

Changelog LatFET amp 2019

Ref	Value	context
R25	5R6	Output snubber
C12	10n	Output snubber
R14	220R	VAS bias increased to 13mA
R6	100R	VAS bias increased to 13mA
R8	33k	Gain increased to 33V/1V
R5	33k	Gain increased to 33V/1V
R1	0	Gain increased to 33V/1V
R10	0	Gain increased to 33V/1V
C5	33p	Gain increased to 33V/1V
C2	1n0	Gain increased to 33V/1V
C16	2u2	Gain increased to 33V/1V
Q10,Q11	Source rewired	For minimal asymmetric distortion H2...
R15	2k2	Set 100mA output bias
R24	470R	Set 100mA output bias
R31	10R	AGND-GND separator added
R31	0R	AGND-GND separator removed
R21	removed	In case of bootstrapped aux supplies
R26	removed	In case of bootstrapped aux supplies
14.08		
C3	22p (ex 100p)	Best linearity with 500kHz sine out
R12	4k7 (ex 10k)	Best linearity with 500kHz sine out
R6	150R 1k5 (ex 100R)	Balancing VAS slewrate & symm clip recovery
08-15		
R1,R10	100R (ex 0)	Reduce loop gain for fast clipping recovery
C3	39p (ex 22p)	Stability at clipping recovery
C13	3n3 R1,R10	reduce small signal square overshoot
RC? R4	33n+100R	Speed up non-inv input
C1	1n0 (ex 100p)	Speed up non-inv input
C2	100p Q9.CE	Suppress 200MHz oscillations
C10,C11	Removed	Suppress 200MHz oscillations
08-26		
R21	100R	Aux+ decoupling

C9	100n/0805	Aux+ decoupling
R26	100R	Aux- decoupling
C15	100n/0805	Aux- decoupling
C24	100n	V+ decoupling
C25	100n	V- decoupling
D3	LED white	pos clipping indicator
D5	LED white	neg clipping indicator
08-26		PCB layout Rev 1.1 -changes applied -T0-3 re-located at center of pcb -copper planes re-visited -LTP & VAS re-routed for min length traces
09-07		
L1,L2	Fbead 600R	Aux+, Aux- decoupling, stop 200MHz osc
C9,C15	2n2/63V	Aux+, Aux- decoupling, stop 200MHz osc
09-10		
C1	330p (ex 100p)	Fine tune fq response up to 1MHz
C3	100p (ex 39p)	Fine tune fq response up to 1MHz
C6	22p (ex 10p)	Fine tune fq response up to 1MHz
R12	1k0 (ex 4k7)	Fine tune fq response up to 1MHz
09-22		
C1	100p (ex 330p)	Fine tune fq response up to 1MHz
C13	330p (ex 10n)	LTP phase boost
R9,2,20	1k0 (ex 2k2)	Double LTP bias current
R12	3k3 (ex 1k0)	Fine tune fq response up to 1MHz
R3	10k (ex 470)	Do not eat all LTP output current & dampen 1kHz OLG-peak
C5	47p (ex33p)	Overcompensate feedback divider to eliminate square overshoot
Q12	2N7002 (ex BC555C)	Eliminate reverse recovery affecting VAS clipping recovery
C26,27	100p	Stabilize output FETs w/o snubber
R25,C12	Nc	Output snubber removed
R18	330R	Adj pos gate res for best 1MHz sinewave
R19	220R	Adj neg gate res for best 1MHz sinewave