

ATM 25 MBPS FILTER/ MAGNETIC MODULES AND TRANSFORMERS

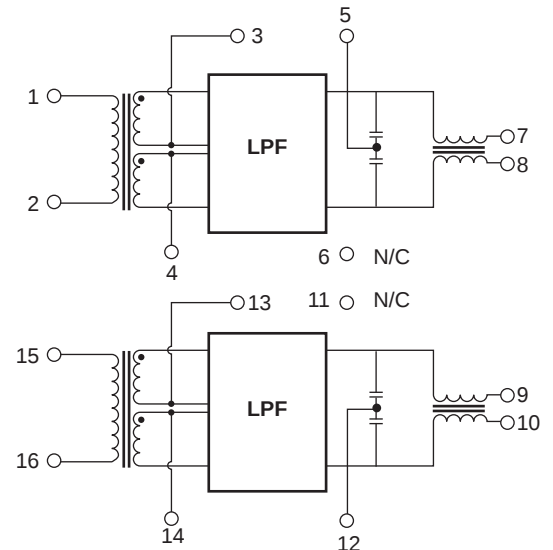
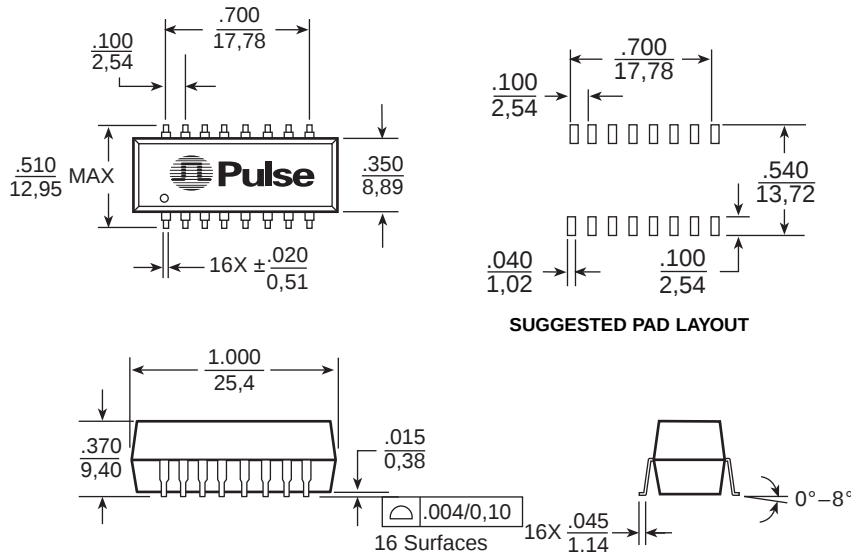
For UTP and STP Surface Mount Applications



PE-67583

Mechanical

Schematic



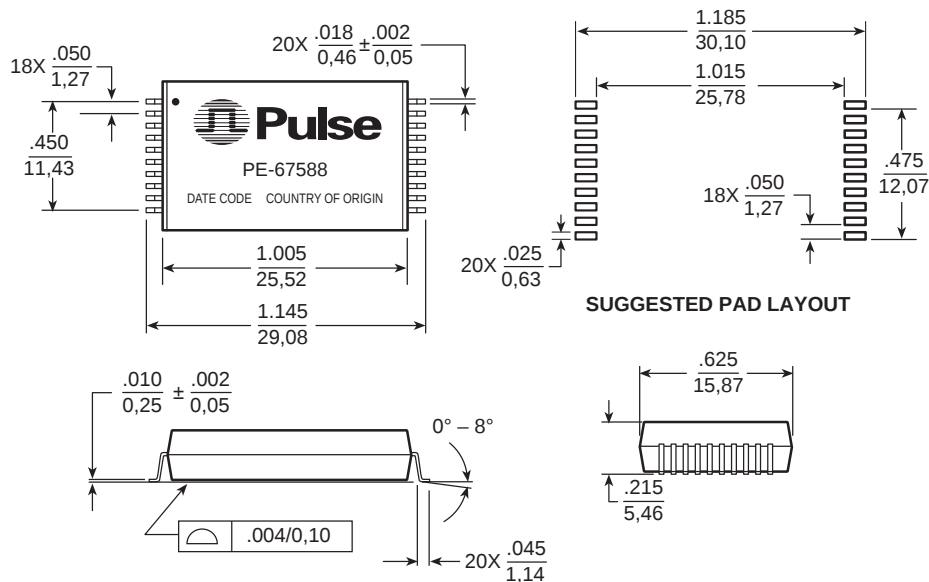
Dimensions: $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified, all tolerances are $\pm \frac{.010}{0,25}$

