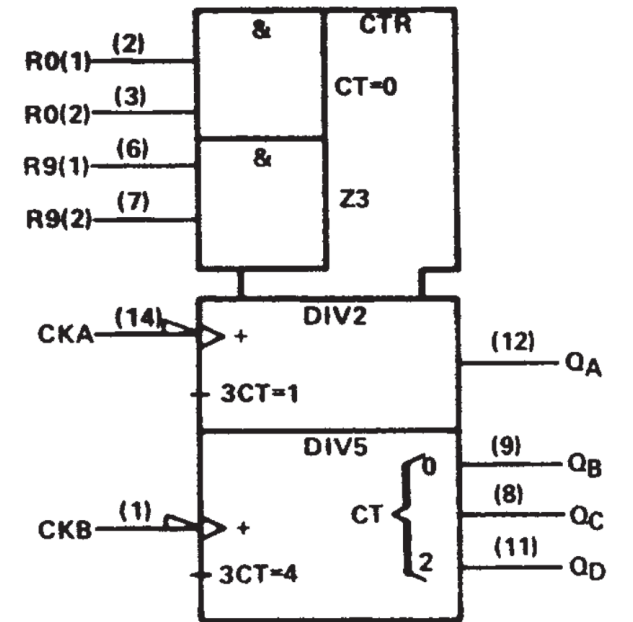
Reakcia čítača na dobežnú hranu impulzu



(TOP VIEW)



pohľad zhora



bloková schéma

CV_2 Kombinačné obvody

- SN 74LS90 pravdivostná tabuľka

'90A, 'LS90
BCD COUNT SEQUENCE
(See Note A)

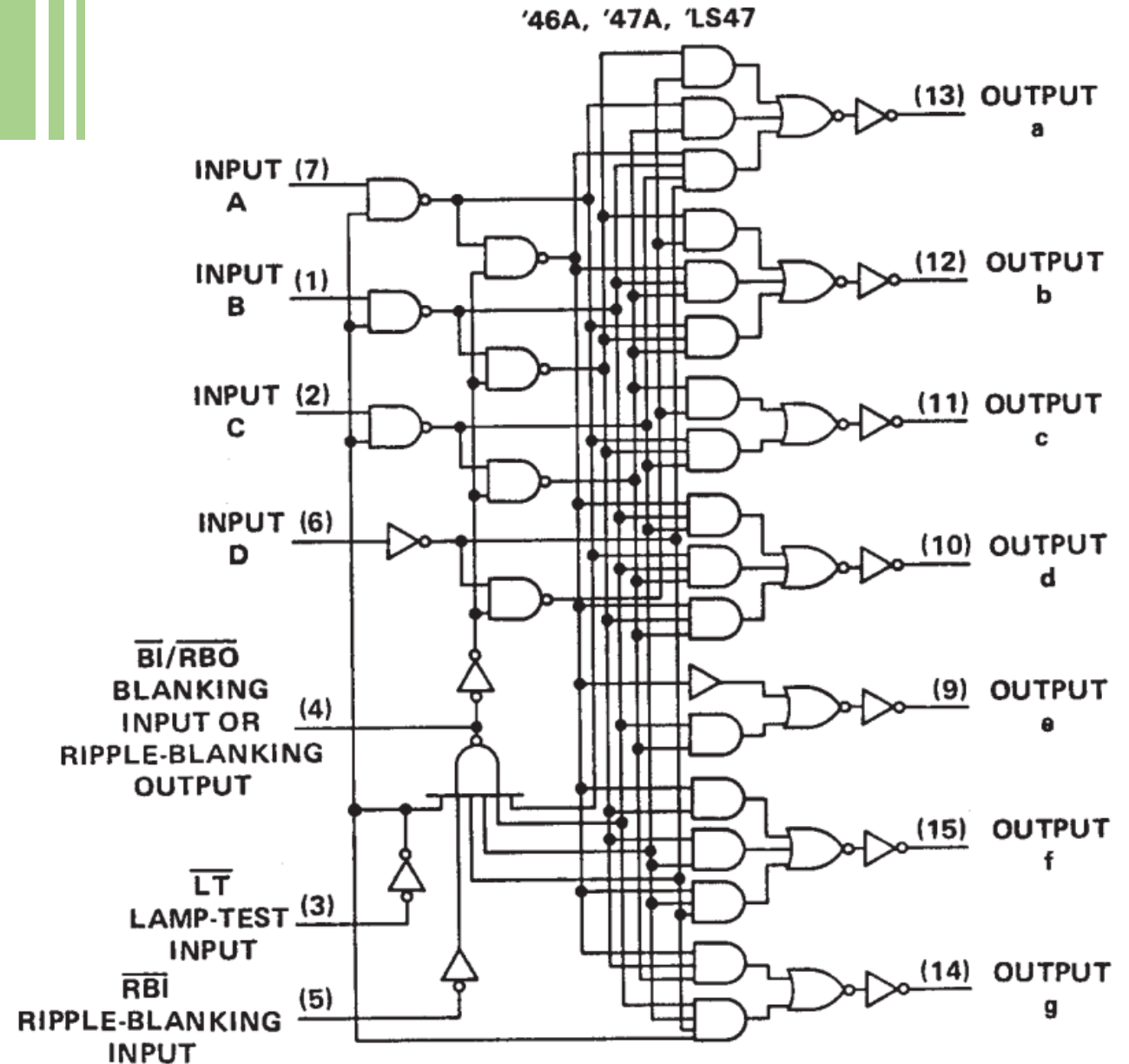
COUNT	OUTPUT			
	Q _D	Q _C	Q _B	Q _A
0	L	L	L	L
1	L	L	L	H
2	L	L	H	L
3	L	L	H	H
4	L	H	L	L
5	L	H	L	H
6	L	H	H	L
7	L	H	H	H
8	H	L	L	L
9	H	L	L	H

