

SOMAT[®]

EITB

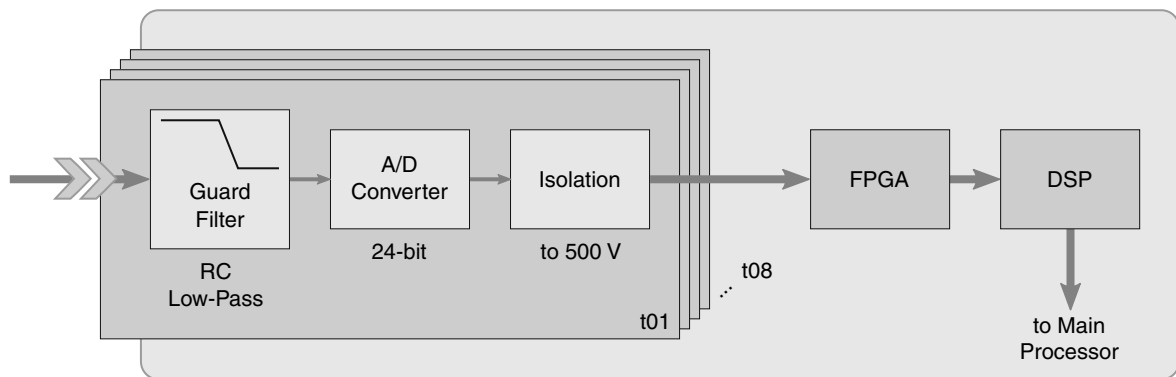


eDAQ Isolated Thermocouple Layer

Special Features

- 8 channels of isolated thermocouple signal conditioning
- Available for K-, J-, T- or E-type thermocouples
- Individual channel cold junction compensation with isolation to 500 V

Block Diagram



Detailed Description

The SoMat EITB Isolated Thermocouple Layer measures temperatures on eight channels of isolated thermocouple signal conditioning through eight miniature spade thermocouple connectors. The EITB is available for the four most common thermocouple calibration types: K, J, T or E. Each channel has individual cold junction compensation with isolation up to 500 volts.

Ordering Options

Order No.	Description
1-EITB-K-2	eDAQ Isolated Thermocouple Layer - Type K Includes: (8) Miniature Spade Type K Connectors - Male
1-EITB-J-2	eDAQ Isolated Thermocouple Layer - Type J Includes: (8) Miniature Spade Type J Connectors - Male
1-EITB-T-2	eDAQ Isolated Thermocouple Layer - Type T Includes: (8) Miniature Spade Type T Connectors - Male
1-EITB-E-2	eDAQ Isolated Thermocouple Layer - Type E Includes: (8) Miniature Spade Type E Connectors - Male

Accessories (Order Separately)

Order No.	Description
1-J-SMP-K-M-2	SoMat J-SMP-K-M K-Type Male Miniature Spade Connectors.
1-J-SMP-J-M-2	SoMat J-SMP-J-M J-Type Male Miniature Spade Connectors.
1-J-SMP-T-M-2	SoMat J-SMP-T-M T-Type Male Miniature Spade Connectors.
1-J-SMP-E-M-2	SoMat J-SMP-E-M E-Type Male Miniature Spade Connectors.

Specifications

Parameter	Units	Value
Layer dimensions width length height	cm cm cm	23 25 3.3
Layer weight	kg	2.0
Temperature range	°C	-20 ... 65
Relative humidity range, non-condensing	%	0 ... 90
Accuracy ¹	°C	1.0
Maximum thermo-equilibrium temperature change rate ¹	°C/min	2
Isolation	V	500
Input temperature range K-type thermocouple J-type thermocouple T-type thermocouple E-type thermocouple	°C °C °C °C	-100 ... 1350 -100 ... 760 -100 ... 400 -270 ... 1000
Typical thermocouple response time constant 30 AWG 12 AWG 10 AWG	s s s	0.3 6.0 9.0
Sample rate range	Hz	0.1 ... 5
Power consumption with thermocouples ²	W	1.77

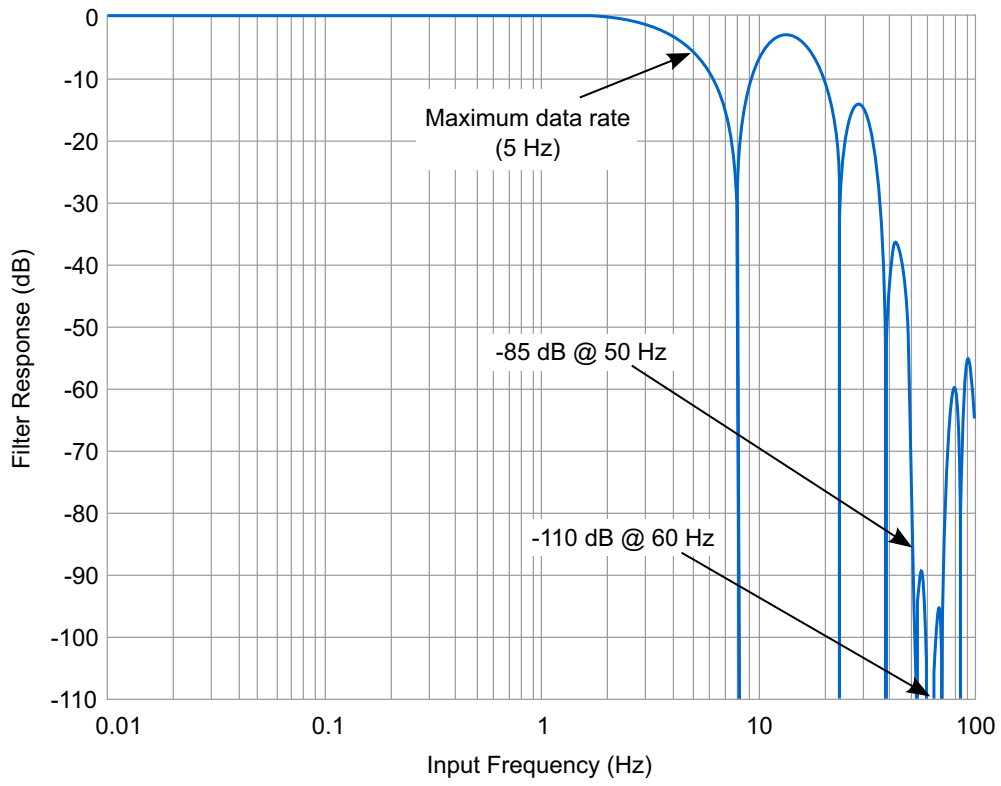
¹ The overall accuracy specification is not valid if the maximum thermo-equilibrium temperature change rate is exceeded.

² Power consumption measurements are taken with the stated load on all eight channels and include the efficiency of the power supply.

Standards

Category	Standard	Description
Shock	MIL-STD-810F	Method 516.5, Section 2.2.2 Functional Shock - ground vehicle
Vibration	MIL-STD-202G	Method 204D, Test condition C (10 <i>g</i> swept sine tested from 5 Hz to 2000 Hz)

Input Filter Frequency Response



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