

# Advanced Mesecons Devices

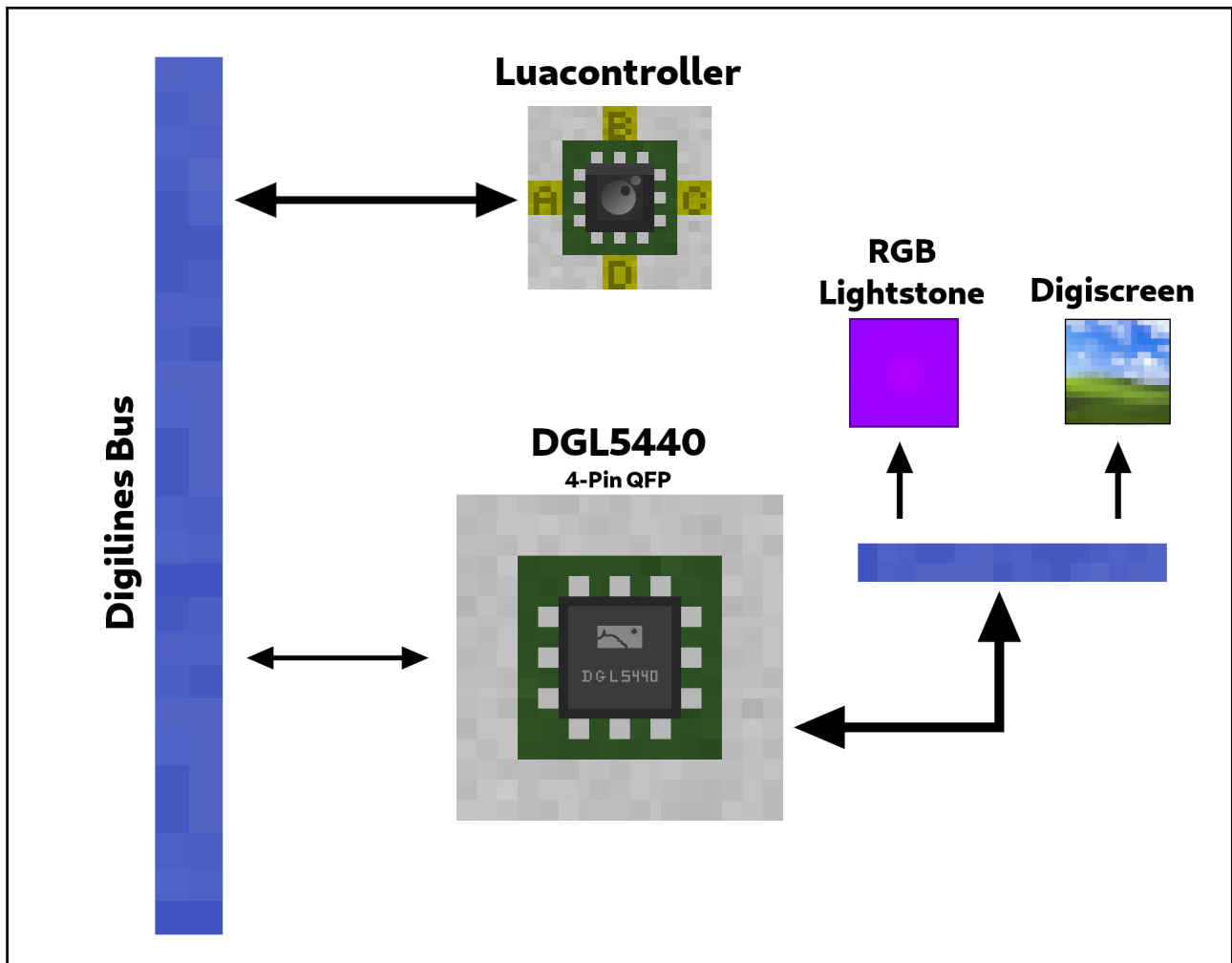
**DGL5440**  
Digilines Graphics Processing Unit

**Preliminary Product  
Bulletin**

## FEATURES

- Digilines-compatible graphics accelerator
- Integrated RGB lightstone and digiscreen output controller
  - Drives up to 64x64 RGB lightstone arrays
  - Fast output to individual digiscreen panels
- Direct-connect digilines bus interface
  - Glueless interfacing to Luacontrollers
  - Command grouping support
- On-chip display memory
  - 98304 bytes of memory included
  - Supports up to eight 64x64 pixel buffers
  - All buffers can use full resolution and color depth simultaneously
- Supports hardware sprite acceleration
- Low-power 5V CMOS, 4-pin PQFP package
- Programmable blitter engine
  - Supports arbitrary source and destination regions
  - 16 blending modes
- Built-in object drawing support
  - Accelerates drawing of lines, squares, points, and rectangles
  - Line antialiasing supported
- Format conversion support
  - Converts between table and string image representations
  - Supports HSV $\leftrightarrow$ RGB color space conversion

## SYSTEM BLOCK DIAGRAM



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