ADT7485A

T m a S o a d
V o ag M o
S m S a T a o

Features

Applications

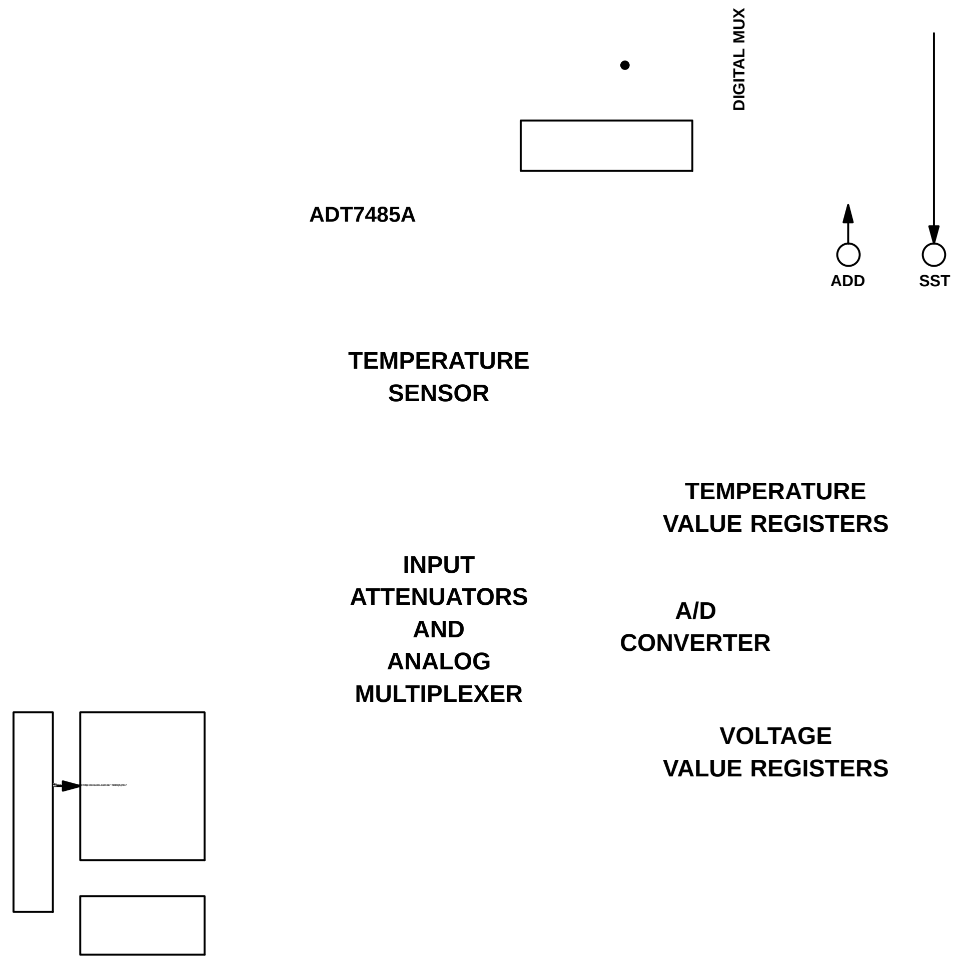

Figure 1. Functional Block Diagram

Table 1. PIN ASSIGNMENT

Pin No.	Mnemonic	Type	Description
1	V_{CC}	Power Supply	3.3 V 10%. V_{CC} is also Monitored through this Pin
2	GND	Ground	Ground Pin
3	D1+	Analog Input	Positive Connection to Remote 1 Temperature Sensor
4	D1−	Analog Input	Negative Connection to Remote 1 T

