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Features

- Designed for HPAV2 Standard
- MIMO or SISO Operation
- Best in Class Density
- Dual Channel Architecture
- 28-pin, 4x5 mm QFN Package
- Low Power Operation
- Class GH Operation
- Supports HPAV2 Power Save Mode
- Independent Channel Enable/Disable Control
- Capable of Driving Line Impedance Between 12 Ω to 100 Ω
- Operations to 86 MHz
- High Signal Level Operation
 - -54.5 dBm/Hz, 2 – 30 MHz
 - -85.0 dBm/Hz, 30 – 86 MHz
- +12 V Operation
- RoHS Compliant

Applications

- Power Line Communications
- Home Networking
- HPNA
- G.HN

Description

The Le87402 is a 2-channel line driver designed to work in Home Plug Alliance HPAV2 systems, G.HN and MOCA.

Each channel can be enabled independently allowing multiple-in, multiple-out (MIMO) or single-in, single-out (SISO) operations.

The Le87402 can drive a line impedance of 100 Ω down to 12 Ω through a proper transformer and delivers superior performance with power efficiency using Class GH operation.

Version 1

April 2013

Document Number

146539

Ordering Information

| | | |
|------------|-----------------------|------|
| Le87402MQC | 28-pin QFN Green Pkg. | Tray |
|------------|-----------------------|------|

The green package is Halogen free and meets RoHS Directive 2002/95/EC of the European Council to minimize the environmental impact of electrical equipment.

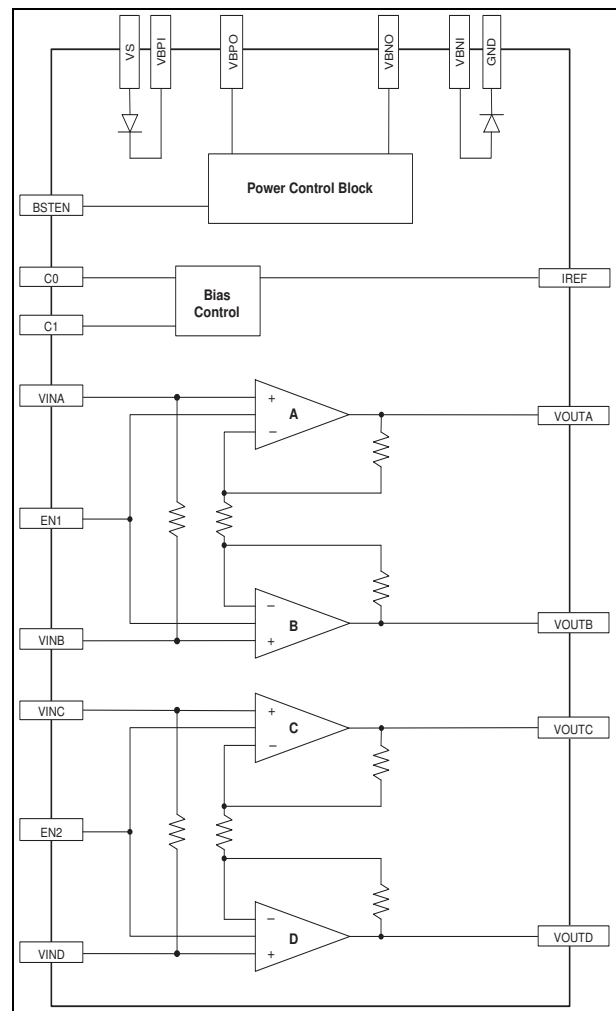


Figure 1 - Block Diagram

Applications

The Le87402 integrates two sets of high-power line driver amplifiers. The amplifiers are designed for low distortion for signals up to 86 MHz. A typical PLC application is shown in Figure 2 (one Line Driver channel shown).

