**2.3.2**

**1)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Nominalwert** | 470 Ohm | 1000 Ohm | Spule |
| **Tatsächlicher Messwert** | 0,4746Ohm | 0,979kOhm | 0,81 Ohm |

**3) c)**

|  |  |
| --- | --- |
| **Widerstand Messschaltung**  [Ohm] | 0,84 |

**3) i)**

Jeweils 2.96 Volt

**Tabelle 2.7**

|  |  |  |  |
| --- | --- | --- | --- |
| **Dateiname** | **V2\_S\_1** | **V2\_S\_2** | **V2\_S\_3** |
| **Frequenz [Hz]** | 1000 | 3350 | 10000 |
| Eingangsamplitude [V] | 3.0751 | 3.0622 | 3.0275 |
| Ausgangsamplitude [V] | 0.0984 | 1.5965 | 0.1123 |
| Amplitudenverhältnis [-] (Ausgang/Eingang) | 0,0320 | 0,5214 | 0,0371 |
| Periodendauer T [s] | 10^-3 | 10.6\*10^-5 | 10^-4 |
| zeitliche Verschiebung ∆T [s] | (1-0.77)\*10^-3 | 0 | 0.24\*10^-4 |
| Winkelverschiebung ∆ϕ [°] | 82° | 0 | 86,4° |

**Tabelle 2.8**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Anstieg | stat. Endwert Ausgang | 63%- Wert | Zeitkonstante T | Kapazität C |
| [- ] | [V] | [V] | [s] | [µF] |
| 1 | 6.142 | 3.86946 | 0.001 | 1\*10^-6 |
| 2 | 6.141 | 3.86883 | 0.001 | 1\*10^-6 |
| 3 | 6.141 | 3.86883 | 0.001 | 1\*10^-6 |
| Mittelwert | - | - | - | 1\*10^-6 |

Tabelle 2.9

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Messdatei | Stat. Endwert | 63% | Zeitkonstante | Induktivität |
| [- ] | [A] | [A] | [s] | [µH] |
| V\_2\_L\_1 | 3.414 | 2.15082 | 2.775\*10^-3 | 2.25\*10^-3 |
| V\_2\_L\_2 | 3.480 | 2.1924 | 2.729\*10^-3 | 2.21\*10^-3 |
| V\_2\_L\_3 | 3.481 | 2.19303 | 2.756\*10^-3 | 2.23\*10^-3 |
| Mittelwert | - | - | - | 2.23\*10^-3 |