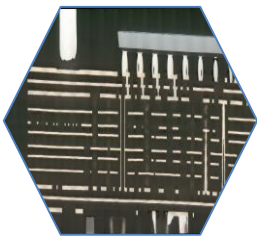


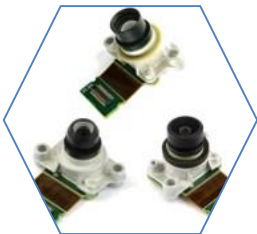


ZF S-Cam 4 – Forward Automotive Mono and Tri Camera for Advanced Driver Assistance Systems

Fourth generation of the S-Cam family from the leading ADAS camera player.



Currently, automotive manufacturers are integrating more options for security and are making cars safer with Advanced Driver Assistance Systems (ADAS). Automotive cameras therefore have quickly become more common in the last few years and are now an important part of the imaging market.



ZF, one of the largest tier one suppliers of automotive systems, last year released its fourth Generation S-Cam with two solutions, one with a mono camera and the other with a triple camera set-up.

These cameras feature the Omnivision CMOS image sensor, which demonstrates the shift in the procurement strategies of ZF and Intel Mobileye. In fact, the use of the latest Mobileye EyeQ4 vision processor allows new sensors to be used and makes the S-Cam4 one of the smallest and lightest products in its category.

Based on a teardown of the system, these reports detail a complete bill of material and describe the electronics and housing assembling. Moreover, a specific report describes the camera's manufacturing and packaging processes. They present also a detailed physical analysis of the CMOS image sensor, with a cross-section of the complete camera modules.

These reports also include a comparison with the previous version in the S-Cam series, the S-Cam 3. It estimates the manufacturing cost and selling price for both the mono and tri-camera.

The teardown and the cost analysis of the System On Chip (SOC) is available in the related report "Mobileye EyeQ4 Vision Processor Family".

COMPLETE TEARDOWN WITH

- Detailed photos
- Precise measurements
- Materials analysis
- Complete bill of material
- Component pricing
- Detailed technological and cost analysis of camera and CMOS image sensor
- Physical comparison with ZF S-Cam3
- Manufacturing process flow
- Supply chain evaluation
- Manufacturing cost analysis in two countries
- Selling price estimation for two annual volume scenarios in each location

Title: ZF S-Cam 4 – Automotive Safety Mono and Tri Camera

Pages: 50+80

Date: May 2019

Format:
PDF & Excel file

TABLE OF CONTENTS

MONO & TRI SYSTEMS

Overview/Introduction

ZF Friedrichshafen AG Company Profile

Physical Analysis

- Views and Dimensions of the Camera
- System Opening
- Electronic Board

Cost Analysis

- Accessing the BOM
 - PCB cost
 - BOM cost - electronic board
 - BOM cost - housing
 - Material cost breakdowns
- Accessing the Added Value (AV) cost
 - Electronic board manufacturing flow
 - Details of the electronic board AV cost
 - Details of the system assembly AV cost
 - Added-value cost breakdown
- Manufacturing Cost Breakdown

Manufacturer Price

- Financial Ratios
- Estimation of the Manufacturer Price

Company Services

LENS MODULE AND CIS REPORT

Overview/Introduction

Omnivision Company Profile

Physical Analysis

- Mono Cam – Lens Module
- Tri Cam – Lens Module #1
- Tri Cam – Lens Module #2
- Tri Cam – Lens Module #3
- Omnivision CMOS Image Sensor
 - Packaging, sensor die and cross-section

Manufacturing Process

- Front-End Process Flow
- CIS Wafer Fabrication Unit
- Die Process Flow
- CIS Packaging Fabrication Unit
- Packaging Process Flow

Cost Analysis

- Yield Hypothesis
- CIS Front-End Cost
- Packaging Cost
- Component Cost

Selling Price

Comparison with ZF S-Cam3 Camera

Company Services

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holds a two-year university degree in technology of physical measurements and instrumentation technics.

RELATED REPORTS



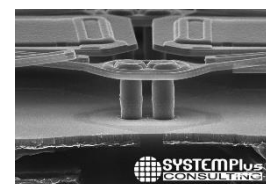
Mobileye EyeQ4 Vision Processor Family

Fourth generation Mobileye vision processor for Advanced Driver Assistance Systems: EyeQ4-High version for Tri-cam and EyeQ4-Mid version for Mono-cam.
April 2019



TRW S-Cam 3 – Forward Automotive Camera for Advanced Driver Assistance Systems

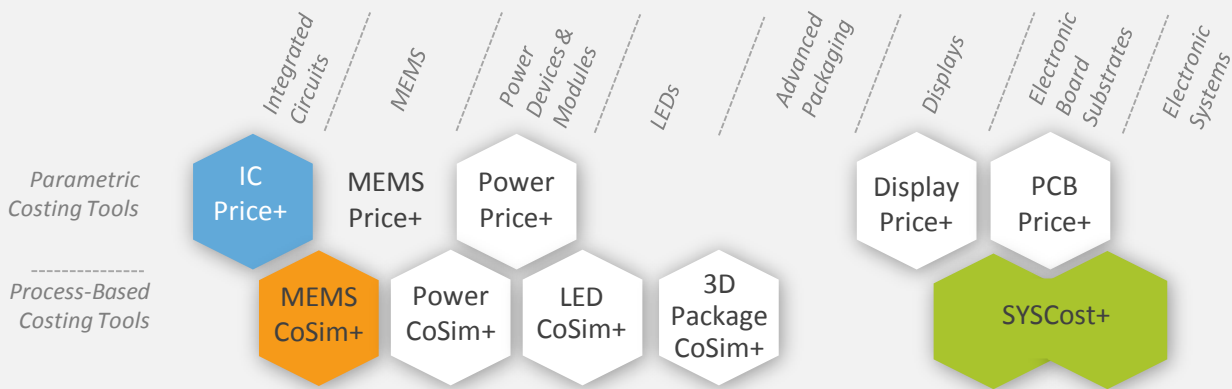
Third and latest version of TRW's best-selling S-Cam series forward camera.
April 2017



FLIR Boson – a small, innovative, low power, smart thermal camera core

An infrared camera with a powerful vision processor in a small package, using a new 12µm microbolometer.
September 2017

COSTING TOOLS



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SYSCost+

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MEMS Cosim+

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

ABOUT SYSTEM PLUS CONSULTING

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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