**Komunikacijska elektronika**

**Poročilo o laboratorijskih vajah: Digitalni osciloskop**

Ime in Priimek:

**Vaja 1:** Digitalni osciloskop LeCroy

 Vezava:



* Meritev parametrov

Parametri:

* + Frekvenca 10kHz,
	+ Amplituda 10V,
	+ trikoten signal

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* Statistične meritve (šumni generator)



* Merjenje sipanja (jitter) pravokotnega signala z uporabo spremenljive persistence



**Vaja 3:** Meritve linearnega sistema z osciloskopom

Blok shema meritve:



Rezultati:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| * + Mejna frekvenca fp= 10kHz
	+ Ojačanje četveropola:

|  |  |  |
| --- | --- | --- |
|  | Frekvenca (f) | Ojačanje (a) |
| 1 | 100 Hz | 13,74 dB |
| 2 | 500 Hz | 13,67 dB |
| 3 | 1000 Hz | 13,64 dB |
| 4 | 4000 Hz | 13,61 dB |
| 5 | 10000 Hz | 10,88 dB |

 | * + Fazni zasuk med vhodom in izhodom:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Frekvenca  | Zakasnitev  | Faza  |
| 1 | 100 Hz | -4,7 ms | 178,7 ᵒ |
| 2 | 500 Hz | -2,4 ms | 175,3 ᵒ |
| 3 | 1000 Hz | -476,3 us | 172,8 ᵒ |
| 4 | 4000 Hz | -105,4 us | 159,6 ᵒ |
| 5 | 10000 Hz | -34,4 us | 128,7 ᵒ |

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Bodejev diagram: