

JLH 2005 measurements 10.

2016.02.04

Power from Lab Power supply, ± 18 V DC. $I_Q = 1,03$ A
DC offset at output less than 6 mV.

Transistors :

Q1= MJ802 (high hFE).

Q2=MJ802 (high hFE).

Q3=BD139c

Q8=BD140

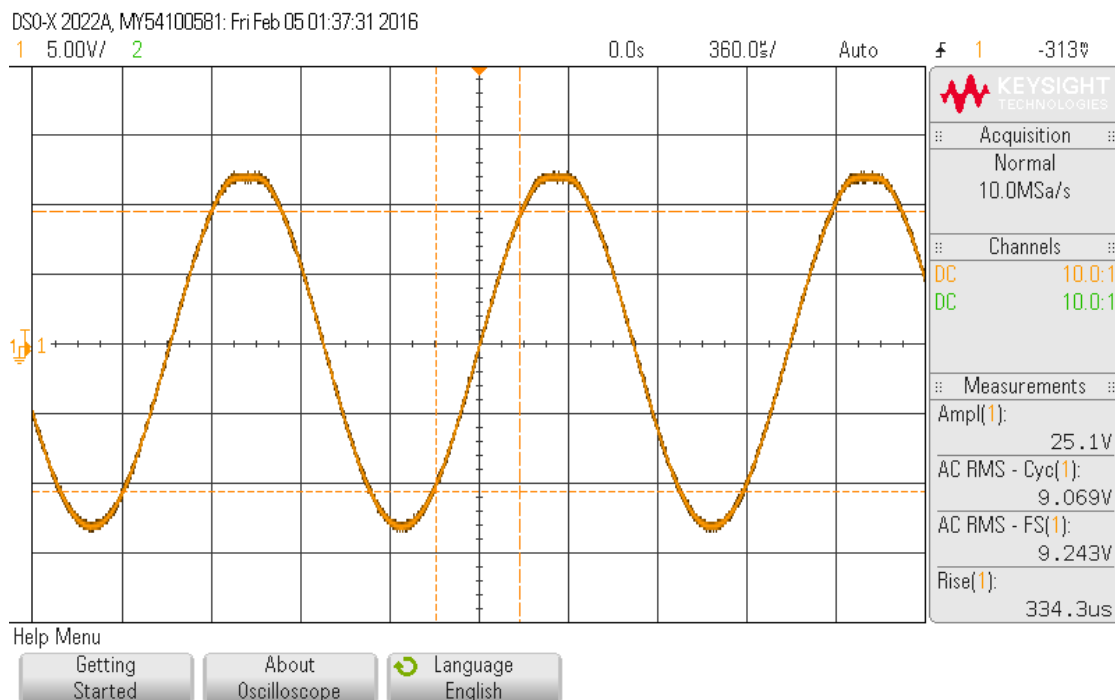
Q4, Q5, Q6, Q7 = BC560.

Note: Resistor in output Current Source replaced from 10 Ohm in series with trimpot. 50 Ohm, to 68 Ohm plus trimpot. 50 Ohm. This was needed in order to set I_Q to 1,04 A. (high hFE on MJ802 transistors).

R load = 8 Ohm.

$I_q = 1,03$ A.

Max output Voltage=25 V peak-peak, beginning of clip on Oscilloscope.



Frequency response (2,83V, 1W):

-3 dB points: 5 Hz – 105 kHz.

