ZX127HSEC6-70S ZEBAX.com Product Name: ZX127HSEC6-70H Samtec GENERATE HSEC6 / Mini Cool Edge IO, MCIO, edge card breakout adapter – Page 1 OF 2 PLEASE NOTE - Pictures on this document are placeholders along Product Description: ZX127HSEC6-70H is Samtec HSEC6 0.6mm pitch also referred as Mini Cool Edge IO, MCIO / SFF-TA-1002, edge card breakout with dimensions. This document will be updated in 10 days. adapter. ZX127HSEC6-70H is designed for real-time electrical test & measurements, signal integrity, characterization, manufacturing loopback test applications. ZX127HSEC6-70H is breakout adapter, supporting Samtec GENERATE HSEC6 / MCIO edge card 0.6mm pitch connectors using 1.6mm PCB thickness. It provides full access to all HSEC6 / MCIO connector's signals via onboard headers for purpose of test & measurement. 1- Provides access to all Samtec HSEC6 / MCIO signals via onboard headers. 2- The headers are standard 0.1" (2.54mm) pitch. 3- Listed number adjacent to each header's pin is in reference to the Samtec HSEC6 / MCIO connector's pin. 4- All traces are impedance controlled. 5- Four, 4, layers PCB design, inner layers are GND planes. 6- Accessible GND test point, The test point is connected to inner GND planes. ·2.01"(51.24mm 7- Ease of interface with single channel and differential scope probes. 8- Flying lead wire assembly or similar is recommended – See ordering information ZX127HSEC6-70H simplified cross section diagram **Electrical:** Insertion loss > -2dB @6GHz Trace impedance: 50Ω Operating Temperature: -55°C to +125°C Edge Card Connector: Mates with: Samtec HSEC6 / MCIO 0.60mm pitch connector Pitch: 0.60mm pin to pin pitch Thickness: 1.6mm (0.062") Plating: 10μ " (0.25μ m) GND test point Header: Pitch: 0.1" (2.54mm) pin to pin pitch Pin: Square 0.025" (0.635mm) Height: 0.24" (6mm) HOST PCB Plating: Gold Flash ZX100ACC-SS Signal lavers Flying leads wire assembly Ground layers, Please note – The GND test point is connector to 1- Top/Bottom GND fill Application: Manufacturing test measurement & re-use, design, testing, debugging 2- The inner layers ground planes loopback test, characterization, pre-bringup, bringup, interface # HSEC6 / MCIO signals path to headers Mates with: Samtec GENERATE High Speed Edge Card HSEC6 & GC6 cable assembly Industry standard Mini Cool Edge IO, MCIO, SFF-TA-1016, SFF-TA 1002, GEN-Z 1C Amphenol G97, GH01 series. ACES Electronics, LOTES MET005610101011 ME1005610203071 ME1005610201091 ME1005611201041 ZX127HSEC6-70H package includes: ME1005611202041 ME1005610211081 ME1005610205081 ME1005613401101 Part number **Quantity Description** ME1005634478101 Compliance: ZX127HSEC6-70H Breakout Adapter module ISO2001 certified В ZX100ACC-SS Flying lead wire assembly RoHs - Lead Free **Industry Standard:** HSEC6 & MCIO connectors have been adopted by industry standards such as: EU RoHS2 UL E111594 document SFF-TA 1002, SFF-TA-1016, PCI Express Gen 3.0, 4.0, 5.0, 6.0, OCP DC-MHS (HSIO recommended) ELV- Vehicle Directive (Directive 2000/EC) ALL ZEBAX products are RoHS compliant and Lead Free unless otherwise indicated Supporting Up to 64 Gbps PAM4 performance. PCIe, NVMe, SAS, SFP(+), SFP 28 European Union Directive (203/11/EC) Halogen Free per IEC-61249-2.21 : 2003 ZEBAX TECHNOLOGIES RoHs Directive 2011/65/EU WEEE Directive (2012/12/EU) SANTA CRUZ, CA U.S.A (831) 2 2 2 - 0717 WWW.ZEBAX.COM Certificate of Compliance for Radioactive substances Certificate of Compliance for Asbestos ASSEMBLY DRAWING SPECIFIED DIMENSIONS Certificate of Compliance for Ozone Depleting Substances, ODS ARE INCHES (MM). Certificate REACH SVHC ITEM: ZX127HSEC6-70H ROHS COMPLIANT Certificate of Compliance RoHS EN CoC Samtec HSEC6 / Mini Cool IO, MCIO, **DESCRIPTION:** ALL ZEBAX TECHNOLOGIES DESIGN SPECIFICATIONS, DRAWINGS, PUBLICATIONS, AND OTHER DOCUMENTS (TOGETHER AND SEPARATELY, "MATERIALS") ARE BEING PROVIDED "AS IS." ZEBAX MAKES NO WARRANTIES, EXPRESSED, **Edge Card Breakout Adapter** IMPLIED, STATUTORY, OR OTHERWISE WITH RESPECT