SLICE PRO Distributor
User's Manual

December 2023

13000-31540-MAN (Rev. 0)

Contents

Introduction

This manual supports the SLICE PRO Distributor, part number 13000-31540.

The SLICE PRO Distributor is a next-generation, centralized communication and power management hub suitable for use in dynamic testing environments to distribute conditioned power, control and status signals from local (sled or vehicle) and remote (control room or off-board) systems. Conditioned output power is provided to 8 ATD/SYS connectors and 1 SLICE PRO TDM-compatible DOWN connector. Status and control signals are distributed between attached equipment and forwarded externally.

External input power is supported via the MAIN power input connector. The 2 BATT connectors provide either primary or back-up power when using POWER PRO devices. Should MAIN input power fail, the external batteries (POWER PRO) will provide primary power to the ATD connectors 1-4, respectively, and DOWN connector.

DataPRO software is used to communicate with the SLICE PRO Distributor.

Features

- Advanced power management provides continuous power even when switching from external power to battery.
- Operates as a common hub for integration of internal/ATD DAS and external/on-board DAS.
- Connectors and indicators are accessible from the top of the unit. (Except for DOWN connector.)
- Supports SLICE PRO TDM via DOWN connector.
- Supports gigabit Ethernet (GbE) communications with the PC.
- Set up and monitoring via DataPRO software.
- LED indicators for power and system status.
- Shock rated to 100 g for dynamic testing environments.

See Appendix A for connector information and pin assignments. Mechanical specifications are included in Appendix B. Appendix C discusses the network parameters of your equipment.

Compatibility

The SLICE PRO Distributor is compatible with all legacy TDAS PRO, TDAS G5 and SLICE PRO equipment and accessories that use DTS-standard COM, CONTROL and SYS (System) connectors. It can also interface with SLICE6 Distribution units.

DTS Support

The SLICE PRO Distributor is designed to be reliable and simple to operate. If you need assistance, DTS has support engineers worldwide with extensive product knowledge and test experience ready to help. Registered users can access the DTS Help Center web portal at support.dtsweb.com.

Registration also gives you access to additional self-help resources and non-public support information. To register, go to support.dtsweb.com/registration.

Using the SLICE PRO Distributor

SLICE PRO Distributor Front Panel (DOWN connector not shown)

MAIN Power Connector

This connector is used to provide primary input power. When external power is connected, output power is available from all BATT, ATD and SYS connectors. See the Input/Output Power Matrix on page 9 for details on power specifications.

MAIN, BATT 1 and BATT 2 LED Indicators

	MAIN	BATT 1 BATT 2
●	Input voltage acceptable	Battery >9.2 V and MAIN input power acceptable
●		Battery <9.2 V and MAIN input power acceptable
●	Input power overvoltage -or- no input power (15 s)	Battery <9.2 V and MAIN input power absent
●	Input power not sufficient	

Caution	
⚠	Do not perform any critical tests when either battery LED indicator is red (battery low).

BATT 1 and BATT 2 Power Connectors

These connectors function 2 ways:

1. To charge attached batteries (POWER PRO) when MAIN input power is connected, and
2. To provide battery power (via POWER PRO) to the ATD and DOWN connectors when MAIN power is not connected.

See the Input/Output Power Matrix on page 9 for details on power specifications.

Powering the SLICE PRO Distributor

External input power is provided through the MAIN connector or from a battery (POWER PRO) connected to the BATT 1 and/or BATT 2 connectors. Upon application of external power, the SLICE PRO Distributor will turn on. If the unit appears off, verify that sufficient input power is present. If batteries are providing primary input power, power cycle the batteries to ensure they are active.

If MAIN input power is disabled while the SLICE PRO Distributor is on, the unit will switch to external battery power. When the available capacity of the external battery drops below 10%, a fault will occur. (This threshold is user configurable.)

The SLICE PRO Distributor contains a capacitor to support critical test signals for ~30 s should external power (main and battery) be disabled during data collection. (Output power and Ethernet communications are *not* supported.) When connected to sufficient external power, the unit is ready to support these signals after a few minutes.

Note	
	The SLICE PRO Distributor does not contain an internal battery and must be connected to external power at all times.

Input/Output Power Matrix

	Output Power Available (per connector)						
							
Input Power Connected	80 W (20 V, 4 A maximum)		67.5 W (15 V, 4.5 A maximum)			6 W (12 V, 0.5 A)	**ON State**
 810 W; 48 V nominal (37-55 V range; 22.5 A maximum)	✓	✓	✓	✓	✓	✓	OFF (external charging only)
	✓	✓	✓	✓	✓	✓	ON (fully functional)
 171 W* (9-28 V range, 19 A maximum)							OFF
			✓			✓	ON
 171 W* (9-28 V range, 19 A maximum)							OFF
				✓		✓	ON

* from battery (POWER PRO)

When MAIN input power is connected, output power is available from all connectors. When MAIN input power is not connected, output power is not available from the SYS 5-8 connectors. Output power is only available from ATD connectors 1 and 2, ATD connectors 3 and 4 and the DOWN bus when an external battery (POWER PRO) is connected to BATT 1 and/or BATT 2, respectively, and the unit is ON.

UMB GB (Umbilical) Connector

This connector allows PC access to all communication features and signal lines. Gigabit Ethernet (GbE) communications are supported via a DEC+ cable (P/N 10700-0078x). An external start record signal or external status signal received by this connector will be transmitted to all COM, ATD and SYS connectors. An internal status signal transmitted to this connector will be forwarded externally. A contact-closure event signal received by this connector will be transmitted to the COM, CONTROL and all ATD and SYS connectors. This event (T=0) signal path should be used when the event signal is generated off-board or must be transmitted to other systems. This connector does not support logic-compatible event signals. (Use the CONT connector if you require support for logic-compatible event signals.) All start record input and output signals are logic-compatible.

CONT (Control) Connector

This connector supports start record input, status output and event input signals. An external start record signal received by this connector will be transmitted to the UMB, COM and all ATD and SYS connectors. An internal status signal transmitted to this connector will be forwarded externally. All external contact-closure and/or logic-compatible event signals received by this connector will be transmitted to the UMB, COM and all ATD and SYS connectors.

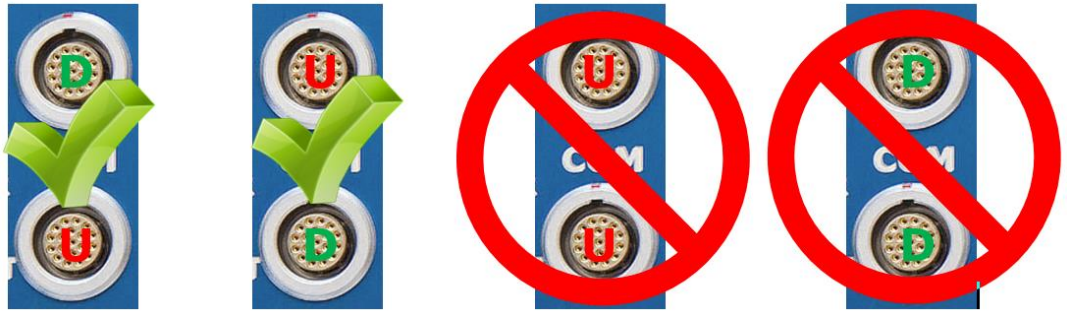
COM A and COM B Connectors

The COM connectors allow access to all communication features and signal lines. Ethernet 10/100BaseT/Tx communications, contact-closure event input, remote on, start record input and status signals are supported. An external start record signal received by this connector will be transmitted to the UMB and all ATD and SYS connectors. An internal status signal transmitted to this connector will be forwarded externally. These connectors are functionally identical and are compatible with all SLICE PRO and TDAS COM connectors.