GEN	FREQ	LEVEL	A	LEVEL	B	GEN	FREQ	LEVEL	A	LEVEL	B	Ap
10.00	Hz	-1.02	dBr	-999.0	dBr	1.250	kHz	0.00	dBr	-101.8	dBr	
12.50	Hz	-0.66	dBr	-999.0	dBr	1.600	kHz	0.00	dBr	-100.6	dBr	
16.00	Hz	-0.42	dBr	-999.0	dBr	2.000	kHz	0.00	dBr	-98.71	dBr	
20.00	Hz	-0.28	dBr	-999.0	dBr	2.500	kHz	0.00	dBr	-97.13	dBr	
25.00	Hz	-0.18	dBr	-999.0	dBr	3.150	kHz	0.00	dBr	-96.43	dBr	
31.50	Hz	-0.12	dBr	-999.0	dBr	4.000	kHz	0.00	dBr	-95.79	dBr	
40.00	Hz	-0.08	dBr	-999.0	dBr	5.000	kHz	-0.01	dBr	-95.19	dBr	
50.00	Hz	-0.06	dBr	-999.0	dBr	6.300	kHz	-0.02	dBr	-94.63	dBr	
63.00	Hz	-0.04	dBr	-999.0	dBr	8.000	kHz	-0.03	dBr	-94.63	dBr	
80.00	Hz	-0.03	dBr	-999.0	dBr	10.000	kHz	-0.04	dBr	-94.63	dBr	
100.0	Hz	-0.01	dBr	-999.0	dBr	12.500	kHz	-0.05	dBr	-94.63	dBr	
125.0	Hz	-0.01	dBr	-999.0	dBr	16.000	kHz	-0.09	dBr	-95.19	dBr	
160.0	Hz	-0.01	dBr	-999.0	dBr	20.000	kHz	-0.14	dBr	-96.43	dBr	
200.0	Hz	-0.01	dBr	-999.0	dBr	25.000	kHz	-0.22	dBr	-97.89	dBr	
250.0	Hz	0.00	dBr	-999.0	dBr	31.500	kHz	-0.34	dBr	-101.8	dBr	
315.0	Hz	0.00	dBr	-999.0	dBr	40.000	kHz	-0.55	dBr	-999.0	dBr	
400.0	Hz	0.00	dBr	-999.0	dBr	50.000	kHz	-0.82	dBr	-999.0	dBr	
500.0	Hz	0.00	dBr	-999.0	dBr	63.000	kHz	-1.32	dBr	-999.0	dBr	
630.0	Hz	0.00	dBr	-999.0	dBr	80.000	kHz	-1.96	dBr	-999.0	dBr	
800.0	Hz	0.00	dBr	-999.0	dBr	100.00	kHz	-2.83	dBr	-999.0	dBr	
1.000	kHz	0.00	dBr	-101.8	dBr							

THD+N (2,83V, 1W):

GEN	FREQ	THD+N	A	GEN	FREQ	THD+N	A	GEN	FREQ	THD+N	A	Ap
20.00	Hz	0.0298%		315.0	Hz	0.0344%		5.000	kHz	0.0346%		
25.00	Hz	0.0340%		400.0	Hz	0.0347%		6.300	kHz	0.0344%		
31.50	Hz	0.0309%		500.0	Hz	0.0348%		8.000	kHz	0.0338%		
40.00	Hz	0.0314%		630.0	Hz	0.0350%		10.000	kHz	0.0327%		
50.00	Hz	0.0316%		800.0	Hz	0.0351%		12.500	kHz	0.0296%		
63.00	Hz	0.0322%		1.000	kHz	0.0351%		16.000	kHz	0.0226%		
80.00	Hz	0.0329%		1.250	kHz	0.0353%		20.000	kHz	0.0162%		
100.0	Hz	0.0327%		1.600	kHz	0.0354%		25.000	kHz	0.0135%		
125.0	Hz	0.0340%		2.000	kHz	0.0355%		31.500	kHz	0.0135%		
160.0	Hz	0.0335%		2.500	kHz	0.0352%						
200.0	Hz	0.0343%		3.150	kHz	0.0351%						
250.0	Hz	0.0342%		4.000	kHz	0.0348%						

IMD (2,83V, 1W):

IMD	A	LEVEL	A	GEN:IMD			Ap
0.114	%	2.278	V		211.9	mV	250/8kHz

S/N (2,83V, 1W):

