USERS GUIDE

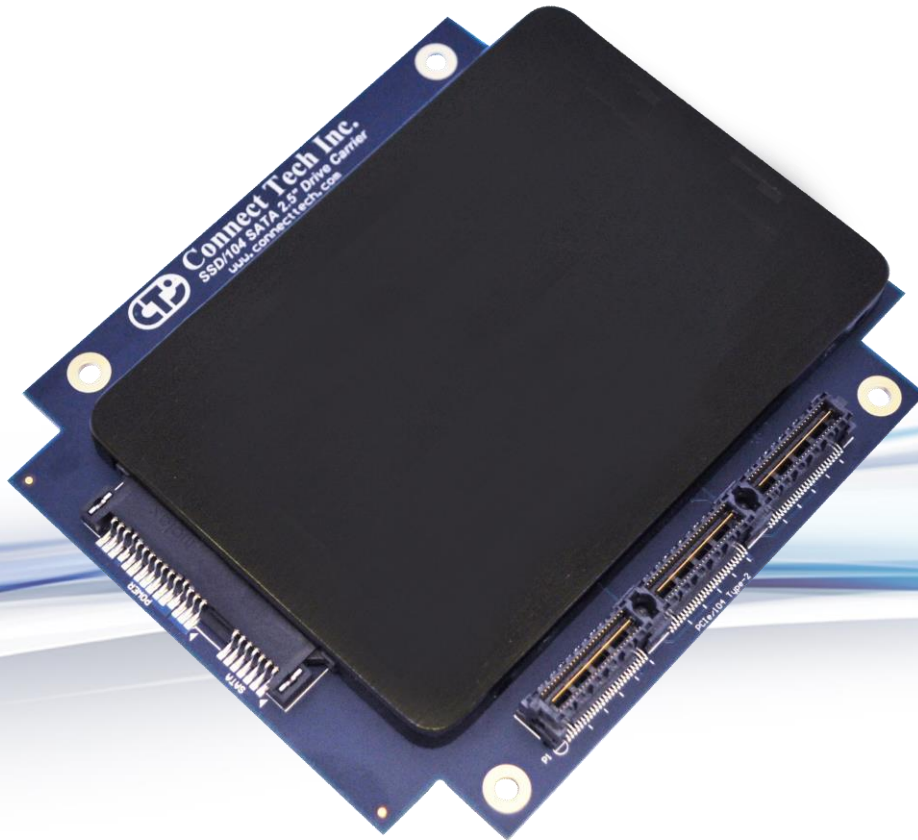**Connect Tech Inc.**
Embedded Computing Experts

www.connecttech.com

SSD/104 SATA 2.5" Drive Carrier
Users Guide

Connect Tech Inc.
42 Arrow Road
Guelph, Ontario
N1K 1S6
www.connecttech.com

Tel: **519-836-1291**
Toll: **800-426-8979** *(North America only)*
Fax: 519-836-4878
Email: sales@connecttech.com
        support@connecttech.com

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Preface

Disclaimer

The information contained within this user's guide, including but not limited to any product specification, is subject to change without notice.

Connect Tech assumes no liability for any damages incurred directly or indirectly from any technical or typographical errors or omissions contained herein or for discrepancies between the product and the user's guide.

Customer Support Overview

If you experience difficulties after reading the manual and/or using the product, contact the Connect Tech reseller from which you purchased the product. In most cases the reseller can help you with product installation and difficulties.

In the event that the reseller is unable to resolve your problem, our highly qualified support staff can assist you. Our support section is available 24 hours a day, 7 days a week on our website at: www.connecttech.com/sub/support/support.asp. See the contact information section below for more information on how to contact us directly. Our technical support is always free.

Contact Information

Mail/Courier
Connect Tech Inc.
Technical Support
42 Arrow Road
Guelph, Ontario
Canada N1K 1S6

Email/Internet

sales@connecttech.com
support@connecttech.com
www.connecttech.com

Note:
Please go to the **Download Zone** or the **Knowledge Database** in the **Support Center** on the Connect Tech website for product manuals, installation guides, device driver software and technical tips.
Submit your technical support questions to our customer support engineers via the **Support Center** on the Connect Tech website.

