

Mobile Audio

1 Dec 21

Comparison Table

Version 2.0



Mobile Audio Amplifier Comparison Table

Product Info	Features	TFA9882	TFA9896	TFA9892	TFA9874	TFA9894	TFA9878	TFA9873	TFA9875
General	Embedded DSP	No	Yes	Yes	No	Yes	No	No	No
	Package Size	1.9 mm ²	5.6 mm ²	11.36 mm ²	6.6 mm ²	8.9 mm ²	7.1 mm ²	5.4 mm ²	7.34 mm ²
		1.27 * 1.49 * 0.6	2.72 * 2.06 * 0.5	3.63 * 3.13 * 0.5	2.62 * 2.51 * 0.4	3.55 * 2.51 * 0.4	2.8 * 2.52 * 4	2.44 * 2.2 * 0.4	2.74 * 2.68 * 0.3
	Package Type	WLCSP-9	WLCSP-30	WLCSP-49	WLCSP-36	WLCSP-48	WLCSP-36	WLCSP-30	WLCSP-36
	Customer Sample	Available	Available	Available	Available	Available	Available	Available	Available
	Mass Production	Available	Available	Available	Available	Available	Available	Available	Available
Interfaces	Audio Input Interface	I2S	TDM-I2S	TDM-I2S or 1 x PDM	TDM-I2S	TDM-I2S	TDM-I2S	TDM-I2S	TDM-I2S
	AEC Feedback	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Performance	Boost Voltage	No	6.1V	12V	10V	10V	10V	8V	12V
	RMS Output Power (8Ω~1% THD)	1.45W	2.1W	6.6W	5.6W	5.6W	5.6W	3.5W	7.7W
	RMS Output Power (6Ω~1% THD)	-	-	6.6W	6.1W	6.1W	6.1W	4.5W	7.8W
	RMS Output Power (4Ω~1% THD)	2.7W	3.2W	6.7W	6.5W	6.5W	6.2W	4.7W	-
	Speaker Channels	Mono	Mono	Mono	Mono	Mono	Mono	Mono	Mono
	Typical Speaker Load (Ω)	4-8	4-8-32	4-8-32	4-8-32	4-8-32	4-8-32	4-8-32	6-8-32
	PSRR (dB)	85	90	75	80	80	80	85	80
	DR (dB)	103	100	100	110	110	120	109	116
	MB-DRC	None	(On Host)	Yes (3-band)	Yes (On Host)	Yes (3-band)	Yes (On Host)	Yes (On Host)	Yes (On Host)
	TDH+N	0.02%	0.03%	0.04%	0.04%	0.04%	0.05%	0.05%	0.05%
	Noise (uV) / Receiver mode	24	30/18	16	14	14	7	9	10

Speaker Boost (SB) Algorithm Version

Product Info	Features	SB1.0	SB1.5	SB2.0	SB3.0	SB3.5	SB4.0
Speaker reliability	Adaptive speaker excursion protection	v1	v1	v1	v2	v2	v3
	Adaptive speaker temperature protection	v1	v1	v1	v1	v1	v2 (low pilot-tone)
	Speaker diagnostics (based on f0 and Rdc)	Yes	Yes	Yes	Yes	Yes	Yes
	Amplifier clipping prevention	Yes	Yes	Yes	Yes	Yes	Yes
	Adaptive speaker resonance compensation	Yes	Yes	Yes	Yes	Yes	Yes
Audio quality	Speaker equalizer	10	10	10	15	15	15
	Phase correction	No	No	Yes	Yes	Yes	Yes
	Multi-band Compression and noise gating	No	v1 (3-band)	v2 (6-band)	v3 (6-band)	v3 (6-band)	v3 (6-band)
	Bass enhancement	No	v1 (3-band)	v1	v2	v3 (Virtual)	v3 (powerbass)
	Channel Configurations	Mono	Mono	Stereo	Stereo	Stereo	Stereo
	Ultrasound Mixer (96 khz with Audio Protection)	No	No	No	Yes	Yes	Yes
	Stereo Widening	No	No	No	No	Yes	Yes
Power management	Distorsion controll	No	No	No	Yes	Yes	Yes
	Peak current management	No	No	No	Yes	Yes	Yes
	Battery power saver	No	No	No	Yes	Yes	Yes

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