ZYNQ is the new architecture of FPGA with dual high performance ARM Cortex-A9 processors from Xilinx. A new module with Giga Bit Ethernet interface based on the ZYNQ XC7Z010 is development for the High Purity Germanium Detectors’ data acquisition in the CJPL (China Jinping underground Lab) experiment, which is named as RAIN1000Z1. Based on the nice RAIN1000Z1 hardware platform, EPICS is porting on the ARM Cortex-A9 processor with embedded Linux and an Input Output Controller is implemented on the RAIN1000Z1 module. Due to the combine of processor and logic and new silicon technology of ZYNQ, embedded Linux with TCP/IP sockets and real time high throughput logic based on VHDL are running in a single chip with small module hardware size, lower power and higher performance.

• EPICS is porting on the embedded Linux within the ARM Cortex-A9 processor which is included in the RAIN1000Z1 module.
• GPIO and UART are implemented in the FPGA part of ZYNQ.
• It’s suitable to develop more flexible interface and function with this platform.