Up to 7 SLICE PRO Ethernet Controllers (ECM) can be daisy-chained via a COM connector using an RDC cable (P/N 10700-0014x) and following the interconnect protocol:

1. An RDC cable (**U**P) is connected to the SLICE PRO Distributor using either COM connector.
2. The RDC cable (**D**OWN) from step 1 is connected to the first ECM using either COM connector.
3. Another RDC cable (**U**P) is connected to the ECM from step 2 using the open COM connector.
4. The RDC cable (**D**OWN) from step 3 is connected to the second ECM using either COM connector.

Steps 3 and 4 are repeated for additional units. Each unit in the middle of the chain must contain one **U**P and one **D**OWN connection. This includes the SLICE PRO Distributor if both COM ports are in use.



ON Power Switch

A low-profile piezo switch is used for ON/OFF control. There is no detectable movement in the switch. To start or stop the unit, firmly press and hold the switch until the power LED changes from white to blue, then release. Total time from ON initiation to system ready is typically <30 s. To restart the unit, turn off the unit and wait ~1 min before restarting.

If the unit appears off, verify that sufficient input power is present. If batteries are providing primary input power, power cycle the batteries to ensure they are active.

POWER LED Indicator

The PWR LED indicates the status of input power. The SLICE PRO Distributor does not contain an internal battery and must be connected to external power (main input or battery) at all times.

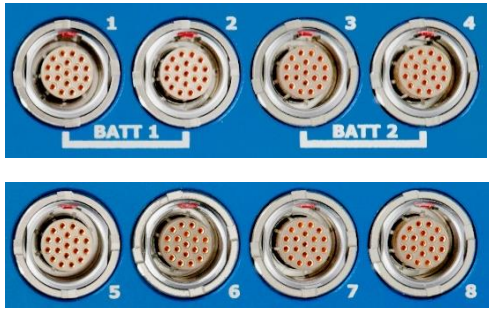
	POWER
Power up	
ON; MAIN input power acceptable	
ON; battery power acceptable	
Power fault (includes attached DAS)	
Off	

STATUS LED Indicator

This LED indicates the health of the entire system, including all attached DAS. If any system is not functioning properly, the LED will remain off. (Note: An off LED can also indicate the DAS is armed in Recorder mode.)

	STATUS	
DAS Status	**Circular Buffer Mode**	**Recorder Mode**
Armed	(recording)	
Start record signal received		(recording)
Triggered	(1 s)	(1 s)
DAS fault		

ATD 1-4 and SYS 5-8 (System) Connectors



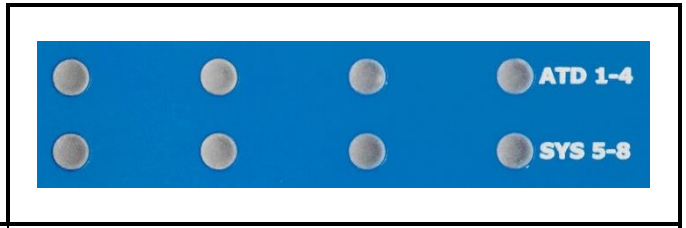
These connectors are identical and contain power, Ethernet, start record output, status input, status output, and event signals. Each connector provides conditioned, nominal 15 VDC, 4.5 A output power when external power (main or battery) is available and the unit is ON. Internal and external communications are supported using Ethernet 10/100BaseT/Tx communications. A start record signal received by the UMBILICAL, COM or CONTROL connectors will be transmitted to all ATD and SYS connectors. A status signal received by any ATD or SYS connector will be transmitted to the other 7 ATD/SYS connectors and forwarded to the UMBILICAL, COM, CONTROL and DOWN connectors. A contact-closure event signal received by one connector will be transmitted to the UMBILICAL, COM, CONTROL, ATD, SYS and DOWN connectors.

Connect ATDs to connectors 1-4. Connect DAS equipment that contain their own internal batteries (e.g., SLICE PRO modules) to SYS connectors 5-8. If MAIN input power fails, external batteries (POWER PRO) connected to the SLICE PRO Distributor provide power to ATD 1-4, respectively. Power to SYS 5-8 is not supported when MAIN input power is not connected. DAS connected to SYS 5-8 will use internal battery reserves until exhausted.

Note	
	Power to SYS (System) connectors 5-8 is *not* supported when MAIN input power is not connected.

ATD 1-4 and SYS 5-8 (System) LED Indicators

These 8 LEDs function independently of each other. If the LED remains red, an Ethernet link has not been established and the problem will need to be resolved before continuing. If the LED remains off when the DAS is connected and the SLICE PRO Distributor is ON, check that the attached equipment is powered up and working properly.



Power present		
Ethernet link established		
Ethernet link not established		
	Circular Buffer Mode	**Recorder Mode**
DAS armed and ready		
DAS collecting data		

DOWN Bus Connector

This connector is used with a SLICE PRO TDM (Trigger Distributor). Status input/output, event input/output, start record output and ON output signals are supported. This connector provides conditioned, nominal 12 VDC, 0.5 A output power.

Power is provided to the DOWN connector when: 1) MAIN power is available, or 2) when unit is ON and powered from a battery (POWER PRO).

Communication Features

Hardware status and network information are available via gigabit Ethernet (GbE) using the UMB connector. There are 3 software tools available: DataPRO, the built-in Web Server Interface, or the SLICE Network Configuration Utility. Each software tool has a unique interface and may only provide a subset of all available information.

DataPRO Software

Basic status information is available using DataPRO (version 4.0 or later). DataPRO also displays a footer button when any SLICE PRO Distributor is connected. Use the SLICE PRO Distributor link to launch the web server interface, where more detailed information and control options are available.

- The SLICE PRO Distributor can be manually added, manually detected using an IP address, or automatically detected via UDP.
- DataPRO software will automatically recognize the SLICE PRO Distributor.

Web Server Interface

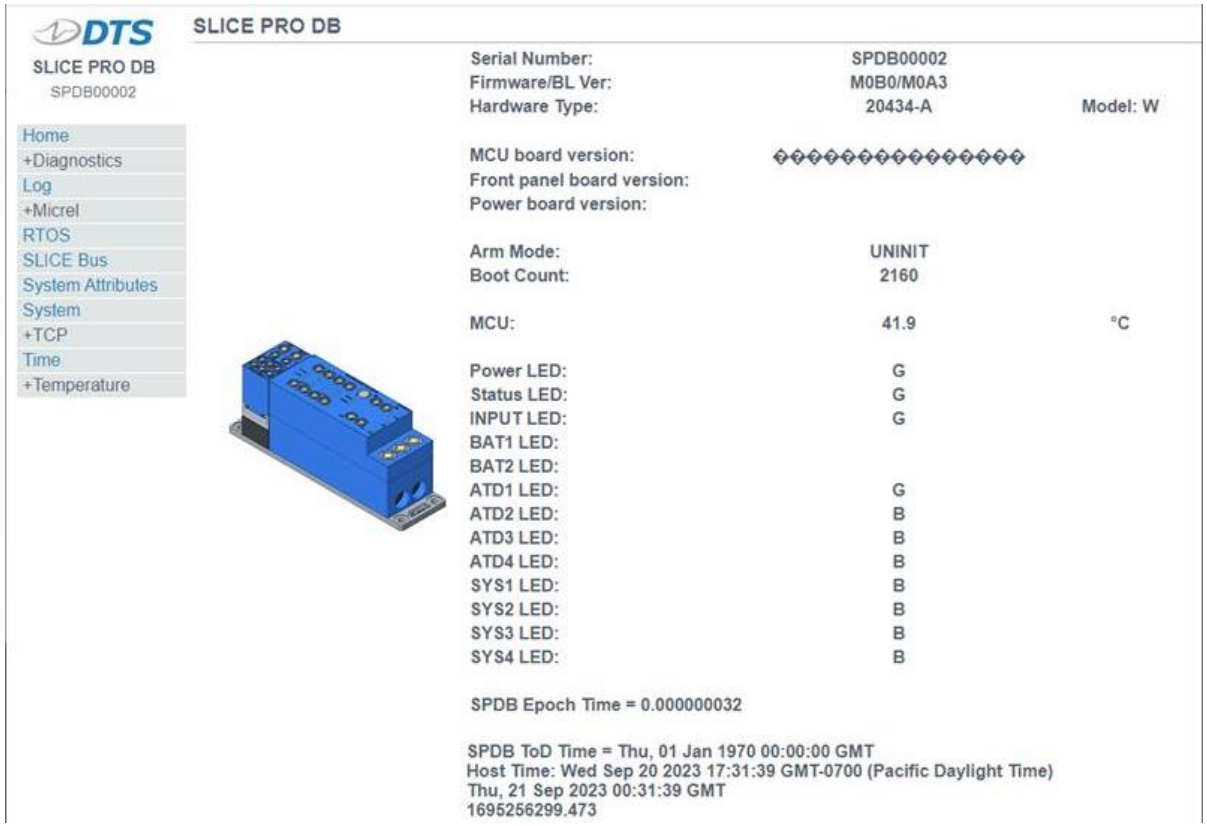
A built-in web server interface can be used to access the IP address via a web browser. From this interface, you can:

- Monitor system status,
- Configure network settings,
- Enable/disable output connectors.

Home Tab

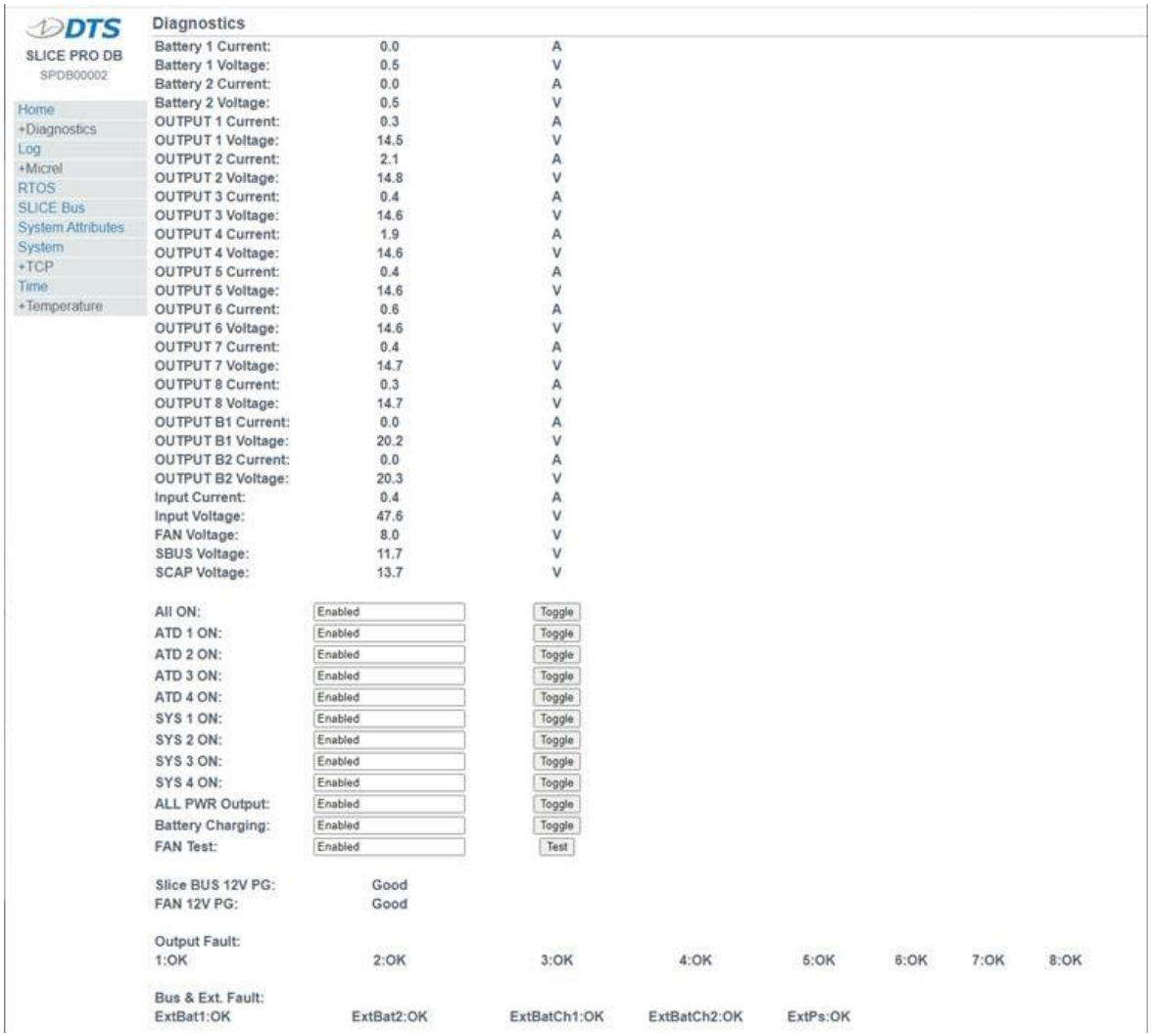
This screen displays:

- Serial number
- Firmware version
- Hardware type and Model
- MCU, Front panel and Power board versions
- Arm mode
- Boot count
- MCU
- Status of each LED on the control panel
- Time and date information



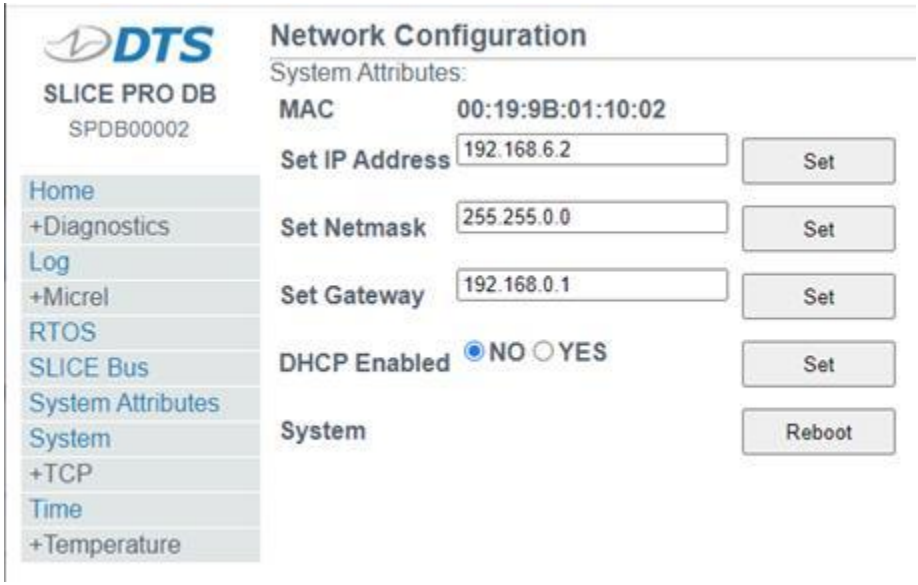
Diagnostics Tab

This screen provides current and voltage information and includes toggle options for feature control and connector enable/disable.



Network Configuration Tab

Use this screen to configure the network parameters of your system. Use the **Reboot** button to remotely reboot the SLICE PRO Distributor.



