

Sensoror STIM210

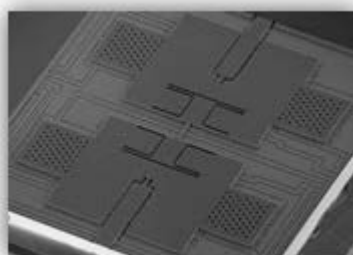
High-precision MEMS Gyro Module

*World highest performance silicon MEMS gyro available without export control.
Tactical grade with bias instability of 0.5°/h in a miniature 33cm³ package.*

MEMS gyroscopes for tactical grade applications made a lot of progress in the past few years in term of reliability. They are now accepted in high-reliability environments, and are even starting to replace FOGs and other technologies in tactical applications.

With a bias instability of 0.5°/h, the Sensoror STIM210 is the world highest performance silicon MEMS gyroscope. The module is available without export control (ITAR-free). The analyzed module is a complete system offering 3 axes MEMS gyros associated with a 32-bit microcontroller which provides flexibility in device configuration.

STIM210 applications are typically found within industrial, aerospace and defense markets, for various platform stabilizations, pointing and navigation systems, attitude heading reference systems (AHRs), inertial navigation systems (INSs), smart munitions, missiles, 3D mapping systems, range finders, trains, robotics, and more. For many applications STIM210 directly replaces FOGs and improves system solutions with respect to robustness, reliability, size, weight, power and cost.



REVERSE COSTING ANALYSIS
REPORT BY 

MEMS Gyro Module
160 pages
March 2014
Pdf file
Xls file

PRICE :

Full report: EUR 4,490
Technology report: EUR 2,990

COMPLETE TEARDOWN WITH:

- Detailed Photos
- BOM Identification
- Precise Measurements
- Material Analysis
- Manufacturing Process Flow
- Supply Chain Evaluation
- Manufacturing Cost Analysis
- Selling Price Estimation

TABLE OF CONTENTS

Glossary

Overview/Introduction

Company Profile

Physical Analysis

- Module
 - ✓ Views, Dimensions & Pin-out
 - ✓ Opening
- Electronic Board
 - ✓ Components Markings
 - ✓ Components Identification
 - ✓ Bare Dies Connections
- ASICs
 - ✓ View, Dimensions & Marking
 - ✓ Delayering, Process Identification
 - ✓ Cross-Section
- MEMS Gyro
 - ✓ View, Dimensions & Marking
 - ✓ Bond Pads & Bond Pads Opening
 - ✓ MEMS Cap Removed
 - ✓ MEMS Sensing Area
 - ✓ MEMS Gyro Principle
 - ✓ MEMS Cross-Section: Masses
 - ✓ MEMS Cross-Section: Electrode
 - ✓ MEMS Cross-Section: Buried Connections
 - ✓ MEMS Cross-Section: Getter

Manufacturing Process Flow

- Global Overview
- ASICs Front-End Processes & Wafer Fab Units
- MEMS Process Flow & Wafer Fab Unit
- Module Assembly Process Flow & Assembly Unit

Cost Analysis

- Main steps of economic analysis
- Yields Hypotheses
- ASICs Cost
 - ✓ Front-End Cost
 - ✓ Probe Test & Dicing Cost
 - ✓ Wafer & Die Cost
- MEMS Gyro Cost
 - ✓ Front-End Cost
 - ✓ Front-End Cost per process steps
 - ✓ Probe Test & Dicing Cost
 - ✓ Wafer & Die Cost
- BOM Cost
 - ✓ Electronic Board BOM Cost
 - ✓ Housing BOM Cost
 - ✓ Material Cost Breakdown
- Module Assembly & Test Cost
 - ✓ Electronic Board Assembly Cost
 - ✓ Housing Assembly Cost
 - ✓ Final Test & Calibration Cost
- STIM210 Module Cost & Estimated Price

Performed by

ORDER FORM

Please process my order for "Sensor STIM210 MEMS Gyro Module" Reverse Costing Analysis:

Ref.: SP14152

Full Reverse Costing report: EUR 4,490*

Technology Analysis** report: EUR 2,990

*For price in dollars please use the day's exchange rate

*All reports are delivered electronically in pdf format

*For French customer, add 20 % for VAT

** Technology Analysis report contains only Physical Analysis & Manufacturing Process Flow

SHIP TO

Name (Mr/Ms/Dr/Pr):

.....

Job Title:

.....

