

GIS

GLOBAL
INKJET
SYSTEMS

A NANODIMENSION DIVISION

Dimatix™

Product catalogue

GIS drive electronics for
Dimatix Starfire
SG1024 printheads



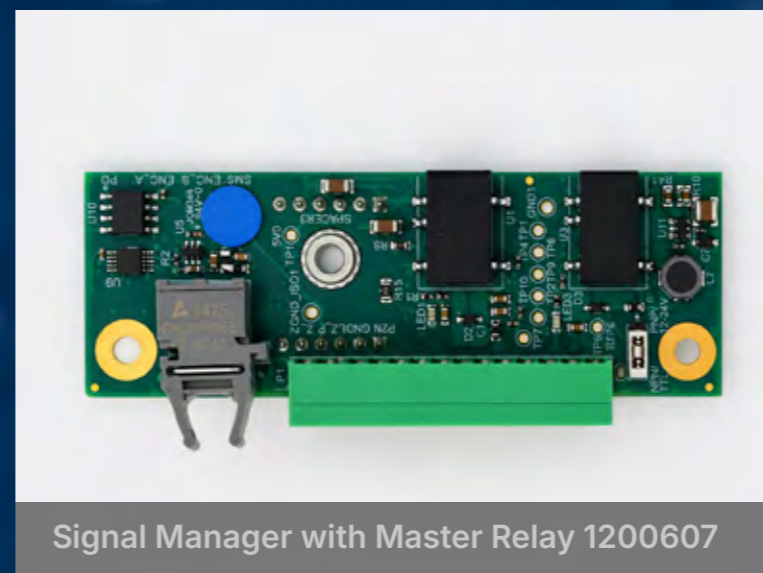
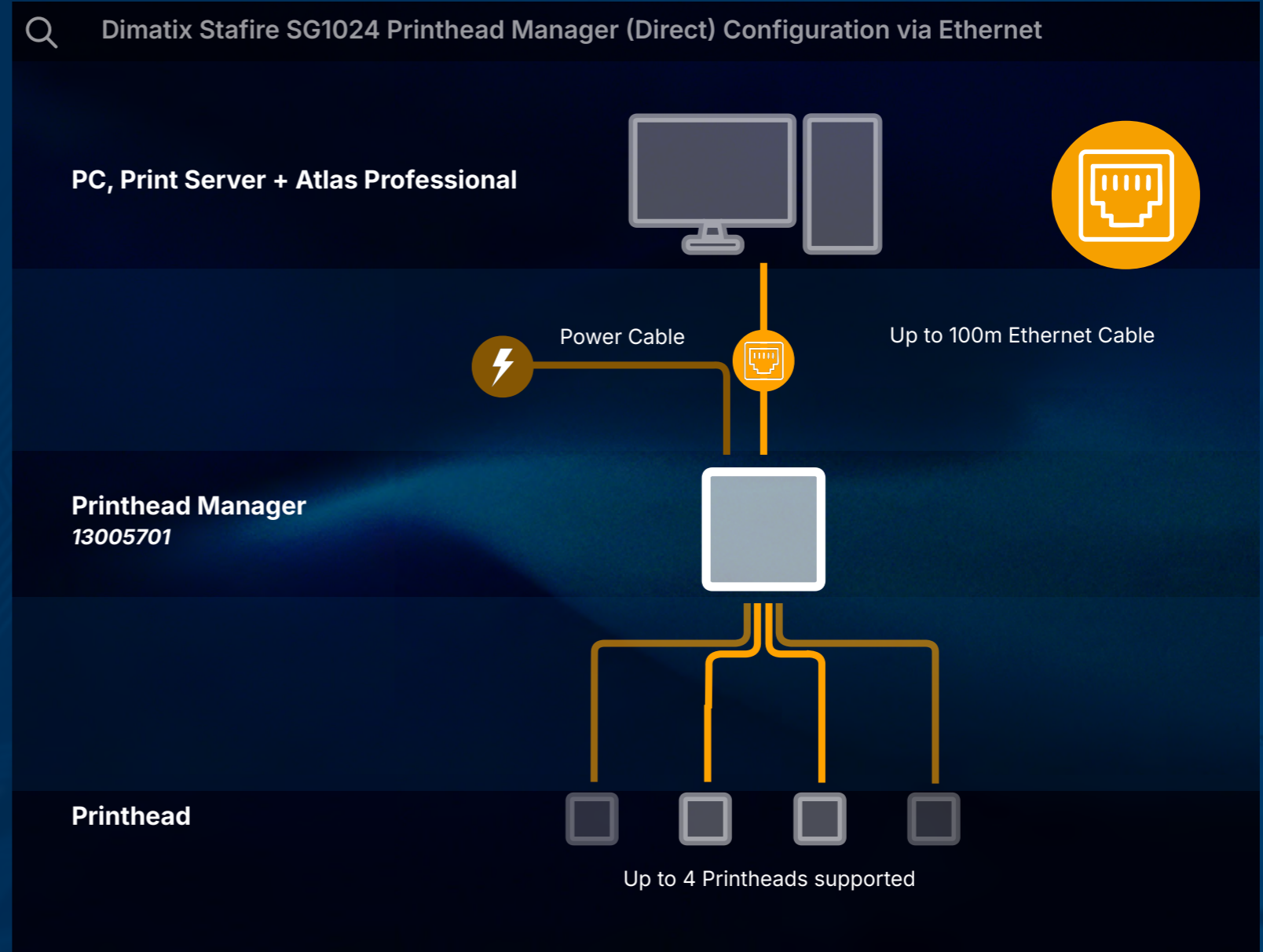
Overview

GIS electronics enable precise, scalable and reliable control of Dimatix Starfire SG1024 printheads using a direct architecture on the Ethernet platform. Designed for OEMs and machine integrators, the GIS solution combines compact printhead cards, high-capacity manager cards and the Atlas® software platform to accelerate development while ensuring production-grade performance.

