**Miniature Datalogger System**

System Constraints Definition Document

**INDEX**

System Overview 3

Data Rate Budget 4

Interface Limitations 4

**SD Interface Maximum Data Rate** 5

**ADC to SPI Maximum Data Rate** 6

**Conclusions** 7

Data Overhead 8

**Timestamp** 8

**File System** 8

Power Budget 9

Analog to Digital Converters – ADS8588H 9

**AVDD – Analog VDD** 9

**DVDD – Digital VDD** 9

Microcontroller – STM32H723VGT6 11

SD Card 11

Sensor Conditioning 11

Support Circuitry 11

# System Block Diagram

A diagram of a power system

AI-generated content may be incorrect.

# Preliminary Market Analysis

## **Business Model**

* Efficient/Low cost solution (DTS undercut)
* Turnkey solution: no need for customization
* Strategic European technology: access to European funding

## **Customers**

Big/Medium Defence and Aerospace Companies or startup.

### **National**

* Leonardo
* MBDA Italy S.p.A

### **European**

* MBDA France
* MBDA UK
* Dassault
* Airbus
* BAE Systems

### **US**

### **Global**

## **Competitors**

### **National**

* In-house designs
* Small subcontractors (PMI) of main customers
  + Crisel
  + Instrumentation Device
  + Milano Systems

### **European**

### **US**

* DTS

### **Global**

### **SD Interface Maximum Data Rate**

# Data Rate Budget

## **ADC Interface**

A

### **SD Interface Maximum Data Rate**