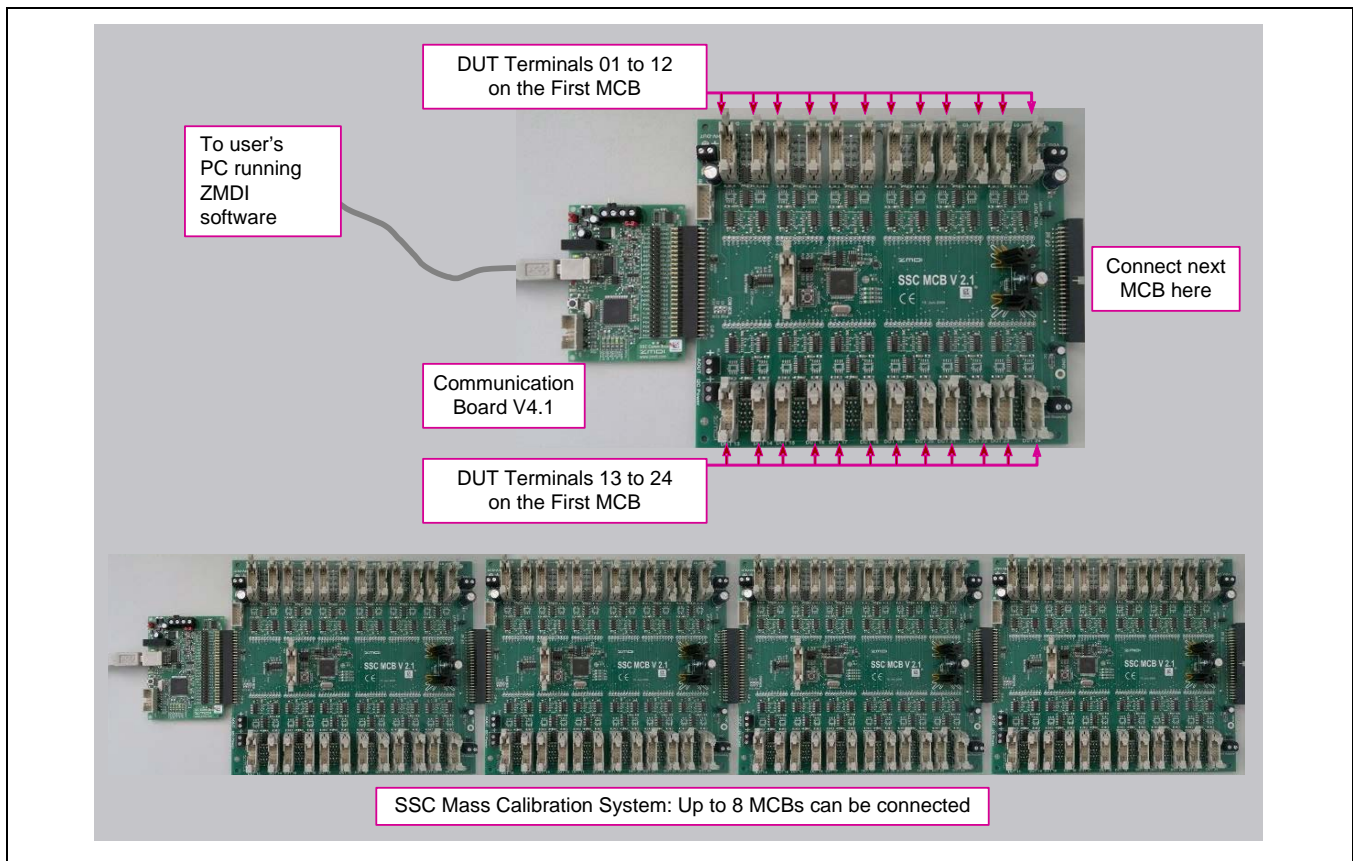


IDT's Sensor Signal Conditioner (SSC) Mass Calibration Tools

IDT's SSC Modular Mass Calibration System (SSC MCS) provides support for experienced users in testing and evaluating different methods of calibrating sensor modules containing IDT SSC ICs under conditions of series production. Note: The SSC MCS is intended for development, evaluation, and laboratory setup of sensor modules with IDT's SSC ICs only. User-friendly graphical user interfaces allow controlling the following functions using the system boards, which include the SSC Communication Board (SSC CB), SSC Mass Calibration Board (SSC MCB), and optional IC-specific SSC Mass Calibration Reference Boards (SSC MCRs):