Using the SLICE Network Configuration Utility

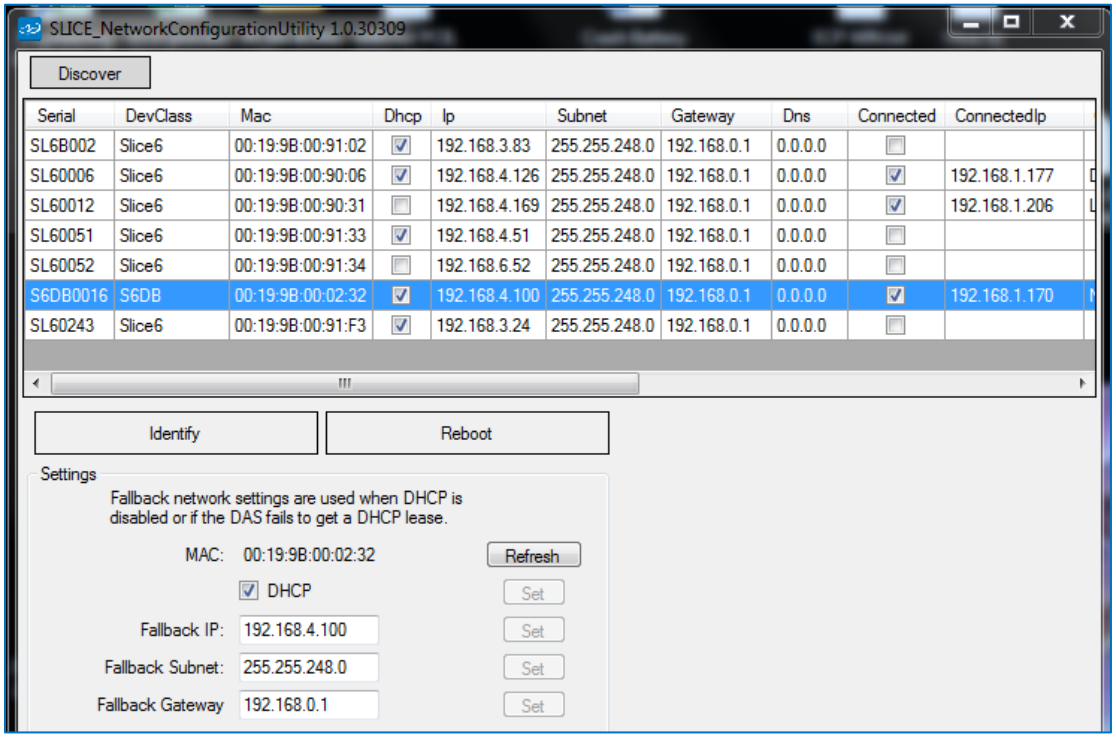
The SLICE Network Configuration Utility (available from the DTS Help Center) can be used to view or change the unit's IP address.

Use of the utility requires a network that supports multicast and the workstation running the utility must also allow it. Confirm that:

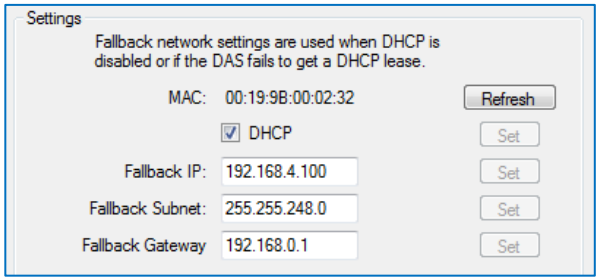
- The PC's Ethernet properties are not using anything that can block multicast (e.g., DNE LightWeight Filter).
- The Windows Firewall will allow multicast traffic.
- Any third-party anti-virus software will allow multicast traffic.

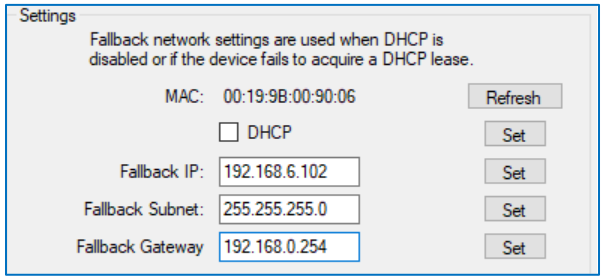
1. Open the SLICE Network Configuration Utility.

2. The software will immediately look for all attached devices and list them in the table.
   - Click **Discover** to refresh the list.
   - Click **Identify** for any selected device to cause the unit's LED to flash.

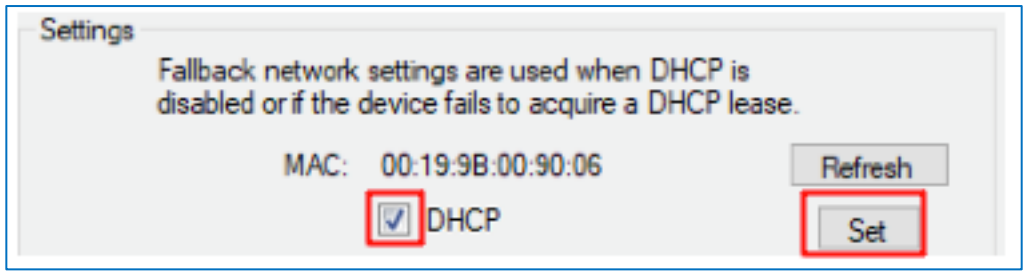


3. Select the SLICE6 device from the list. (A SLICE6 Distributor is selected in the image above.) The device Settings are shown at the bottom of the window. The current IP address may or may not match the fallback IP address, depending on whether DHCP is selected.

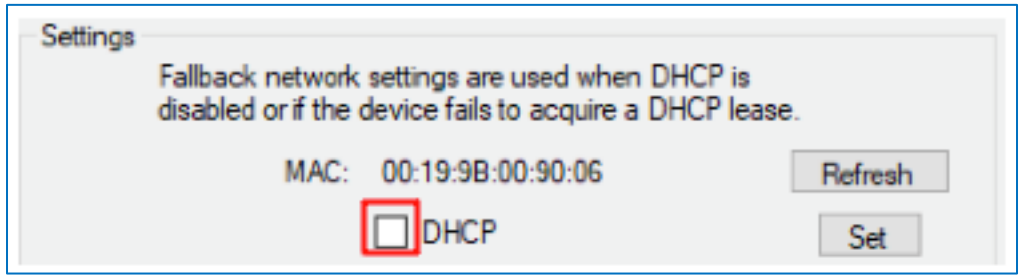




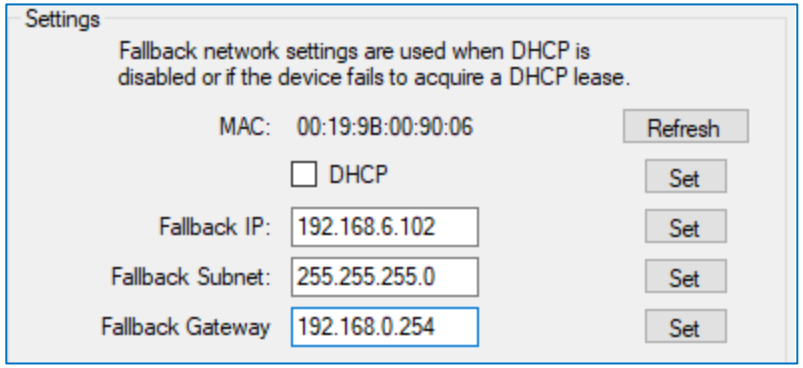
4. To enable DHCP, select the check box then select **Set**. Proceed to step 7.