TO THE MATERIALS, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES OF NO INFRINGEMENT, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE Information furnished is believed to be accurate and reliable. However, Zebax Technologies assumes no responsibility for the consequences of use of such information or for any infringement of patents or other rights of third parties that may result from its use. CHECKED: DRAWN: REVISSION: 1.0 Specifications mentioned in this publication are subject to change without notice. This publication replaces all other information previously supplied. Zebax Technologies products are not authorized as in life support devices or systems M. MAHIN KADIJEH SHEET: 1 OF 2

Product Name: ZX127HSEC6-70H Samtec GENERATE HSEC6 / Mini Cool Edge IO, MCIO, edge card breakout adapter - Page 2 OF 2 Ground: ZX127HSEC6-70H is 4 layers PCB design where the inner layers are Ground layers. They are connected to the GND test point as well as top & bottom GND fills. For improved signal integrity, please connect the GND test point to system GND reference point. See Cross Section diagram for details. Typical Application: ZX127HSEC6-70H is designed for purpose of test and debugging at full connector's bandwidth. It provides new approach in usage of breakout adapters by: 1- Utilizing single or differential scope probe. 2-Test and measurement, manufacturing loopback test, validation, pre-bringup applications. **Scope Probe wire Installation:** 1- It is recommended to keep the probe wire length at 0.5" (1.2cm) long. 2- In order to avoid ground loop problems, please use the shortest Ground probe wire interfacing to the nearest GND reference point. ZX127HSEC6-70H provides GND test point to be utilized as GND reference interface with host. SFF-TA-1002 1C (2 rows x 28 pins/row) 56 pins standard- Below are listed signals and Ground pins assignments for the SFF-TA-1002 standard, please refer to the standard for formal signals map naming. This table denotes "SIG" or "GND" PIN geometry locations. The Grounds are not bussed together in the connector or the ZX127HSEC6-70H breakout adapter. The listed GND signals are routed similar to the SIG signals, they are all individually routed signals. ZX127HSEC6-70H Pin Geometry Pattern (3C) SFF-TA 1002 Standard GND SIG SIG GND Header pin access configuration: Table below is header's pin configuration ZX127HSEC6-70H header pin assignments B-Side Header pin numbers refer to the edge card connector pin numbers GND header pins are connected to top & bottom GND fill as well as the inner layers GND plane В HSEC6 / MCIO footprint: ZX127HSEC6-70H mates with industry standard footprint for SFF-TA-1002 1C (2rows x 70 pins per row) 140 pins connectors ALL ZEBAX products are RoHS compliant and Lead Free unless otherwise indica ZEBAX TECHNOLOGIES SANTA CRUZ, CA U.S.A (831) 2 2 2 - 0717 WWW.ZEBAX.COM ASSEMBLY DRAWING SPECIFIED DIMENSIONS ARE INCHES (MM). ITEM: ZX127HSEC6-70H ROHS COMPLIANT DESCRIPTION: Samtec HSEC6 / Mini Cool IO , MCIO , Edge ALL ZEBAX TECHNOLOGIES DESIGN SPECIFICATIONS, DRAWINGS, PUBLICATIONS, AND OTHER DOCUMENTS (TOGETHER AND SEPARATELY, "MATERIALS") ARE BEING PROVIDED "AS IS." ZEBAX MAKES NO WARRANTIES. EXPRESSED. **Card Breakout Adapter** IMPLIED, STATUTORY, OR OTHERWISE WITH RESPECT TO THE MATERIALS, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES OF NO INFRINGEMENT, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE Information furnished is believed to be accurate and reliable. However, Zebax Technologies assumes no responsibility for the consequences of use of such information or for any infringement of patents or other rights of third parties that may result from its use CHECKED: DRAWN: REVISSION: 1.0 Specifications mentioned in this publication are subject to change without notice. This publication replaces all other information previously supplied. Zebax Technologies products are not authorized as in life support devices or system M. MAHIN **KADIJEH** SHEET: 2 OF 2