0 dBr = 2.762 V
NOISE A
-81.10dBr

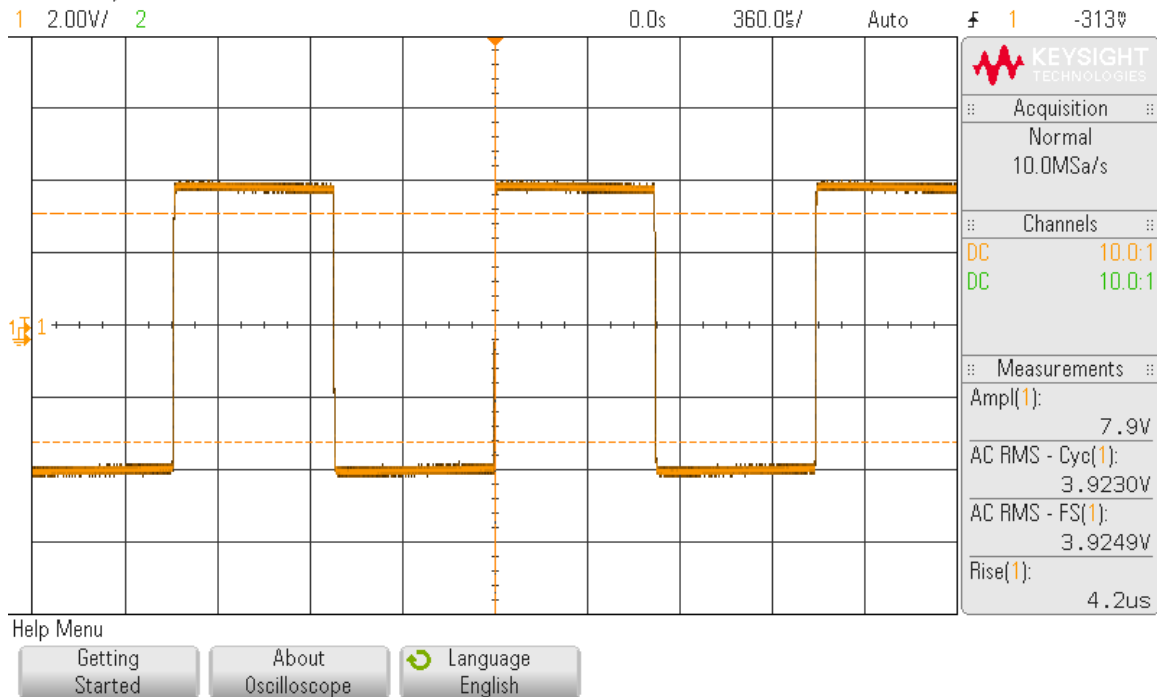
UN-WTD 22 Hz - 22 kHz Ap
GEN:SINE 211.9 mV 800.0 Hz

0 dBr = 2.762 V
NOISE A
-93.99dBr

WTD <10 Hz - IEC-A Ap
GEN:SINE 211.9 mV 800.0 Hz

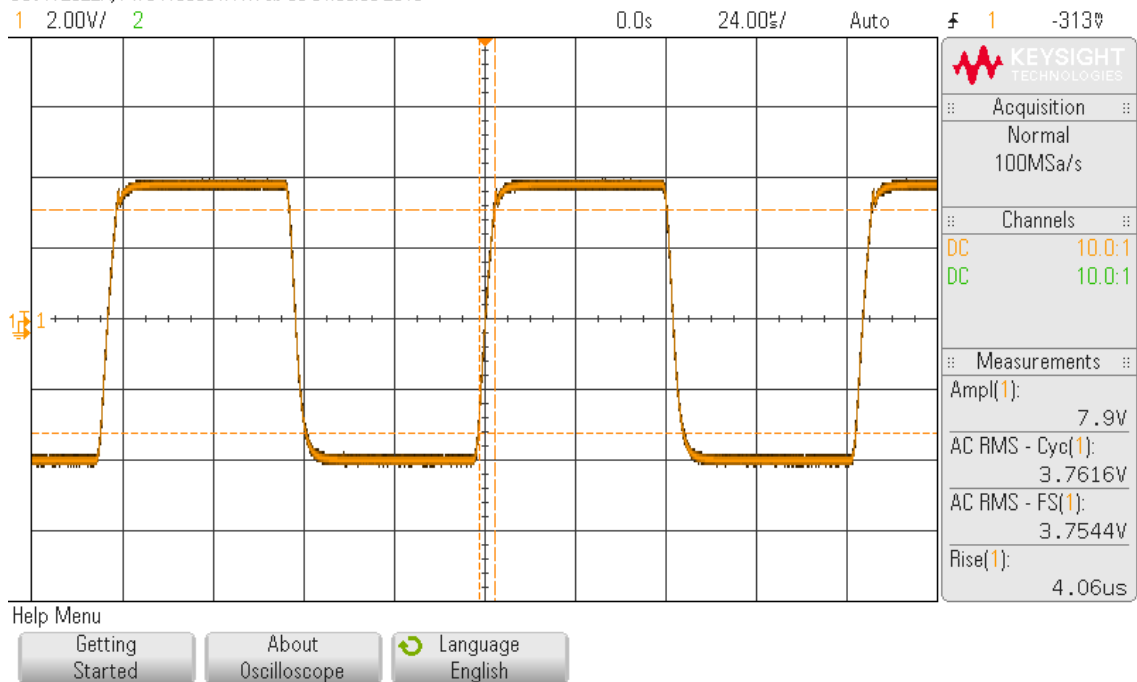
Output Sqr 1kHz.

DSO-X 2022A, MY54100581: Fri Feb 05 01:38:17 2016



Output Sqr 10 kHz.

DSO-X 2022A, MY54100581: Fri Feb 05 01:39:05 2016



Rise time : 4,0 us.

DSO-X 2022A, MY54100581: Fri Feb 05 01:39:47 2016