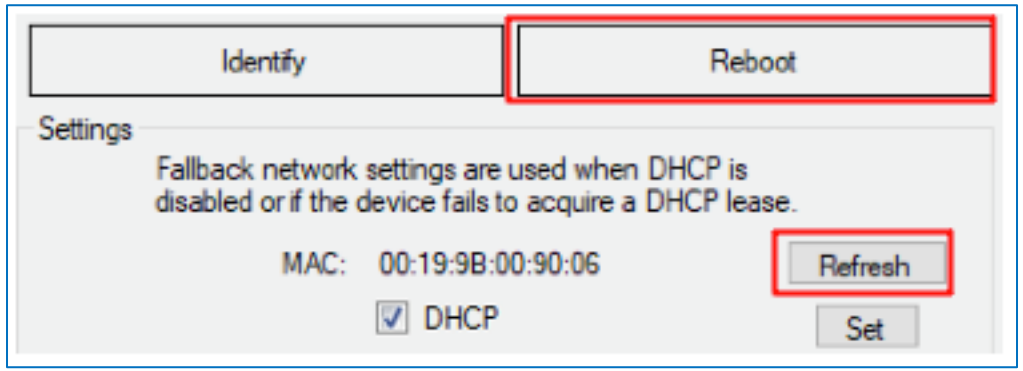
5. To disable DHCP and manually enter IP address and other information, unselect the check box.



6. Enter the new parameters and select **Set** for each item updated. (Note. The MAC address is not user configurable.)



7. Select **Refresh** to view the settings (optional), then **Reboot** the device.



Care and Handling

The SLICE PRO Distributor is designed to operate reliably in dynamic testing environments. While it is resistant to many environmental conditions, you should not subject the unit to harsh chemicals, submerge it in water, or drop it onto any hard surface.

Caution	
	Electronic equipment dropped from desk height onto a solid floor may experience up to 10,000 g. Under these conditions, damage to the exterior and/or interior of the unit is likely.

When not in use or if shipping is required, we suggest that you place the unit in the padded container originally provided with your unit.

Each SLICE PRO Distributor is supplied with calibration data from the factory. DTS recommends annual recalibration to ensure that the unit is performing within factory specifications. The SLICE PRO Distributor is not user-serviceable and should be returned to the factory for service or repair.

Shock Rating

The SLICE PRO Distributor is rated for and fully tested to 100 g, 12 ms duration, in 5 axes.

Mounting Considerations

Securely bolt the unit to the test article or dynamic testing device to provide the best shock protection. Mounting methods and hardware selection should be calculated to withstand expected shock loading and allow proper grounding.

Check bolt tightness periodically to ensure the unit is securely fastened to the baseplate and the baseplate is securely fastened to the testing platform. See page 29 for mechanical specifications.

Thermal Considerations

It is unlikely that the unit will overheat if common-sense measures are taken. Under normal conditions, the unit will get warm to the touch when a full load is applied continuously. The unit's internal fan and the application of a heat sink provided by bolting the unit to a structure of significant thermal mass will keep the temperature well within acceptable limits for any extended period in use at the maximum power output level. If high ambient temperatures, exposure to other heat sources or severely restricted airflow will cause case temperatures in excess of 40°C, the airflow created by a small fan will increase heat transfer by a factor of 3 to 5. Additionally, do not block or restrict air intake or exhaust (fan) to or from the unit and always shield the unit from exposure to direct sunlight. When in doubt, measure the case temperature of the unit and take whatever steps are necessary to improve heat transfer.

Grounding

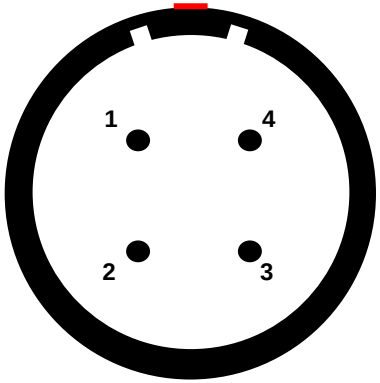
DTS strongly recommends that the all equipment be properly grounded to minimize any data noise due to high-current transients. The test vehicle or dynamic testing device should be connected to earth ground. Test equipment should be grounded to each other and bolted to the test article. DTS recommends checking continuity between the enclosures of each unit to confirm resistance readings of <1 ohm.

If the installation does not permit bolting the SLICE PRO Distributor and connected DAS to a common ground, DTS recommends connecting ground wires between the various enclosures.

Contact DTS if you have any questions regarding proper methods to ground the system.

Appendix A: Connector Pin Assignments

BATT 1 and BATT 2 connectors
(EEA.3B.304.CLN)

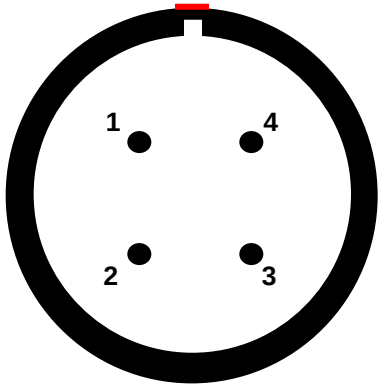


(panel view)

Suggested cable connector P/N:
FGA.3B.304.CLADxx*

Pin	Function
1	Ground
2	Ground
3	+VDC out
4	+VDC in

MAIN connector
(EEG.3B.304.CLN)

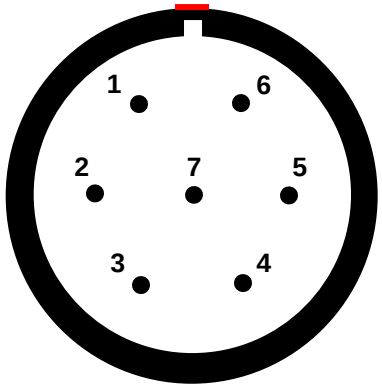


(panel view)

Suggested cable connector P/N:
FGG.3B.304.CLADxx*

Pin	Function
1	Ground
2	Ground
3	+VDC in
4	+VDC in

CONT connector
(EEG.2B.307.CLN)



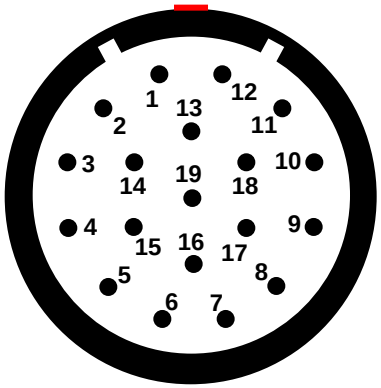
(panel view)

Suggested cable connector P/N:
FGG.2B.307.CLADxx*

Pin	Function
1	+Start record, bidirectional, isolated, 0-5 V signal to pin 2
2	-Start record, bidirectional, isolated, return line for pin 1
3	+Event, isolated input, 5-12 V applied with respect to pin 7
4	Ground for status output
5	Status output, 0 V/+5 V with respect to pin 4
6	+Event, bidirectional, isolated, contact closure to pin 7
7	-Event, bidirectional, isolated, contact closure to pin 6

* xx denotes diameter of cable to be used; e.g., 52 = 5.2 mm. See www.lemo.com for more information.

