

# SM435C Statement of Volatility

## Non-Volatile Memory

The SM435C contains 1 SPI flash memory IC. This non-volatile memory contains the firmware for the Cypress FX3, the device correction constants across operating temperature, and the FPGA firmware.

Non-volatile memory is modified during initial programming, as well as during adjustment and firmware update procedures. Non-volatile memory is used to store the IP address and port as well. Except for IP address and ports, neither the Spike software nor the Application Programming Interface (API) modifies the SM435C non-volatile memory.

The SM435C also contains a GPS module, the Ublox NEO-M8T. This has non-volatile flash memory which stores its firmware. We are not aware of sensitive time or location information being stored in this non-volatile memory.

## Volatile Memory

The Cypress FX3 and Arria 10 FPGA contain volatile memory for program and data, including sweep settings and raw I/Q data. A 2 GB DDR3 DRAM memory chip buffers sweep, I/Q data, and trigger data.

Numerous ICs, including the LO synthesizers, PLLs, ADC, and SFP+ module contain volatile configuration registers.

All volatile memory is erased when power is removed from the device.

## Host PC

The Host PC running Spike software stores correction data, user presets, and recorded files to the PC's hard drive. User presets contain sensitive information such as frequencies of interest and measurement settings, and are saved by default to C:\Users\[user name]\AppData\Roaming\SignalHound. Recorded files contain sensitive information such as frequencies, amplitudes, and other characteristics of observed signals, and are saved by default to C:\Users\[user name]\Documents\SignalHound.

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