Telephone/Facsimile
Technical Support representatives are ready to answer your call Monday through Friday, from 8:30 a.m. to 5:00 p.m. Eastern Standard Time. Our numbers for calls are:

Toll Free: 800-426-8979 (North America only)
Telephone: 519-836-1291 (Live assistance available 8:30 a.m. to 5:00 p.m. EST, Monday to Friday)
Facsimile: 519-836-4878 (on-line 24 hours)

Limited Product Warranty

Connect Tech Inc. provides a two year Warranty for the SSD/104 SATA 2.5" Drive Carrier. Should this product, in Connect Tech Inc.'s opinion, fail to be in good working order during the warranty period, Connect Tech Inc. will, at its option, repair or replace this product at no charge, provided that the product has not been subjected to abuse, misuse, accident, disaster or non-Connect Tech Inc. authorized modification or repair.

You may obtain warranty service by delivering this product to an authorized Connect Tech Inc. business partner or to Connect Tech Inc. along with proof of purchase. Product returned to Connect Tech Inc. must be pre-authorized by Connect Tech Inc. with an RMA (Return Material Authorization) number marked on the outside of the package and sent prepaid, insured and packaged for safe shipment. Connect Tech Inc. will return this product by prepaid ground shipment service.

The Connect Tech Inc. Limited Warranty is only valid over the serviceable life of the product. This is defined as the period during which all components are available. Should the product prove to be irreparable, Connect Tech Inc. reserves the right to substitute an equivalent product if available or to retract the Warranty if no replacement is available.

The above warranty is the only warranty authorized by Connect Tech Inc. Under no circumstances will Connect Tech Inc. be liable in any way for any damages, including any lost profits, lost savings or other incidental or consequential damages arising out of the use of, or inability to use, such product.

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ESD Warning

Electronic components and circuits are sensitive to ElectroStatic Discharge (ESD). When handling any circuit board assemblies including Connect Tech COM Express Carrier assemblies, it is recommended that ESD safety precautions be observed. ESD safe best practices include, but are not limited to:

- Leaving circuit boards in their antistatic packaging until they are ready to be installed.
- Using a grounded wrist strap when handling circuit boards, at a minimum you should touch a grounded metal object to dissipate any static charge that may be present on you.
- Only handling circuit boards in ESD safe areas, which may include ESD floor and table mats, wrist strap stations and ESD safe lab coats.
- Avoiding handling circuit boards in carpeted areas.
- Try to handle the board by the edges, avoiding contact with components.

Revision History

Revision	Date	Changes
0.00	2016/08/02	Initial Release

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Introduction

Connect Tech's SSD/104 SATA 2.5'' Drive Carrier is a complete rugged stackable storage solution that allows any 2.5" SATA hard drive to be installed into any Type II PCIe/104 stack or embedded system.

The SSD/104 SATA 2.5'' Drive Carrier expands storage capacity and reduces overall storage footprint in an embedded system.

Designed to be used with any 2.5" SATA drive, the SSD/104 SATA 2.5'' Drive Carrier can be used with the latest SATA III SSD's for high performance applications or other high capacity drives.

Product Features and Specifications

Feature	Drive Carrier
PCB Size / Overall Size	112.27 mm x 95.89mm (4.420" x 3.775") 3D STEP Model: **download here**
Storage Capacity	Up to 2 TB
Compatible Drives	Any mechanical or solid state 2.5"SATA drive
Power Requirement	5V / 3A maximum through PCIe/104 bus
Power	• Onboard power supply for 3.3v drives • Supply Voltage: +5V ±5%
Power Source	PCIe/104 bus
Interface	Supports all SATA generations: • SATA I - 1.5Gbps 150MB/s • SATA II - 3Gbps 300MB/s • SATA III - 6Gbps 600MB/s • Compatible with any Type 2 PCIe/104 SBC
Cable-Free Operation	SATA signals from PCIe/104 Type 2 SB
Operating Temperature	-40ºC to 85ºC (-40ºF to 185ºF)
Warranty and Support	Limited two-year warranty and free technical support

