**Current Feeback Circuit Noise Problem**

Sensitron Semiconductor, Paul Moore, Technical support request.

This is the circuit 🡪



With I\_LOAD = 0.77 Amp, the VI\_FEEDBACK signal has the correct average level of 34k\*2m\*0.77/215 = 244mV, but contains 100mVpp, unexplained, 25kHz/random noise riding on it.

The scope shot below shows this 🡪

Graphical user interface, chart, application

Description automatically generated

If the OPA2330AID is replaced with Microchip MCP6232-E/SN, the noise is reduced by 10x.

The scope shot below shows the OPA2330 and MCP6232 performance with 2Amps 🡪

A picture containing table

Description automatically generated OPA2330

Table

Description automatically generatedMCP6232

Please explain why the OPA2330 does not work in this circuit and what modifications could be done to continue using the OPA2330.