- Key Benefits**
- High-fidelity waveform control: binary, greyscale and multi-pulse with fine slew-rate and amplitude shaping.
 - Scalable system architecture: distributed Ethernet option.
 - Small form factor printhead cards designed for single head or large arrays.
 - Integrated safety and diagnostics: temperature monitoring, thermal cut-out and EEPROM readback.
 - Seamless integration with GIS Atlas software, Professional and Server.

Architecture Overview

GIS implements a direct architecture: the Printhead Card interfaces directly with the SG1024 printhead, which also handles data distribution, synchronisation and power management. Systems can be configured on the Ethernet platform to suit throughput and scaling needs.



Ethernet Platform

Printhead Card (Product code: 13005701); each card connects to 4 pieces Starfire SG1024 printhead. The Ethernet platform supports distributed architectures and scaling via the Ethernet signal manager.

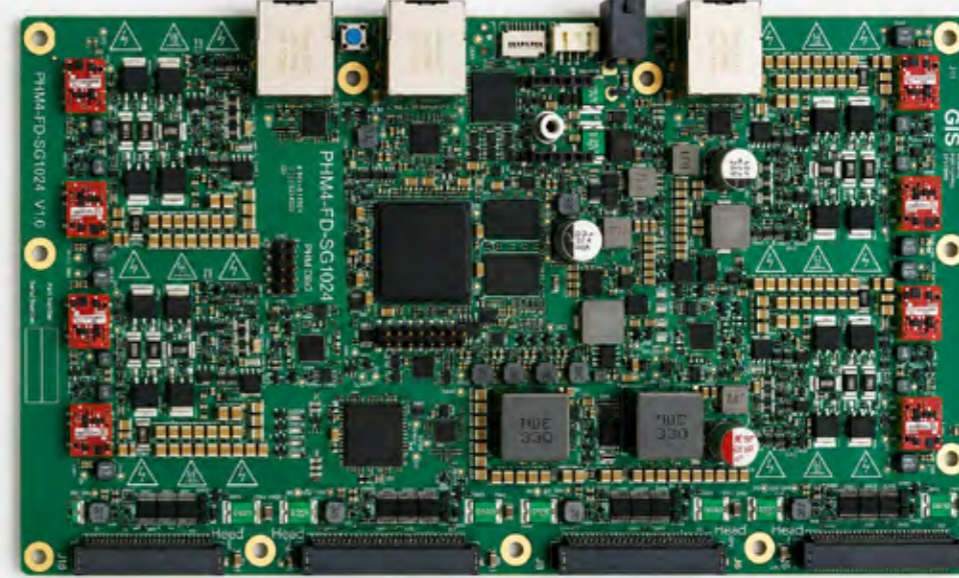
Supported printheads

Dimatix Starfire SG1024

Max printheads per card	4
Power supply	48V DC, 20A max
Dimensions (H×W×D)	240 × 128 × 18mm
Weight	229g
Waveforms	Binary, greyscale and multi-pulse
Monitoring & safety	Printhead temperature monitoring; thermal cut-out
Diagnostics	Printhead EEPROM readback
Cable length: PC → Manager	Up to 100m
Cable length: Manager → Printhead	400mm
Software compatibility	Atlas Server, Atlas Professional

Compatible Components

- Product detect / encoder signal manager modules.
- Ink delivery system components for controlled flow to SG1024 printheads.



Printhead Card Manager 13005701

Type	Product codes	Max connected Printhead Cards	Notes
Printhead Manager (Ethernet)	13005701	Connects up to 4 Printheads	Base configuration

*Maximum achievable printheads may be limited by data rate, firing frequency and power consumption.

Connectivity & Cabling - Ethernet

- Data:**
- PC to Printhead Manager > Up to 100m
 - Printhead Manager to Printhead > 400mm
- Power:**
- 48V DC to supply the Printhead Manager.

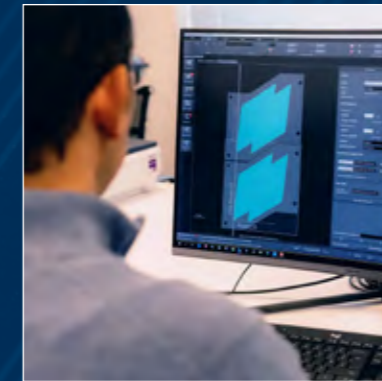
GIS Ordering Information

Speak to our experts for guidance on how to configure your system to your exact needs, the part codes for this example system are below.

GIS Software – Atlas® Platform

Atlas is a software platform for the rapid development of industrial inkjet user interface and machine control systems. Atlas can control a complete machine or act as a component in larger systems. Its unique modular and open design allows you to customise, as well as to integrate additional tools to enable a quicker route to market for your product.

Category	Product	Code
Printhead Manager (Ethernet)	Dimatix Starfire SG1024	13005701



GIS Notes & Disclaimers

- Specifications are subject to change without notice.
- Performance characteristics depend on system configuration, ink and operating conditions.
- All trademarks are the property of their respective owners. Atlas® is a registered trademark of Global Inkjet Systems (GIS).

GIS Ink Management Systems

GIS ink management systems provide controlled ink supply, pressure regulation and flow management for industrial inkjet systems. Designed to support stable jetting across a wide range of printhead technologies, they can be configured for different flow requirements, ink types and machine architectures. GIS can advise on the appropriate ink delivery configuration to match the selected printhead, application and production environment.

GIS Typical Applications

- Ceramics.
- Textiles.
- Graphics.





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