



CHUB•E ***Chassis*** ***and Power Supplies*** ***User Guide***

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Revision 2

Product Warranty

Seller warrants to the Original Buyer that any unit shipped to the Original Buyer, under normal and proper use, be free from defects in material and workmanship for a period of 24 months from the date of shipment to the Original Buyer. This warranty will not be extended to items repaired by anyone other than the Seller or its authorized agent. The foregoing warranty is exclusive and in lieu of all other warranties of merchantability, fitness for purpose, or any other type, whether express or implied.

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C. Seller shall not be liable for failure to perform its obligations under the contract if such failure results directly or indirectly from, or is contributed to by any act of God or of Buyer; riot; fire; explosion; accident; flood; sabotage; epidemics; delays in transportation; lack of or inability to obtain raw materials, components, labor, fuel or supplies; governmental laws, regulations or orders; other circumstances beyond Seller's reasonable control, whether similar or dissimilar to the foregoing; or labor trouble, strike, lockout or injunction (whether or not such labor event is within the reasonable control of Seller)

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FCC Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

NOTE - Shielded Telecommunication (T1 or E1) and ethernet cables must be used with the Engage IP•Tube to ensure compliance with FCC Part 15 Class A limits.

CAUTION – To reduce the risk of fire, use only No. 26 AWG or larger listed Telecommunication cables.

Equipment Malfunction

If trouble is experienced with any Engage equipment, please contact the Engage Communication Service Center. If the equipment is causing harm to the telephone network, the telecommunications service provider may request that you disconnect the equipment until the problem is resolved.

Engage Communication Service Center:

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Email: **support@engageinc.com**
Web: **www.engageinc.com**

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Chapter 1

Introduction

The CHUB•E chassis was developed and manufactured by Engage Communication, Inc. This User Guide provides the information users require to install and power up the Engage family of products.

CHUB•E Chassis

The CHUB•E chassis provides a high-density redundant power solution for central data centers. The CHUB•E provides a dual redundant power supply chassis that powers 15 single or 7 dual-slot-card products from Engage Communication within a 5U space. The chassis fits a 19 inch rack but extender brackets are available for order if there is a requirement to fit into a 23 inch rack.

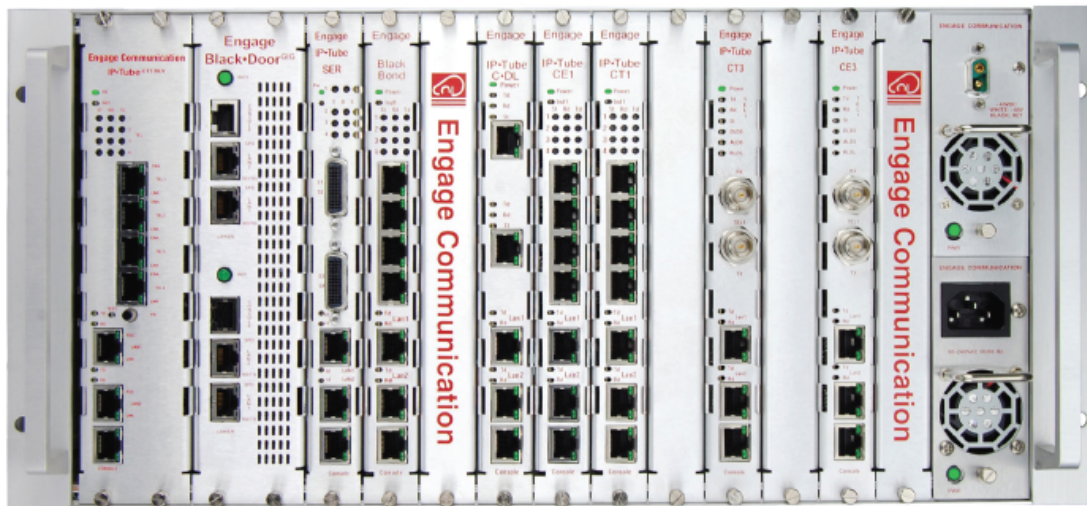


Figure 1 - CHUB•E Chassis

Power Options

There are two modules available to power the CHUB•E chassis: a universal AC adapter, or a N48VDC. The chassis also offers dual redundant power supplies that are 'hot swappable'; this allows swapping slot cards or power supplies while power is applied to all slot positions.

Universal AC Adapter

The Universal AC Power Adapter is a 90-240 VAC 50/60 Hz power supply. A single module is able to power 15 Engage slot cards. It is typical to run dual redundant power supplies.



Figure 2 - Universal AC Power Adapter Module

N48 VDC

The N48 VDC power supply input is N35 - N75 VDC. A single module is able to power 15 Engage slot cards. It is typical to run dual redundant power supplies.



