

TRANSFORMERS FOR DIGITAL AUDIO DATA TRANSMISSION

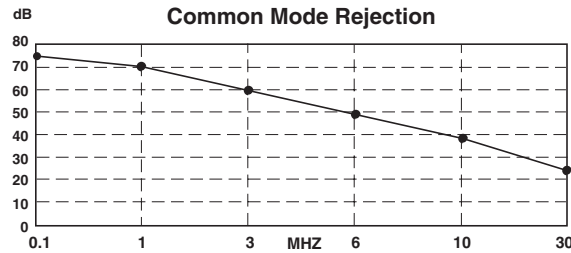
For Use with Cirrus Logic's CS8401, CS8402, CS8403 & CS8404 ICs



- Operating transmission rates: 1 to 7 Mbps
- Controlled rise time: 25 nsec MAX
- High isolation voltage: 2 kV MIN

Electrical Specifications @ 25°C — Operating Temperature 0°C to 70°C

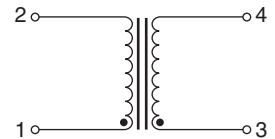
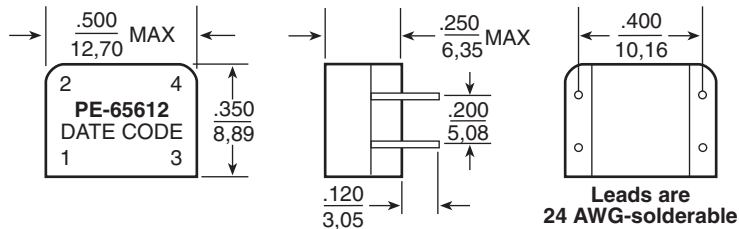
| Standard Part Number | RoHS-6 Compliant Part No. | Turns Ratio (±5%) | Primary Inductance (mH ±20%) | L _L (μH) MAX | Rise Time (nsec) MAX | ET (V-μsec) MIN | Isolation (Vrms) MIN | Bandwidth (100 KHz- 55 MHz) TYP | Return Loss (100kHz-10MHz) MIN | Schematic |
|----------------------|---------------------------|-------------------|------------------------------|-------------------------|----------------------|-----------------|----------------------|---------------------------------|--------------------------------|-----------|
| PE-65612 | PE-65612NL | 1:1 | 2.5 | .50 | 25 | 20 | 2000 | 3 dB | 20 dB | THT |
| PE-65812 | PE-65812NL | 1:1 | 2.5 | .50 | 25 | 20 | 2000 | 3 dB | 20 dB | SMT |



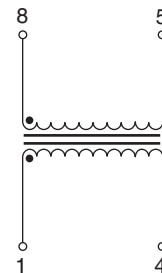
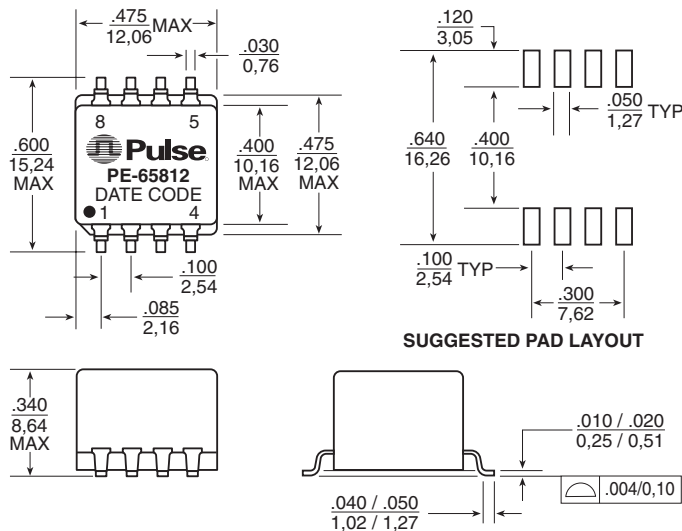
Mechanicals

Schematics

PE-65612



PE-65812



| | PE-65612 | PE-65812 |
|-------------|--|---------------------|
| Weight | 1.2 grams | 2.0 grams |
| Tape & Reel | NA |250/reel |
| Tube |60/tube |30/tube |
| Dimensions: | Inches / mm | |
| | Unless otherwise specified all tolerances are ±.010 / 0,25 | |

TRANSFORMERS FOR DIGITAL AUDIO DATA TRANSMISSION

For Use with Cirrus Logic's CS8401, CS8402, CS8403 & CS8404 ICs



Application

These transformers have been designed for use at the interface between line driver and receiver and the interconnecting medium in Digital Audio Data Transmission Systems according to AES 3-199X or IEC 958. In such systems, two channels of periodically sampled and uniformly quantized audio signals are transmitted on a single shielded twisted pair.