- Individually addressing up to 24 IDT ICs under test (DUTs) mounted on individual SSC MCRs or user-provided sensor modules connected to each MCB connected in the system
- Mass calibration of up to 192 DUTs via series connection of up to eight MCBs using an individual address
- Separate DUT configuration including adjustment of gain factor, zero-point shift, temperature compensation reference, signal resolution, sample rate, output options, measurement sequence, and thresholds, etc., depending on the DUT product
- Separate reading and programming of individual DUT's EEPROM and calibration microcontroller registers
- Display of the DUT's unconditioned and conditioned bridge sensor and temperature sensor signals
- Simultaneous calibration measurements, calibration coefficient calculation, and EEPROM programming

Modular Mass Calibration System (MCS)



System Description

The MCB supports sensor modules with the following IDT SSC IC products: ZSC31010, ZSC31014, ZSC31015, ZSC31050, ZSC31150, ZSSC313x, and ZSSC3154. Each system consists of a USB cable, four MCBs, 100 flat cable connectors for the DUT terminals, 30 meters of 10-wire flat cable, and four MCRs (for testing the communication between PC and DUT terminal and performing a basic calibration).

The Evaluation Kit Software for each system is downloaded from the SSC IC's product page on IDT's website at www.IDT.com.

Ordering Information

Part Name		Description	Part Ordering Code
SSC Modular Mass Calibration Systems	MCS-1	ZSC31010 Mass Calibration System V1.1 (includes one MCS-A, four MCS-B, four MCS-1.1, and MCS-C)	ZSC31010 MCS V1.1
	MCS-2	ZSC31014 Mass Calibration System V1.1 (includes one MCS-A, four MCS-B, four MCS-2.1, and MCS-C)	ZSC31014 MCS V1.1
	MCS-3	ZSC31015 Mass Calibration System V1.1 (includes one MCS-A, four MCS-B, four MCS-3.1, and MCS-C)	ZSC31015 MCS V1.1
	MCS-4	ZSC31050 Mass Calibration System V1.1 (includes one MCS-A, four MCS-B, four MCS-4.1, and MCS-C)	ZSC31050 MCS V1.1
	MCS-5	ZSC31150 Mass Calibration System V1.1 (includes one MCS-A, four MCS-B, four MCS-5.1, and MCS-C)	ZSC31150 MCS V1.1
	MCS-6	ZSC31210 Mass Calibration System V1.1 (includes one MCS-A, four MCS-B, four MCS-6.1, and MCS-C)	ZSC31210 MCS V1.1
	MCS-7	ZSSC313x Mass Calibration System V1.1 (includes one MCS-A, four MCS-B, four MCS-7.1, and MCS-C)	ZSSC313x MCS V1.1
	MCS-8	ZSSC3154 Mass Calibration System V1.1 (includes one MCS-A, four MCS-B, four MCS-8.1, and MCS-C)	ZSSC3154 MCS V1.1
Extra parts for Modular Mass Calibration System*	MCS-A	SSC Communication Board V4.1 with cable	SSC Comm Board V4.1
	MCS-B	SSC Mass Calibration Board (MCB) Version 2.1	SSC MCB V2.1
	MCS-1.1	ZSC31010 Mass Calibration Reference Board V1.0	ZSC31010 MCR V1.0
	MCS-2.1	ZSC31014 Mass Calibration Reference Board V1.0	ZSC31014 MCR V1.0
	MCS-3.1	ZSC31015 Mass Calibration Reference Board V1.0	ZSC31015 MCR V1.0
	MCS-4.1	ZSC31050 Mass Calibration Reference Board V1.0	ZSC31050 MCR V1.0
	MCS-5.1	ZSC31150 Mass Calibration Reference Board V1.0	ZSC31150 MCR V1.0
	MCS-6.1	ZSC31210 Mass Calibration Reference Board V1.1	ZSC31210 MCR V1.1
	MCS-7.1	ZSSC313x Mass Calibration Reference Board V1.0	ZSSC313x MCR V1.0
	MCS-8.1	ZSSC3154 Mass Calibration Reference Board V1.0	ZSSC3154 MCR V1.0
	MCS-C	100 pieces flat cable connectors and 30m flat cable (10-wire cable)	SSC Flat Cable and Connectors V1.0
	MCS-D	Power Switch Board V1.0 for ZSC31010 and ZSC31050 Mass Calibration Systems for DUT supply up to 40 VDC	IDT MCS Power Switch Board V1.0