Figure 3 - N48 VDC Power Module



Figure 4 - Rear of Universal and N48 VDC Power Supply

CHUB•E Schematic

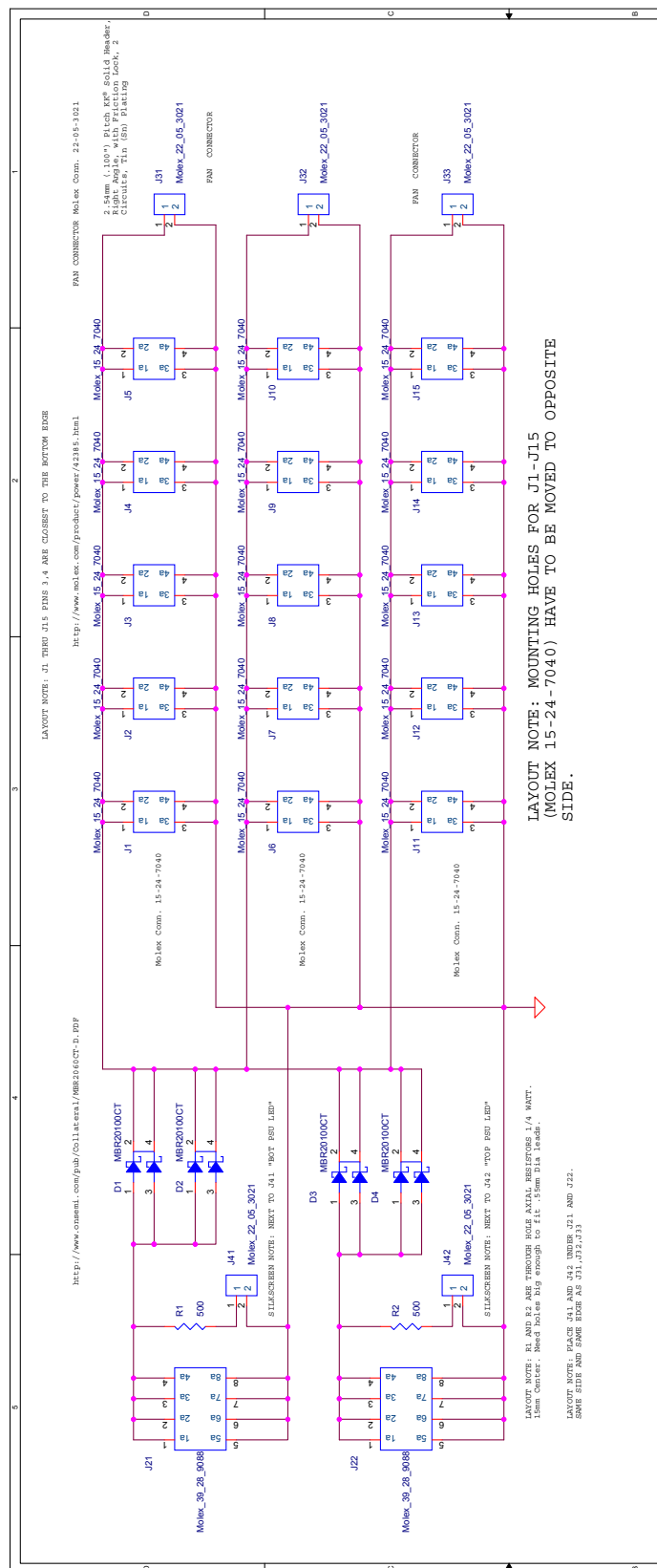


Figure 5 - CHUB•E Schematic

Chapter 3

Installation

This section describes how to install the slot cards and power supplies if needed. The CHUB•E typically is shipped with all equipment installed.

Slot Card Installation

Procedure for installing a slot card into the CHUB•E chassis:



Figure 6 - IP•Tube CEP RS232 MultiDrop Slot Card

- If installing slot cards into an empty chassis, load the slot cards starting from the RIGHT #1 (next to the Power Supplies) going to the LEFT #15. ←

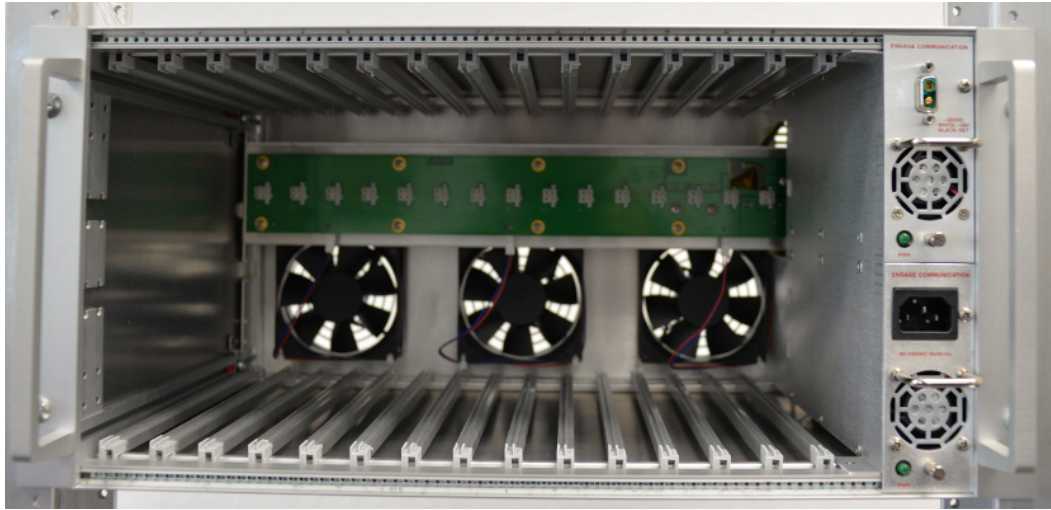


Figure 7 - Empty CHUB•E Chassis

- Make sure that the console port is aligned toward the bottom of the chassis
- Align the metal slot card to the desired slot for installation
- Gently slide the slot card all the way into the slot
- Use the thumb screws to fully seat the slot card into the slot



Figure 8 - Slot Card Installation

NOTE: Be sure slot cards that have a Daughter Card (2 PCBs) are NOT inserted in the slot next to the PCB. This will cause damage to the assembly. It is recommended to install right to left.

NOTE: To remove a slot card, reverse the above steps

Power Supply Installation

Procedure for installing a power supply into the CHUB•E chassis:

- Position the power supply so that "Engage Communication" logo/text is at the top
- Slide the Power Supply into an open power supply opening
- Screw in the thumb screw while pushing on the power supply to make sure it is fully inserted into the slot
- Apply power by installing the power cable to the power supply

NOTE: To remove a power supply, reverse the above steps



Figure 9 - Universal AC Power Adapter Module