Print Manager Board - 8 Channel - USB 3.0

GIS Inkjet Operating System

The USB 3.0 Print Manager Board (PMB-C8-3) is the latest development of the core hardware component of the GIS Inkjet Operating System. It enables a standard Windows PC to drive multiple industrial inkjet printheads via USB 3.0 in Single Pass, Scanning XY and custom systems. The PMB-C8-3 also supports drop watching.

Complete Printhead Control

The PMB-C8-3 provides read and write access to all available OEM printhead settings including temperature control, voltage and waveform settings, binary and greyscale calibration.

Drop Placement Control

The Advanced Encoder Manager System (AEMS) supports industry standard encoders and product detect / print go signals and provides per-printhead encoder divide and sub-pixel adjust, delivering complete drop placement control and repeatability.

Performance

Each printhead is driven by a dedicated high speed channel capable of delivering print data on demand in the most demanding of applications.

High speed on-board RAM provides ample buffering for wide-format and single pass systems, allowing the specialised software drivers to deliver continuous static and variable data streams to the printheads.

Features

General

Up to 4GBytes of on board RAM

Industrial electrically isolated encoder IO

USB 3.0 for broad compatibility (up to 2700MBits/s)

Dimensions H 233mm (6U Size B), L 160mm, D 20mm (TBC)

Weight : 330g

Power Requirements

24V power supply (0.5 to 1.0A depending on AEMS use)

Advanced Encoder Management System

Support for RS422 & TTL encoder inputs (Single and Dual Phase)

Rising and Falling Edge Detect

Encoder management supports non-integer division. (The encoder resolution does not have to be an integer multiple of the print resolution)

Print Go/Product Detect Pipelining allows multiple items to be queued to print between the Product Detect and the Printhead

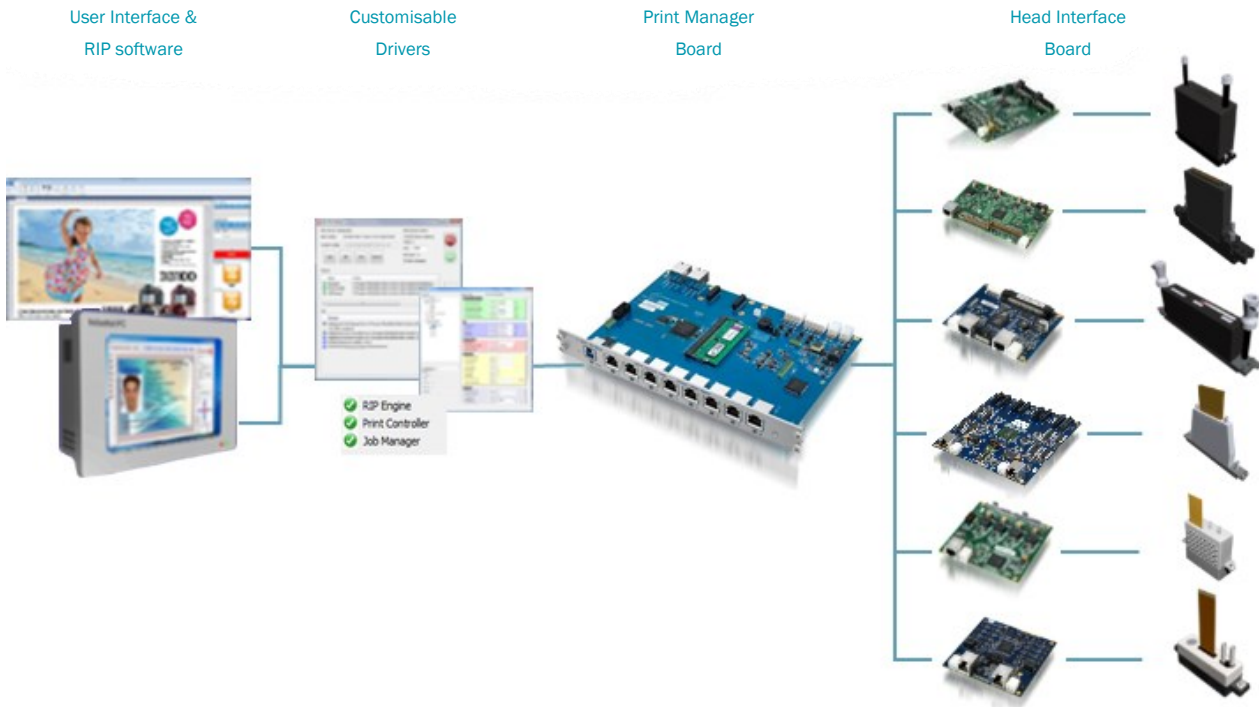5V and 12V encoder power supply (up to 0.3A each)

Printhead Communications

Up to 400MBits/s simultaneously per channel

Standard CAT 6a shielded cabling (up to 15m)

Standard RJ45 connectors with LED diagnostics

Full support for binary and greyscale printheads

Scalability

Automatic in field firmware upgrades

RJ45 Daisy Chain connector for compact multi-PMB systems

Distributed encoder and print go for multiple PMBs

GIS Operating System

User Interface &
RIP software

Customisable
Drivers

Print Manager
Board

Head Interface
Board

Connectivity

The PMB-C8-3 is a component of the GIS Inkjet Operating System. It is designed to drive any manufacturer's printhead using GIS Head Personality Boards.

Advanced Applications

With the power to simultaneously drive multiple printhead technologies off the same system at different resolutions, the PMB-C8-3 opens up a world of possibilities for printer development and manufacturing.

PMB-C8-3

All trademarks acknowledged.