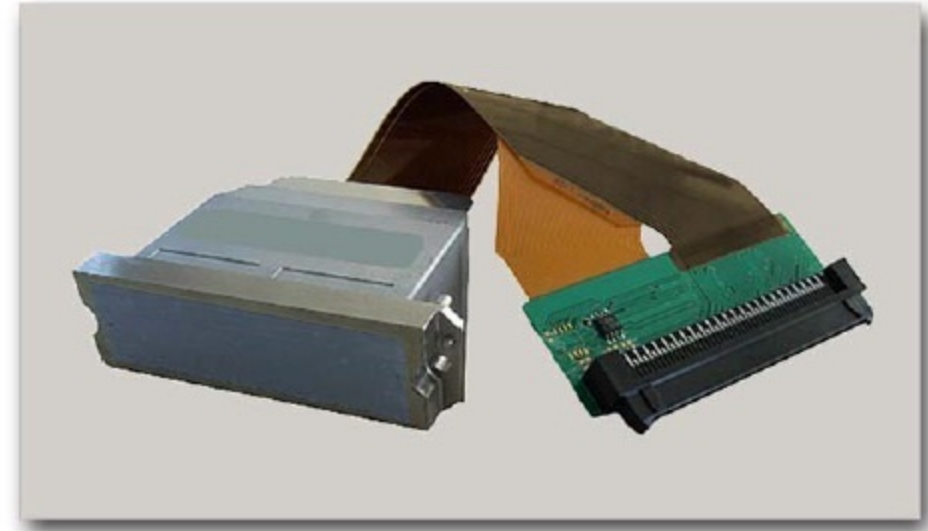


GEN-5 Printhead Series Preliminary Specification

DESIGN FEATURES

- 1,280 channels
- Two color and four color support
 - Single color: 600dpi
 - Two color: 300dpi
 - Four color: 150dpi
- 8 level grey scale capability



SPECIFICATION

PHYSICAL:

Size	89(W) x 25(D) x 69(H) mm (excluding cables & connectors)	
Head materials	SST, Nickel alloy & Epoxy adhesive (Direct contact with ink)	
Compatible jetting fluids	Compatible with water, solvent, oil, UV curable inks	
Nozzle plate surface	Coated SST	
Number of nozzles	4 x 320 channels	
Nozzle spacing	A: Within a single row B: Within a color C: Single pass D: Row to row distance E: Color to color	0.1693 mm (1/150") 0.0847 mm (1/300") 0.0423 mm (1/600") 0.55 mm 11.811 mm
Ink inlet port	2 x dual ports	
Piezo type	D33 stacked PZT	
Drop ejection mode	Piston pusher with metallic diaphragm plate	
Integrated electronics	Low-voltage serial to high-voltage parallel converter; 3-bit shift resistors; transmission gate outputs	
Temperature control	Integrated heater and thermistor	
Viscosity	11 cP (at operating temp.)	
Surface tension	32 dynes/cm	
Native drop volume	7 pico-liter	
Drop volume range / variation	7– 35 pico-liter with grey-scale / $\pm 10\%$	
Drop velocity nominal / variation	7 m/sec / $\pm 15\%$	
Crosstalk	10% or less with all channels firing	
Jet straightness 1 sigma	< 3.5 milli-radian from nozzle centerline	
Native drop operating frequency	60kHz (Higher burst possible under ideal condition)	
Life	100 billion actuation's per nozzle	