

datasheet

Time Measurement Unit (TMU)

credence ASL Series



General-Purpose Time Measurement Unit for Integrated Circuit Testing

The *Time Measurement Unit (TMU)* is a general purpose instrument capable of measuring many common time and event-related parameters such as rise time, fall time, and duty cycle. The TMU is one of many versatile instruments available for the ASL Series of cost-effective test systems.

General-purpose time measurement unit for integrated circuit testing

applications

- * DC-DC converters
- * Pulse Width Modulation (PWM) devices
- * Buck and boost converters
- * Power Management
- * Switches
- * Operational Amplifiers
- * Power Stages

summary

This general-purpose time measurement unit supplies programmable start, stop and enable inputs, which provide great flexibility to measure both analog and digital signals over a wide input level range and bandwidth.

specifications

Time Measurement

Uninterpolated Resolution	10 ns
Interpolated Resolution	<100 ps
Uninterpolated Accuracy	
Single Shot	±20 ns ±0.1% of value
Repetitive Average	±1 ns ±0.1% of value
Interpolated Accuracy	±1 ns ±0.1% of value
Start Holdoff and Validation	
Range	0 to 40 μs
Accuracy	±500 ns
Stop Holdoff and Validation	
Range	0 to 40 μs
Accuracy	±500 ns
Stop Holdoff Count (start edges)	0 to 255

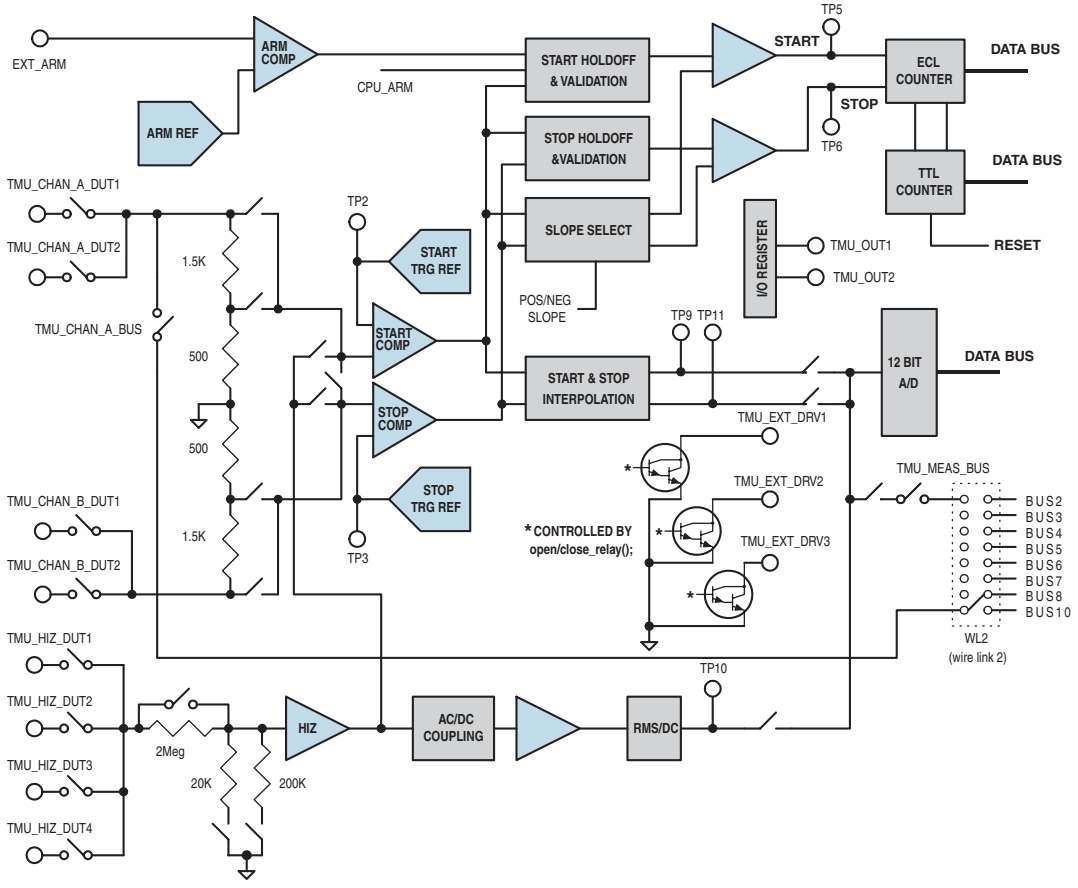
Low-Impedance Inputs (5)

Input Impedance on ±10 V range	2000 Ω nominal
Input Threshold Accuracy	2% of range

Buffered, Switchable

High-impedance Inputs (4)

V _{in} maximum, Z _{in} > 1 GΩ	±10 V
V _{in} maximum, Z _{in} = 2.2 MΩ	±100 V
V _{in} maximum, Z _{in} = 2 MΩ	±1000 V





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