Weight 4.0 grams
Tape & Reel160/reel
Tube20/tube

PE-67588

Mechanical



Dimensions: $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified, all tolerances are $\pm \frac{.010}{0,25}$

Weight 4.3 grams
Tape & Reel160/reel
Tube20/tube

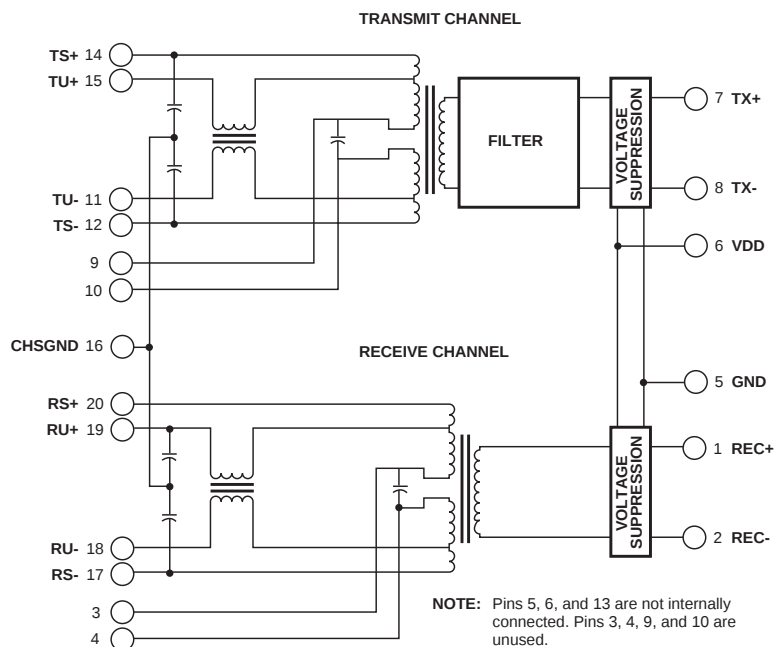
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For UTP and STP Surface Mount Applications



PE-67588

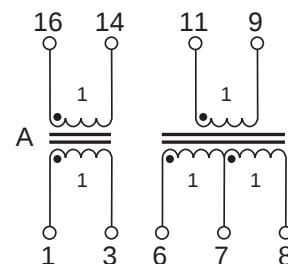
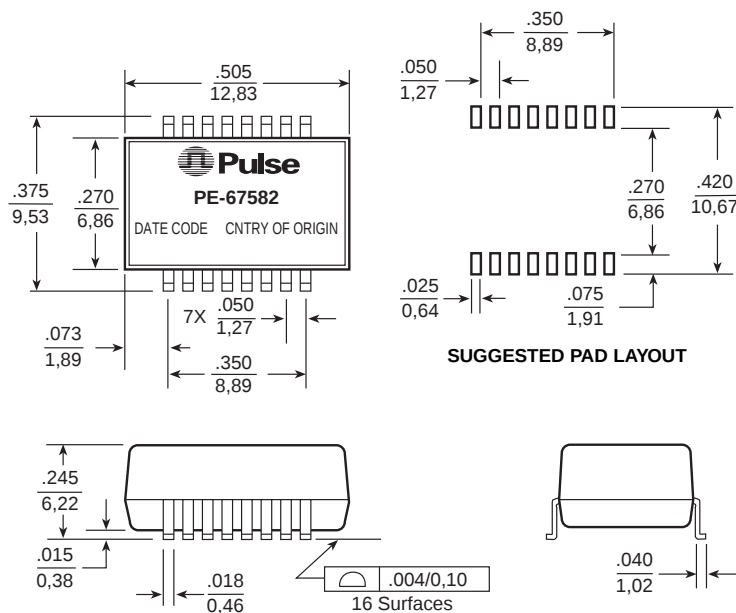
Schematic