Company:

.....

Address:

.....

City: State:

.....

Postcode/Zip:

.....

Country*:

.....

*VAT ID Number for EU members:

.....

Tel:

.....

Email:

.....

Date:

.....

Signature :

.....

PAYMENT

DELIVERY on receipt of payment:

By credit card:

Number: _____ Expiration date: __/__/__

Card Verification Value: _____



By bank transfer:

HSBC – CAE- Le Terminal -2 rue du Charron- 44800 St Herblain France
BIC code : CCFRFRPP

In EUR

Bank code : 30056 - Branch code : 00955 - Account : 09550003234
IBAN : FR76 3005 6009 5509 5500 0323 439

In USD

Bank code : 30056 - Branch code : 00955 - Account : 09550003247
IBAN : FR76 3005 6009 5509 5500 0324 797

Return order by:

FAX: +33 (0)253 55 10 59

MAIL: SYSTEM PLUS CONSULTING

21 rue La Nouë Bras de Fer

44200 Nantes – France

Contact:

sales@systemplus.fr - Tel: +33 (0)240 18 09 16

BILLING CONTACT

Name:

Email:

Phone:

Our prices are subject to change.

Please check our new releases and price changes on www.systemplus.fr

The present document is valid 6 months after its publishing date: March 27th, 2014.

ABOUT SYSTEM PLUS CONSULTING

System Plus Consulting specializes in the **cost analysis** of electronics, from **semiconductor devices** to **electronic systems**, and has developed 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.

COSTING SERVICES

- ✓ **On demand Reverse Costing studies** are performed on ICs, ASICs, MEMs, Power Devices, ECUs, electronic boards and full electronic systems.
- ✓ **The catalog of available reports** includes cost analyzes on MEMS, LEDs, Modules and Electronic systems.

All these analyses are performed using in-house developed, proprietary costing tools and their technological databases.

COSTING TOOLS

« Purchaser » tools

- ✓ IC Price+ to estimate the cost of any integrated circuit
- ✓ Power Price+ for any power component or module
- ✓ SYS.Cost
- ✓ PCB Price+ for printed circuit boards
- for electronic boards and systems

Cost Simulation Tools, process flow based

- ✓ MEMS CoSim+
- ✓ LED CoSim+
- ✓ TSV CoSim+ (thru silicon vias)
- ✓ Power CoSim+
- ✓ Sapphire CoSim+

Other costing models can be developed according to customer specifications

Performed by



TERMS AND CONDITIONS OF SALES

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.

4. TERMS OF PAYMENT

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.

If the payment does not reach System Plus Consulting on the deadline, the Buyer has to pay System Plus Consulting a penalty for late payment the amount of which is three times the legal interest rate. The legal interest rate is the current one on the delivery date. This penalty is worked out on the unpaid invoice amount, starting from the invoice deadline. This penalty is sent without previous notice.

When payment terms are over 30 days end of month, the Buyer has to pay a deposit which amount is 10% of the total invoice amount when placing his order.

5. OWNERSHIP

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

6. DELIVERIES

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.

7. ENTRUSTED GOODS SHIPMENT

The transport costs and risks are fully born by the Buyer. Should the customer wish to ensure the goods against lost or damage on the base of their real value, he must imperatively point it out to System Plus Consulting when the shipment takes place. Without any specific requirement, insurance terms for the return of goods will be the carrier current ones (reimbursement based on good weight instead of the real value).

8. FORCE MAJEURE

System Plus Consulting responsibility will not be involved in non execution or late delivery of one of its duties described in the current terms and conditions if these are the result of a force majeure case. Therefore, the force majeure includes all external event unpredictable and irresistible as defined by the article 1148 of the French Code Civil?

9. CONFIDENTIALITY

As a rule, all information handed by customers to system Plus Consulting are considered as strictly confidential.

A non-disclosure agreement can be signed on demand.

10. RESPONSABILITY LIMITATION

The Buyer is responsible for the use and interpretations he makes of the reports delivered by System Plus Consulting. Consequently, System Plus Consulting responsibility can in no case be called into question for any direct or indirect damage, financial or otherwise, that may result from the use of the results of our analysis or results obtained using one of our costing tools.

11. APPLICABLE LAW

Any dispute that may arise about the interpretation or execution of the current terms and conditions shall be resolved applying the French law.

If the dispute cannot be settled out-of-court, the competent Court will be the Tribunal de Commerce de Nantes.