

TABEL 1: VALORI MASURATE TL431 dupa W4ZT

TL 431 Dupa W4ZT	Uredr = 82V	Uref =2.45V		R = 1.5k Ω
	Uo [V]	UB [V]	Uz [V]	UR [V]
R1 = 0 k Ω	3.1	2.1		1.6
R1 = 1 k Ω	7.7	3.6		1.7
R1 = 2 k Ω	10.4	6.3		4.3
R1 = 3 k Ω	14.2	10.3		8.4
R1 = 4 k Ω	17.9	14.2		12.5
R1 = 5 k Ω	21.7	18.2		16.6
R1 = 6 k Ω	25.4	22.2		20.8
R1 = 7 k Ω	29.2	26.3		24.9
R1 = 8 k Ω	32.9	30.3		29.0
R1 = 9 k Ω	36.6	34.2		33.1
R1 = 10 k Ω	40.3	38.2		37.1
R1 = 11 k Ω	44.1	42.1		41.3

TL431 NU FUNCTIONEAZA CORECT !!!

TABEL 2: VALORI MASURATE TL431 + Z dupa W4ZT

TL431+Z Dupa W4ZT	Uredr = 82V	Uref =2.45V		R = 1.5k Ω
	Uo [V]	UB [V]	Uz [V]	UR [V]
R1 = 0 k Ω	17.4	17.2	17.4	12.5
R1 = 1 k Ω	35.5	35.1	35.0	9.4
R1 = 2 k Ω	35.7	34.2	33.6	7.6
R1 = 3 k Ω	31.2	29.1	28.0	1.7
R1 = 4 k Ω	31.6	29.3	28.2	1.7
R1 = 5 k Ω	31.8	29.4	28.2	1.7
R1 = 6 k Ω	32.1	29.5	28.3	1.7
R1 = 7 k Ω	32.2	29.6	28.4	1.7
R1 = 8 k Ω	33.5	30.9	29.8	3.0
R1 = 9 k Ω	37.2	34.9	33.8	7.3
R1 = 10 k Ω	40.1	38.8	37.8	11.4
R1 = 11 k Ω	44.7	42.8	41.8	15.5

DIODA Z si TL431 NU FUNCTIONEAZA CORECT !!!

TABEL 3: VALORI MASURATE TL431 + Z corectat de YO4AUP

TL431+Z CORECTAT de YO4AUP	Uredr = 82V	Uref =2.45V		R = 1.5k Ω
	Uo [V]	UB [V]	Uz [V]	UR [V]
R1 = 0 k Ω	33.6	30.6	29.3	2.6
R1 = 1 k Ω	37.1	34.3	33.0	6.5
R1 = 2 k Ω	40.5	38.0	36.8	10.3
R1 = 3 k Ω	44.0	41.6	40.5	14.1
R1 = 4 k Ω	47.5	45.3	44.2	17.8
R1 = 5 k Ω	50.8	48.9	48.0	21.6
R1 = 6 k Ω	54.2	52.4	51.6	25.4
R1 = 7 k Ω	57.6	56.0	55.3	29.2
R1 = 8 k Ω	60.9	59.5	58.9	33.0
R1 = 9 k Ω	64.3	63.2	62.6	36.7
R1 = 10 k Ω	67.6	66.7	66.3	40.5
R1 = 11 k Ω	71.0	70.4	70.0	44.3

TABEL 4: VALORI MASURATE TL431 + Z + MJH 11021 la curent mare*[Schema dupa W4ZT](#)*

TL431+Z+ MJH11021 Dupa W4ZT	R = 50.6 Ω					
Uref =2.45V	Uredr [V]	Iredr [mA]	Uo [V]	UB [V]	Uz [V]	UR [V]
R1 = 0 k Ω	59.5	*	*	*	*	*
R1 = 1 k Ω	62.3	492	37.4	36.7	36.4	10.7
R1 = 2 k Ω	60.7	532	33.8	33.1	32.7	7.0
R1 = 3 k Ω	58.6	595	28.5	27.8	27.4	1.6
R1 = 4 k Ω	58.4	589	28.6	27.7	27.4	1.6
R1 = 5 k Ω	58.6	593	28.6	27.8	27.4	1.6
R1 = 6 k Ω	59.2	603	28.7	27.8	27.4	1.7
R1 = 7 k Ω	59.2	585	29.6	28.7	28.3	2.6
R1 = 8 k Ω	60.6	540	33.3	32.4	32.0	6.3
R1 = 9 k Ω	62.1	494	37.1	36.1	35.7	10.1
R1 = 10 k Ω	63.6	450	40.8	39.8	39.3	13.7
R1 = 11 k Ω	65.1	405	44.6	43.5	43.0	17.4

TL431 NU FUNCTIONEAZA CORECT !!!

Tabel 5: VALORI MASURATE TL431 + Z + MJH 11021 la curent mare
Schema dupa YO4AUP

TL431+Z+ MJH11021 Dupa YO4AUP	R = 50.6 Ω		OK			
Uref =2.45V	Uredr [V]	Iredr [mA]	Uo [V]	UB [V]	Uz [V]	UR [V]
R1 = 0 k Ω	60.9	613	29.9	28.8	28.3	2.7
R1 = 1 k Ω	61.4	549	33.6	32.6	32.2	5.5
R1 = 2 k Ω	62.3	494	37.3	36.4	35.9	10.3
R1 = 3 k Ω	63.9	453	41.0	40.1	39.7	14.1
R1 = 4 k Ω	65.4	407	44.8	44.0	43.6	17.9
R1 = 5 k Ω	67.0	366	48.5	47.7	47.4	21.7
R1 = 6 k Ω	68.2	314	52.3	51.5	51.2	25.4
R1 = 7 k Ω	70.2	280	56.0	55.3	54.9	29.3
R1 = 8 k Ω	71.5	229	59.9	59.1	58.7	33.0
R1 = 9 k Ω	73.7	200	63.6	62.8	62.5	36.7
R1 = 10 k Ω	75.9	168	67.4	66.6	66.2	40.5
R1 = 11 k Ω	77.6	126	71.2	70.4	70.1	44.3

OK !!!

TABEL 6: VALORI MASURATE TL431 + Z + MJH 11021 la curent mare
Schema dupa W4ZT **Z = 13.7 V**

TL431+Z+ MJH11021 Dupa W4ZT	R = 50.6 Ω				Z = 13 V	
Uref =2.45V	Uredr [V]	Iredr [mA]	Uo [V]	UB [V]	Uz [V]	UR [V]
R1 = 0 k Ω	55.6	706	20.1	19.1	18.5	4.7
R1 = 1 k Ω	56.8	680	22.4	21.6	21.1	7.4
R1 = 2 k Ω	54.9	727	18.1	17.2	16.9	3.0
R1 = 3 k Ω	54.4	745	16.7	15.8	15.4	1.7
R1 = 4 k Ω	54.8	725	18.1	17.2	16.8	3.0
R1 = 5 k Ω	56.4	684	21.8	21.0	20.5	6.9
R1 = 6 k Ω	57.9	636	25.7	24.8	24.4	10.7
R1 = 7 k Ω	59.3	589	29.5	28.6	28.2	14.4
R1 = 8 k Ω	61.0	547	33.3	32.3	31.9	18.2
R1 = 9 k Ω	62.3	500	37.0	36.0	35.6	21.8
R1 = 10 k Ω	63.9	458	40.7	39.7	39.2	25.6
R1 = 11 k Ω	65.2	409	44.5	43.4	42.9	29.2

TL431 NU FUNCTIONEAZA CORECT !!!