UMB GB connector
(EEB.2B.319.CLN)



(panel view)

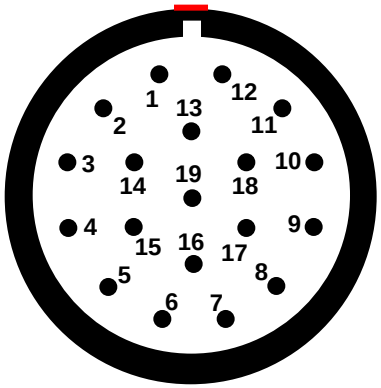
Suggested cable connector P/N:
FGB.2B.319.CLADxx*

Pin	Function
1	ON = short to ground
2	Power present signal
3	Ground
4	+Start record, bidirectional, isolated, 0-5 V signal to pin 16
5	Common for status output
6	+Status output (5 V = OK)
7	Reserved (internal use only)
8	Ethernet RxB (-) (10/100/1000BaseT/Tx)
9	Ethernet RxB (+) (10/100/1000BaseT/Tx)
10	No connection

Pin	Function
11	Ethernet RxD (-) (10/100/1000BaseT/Tx)
12	Ethernet RxD (+) (10/100/1000BaseT/Tx)
13	Ethernet TxC- (10/100/1000BaseT/Tx)
14	Ethernet TxC+ (10/100/1000BaseT/Tx)
15	+Event, bidirectional, isolated, contact closure to pin 19
16	-Start record, bidirectional, isolated, return line for pin 4
17	Ethernet TxA- (10/100/1000BaseT/Tx)
18	Ethernet TxA+ (10/100/1000BaseT/Tx)
19	-Event, bidirectional, isolated, contact closure to pin 15

* xx denotes diameter of cable to be used; e.g., 52 = 5.2 mm. See www.lemo.com for more information.

COM A and COM B connectors
(EEG.2B.319.CLN)



(panel view)

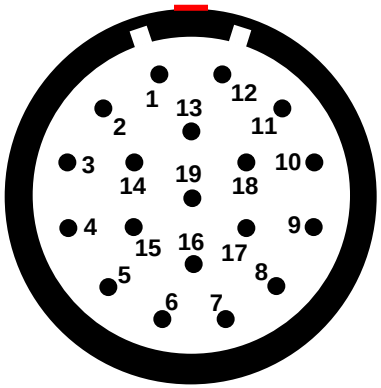
Suggested cable connector P/N:
FGG.2B.319.CLADxx*

Pin	Function
1	No connection
2	No connection
3	Ground
4	Start recording input, optically coupled (apply 5 V with respect to pin 16) and maximum input current 20 mA
5	Common for ON, contact closure to pin 10
6	Status output, 5 V via 110 ohm (referenced to common (pin 5))
7	(+) Status input, optically coupled (apply 5 V with respect to pin 16) and maximum input current 20 mA
8	Ethernet Tx1 (-) (10/100BaseT/Tx)
9	Ethernet Tx1 (+) (10/100BaseT/Tx)
10	Remote ON input, contact closure to pin 5 (max 1 kOhm resistance)

Pin	Function
11	Ethernet Rx2 (-) (10/100BaseT/Tx)
12	Ethernet Rx2 (+) (10/100BaseT/Tx)
13	Ethernet Tx2 (-) (10/100BaseT/Tx)
14	Ethernet Tx2 (+) (10/100BaseT/Tx)
15	+Event, bidirectional, isolated, contact closure to pin 19
16	(-) Common for start record input (pin 4) and status input (pin 7)
17	Ethernet Rx1 (-) (10/100BaseT/Tx)
18	Ethernet Rx1 (+) (10/100BaseT/Tx)
19	-Event, bidirectional, isolated, contact closure to pin 15

* xx denotes diameter of cable to be used; e.g., 52 = 5.2 mm. See www.lemo.com for more information.

ATD 1-4 connectors
SYS 5-8 connectors
(EEA.2B.319.CLN)



(panel view)

Suggested cable connector P/N:
FGA.2B.319.CLADxx*

Pin	Function
1	ON = short to ground
2	No connection
3	Ground
4	+Start record to DAS (5 V = start)
5	Signal ground
6	+Status to DAS (5 V = OK)
7	+Status from DAS (5 V = OK)
8	VDC out
9	VDC out
10	System active signal from DAS

Pin	Function
11	Ethernet Rx- (10/100BaseT/Tx)
12	Ethernet Rx+ (10/100BaseT/Tx)
13	Ethernet Tx- (10/100BaseT/Tx)
14	Ethernet Tx+ (10/100BaseT/Tx)
15	+Event, bidirectional, isolated, contact closure to pin 19
16	Common for start record and status input (ground)
17	VDC return
18	VDC return
19	-Event, bidirectional, isolated, contact closure to pin 15

* xx denotes diameter of cable to be used; e.g., 52 = 5.2 mm. See www.lemo.com for more information.

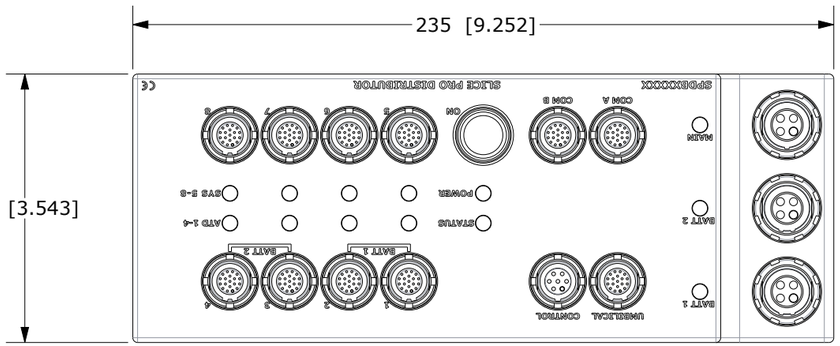
DOWN connector bus
(Omnetics A104972-801)

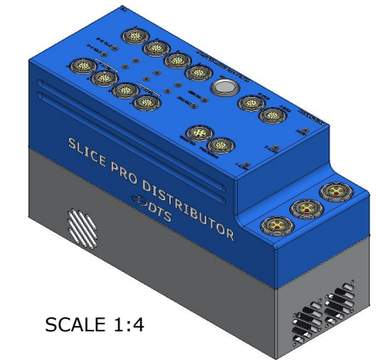
(panel view)

Pin	Function
1	VDC out
2	VDC out
3	Ground
4	Ground
5	/ON, contact closure input to ground
6	/EVENT, contact closure input to ground
7	/START, contact closure input to ground
8	Status, bidirectional (5 V via 10k with respect to ground)
9	VDC out
10	VDC out
11	Ground
12	Ground
13	No connection
14	No connection
15	No connection

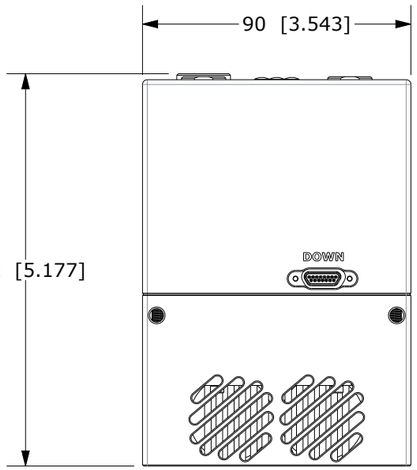
RoHS
Manufacture/fabricate to meet the EU RoHS Directive 2011/65/EU and RoHS Annex II phthalates