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Product Overview

Block Diagram
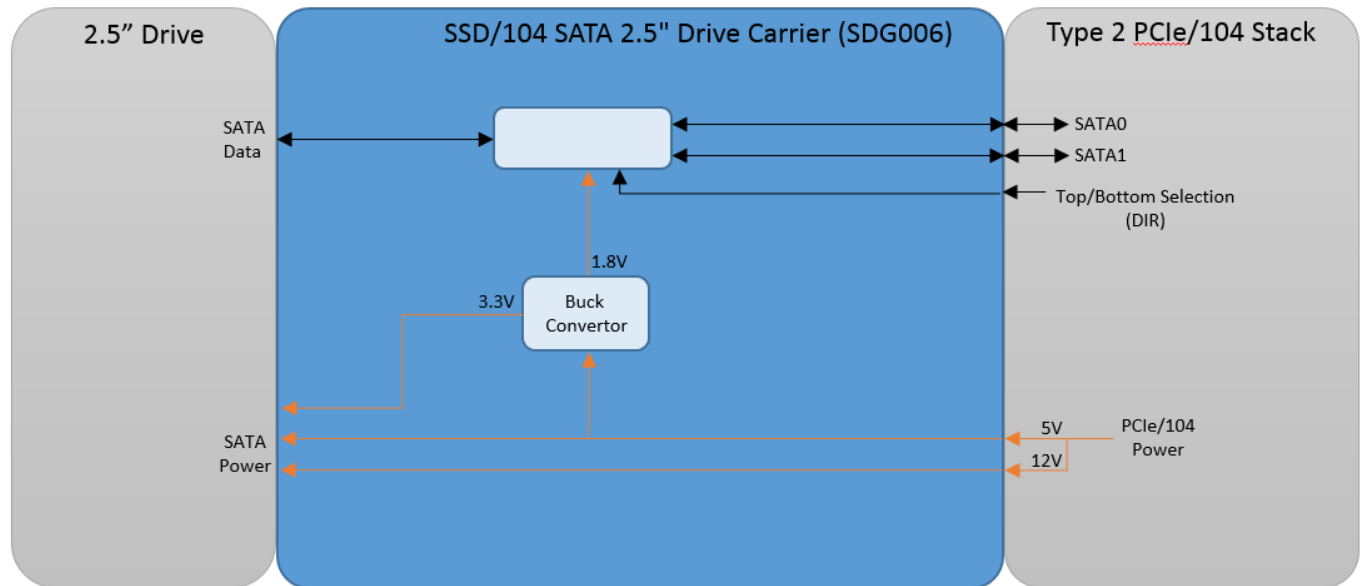
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