

# **SPECIFICATION FOR APPROVAL**

**Model: GC-US4V3**

**Name: USB 3.0 HIGH SPEED 4-PORT HUB CONTROLLER**

**Product#:**

**Date: Aug 28, 2019**

1. **Test condition: All of functional testing must between  $25 \pm 10^{\circ}\text{C}$ , Relative humidity 45%~75%, Air pressure 86~106KPa .**
2. **Operating Temperature Range:  $0^{\circ}\text{C}$ -- $50^{\circ}\text{C}$  .**
3. **Storage Temperature Range:  $0^{\circ}\text{C}$ -- $70^{\circ}\text{C}$  .**
4. **Dimensions: L: 120 MM W: 48 MM H: 20 MM**



**Control Products: FE1.1**

## A. Feature

- 1. Fully compliant with Universal Serial Bus Specification Revision 3.0 (USB 3.0);
  - Upstream facing port supports High-Speed (5Gbps) and Full-Speed (480MHz) modes;
  - 4 downstream facing ports support High-Speed (5Gbps), Full-Speed(480MHz), and Low-Speed (12MHz) modes;
- 2. Integrated USB3.0 Transceivers;
- 3. Integrated upstream 1.5K $\Omega$  pull-up, downstream 15K $\Omega$  pull-down, and serial resistors;
- 4. Integrated 5V to 3.3V and 1.2V regulator.
- 5. Integrated Power-On-Reset circuit;
- 6. Integrated 12MHz Oscillator with feedback resistor, and crystal load capacitance;
- 7. Integrated 480MHz-to-5Gbps Phase Lock Loop (PLL);
- 8. *Single Transaction Translator* (STT) -
  - One TT for all downstream ports;
  - The TT could handle 64 periodic Start-Split transactions, 32 periodic Complete-Split transactions, and 6none-periodic transactions;
- 9. Automatic self-power status monitoring;
  - Automatic re-enumeration when Self-Powered switching to Bus-Powered;
- 10. *Ganged Power Control* and *Global Over-Current Detection* support;
- 11. Comprehensive Port Indicators support:
  - Downstream Port Enabled* indicator LED (x4, Green);
  - Hub Active/Suspend* indicator LED.