PE-67582

Mechanical

Schematic



Weight 1.1 grams
Tape & Reel900/reel
Tube40/tube

Dimensions: $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified, all tolerances are $\pm \frac{.010}{0,25}$

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For UTP and STP Surface Mount Applications

Application Notes

A typical ATM 25.6 application circuit is shown. The suggested application circuit supports operation over shielded twisted pair or unshielded twisted pair media. Note that both channels are identical in the PE-67583.

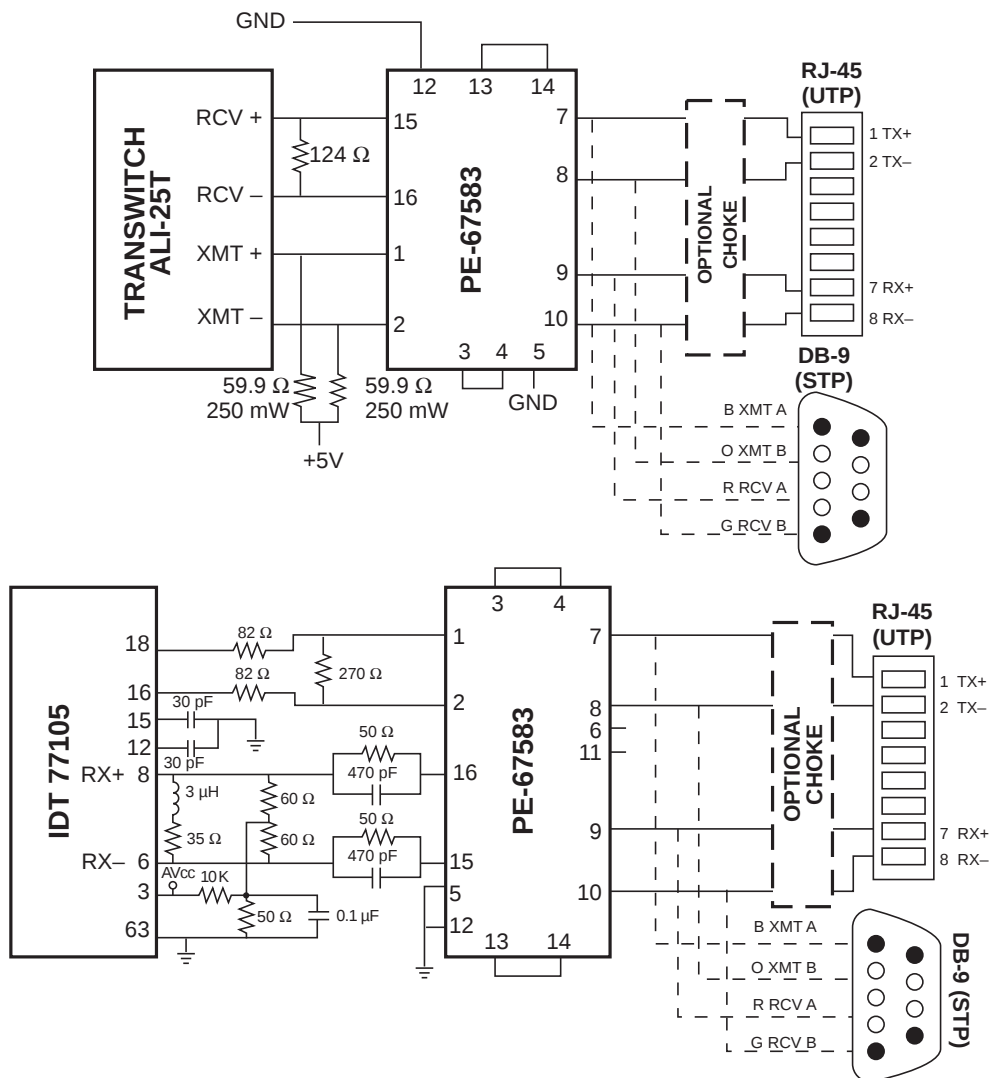
The components and guidelines in this note should serve as a starting point for design. The circuit and layout of an ATM 25.6 interface requires that special attention be given to the selection of components and their placement to reduce induced noise. The optimum external circuit values