* Extra parts MCS-A, MCS-B, MCS-C, MCS-D, and MCS-x.1 can be ordered separately after ordering one of the MCS-1 through MCS-8 systems.

Application Support

For MCS application support, please submit a technical support request at www.IDT.com/go/support.

Important Notice / Restrictions:

The SSC Mass Calibration System is designed only for development, evaluation, and laboratory setup of sensor modules with IDT Sensor Signal Conditioner ICs. The IDT Mass Calibration System hardware and software must not be used for module production and production test setups. IDT shall not be liable for any damages arising out of defects resulting from

- (i) delivered hardware or software
- (ii) non-observance of instructions contained in the Mass Calibration System Description documents
- (iii) misuse, abuse, use under abnormal conditions, or alteration by anyone other than IDT.

To the extent permitted by law, IDT hereby expressly disclaims and user expressly waives any and all warranties, whether express, implied, or statutory, including, without limitation, implied warranties of merchantability and of fitness for a particular purpose, statutory warranty of non-infringement, and any other warranty that may arise by reason of usage of trade, custom, or course of dealing.



Corporate Headquarters
6024 Silver Creek Valley Road
San Jose, CA 95138
www.IDT.com

Sales
1-800-345-7015 or 408-284-8200
Fax: 408-284-2775
www.IDT.com/go/sales

Tech Support
www.IDT.com/go/support

DISCLAIMER Integrated Device Technology, Inc. (IDT) reserves the right to modify the products and/or specifications described herein at any time, without notice, at IDT's sole discretion. Performance specifications and operating parameters of the described products are determined in an independent state and are not guaranteed to perform the same way when installed in customer products. The information contained herein is provided without representation or warranty of any kind, whether express or implied, including, but not limited to, the suitability of IDT's products for any particular purpose, an implied warranty of merchantability, or non-infringement of the intellectual property rights of others. This document is presented only as a guide and does not convey any license under intellectual property rights of IDT or any third parties.

IDT's products are not intended for use in applications involving extreme environmental conditions or in life support systems or similar devices where the failure or malfunction of an IDT product can be reasonably expected to significantly affect the health or safety of users. Anyone using an IDT product in such a manner does so at their own risk, absent an express, written agreement by IDT.

Integrated Device Technology, IDT and the IDT logo are trademarks or registered trademarks of IDT and its subsidiaries in the United States and other countries. Other trademarks used herein are the property of IDT or their respective third party owners. For datasheet type definitions and a glossary of common terms, visit www.idt.com/go/glossary. All contents of this document are copyright of Integrated Device Technology, Inc. All rights reserved.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[IDT \(Integrated Device Technology\):](#)

[SSCTESTBDV1P0](#) [SSCTESTBDQFN24V1P0](#) [ZMDIMCSPOWSWBDV1P0](#)