

Head Manager Board for Xaar 5601 Printheads

GIS Inkjet Operating System

The HMB-XR-5601 from GIS is a new 4th generation datapath Head Manager Board designed to drive the Xaar 5601 printhead.

It enables the user to design images for printing, to configure the print system and control the shape of individual fire pulse signals.



Printhead Control

Data Management

The HMB-XR-5601 has 2 x Gigabit Ethernet connectors offering customers up to 1.4Gbps of fully variable data payload, streamed via standard network devices.

The HMB will support 1, 2, 3 and 4bpp data streams. It also manages inter-module stitching, nozzle out correction and per nozzle trimming to output the highest quality prints.

Waveform Management

The HMB-XR-5601 has precision waveform generators offering excellent repeatability over a wide range of temperatures and frequencies.

With multiple independently configurable waveform generators, system builders can configure each section of the printhead to jet optimally for their chosen ink type and application.

Mechanical

The HMB-XR-5601 is designed to be mounted up to 300mm from the Xaar 5601 printhead. The PCB assembly is narrow enough to permit side-by-side mounting for print bars.

The dual PCB design cleanly separates the high performance power amplifiers, allowing efficient heat removal by heatsink, fan, or water cooling system.

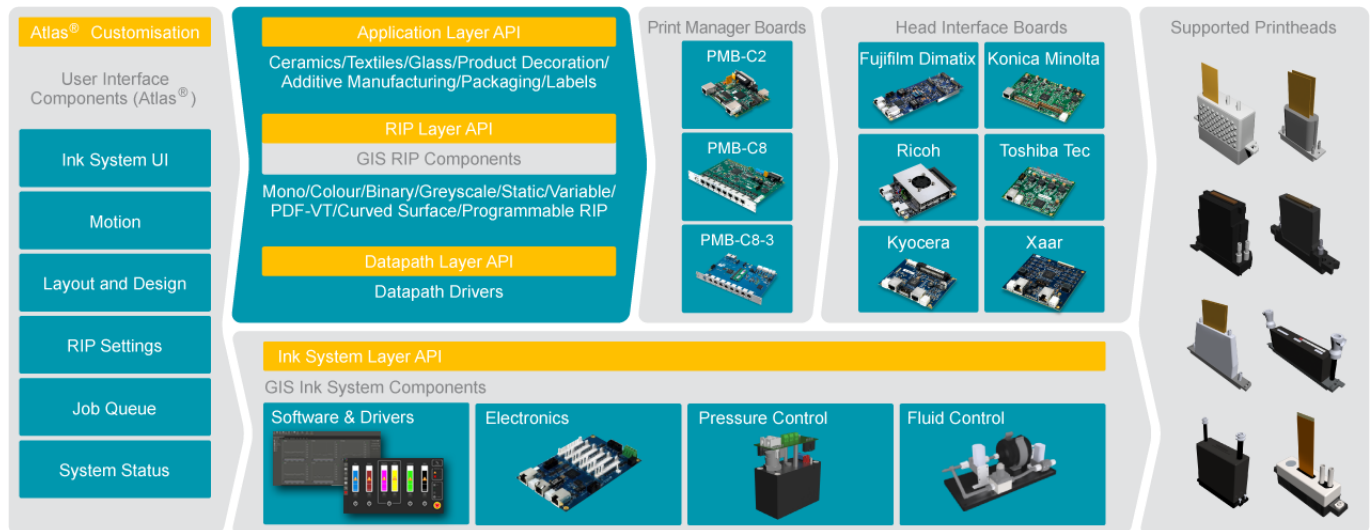
Electrical & Data

The HMB-XR-5601 is powered using an industry standard 24V power supply through a robust 2-pin connector. Connections to the printhead are via an optimised 300mm flex cable.

Greater communications efficiency is provided through 1 or 2 Gigabit Ethernet connectors offering full galvanic (transformer coupled) isolation.

Standard Ethernet network technology can be used to drive these electronics.

Software, Machine Control and Sub-systems for Industrial Inkjet



GIS provides a complementary suite of products that companies can easily customise and rebrand – accelerating technology design and cutting development time:

Software Support

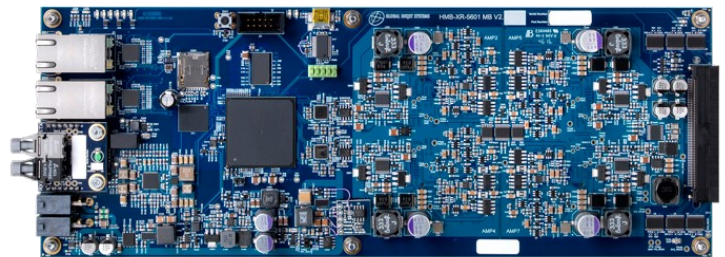
GIS offers a full range of software with its Atlas® platform to drive the HMB-XR-5601.

The Atlas suite of products includes a flexible User Interface (UI) as well as a powerful server technology for managing the entire printing and sub-system process, Atlas Machine Control Services (MCS).

Built using Microsoft industry standard software and approaches, Atlas can be configured for different types of users and customised with different languages.

Ink System Components

GIS also provides an extensive ink systems components range, comprising electronics, software and a portfolio of customisable header tanks and peripherals, and all parts of the system that require significant development time, such as the overall system schematic, along with pressure control and fault detection.



Features

General

Supported printheads : Xaar 5601

Dimensions H 300mm, W 110mm, D 32mm

Weight : 515g

Designed for use with GIS software or as a stand-alone product

High speed data channel

Power Requirements

24V DC

Xaar Printhead Control

Binary and grayscale waveforms

Printhead temperature monitoring

Printhead EEPROM readback

Single and dual colour operation

Cable Length

Ethernet connection to HMB: Cat 5e or better - up to 100m

From HMB to head : Optimised flex cable up to 300mm

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