The electrical parameters of the interface are based on those of CCITT V.II or balanced voltage digital circuits which allow signal transmission up to a few hundred meters.

The isolation transformers are essential in improving the balance of the transmitter and the receiver circuitry, and reducing common mode noise and EMI.

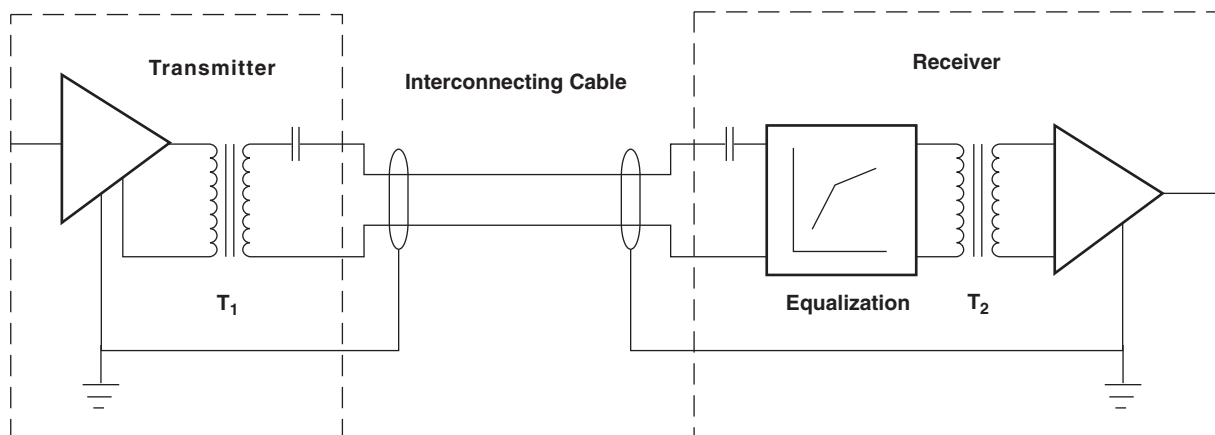
These transformers are recommended for use with the Cirrus Logic CS8401, CS8402, CS8403 and CS8404 "Digital Audio Interface Transmit Device."

The schematic below represents an implementation of transmit and receive circuits using isolation transformers at both ends. Equalization in the receiver may permit to increase the length of the interconnecting cable.

Applicable Documents

AES 3-1985 (ANSI S4.40-1985), AES 3-199XDraft, IEC 958, CP-340, EBU 3250

Application Circuit



T₁, T₂: PE-65612 or PE-65812

For More Information:

| Pulse Worldwide Headquarters | Pulse Northern Europe | Pulse Southern Europe | Pulse China Headquarters | Pulse North China | Pulse South Asia | Pulse North Asia |
|--|--|---|--|---|---|--|
| 12220 World Trade Drive San Diego, CA 92128 U.S.A. www.pulseeng.com TEL: 858 674 8100 FAX: 858 674 8262 | 3 Huxley Road Surrey Research Park Guildford, Surrey GU2 5RE United Kingdom TEL: 44 1483 401700 FAX: 44 1483 401701 | Zone Industrielle F-39270 Orgelet France TEL: 33 3 84 35 04 04 FAX: 33 3 84 25 46 41 | No. 1 Industrial District Changan, Dongguan China TEL: 86 769 5538070 FAX: 86 769 5538870 | Room 1503 XinYin Building No. 888 YiShan Road Shanghai 200233 China TEL: 86 21 54643211/2 FAX: 86 21 54643210 | 150 Kampong Ampat #07-01/02 KA Centre Singapore 368324 TEL: 65 6287 8998 FAX: 65 6280 0080 | No. 26 Kao Ching Road Yang Mei Chen Taoyuan Hsien Taiwan, R. O. C. TEL: 886 3 4641811 FAX: 886 3 4641911 |

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners.

© Copyright, 2006. Pulse Engineering, Inc. All rights reserved.

www.pulseeng.com

P601.D (2/06)