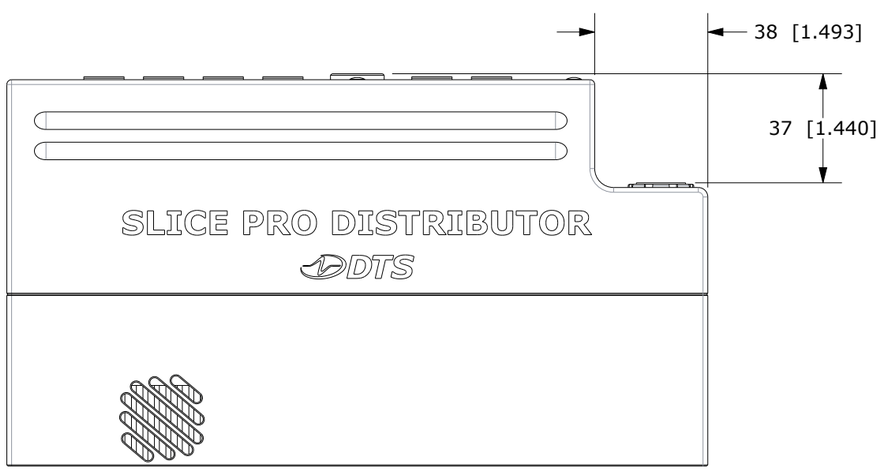
REV	ZONE	DESCRIPTION	DATE	BY
0		ORIGINAL RELEASE	2023-10-27	OV

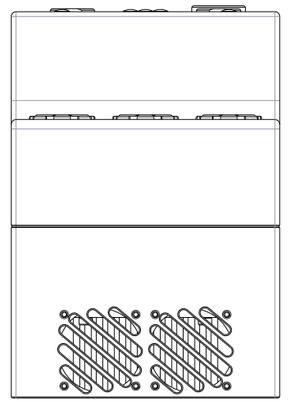


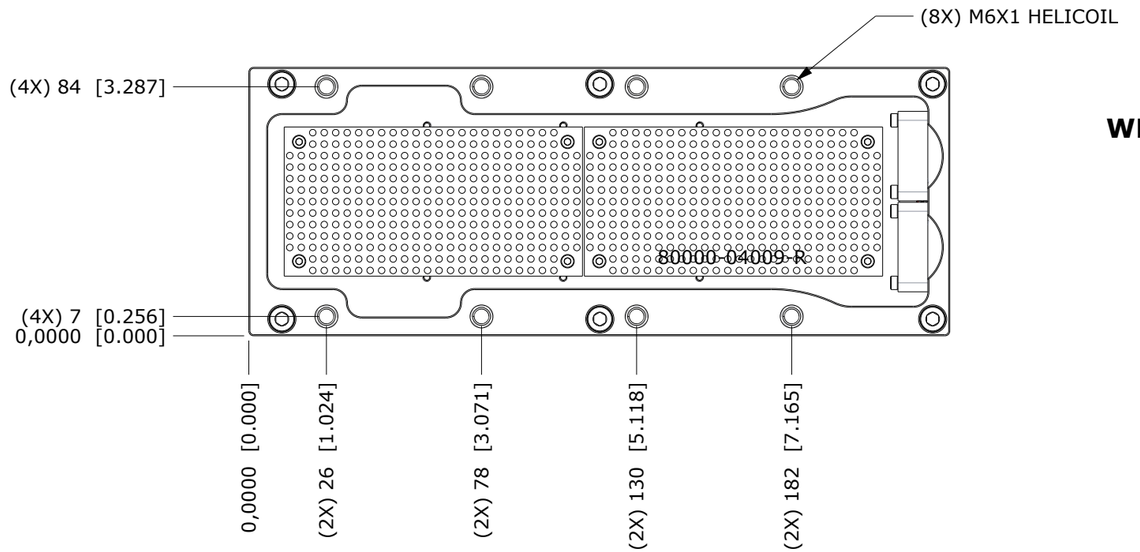


SCALE 1:4

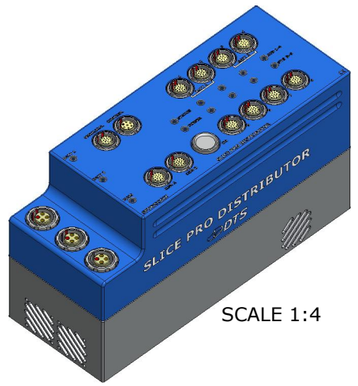








WEIGHT: 4.146 KG (9.14 LB)



SCALE 1:4

DTS SEAL BEACH, CA 90740
562-493-0158
www.dtsweb.com

MATERIAL:
6061-T6 ALUMINUM
W/ BLUE ANODIZE

UNLESS OTHERWISE SPECIFIED:

UNITS = MM [INCH]
DIMENSIONAL TOLERANCES ±.254 [0.010"]
INTERPRET PER ASME Y14.5. DO NOT SCALE.

DESCRIPTION:
SLICE PRO DB,
MOUNTING DRAWING

DTS P/N: 13000-31540
REV: 0
DRAWN: O VILLAFANA
DATE: 2023-10-27
SIZE: B
SCALE: 1:2
SHEET: 1 OF 1

MDL:
1_SPDB

Appendix C: Network Configuration Specifications

SLICE PRO Distributors are typically delivered with default network specifications as follows:

IP address	192.168.6.1***xx*** where ***xx*** is typically the last 2 digits of the serial number (S/N). For example: S/N SPDB00**x00** (where **x** = any number and ***xx*** = 00) = 192.168.6.100 S/N SPDB00**x01** (where **x** = any number and ***xx*** = 01) = 192.168.6.101 S/N SPDB00008 (where ***xx*** = 02 through 09, omit the 0) = 192.168.6.8 S/N SPDB00021 = 192.168.6.121 S/N SPDB00286 = 192.168.6.186
Netmask	255.255.248.0
MAC address	This is not user configurable. See the calibration report or use the web server interface or DataPRO to obtain this information.

The calibration report for your equipment identifies the network specifications as shipped from the factory. If the calibration report is not available, try using the default specifications described in the table above. For information on software tools to view or change your current network parameters, see Communication Features beginning on page 15.

If you need information on the specifics of your equipment, please submit a request through the DTS Help Center web portal (support.dtsweb.com) and include the serial number(s) of the equipment and parameters you are asking about.

Accessories and Options

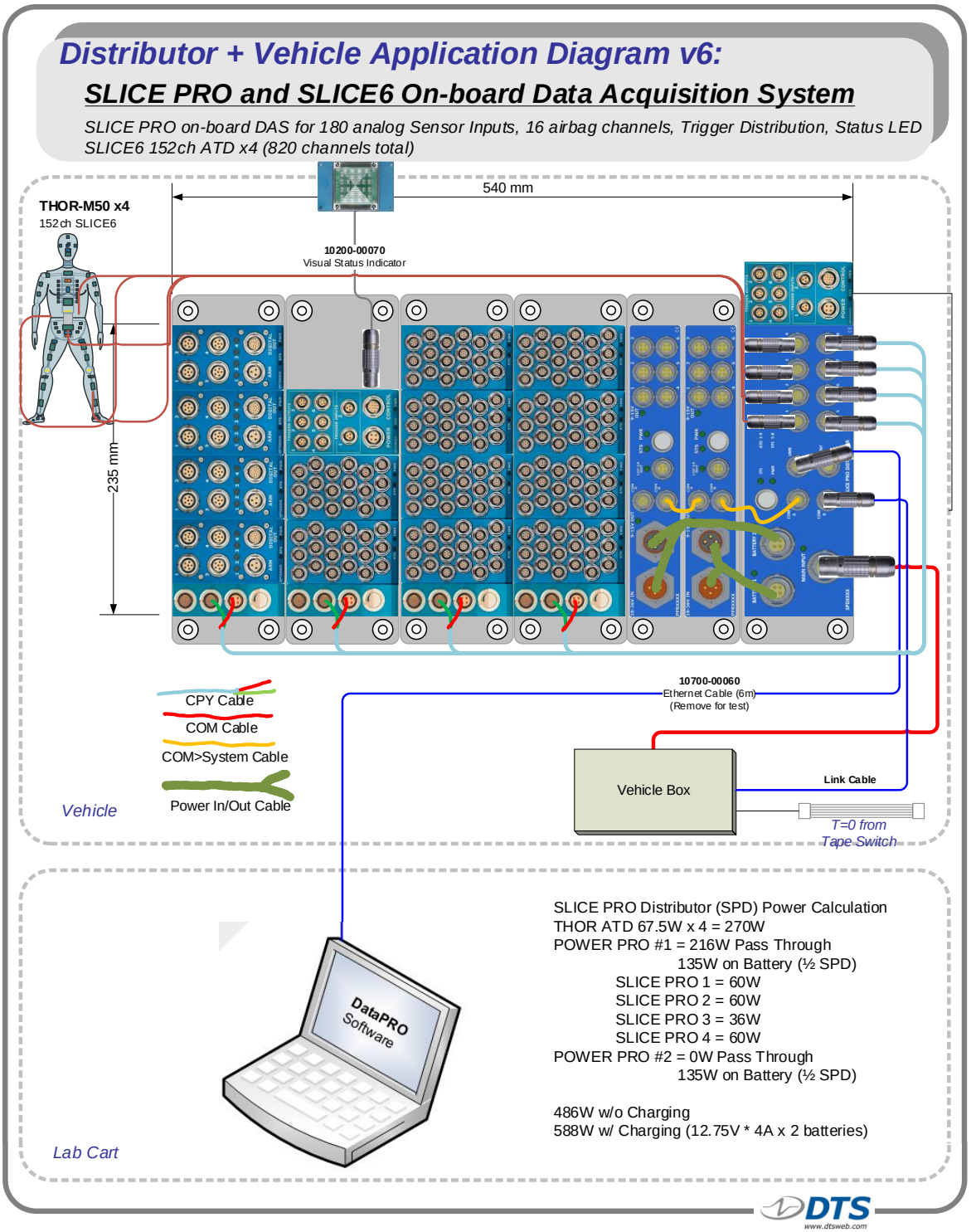
DTS recommends that you use the equipment and cables we supply to ensure compatibility and performance. See below for a list of available cables or contact your DTS representative.