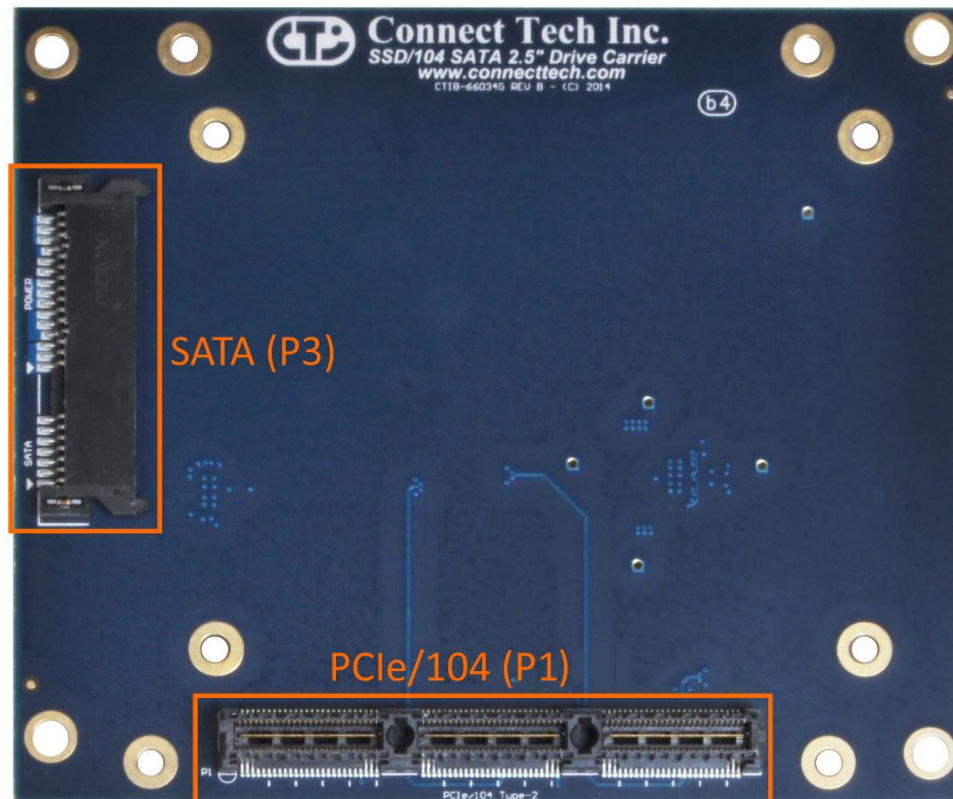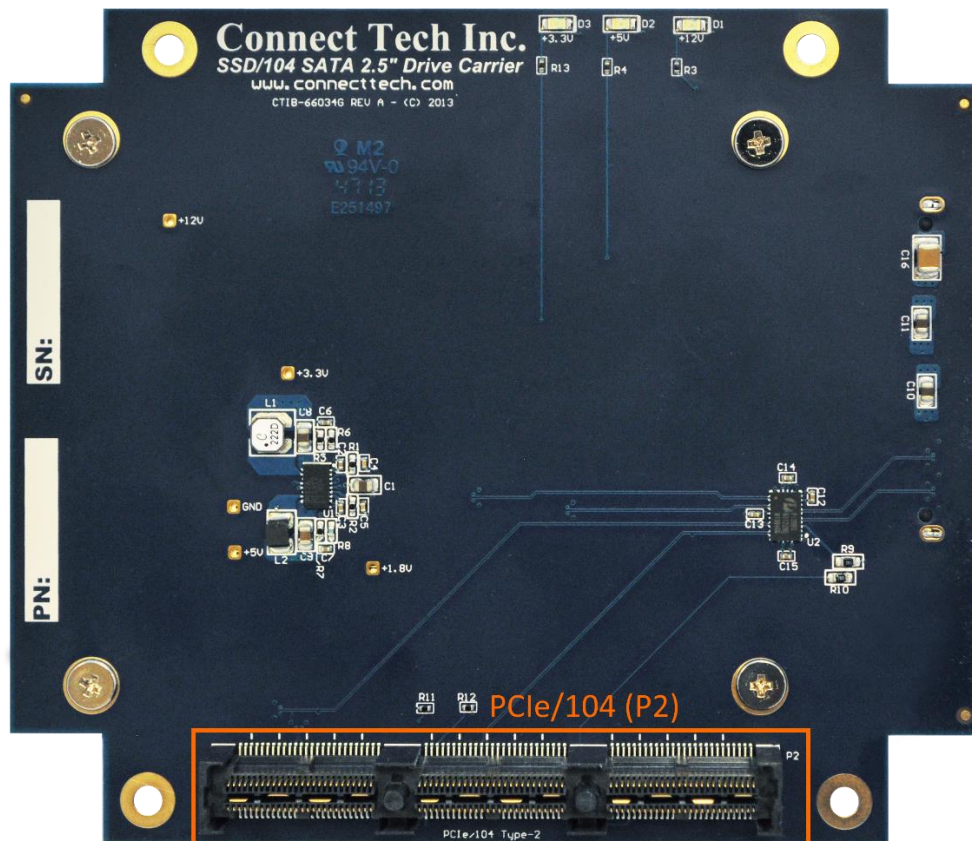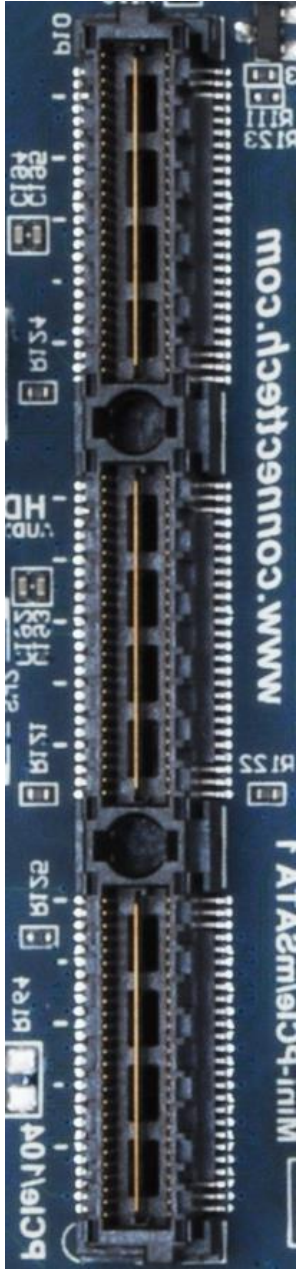
Connector Summary

