Audio Line Driver Comparison

OutSmarts™ vs the competition

		THAT1646	THAT1606	SSM2142	DRV134	DRV135	
Output Noise	600Ω Bal. load	-101	-101	-93.4	-97*	-97*	dBu
Tames clipping into single-ended loads		Yes	Yes	No	No	No	
THD+N	10 V_{RMS} 600Ω						
Balanced							
1 kHz, Typical		0.0007	0.0007	0.0008	0.0005	0.0005	%
20 kHz, Typical		0.002	0.002	0.004	0.0014	0.0014	
20 kHz, Max.		0.005	0.005	No Spec	No Spec	No Spec	
Single-ended							
20 kHz, Typical		0.003	0.003	0.008**	0.01**	0.01**	
20 kHz, Max.		0.006	0.006	No Spec	No Spec	No Spec	
Slew Rate		15	15	15	15	15	V/µs
Gain	R_L=100kΩ	+6.0	+6.0	+6.7	+6.7	+6.7	dB
	R_L=600Ω	+5.3	+5.3	+6.0	+6.0	+6.0	
Packaging Options	DIP-8	√	—	√	√	—	
	SO-16 wide	√	—	√	√	—	
	SO-8	√	—	—	—	√	
	Low θ_{JA} QSOP-16	—	√	—	—	—	

*datasheet says -98 dBu; **Not specified by TI or ADI, figures based on THAT measurements

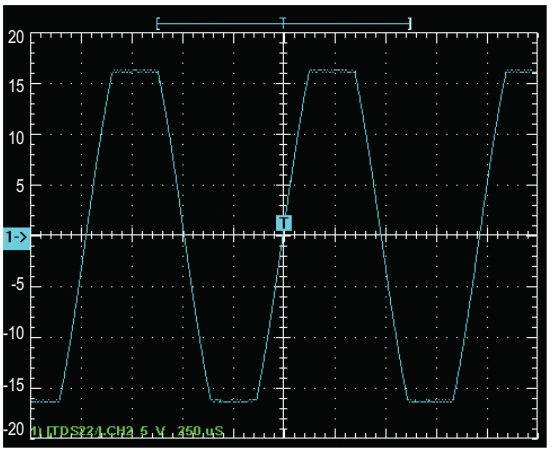
THAT Corporation
Analog ICs for Pro Audio™

45 Sumner Street; Milford, MA 01757
Tel: +1 (508) 478-9200
Web: www.thatcorp.com
Email: info@thatcorp.com

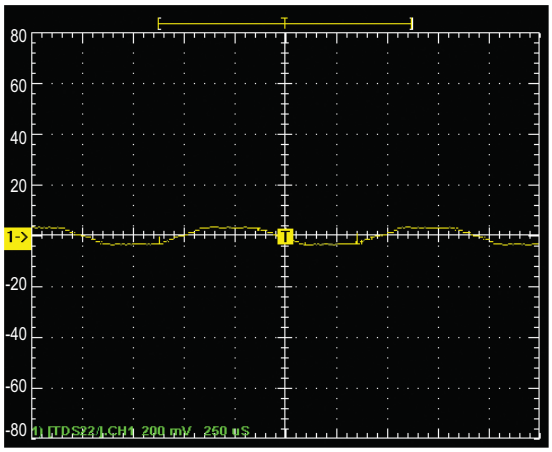
OutSmarts™ Behaves

Clipping into single-ended loads

THAT 1606/1646 Behavior

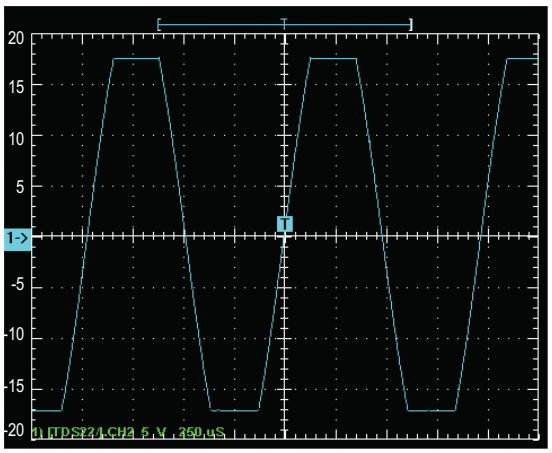


Active Output Voltage (5 V/DIV)

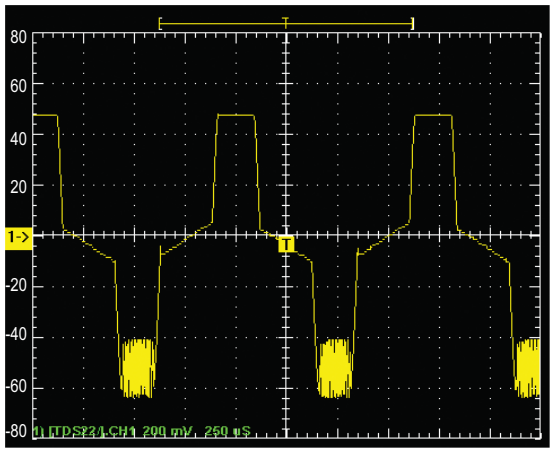


Grounded Output Current (20 mA/DIV)

SSM2142 Misbehavior

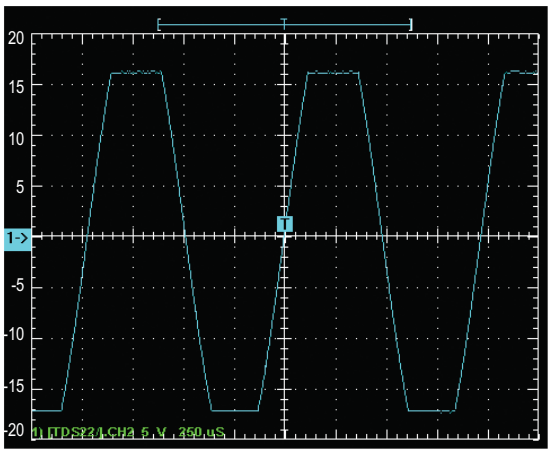


Active Output Voltage (5 V/DIV)

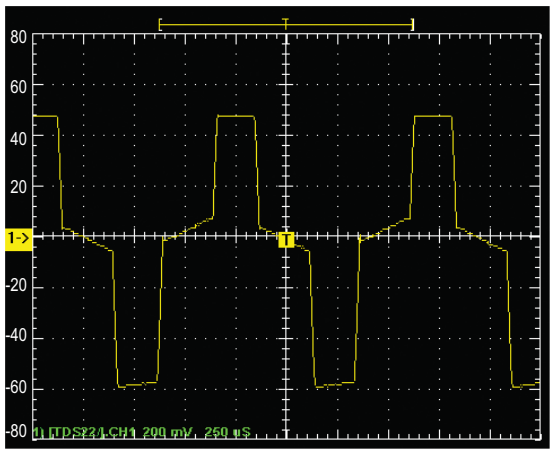


Grounded Output Current (20 mA/DIV)

DRV134/135 Misbehavior



Active Output Voltage (5 V/DIV)



Grounded Output Current (20 mA/DIV)

Note: f_{IN} = 1 kHz, $Z_{LOAD(+)}$ = 10 kΩ, $Z_{LOAD(-)}$ = 0 Ω