Audio Bandwidth Designs

- 20W – 400W
- Multimedia, Automotive, Home Theater
- Half Bridge and Full Bridge

Features:

- 20Hz – 22kHz Bandwidth
- >90% Efficiency
- <0.05% THD
- >95db SNR
- FCC Class-B/CE Compliant

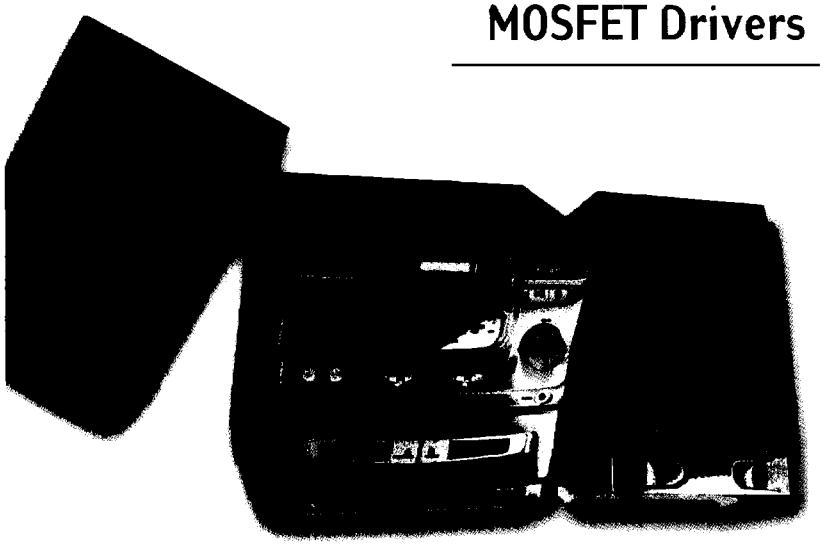
COMING SOON

A Full Portfolio of Audio Components for Audio Switching Power Supplies

In addition to our Cool Audio solutions, Harris also offers a host of components to fulfill your other audio needs:

	HIP4080A FULL BRIDGE N-CHANNEL DRIVER	HIP4081A FULL BRIDGE N-CHANNEL DRIVER	HIP2100 HALF BRIDGE N-CHANNEL DRIVER
Temperature Range	–55°C to +125°C	–55°C to +125°C	–40°C to +110°C
Min/Maximum Bus Voltage	1V to 80V	1V to 80V	100V
Supply Voltage (Bias)	9V to 15V	9V to 15V	8V to 15V
Maximum Frequency	1MHz	1MHz	1MHz
Output Rise Time (1000pf)	15ns	15ns	10ns
Peak Drive Current (Each Drive)	2.5A	2.5A	2A
Shoot Thru Protection	4	4	—
Dead Time Programming Range	10ns to 100ns	10ns to 100ns	—
Level Shift Circuit	Pulsed	Pulsed	Pulsed/Correcting
Boot Strap Diode	—	—	Yes
Charge Pumps	2	2	—
Vdd UVLO &/or Integrated Start-up	Yes	Yes	Yes
High Side UVLO	—	—	Yes
Disable	Yes	Yes	—
PWM Comparator	2	—	—
Independent Gate Controls	—	Yes	Yes
PIN Count (DIP, SOIC, or SIP)	20 PDIP, SOIC	20 PDIP, SOIC	8 SOIC
Evaluation Board Available?	Yes	Yes	Yes

MOSFET Drivers



The **HIP4080A/4081A** simplifies bridge-based topologies by eliminating 30-40 discretes and reducing the size of passive filter components and heat sinks. As the only 80V Full Bridge MOSFET driver available in the industry, it's the perfect selection for dual output Full Bridge power supplies, motor controls and noise cancellation systems. In audio applications our bridge drivers provide high frequency, medium voltage Full Bridge N-Channel FET driver operation that can switch at frequencies up to 1MHz. Adjustable dead-time (short-through) circuits enable cost effective Class D amplification in Half and Full Bridge topologies.

The **HIP2100** is a high frequency, 100V Half Bridge N-Channel MOSFET driver IC, available in 8 lead package SOIC. The low-side and high-side gate drivers are independently controlled and matched to 8ns. This gives the user maximum flexibility in dead-time protection selection and driver protocol. An on-board Bootstrap Schottky Diode and switching capabilities up to 1MHz enable Half Bridge Class D amplification circuits at low cost.

UltraFET MOSFETs

The UltraFET™ MOSFET process offers lower $r_{DS(ON)}$ for the same die area, making it possible to reduce costs and shrink package size. UltraFET technology offers the lowest $r_{DS(ON)}$ in the industry - 7 milliohms at 55V! The UltraFET design also yields faster switching times, resulting in lower power dissipation and higher efficiency.

75	0.007	—	—	HUF75345P3	HUF75345S3/S3S	HUF75345G3
75	0.008	—	—	HUF75344P3	HUF75344S3/S3S	HUF75344G3
100	0.008	—	—	HRF3205	HRF3205L/S	—
75	0.009	—	—	HUF75343P3	HUF75343S3/S3S	HUF75343G3
70	0.012	—	—	HUF75339P3	HUF75339S3/S3S	HUF75339G3
62	0.014	—	—	HUF75337P3	HUF75337S3/S3S	HUF75337G3
56	0.016	—	—	HUF75333P3	HUF75333S3/S3S	HUF75333G3
42	0.025	—	—	HUF75329P3	HUF75329S3/S3S	HUF75329G3
20	0.025	—	HUF75329D3/D3S	—	—	—
31	0.032	—	—	HUF75321P3	HUF75321S3/S3S	—
20	0.032	—	HUF75321D3/D3S	—	—	—
17	0.070	—	HUF75309D3/D3S	HUF75309P3	—	—
5	0.070	HUF75309T3S	—	—	—	—
13	0.090	—	HUF75307D3/D3S	HUF75307P3	—	—
4	0.090	HUF75307T3S	—	—	—	—

UltraFet™ MOSFETs is a trademark of Harris Corporation