Description	DTS Cable Part Number[1]
POWER PRO	10400-00210
Cable, SYSTEM port to COM port + POWER port (CPY)	10600-0003x
Cable, power, SLICE PRO Distributor DC input to ring terminals (4 x 16 AWG)	10600-0036x
Cable, power, SLICE PRO Distributor to POWER PRO	10600-0037x
Cable, PC comm, Ethernet via UMBILICAL port (DEC)[2]	10700-0006x
Cable, SYSTEM port to COM port (DRC)[3]	10700-0008x
Cable, CONTROL port event (DVB)	10700-0009x
Cable, COM port daisy chain (RDC)	10700-0014x
Cable, PC comm, Ethernet via COM port (REC)[4]	10700-0015x
Cable, TDAS G5 VDS event (VVB)	10700-0025x
Cable, DBX cable to SYSTEM port (HDX)	10700-0058x
Cable, ATD Umbilical to SYSTEM port	10700-0069x
Cable, PC comm, Ethernet via SLICE PRO Distributor UMBILICAL port (DEC+)[5]	10700-0078x
SLICE PRO Trigger Distributor (TDM), w/VSI support	13000-30832
Cable, ATD exit (SLICE6 Distributor UP) to Mini Distributor (SYSTEM)	13006-9036x

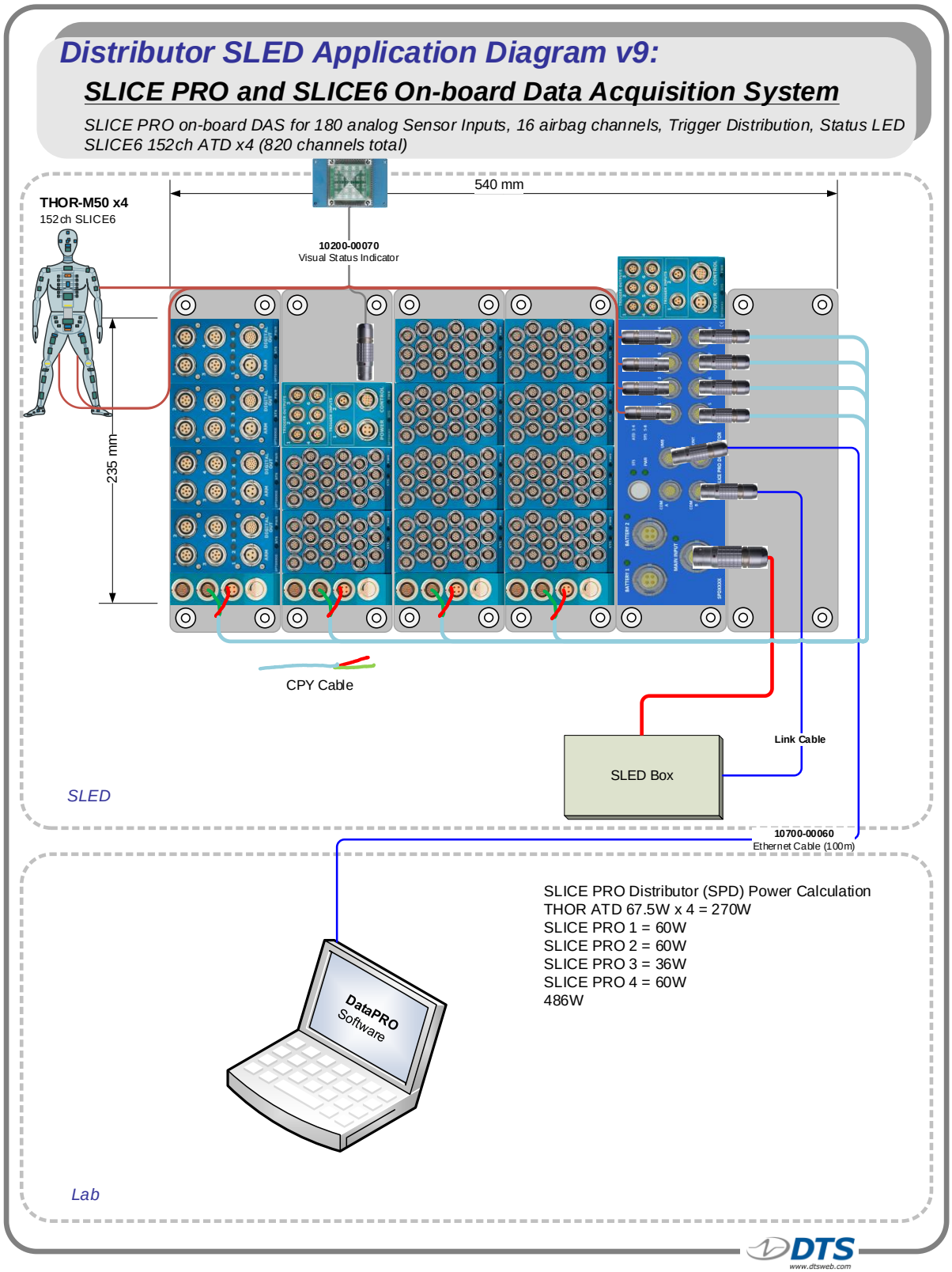
[1] x = multiple lengths available
[2] Supports 10/100BaseT/Tx
[3] Power not supported
[4] Supports 10/100BaseT/Tx
[5] Supports 10/100/1000BaseT/Tx

Application Examples

Vehicle Application



Sled Application



1720 Apollo Court
Seal Beach, CA 90740 USA
+1 562 493 0158
www.dtsweb.com

DECLARATION OF CE CONFORMITY

Description	Model
Distribution Unit	SLICE PRO Distributor

The undersigned hereby declares that the products listed above, manufactured by Diversified Technical Systems, Inc., Seal Beach, California, USA, conform to the following directive and standards:

Applicable Council Directive: **89/336/EEC – Electromagnetic Compatibility**

Applicable Harmonized Standards: **EN 55022:1998, EN 55024:1998**

Rollin White
Head of DTS, Senior Director

September 20, 2023
Date

Revision History

Rev	Date	By	Description
X1	31 Oct 2023	E. Kippen	For comment draft.
0	12 Dec 2023	E. Kippen	Initial release.