Single Board Backplane Design
EN120269

IBML is shipping totally RoHS compliant machines to the European Community Members.

1.0 Introduction

1.1 Brief Description

Combine the three communication boards into one board.

1.2 Audience

Future and existing IBML customers

1.3 Benefits

Cost Reduction
Reduce to single point of failure

1.4 Project Justifications

Cost Reduction
Reduce to single point of failure

1.5 Challenges

Noise

2.0 Drawings/Illustrations

See attached documents in EN Project

3.0 Detailed Description

Early ImageTrac Scanners use a multiple board backplane system. Each module on an ImageTrac II, III or IV uses a backplane system of three board types: 150-00114, 150-00073 and 150-00091.

Multiple 150-00091 boards may be required in a module's backplane system.

An average two pocket scanner uses approximately forty-nine boards for the entire backplane system. An average two pocket scanner using the single board backplane system uses approximately thirteen boards for the entire backplane system.

The 150-00130 Single Board Backplane combines the functionality of the previous three boards (150-00114, 150-00073 and 150-00091) into a more effective backplane system.

4.0 Functions/Features

The project will require that the following...

- 150-00130 Single Board Backplane
- Connections to the IIIb/IVb design

5.0 Performance

TBD

6.0 Interface Requirements

- Connections to the IIIb/IVb design

7.0 Media Specifications (projected)

Minimum versions of software required for IIIb

8.0 Standard Project/Product Sizes

See electrical drawings and illustrations attached to EN project.

9.0 Output

NA

10.0 Environment

10.1 Humidity

20-80% non-condensing

10.2 Operating Temperature

50-90 Fahrenheit (10-32 degrees Celsius)

10.3 Heat Dissipation

Minimum 5000 BTUs/hour to Maximum 15000 BTUs/hour

10.4 Noise Level

70 dB

10.5 Altitude

Sea level to 15,000 feet (4500 meters)

10.6 Storage and shipping temperature

-22 to 140 degrees Fahrenheit (-30 to 60 degrees Celsius)

10.7 Weight/Height

11.0 Components

150-00130 Single Board Backplane

12.0 Patentability

TDB

13.0 Maintainability

TBD

14.0 Construction/Fabrication/Assembly

See electrical and related assembly drawings.

15.0 Tasks

List of identified tasks that need to be accomplished

Recertification for safety and emissions

Documentation - Complete. See attached documentation in the EN project. 11/22/06

Training - Complete. Incorporated into Hardware Training December, 2006.

16.0 Development and Test Plan - See Engineer Notes in EN Project

16.1 Phase One

List

16.2 Phase Two

List

16.3 Phase Three

List

17.0 Time line

17.1 Estimated Start

17.2 Estimated Completion

See Engineer Notes in EN Project

18.0 Costs

18.1 Manufacturing Cost

18.2 Sale Price

See Notes database for price and cost information relative to 150-00130.

19.0 Certifications

Needs all US and International Safety and Emission Certifications
Emissions testing of SB backplane, in-system IT3b on 12/08/2006 - Completed
Need RoHS Certification

20.0 Players and Contact Information

20.1 Eddie Groom, egroom@ibml.com, 205-314-1961

20.2 Jamie Brooks-Hamilton, JBrooks-Hamilton@ibml.com, 205.314.1966

20.3 Paul Bryant, PBryant@ibml.com, 205-314-1954

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