Table 4. ELECTRICAL CHARACTERISTICS

($T_A = T_{MIN}$ to T_{MAX}, $V_{CC} = V_{MIN}$ to V_{MAX}

TYPICAL PERFORMANCE CHARACTERISTICS

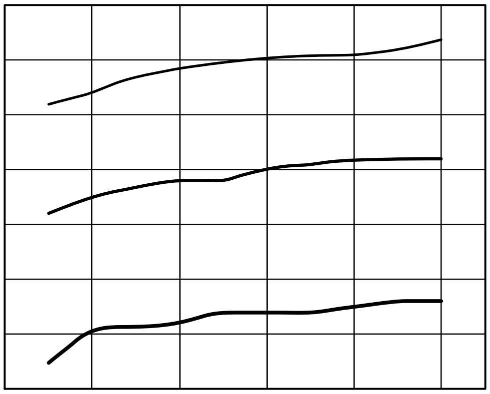

Figure 2. SST O/P Level vs. Supply Voltage

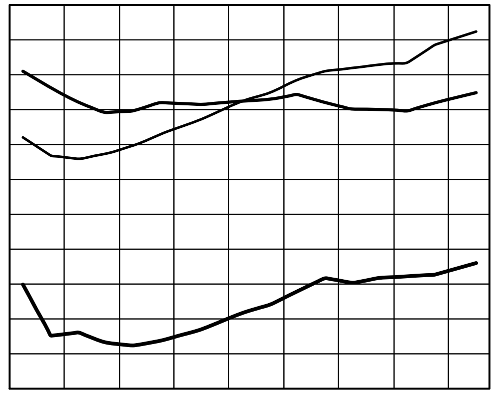

Figure 3. Supply Current vs. Temperature

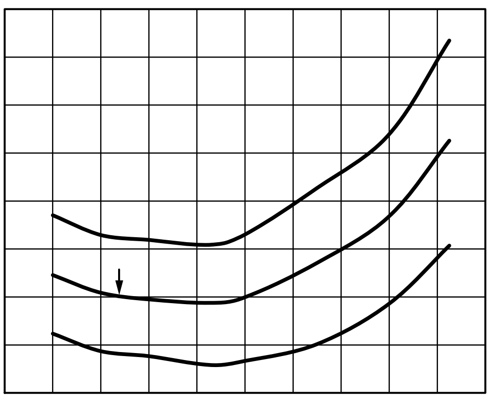

Figure 4. Local Temperature Error

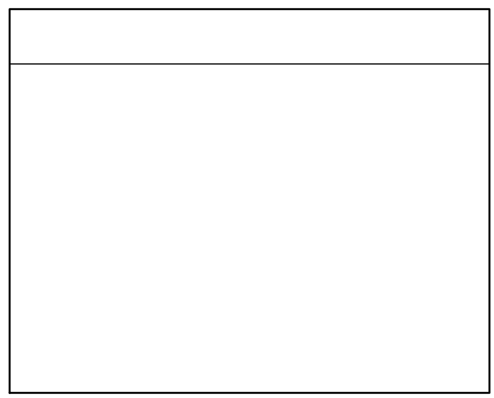

Figure 5. SST O/P Level vs. Temperature

Figure 6. Supply Current vs. Voltage

Figure 7. Remote Temperature Error

Table 7. 16-BYTE DIB DETAILS

Byte	Name	Value	Description
0	Device Capabilities	0xc0	Fixed Address Device
1	Version/Revision	0x10	Meets Version 1 of SST Specification
2, 3	Vendor ID	00x11d4	Contains Company

Table 10. MAXIMUM REPORTED INPUT VOLTAGES

Voltage Channel	Full-scale Voltage
12 V	16 V
5.0 V	8.0 V
V_{CC}	4.0 V
2.5 V	4.0 V
V_{CCP}	4.0 V

Input Circuitry

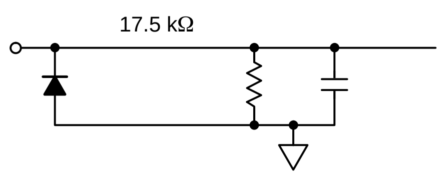

Figure 14. Internal Structure of Analog Inputs

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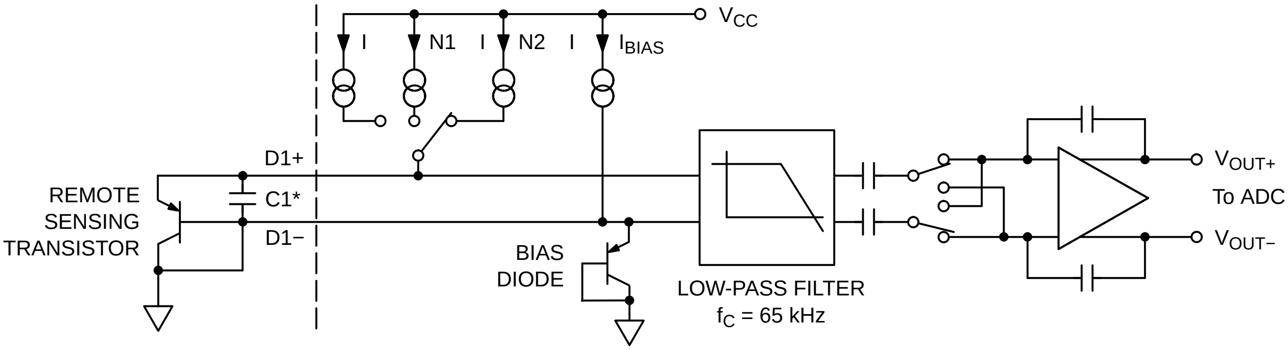

*CAPACITOR C1 IS OPTIONAL. IT SHOULD ONLY BE USED IN NOISY ENVIRONMENTS.

Figure 15. Signal Conditioning for Remote Diode Temperature Sensors

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Reading Temperature Measurements

Table 14. TEMPERATURE CHANNEL COMMAND CODES

Temp Channel	Command Code	Returned Data
Internal	0x00	LSB, MSB
External	0x01	

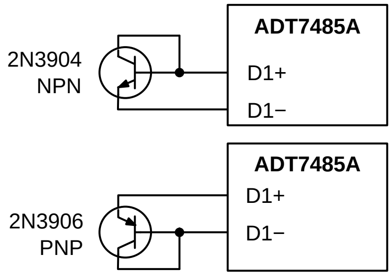

Figure 16. Connections for NPN and PNP Transistors

Layout Considerations

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Figure 17. Arrangement of Signal Tracks

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Temperature Offset

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Table 16. ORDERING INFORMATION

Device Order Number*	Package Type	Package Option	Shipping†
ADT7485AARMZ−R	10-lead MSOP	RM−10	3,000 Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.
*This is Pb-Free package.