'90A, 'LS90
RESET/COUNT FUNCTION TABLE

RESET INPUTS				OUTPUT			
R ₀ (1)	R ₀ (2)	R ₉ (1)	R ₉ (2)	Q _D	Q _C	Q _B	Q _A
H	H	L	X	L	L	L	L
H	H	X	L	L	L	L	L
X	X	H	H	H	L	L	H
X	L	X	L	COUNT			
L	X	L	X	COUNT			
L	X	X	L	COUNT			
X	L	L	X	COUNT			

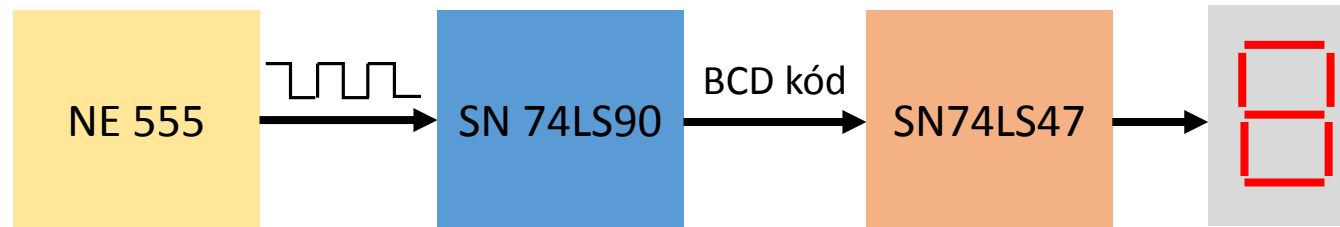
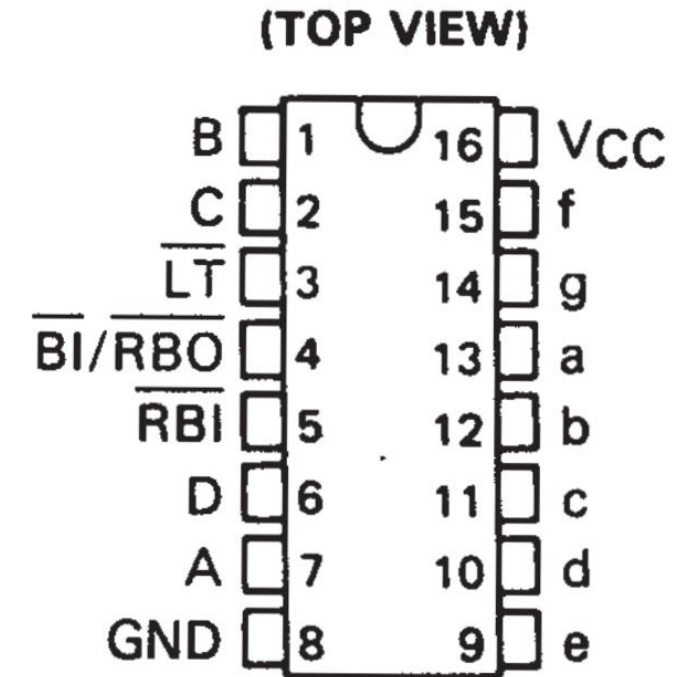
CV_2 Kombinačné obvody

- Prevodník BCD kódu na 7 segmentovku SN74LS47



CV_2 Kombinačné obvody

- Prevodník BCD kódu na 7 segmentovku
SN74LS47



CV_2 Kombinačné obvody

