

SOC Dual Channel 400MHz Pin Electronics/DAC/PMU

ISL55163

The ISL55163 is a highly integrated System-on-a-Chip (SOC) pin electronics solution aimed at incorporating every analog function, along with some digital support functionality, required on a per channel basis for Automated Test Equipment. The interface, control and I/O of the chip are all digital; all analog circuitry is inside the chip. Two complete tester channels are integrated into each ISL55163.

The ISL55163 is pin compatible with Venus4.

Features

- Pin Electronics Driver/Comparator
 - 3-level Driver (DVH/DVL/VTT)
 - 8V Driver Output Swings
 - Extremely Low HiZ Leakage over 16V Range
 - Differential Driver and Comparator Modes
 - 16V Comparator Input Compliance Range
- Load
 - 24mA I_{max}
 - 16V Input Compliance Range
 - Extremely Low HiZ Leakage over 16V Range
 - Independent Power-down Option
- PMU
 - FV, FI, MV, MI
 - FI Voltage Clamps
 - Eight current Ranges (32mA, 8mA, 2mA, 512µA, 128µA, 32µA, 8µA, 2µA)
 - Resistive Load (Eight Selectable Resistor Values)
 - Remote Sense Option
- On-chip DC Levels
 - 13 Levels/Channel
 - Gain and Offset Correction/Level
 - DUT Ground Sensing and Correction
- Flexible High Speed Digital Inputs and Outputs
 - Selectable On-chip Terminations for Inputs
 - Read-back Internal States
- Package/Power Dissipation
 - 64-Lead, 10mmx10mm TQFP with Top Exposed Heat Slug
 - 64-Lead, 9mmx9mm QFN with Top Exposed Heat Slug
 - P_{dq} ≤ 500mW/Channel @ 11V Operation

Applications

- Automated Test Equipment
- Instrumentation
- ASIC Verifiers

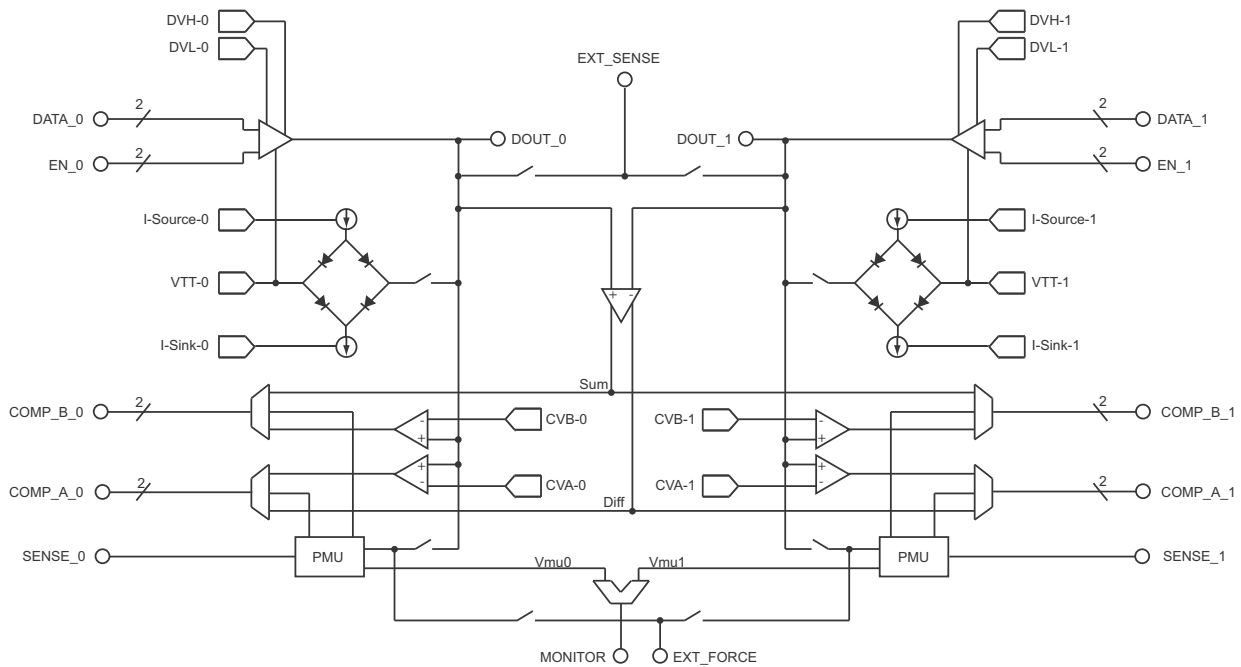


FIGURE 1. BLOCK DIAGRAM

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