

## Product Specification

### Features

- 40 W Output Power
- 94 dB Dynamic Range
- Avoids quality losses due to audio compression
- 128 times digital interpolation filter stage and analog filter stage
- Range of up to 300 ft (line of sight)
- Avoids reception errors by employing ½ rate forward error correction
- Mute Function
- No switch-on/ switch-off plops
- Short-circuit Safe Output
- Built-In Voltage Step-Up Converter
- Only one supply voltage required
- Power-Down Feature

### Applications

- Wireless home theater systems
- Wireless hi-fi stereo speaker systems

### General Description

The Model 1040 receiver/ amplifier will receive a digital audio signal that is being transmitted in the 2.4 GHz range by either the Model 1000 or Model 2000 transmitter. The recovered audio signal will pass a digital as well as an analog filter stage to eliminate out-of-band components and is amplified to the maximum output power of 40 W to drive a speaker unit.

By receiving the signal in a digital format, noise and quality losses that are inherent with conventional analog systems are avoided.

The Model 1040 receiver/ amplifier will apply forward error correction to the received signal in order to maximize reception robustness.

A built-in voltage step-up converter will lift the internal voltage to approximately twice the supply voltage when a larger output swing is required.

The Model 1040 receiver/ amplifier will enter a Power-Down Mode if no valid signal is received. It will return to active mode when a valid signal is detected.

Reference Data

PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
OVERALL PERFORMANCE					
Dynamic range	A-weighted	89	94		dB
Output power	THD = 10%, 8 $\Omega$		40		W
	THD = 0.5%, 8 $\Omega$		30		W
Non-repetitive peak output current				6	A
Repetitive peak output current				4	A
Total harmonic distortion	P <sub>O</sub> = 1 W		0.05		%
	P <sub>O</sub> = 10 W		0.1		%
Low frequency roll-off			40		Hz
High frequency roll-off	-1 dB	20			kHz
Noise output voltage	R <sub>S</sub> = 0, Note 1		100	300	$\mu$ V
	R <sub>S</sub> = 10 k $\Omega$ , Note 1		150		$\mu$ V
Supply voltage ripple rejection		48	55		dB
Reception range	line of sight, Note 2			200	ft
	through obstructions, Note 2			60	ft
	line of sight, Note 3			100	m
	through obstructions, Note 3			30	m
DC POWER CHARACTERISTICS					
DC supply voltage		8	15	18	V
Power consumption	Peak output power			4	A
	Quiescent current		280		mA
	Power-down mode		165		mA

Notes:

- 1) Noise output voltage measured in a bandwidth of 20 Hz to 20 kHz
- 2) When used in conjunction with the Model 1000 or Model 2000 transmitter, American model
- 3) When used in conjunction with the Model 1000 or Model 2000 transmitter, European model

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### **Contacting Amphony Support**

For contact details and Local Sales Representatives, visit the Amphony web site at:

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