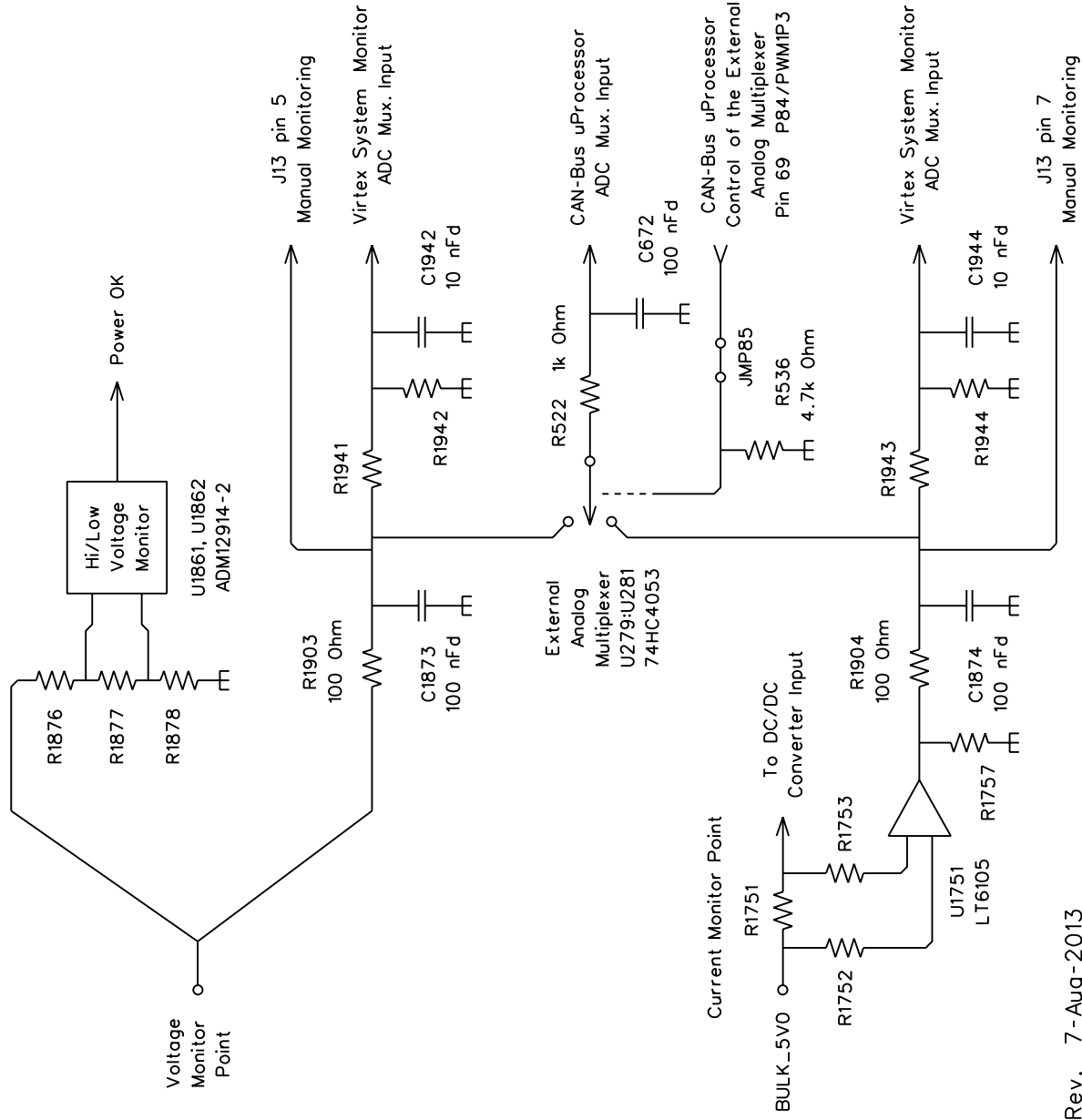


Voltage and Current Monitoring Analog Circuits



Notes:

The reference designators and pin numbers shown are for the Base Function FPGA Core power supply.

The Voltage and Current Monitoring of the other 6 power supplies is similar.

ADC inputs to the CAN-Bus uProcessor are 4.096 Volts full-scale.

The ADC inputs to the Virtex System Monitor are 1.0 Volts full-scale. R1941 through R1944 must scale the monitored signal to fit within this 1.0V ADC input range.

R1751, R1752, R1753, and R1757 together set the calibration of the current monitoring signal.

R1752 must equal R1753. Monitor signal voltage equals Amps into the DC/DC Converter times R1751 times R1757 divided by R1752.

LT6105 maximum output current is 1 mA.

R1876, R1877, and R1878 together set the Hi and Low thresholds of the BF_CORE component of the overall CMX Power OK signal.

The ADM12914-2 Hi/Low Supervisor comparators have an internal 0.500 Volt reference.

With jumper JMP85 installed the external Analog Multiplexer is controlled by the signal from the CAN-Bus uProcessor.

With jumper JMP85 removed the External Analog Multiplexer defaults to the Voltage Monitor signals