Designator	Connector	Description
P1	PCIe/104	PCIe/104 Top Connector
P2	PCIe/104	PCIe/104 Bottom Connector
P3	SATA	SATA Power and Data Connector
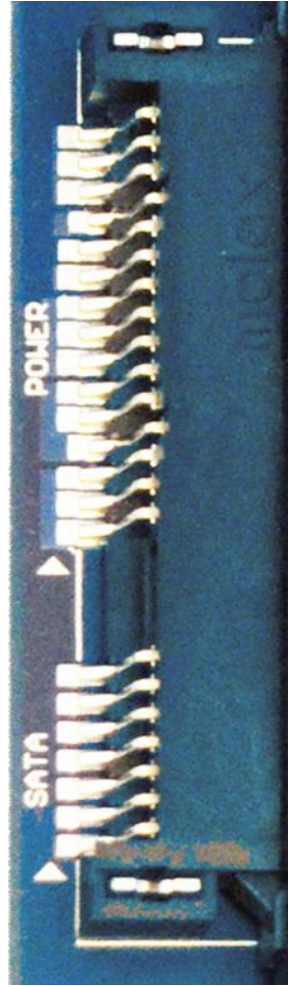
Detailed Feature Description

PCIe/104

Function	PCIe/104 Stack Interface
Location	P1, P3
Type	Samtec Fine Pitch Stacking Connector 15mm Stack Height
Carrier Connector P/N	ASP-129637-03 (P1) ASP-129646-03 (P3)
Pinout	Refer to PCI/104-Express & PCIe/104 Specification, Rev 2.01

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SATA Connector

Function	Data and Power Transfer
Location	P2
Type	Molex SATA drive connector
P/N	0470182001

Pinout	Pin	Description
		POWER
	1	+3.3V
	2	+3.3V
	3	+3.3V
	4	GND
	5	GND
	6	GND
	7	+5V
	8	+5V
	9	+5V
	10	GND
	11	GND
	12	GND
	13	+12V
	14	+12V
	15	+12V
		SATA
	1	GND
	2	DRV_RX_P
	3	DRV_RX_N
	4	GND
	5	DRV_TX_P
	6	DRV_TX_N
	7	GND

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Mechanical Details

3D Model Download

A complete **3D STEP Model** file of the SDG006 can be downloaded here:
http://www.connecttech.com/ftp/3d_models/SDG006_3D_Model.zip

Weight

The SDG006 has a weight of 53 grams without a drive mounted.

SDG006 Outline and Dimensions

[10.28] 0.405

[10.84] 0.427

[3.13] 0.123

[5.90] 0.232

[1.58] 0.062