

## **Amplifier Heat Loss**

December 2010

Heat losses are the thermal emissions from an amplifier while it is operating. It comes from dissipated waste power—i.e., real AC power in minus audio power out. Measurements are provided for various loads at idle, 1/8 of average full power, 1/3 of average full power, and full power, with all channels driven simultaneously. For typical usage, use the idle and 1/8 power figures. Where an asterisk (\*) appears, the data was not available at press time. The designation "na" means not applicable to the particular amplifier model and "nr" means the model is not rated for the particular load. This data is measured from representative samples; due to production tolerances, actual heat emissions may vary slightly from one unit to another. Bridged mono into 8 ohms is equivalent to 4 ohms per channel; into 4 ohms is equivalent to 2 ohms per channel.

	<i>Idle</i> Thermal idle or wi low signa Not all m	th very al level.	<b>1/8 Power</b> Thermal loss at 1/8 of full power is measured with pink noise. It approximates operating with music or voice with light clipping and repesents the amplifier's typical "clean" maximum level, without audible clipping. Use these figures for typical maximum level							<b>1/3 Power</b> Thermal loss at 1/3 of full power is measured with pink noise. It approximates operating with music or voice with very heavy clipping and a very compressed dynamic range.							<i>Full Power</i> Thermal loss at full power is measured with a 1 kHz sine wave. However, it does not represent any real-world operating condition.						
Ī	Load per channel ->		> 8	8Ω		4Ω 2		Ω 25V-70V-		8Ω		4Ω		29	Ω	25V-70V-	8Ω		4Ω		2Ω		25V-70V-
Model	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTUI/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr kcal/hr
Current models	\$																						
PLX1104	85	21	785	198	1502	379	nr	nr		1058	267	1911	482	nr	nr		990	249	1997	503	nr	nr	
PLX1804	99	25	768	194	1365	344	nr	nr		1229	310	1843	464	nr	nr		1519	383	3259	821	nr	nr	
PLX1802	109	27	939	237	1570	396	2645	667		1109	279	1569	395	3328	839		1024	258	2014	508	4096	1032	
PLX2502	143	36	768	194	1365	344	2389	602		1109	279	1962	494	3276	826		1280	323	2389	602	4778	1204	
PLX3102	171	43	922	232	1570	396	3157	796		1451	366	2645	667	4437	1118		1792	452	3242	817	5973	1505	
PLX3602	195	49	1229	310	2184	550	4096	1032		1792	452	2491	628	4676	1178		2150	542	3925	989	8703	2193	