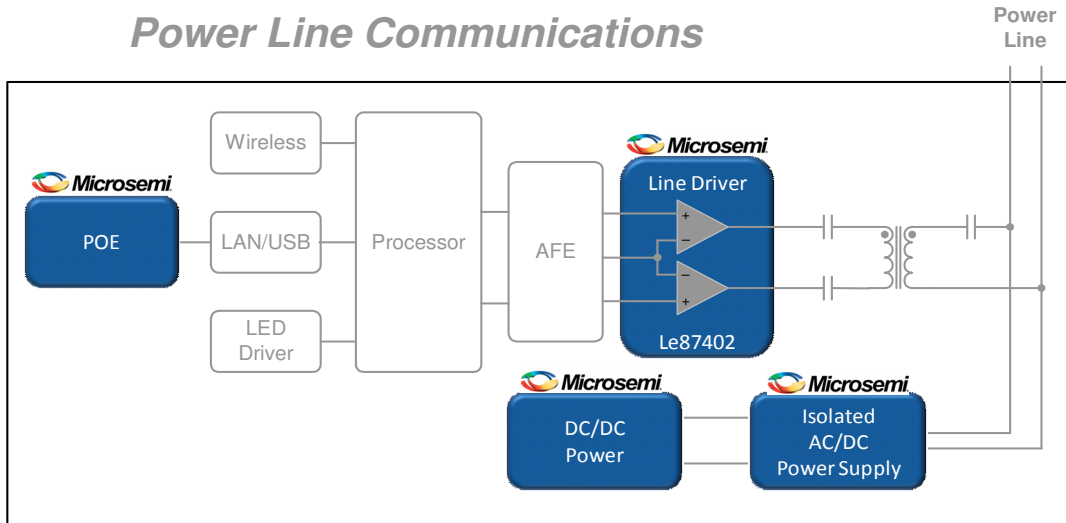


Figure 2 - PLC Application Diagram

Pin Diagram

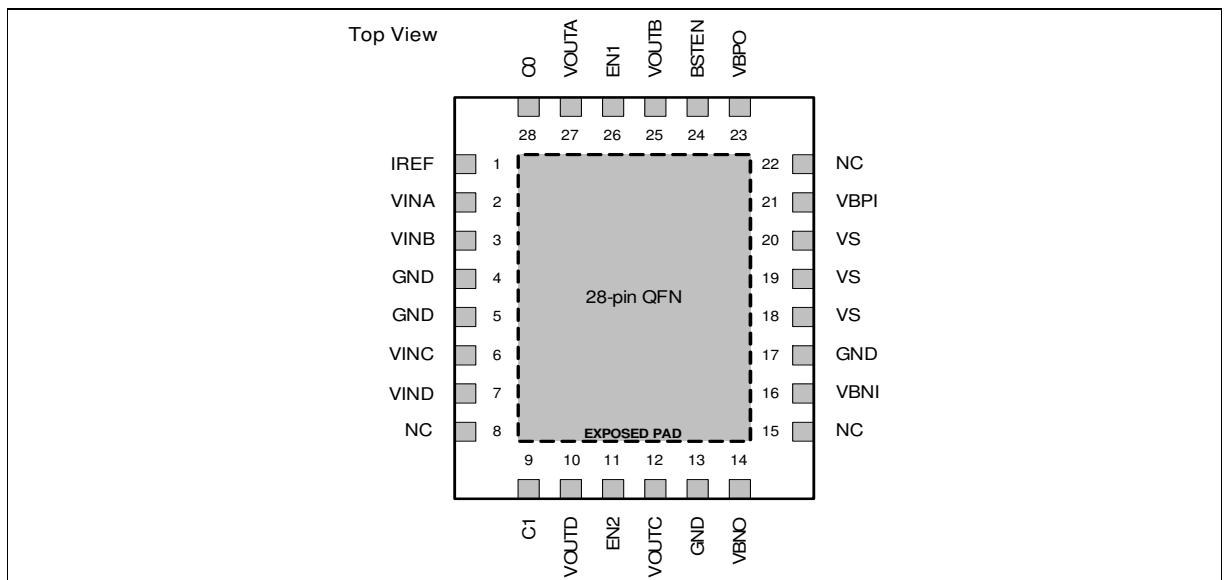
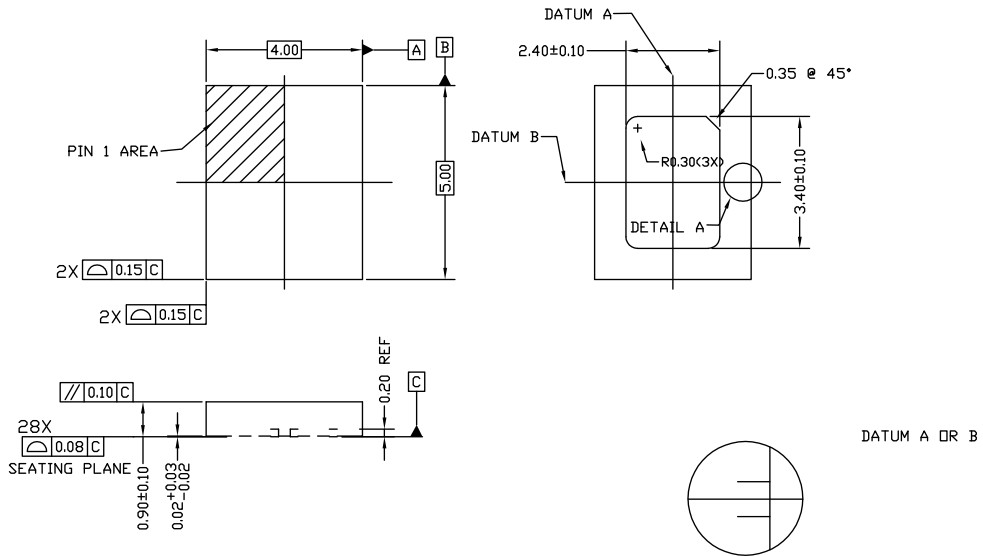


Figure 3 - Pin Diagram

The device incorporates an exposed die pad on the underside of its package. The pad acts as a heat sink and must be connected to a copper plane through thermal vias for proper heat dissipation. It is electrically isolated and may be connected to GND.

Physical Dimensions

28-pin QFN



NOTES:

1. DIMENSIONING AND TOLERANCE IS IN CONFORMANCE TO ASME Y14.5-1994
ALL DIMENSIONS ARE IN MILLIMETERS ° IN DEGREES
2. DIMENSION OF LEAD WIDTH APPLIES TO METALLIZED TERMINAL AND IS MEASURED BETWEEN 0.15mm AND 0.30mm FROM THE TERMINAL TIP (BOTH ROWS). IF THE TERMINAL HAS OPTIONAL RADIUS ON THE END OF THE TERMINAL, THE LEAD WIDTH DIMENSION SHOULD NOT BE MEASURED IN THAT RADIUS AREA

DETAIL A (SCALE 3:1)

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