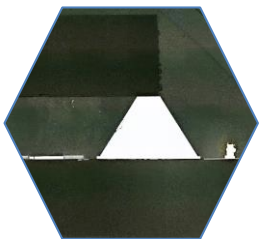
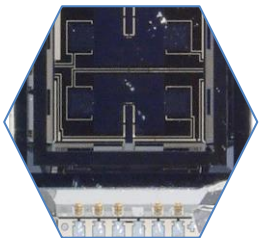


## Sensoror STIM318 Inertial Measurement Unit (IMU)

*Newest IMU with 9-axis detection and gyro bias instability of 0.3°/h from Sensoror.*



The high-end inertial systems market was worth more than US\$3 billion in 2019, according to Yole Développement. It may surpass the US\$4 billion milestone by 2025. Defense accounted for 40% of this market, while commercial aerospace comprised 26%.

In this dynamic context, System Plus Consulting provides a full reverse costing study to give insight into technology data, manufacturing cost and selling price of the STIM318 Inertial Measurement Unit (IMU) supplied by Sensoror.

STIM318 is the newest IMU proposed by Sensoror. It is a tactical grade, non-GPS aided, 9-axis IMU containing three highly accurate MEMS gyroscopes, three single-axis accelerometers and two dual-axis accelerometers.

The MEMS gyroscope dies use a ButterflyGyro™ structure. They are associated with Application Specific Integrated Circuit (ASIC) dies, mounted on a silicon interposer and connected to the housing of the module, reducing mechanical strain.

Compared to STIM210 gyro module, the STIM318 IMU's single-axis accelerometers

and dual-axis accelerometers are new. A detailed comparison between STIM318 IMU and STIM210 gyro module is included in this report. The comparisons highlight differences in terms of structure and cost.

A full reverse costing dedicated to the technology and cost analyses of the single-axis and dual-axis accelerometers found in STIM318 IMU is available in another System Plus Consulting report, namely: "Safran Colibrys MS1010 & MEMSIC MXA2500M High-End Accelerometers".

### COMPLETE TEARDOWN WITH

- Analysis of the IMU structure, including package, electronic board, ASIC and MEMS dies
- Detailed optical and SEM photos
- Precise measurements
- Supply chain evaluation
- Manufacturing cost analysis
- Estimated selling price
- Technology and cost comparisons between STIM318 and STIM210

**Title:** Sensoror STIM318 Inertial Measurement Unit (IMU)

**Pages:** 131

**Date:** July 2020

**Format:**  
PDF & Excel file

**Price:**  
EUR 3,990

**Reference:**  
SP20539

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*Dr. Youssef El Gmili has joined System Plus Consulting's team in 2019 after ten years passed on high level research and development on microelectronics.*

## RELATED REPORTS



### Safran Colibrys MS1010 and MEMSIC MXA2500M High-End Accelerometers

*Detailed technology and cost analysis of the high-end single-axis and dual-axis accelerometers integrated in the STIM318 IMU.*

July 2020 - EUR 3,990\*



### Honeywell HG1120CA50 9-axis MEMS Inertial Sensor

*The first high reliability and highly rugged 9-axis IMU for industrial applications from Honeywell.*

January 2019 - EUR 3,990\*

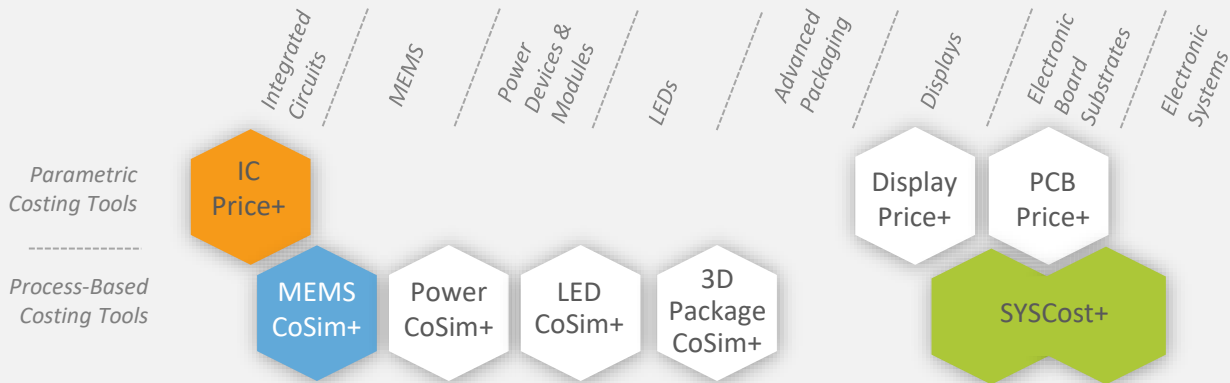


### Sensor STIM210 – High-precision MEMS Gyro Module

*Tactical grade with bias instability of 0.5°/h in a miniature 33cm<sup>3</sup> package.*

March 2014 - EUR 4,490\*

## COSTING TOOLS



Our analysis is performed with our costing tools IC Price+, SysCost+ and MEMS CoSim+.

System Plus Consulting offers powerful costing tools to evaluate any process or device, the production cost and selling price, from single chip to complex structures. All these tools are on sale under corporate license.

### MEMS CoSim+

Cost simulation tool to evaluate the cost of any MEMS process or device.

### SysCost+

It provides all component costs estimation including PCB, housing and connectors, and a simulation of the assembly cost and test process at the board and system level.

### IC Price+

The tool performs the necessary cost simulation of any Integrated Circuit: ASICs, microcontrollers, memories, DSP, smartpower...

## WHAT IS A REVERSE COSTING®?

Reverse Costing® is the process of disassembling a device (or a system) in order to identify its technology and calculate its manufacturing cost, using in-house models and tools.



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## ABOUT SYSTEM PLUS CONSULTING

System Plus Consulting is specialized in the cost analysis of electronics from semiconductor devices to electronic systems.

A complete range of services and costing tools to provide in-depth production cost studies and to estimate the objective selling price of a product is available.

Our services:

- **STRUCTURE & PROCESS ANALYSES**
- **TEARDOWNS**
- **CUSTOM ANALYSES**
- **COSTING SERVICES**
- **COSTING TOOLS**
- **TRAININGS**

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# TERMS AND CONDITIONS OF SALES

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## 1. INTRODUCTION

The present terms and conditions apply to the offers, sales and deliveries of services managed by System Plus Consulting except in the case of a particular written agreement.

Buyer must note that placing an order means an agreement without any restriction with these terms and conditions.

## 2. PRICES

Prices of the purchased services are those which are in force on the date the order is placed. Prices are in Euros and worked out without taxes. Consequently, the taxes and possible added costs agreed when the order is placed will be charged on these initial prices.

System Plus Consulting may change its prices whenever the company thinks it necessary. However, the company commits itself in invoicing at the prices in force on the date the order is placed.

## 3. REBATES and DISCOUNTS

The quoted prices already include the rebates and discounts that System Plus Consulting could have granted according to the number of orders placed by the Buyer, or other specific conditions. No discount is granted in case of early payment.

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System Plus Consulting delivered services are to be paid within 30 days end of month by bank transfer except in the case of a particular written agreement.

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System Plus Consulting remains sole owner of the delivered services until total payment of the invoice.

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The delivery schedule on the purchase order is given for information only and cannot be strictly guaranteed. Consequently any reasonable delay in the delivery of services will not allow the buyer to claim for damages or to cancel the order.

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