

calc_decimal_example

Student Group

First Name	Surname	Matrikel Nr.

Table of Contents

i sjfshdfkh

$\$1.\!\!\!\!\!\quad$ Calculation example for decimal value

value		2	6	5	8	,	4	7
index	i	3	2	1	0		-1	-2
place value	B^i	10^3 \$1000\$	10^2 \$100\$	10^1 \$10\$	10^0 \$1\$		10^{-1} \$0.1\$	10^{-2} \$0.01\$
digit	z_i	2	6	5	8		4	7
calculation	$z_i \cdot B^i$	2000	600	50	8		0.4	0.07
Result	$\sum_i z_i \cdot B^i$	2658,47						

aus (2+3)	$\textcolor{blue}{i}_p = \textcolor{blue}{i}_m = 0$	$\$l_p$ und $\$l_m$ sind damit definiert
$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$	$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$	$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$
aus (6)	$\textcolor{blue}{i}_o = l_1$	$\$l_o$ ist damit bekannt, wenn $\$l_1$ bekannt ist
$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$	$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$	$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$
aus (7) und (3)	$\$l_1 - l_2 - \textcolor{blue}{i}_0 = 0$	$\$l_{quad}$
$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$	$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$	$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$
$\$l_{quad}$	$\$l_1 = l_2 = l_o$	$\$l_{quad}$
$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$	$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$	$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$
$\$l_{quad}$	$\textcolor{blue}{i}_{l_1} = \textcolor{blue}{i}_{l_2} = \textcolor{blue}{i}_{l_o}$	mit (8) und (9): $\$l_{boxed} = \textcolor{blue}{i}_{U_{boxed}} \textcolor{blue}{i}_{R_{boxed}}$ und (5)
$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$	$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$	$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$
$\$l_{quad}$	$\textcolor{blue}{i}_{R_1} = \textcolor{blue}{i}_{R_2} = \textcolor{blue}{i}_{U_A}$	Spannungsteilerformel, $\$l = \text{const.}$
$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$	$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$	$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$
(10)	$\$U_2 = U_A \cdot \textcolor{blue}{i}_{R_2} \textcolor{blue}{i}_{R_1 + R_2}$	Spannungsteilerformel
$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$	$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$	$\$l_{quad}^{quad}^{quad}^{quad}^{quad}^{quad}$

\$II.\quad\$ Betrachtung der Spannungsverstärkung

[illegible]

From:

<https://wiki.mexle.te.hs-heimbronn.de/> - **MEXLE Wiki**

Permanent link:

[https://wiki.mexle.te.hs-heilbronn.de/introduction to digital systems/calc decimal example?rev=1631662582](https://wiki.mexle.te.hs-heilbronn.de/introduction%20to%20digital%20systems/calc%20decimal%20example?rev=1631662582)

Last update: **2021/09/15 01:36**