are dependent upon the individual layout, operating conditions, and specific cabling requirements. Pulse transformers are designed for use in ATM 25.6 Mbps applications that require a low frequency cutoff below 12 KHz.

It is important not to connect both UTP and STP media simultaneously. The module has been optimized to support only one media connection at a time.

Application Circuit

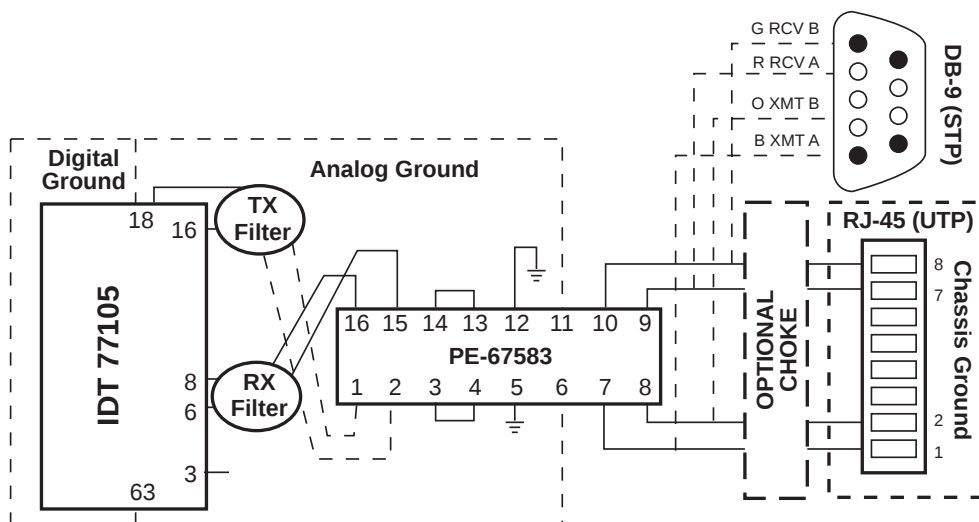
PE-67583



A typical user termination is shown using an IDT 77105. All grounds shown are analog grounds.

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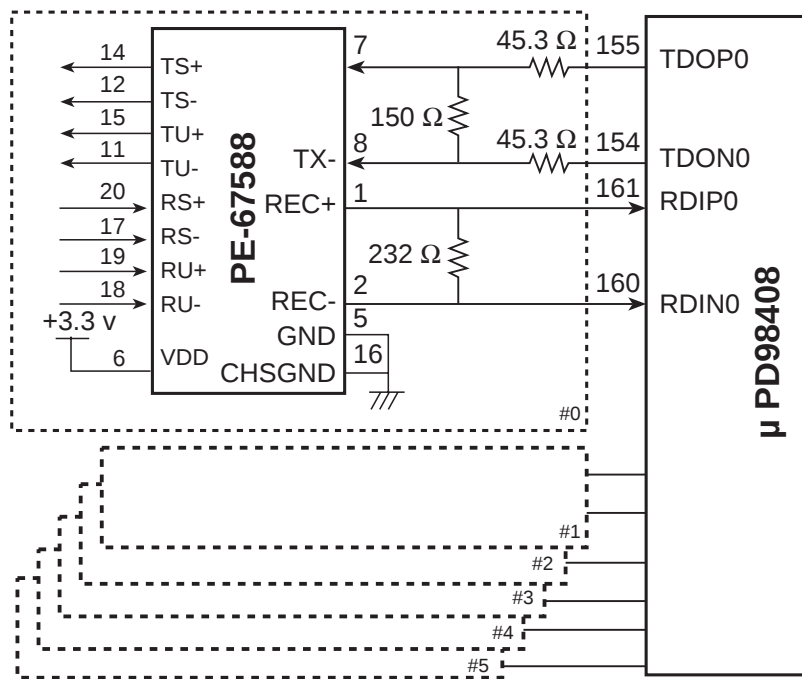
Notes:

1. Connect analog and digital power/ground planes at pins 3 and 63 of the IDT 77105.
2. Run dotted transmit traces on the back side of the PCB.
3. For a network termination, transpose the transmit and receive traces between the IDT 77105 and the PE-67583.

A suggested layout guide for the circuit depicted on previous page

PE-67588

Application Circuit



ATM 25 MBPS FILTER/ MAGNETIC MODULES AND TRANSFORMERS

For UTP and STP Surface Mount Applications



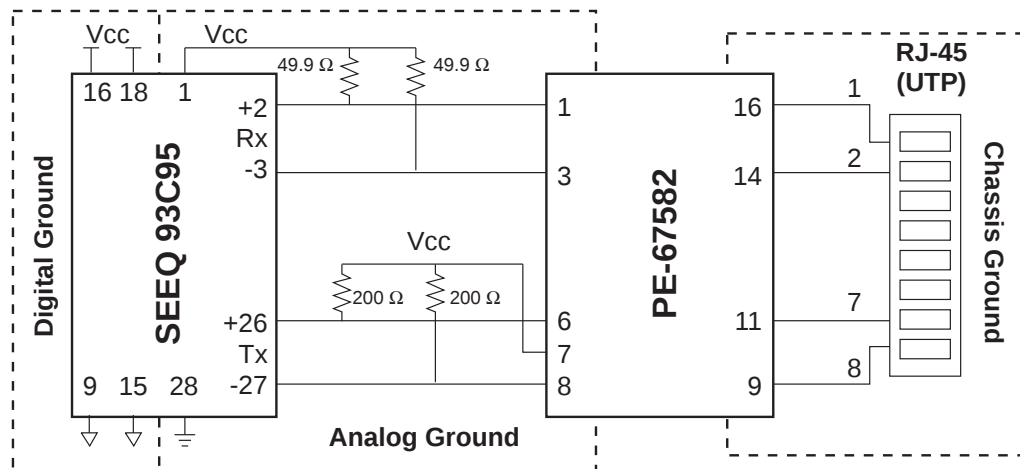
PE-67588

Pin Description

Pin Name	Pin No.	I/O	Function
TU+/TU-	15, 11	O	Transmit data output to UTP (balanced signal). Connect to transmit data pins of the UTP connector. When connecting to STP, these pins are open.
TS+/TS-	14, 12	O	Transmit data output to the STP (balanced signal). Connect to transmit data pins of the STP connector. When connecting to UTP, these pins are open.
TX+/TX-	7, 8	I	Transmit data input to UTP (balanced signal). Connect to DRVOPn/DRVONn pins. The polarity of positive/negative is free.
RU+/RU-	19, 18	I	Receive data input from the UTP (balanced signal). Connect to receive data pins of the UTP connector. When connecting to STP, these pins are open.
RS+/RS-	20, 17	I	Receive data input from the STP (balanced signal). Connect to transmit data pins of the STP connector. When connecting to UTP, these pins are open.
REC+/REC-	1, 2	O	Receive data output (balanced signal). Connect to the RDIPn/RDINn pins. The polarity of positive/negative is free.

PE-67582

Application Circuit



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