Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

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Short Form Catalog

Revision 8.1

Small things make a big difference.

Melexis
Microelectronic Integrated Systems


AUTO
DUAL
LOAD
DISC
AM FM
MENU
INFO
M-D

Table of Contents

At Melexis we care !

At Melexis, we care for our customers Customer focus and a consistent strategic vision have been the foundation of Melexis' growth. Innovative, dynamic teams from across Melexis' global organization are embracing the core values and no-nonsense culture to continue delivering solid financial results. This profitable and stable structure enables us to research and present inflection point technology advances for the benefit of our present and future customers. Melexis will continue its commitment in the automotive market and at the same time expand its presence in other fields of application, leveraging its organizational tools and team spirit.

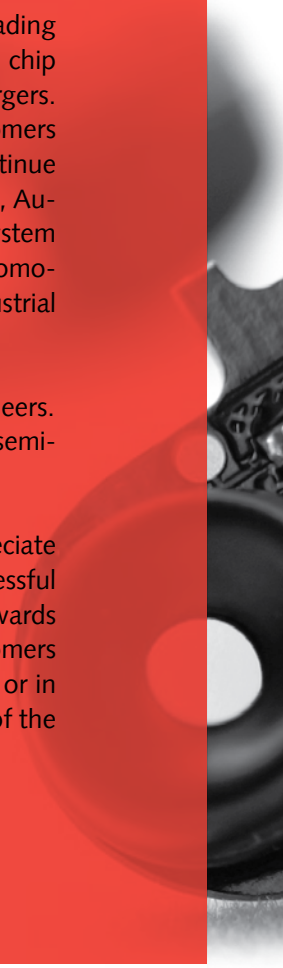
Automotive Specialist The data shows that the market for semiconductors in the automotive sector continues to provide solid growth opportunities. The share of electronics in cars is still growing and these electronics enable car manufacturers to differentiate themselves with their types and models with regard to safety, environmental impact, performance or comfort. Developing advanced, integrated applications and solutions for this sector will certainly continue to be the Melexis core business.

What can we do for you ? Melexis technology and know-how has led to market leading positions in non-automotive arenas including RF transmitters, receivers and transceivers, single chip cooling fan ICs, infrared remote control ICs and power supply control chips for cell phone chargers. A customer oriented approach and an innovative design methodology have allowed our customers to win significant and in certain cases dominant market positions. Melexis' main products continue to be Hall effect ICs (magnetic sensors), Pressure and Acceleration Sensors, Sensor Interface ICs, Automotive Systems-on-a-Chip, Embedded Microcontrollers, Wireless Communication ICs, Bus System Chips, Optical and Infrared sensors. In each case the products are primarily developed for automotive applications and designated lead customers with subsequent use in commercial and industrial applications.

Leadership in semiconductor solutions Melexis has a good team of experienced engineers. Due to their expertise in product definition, design and the testing of integrated analog-digital semiconductor solutions and sensor ICs Melexis has achieved a leadership position.

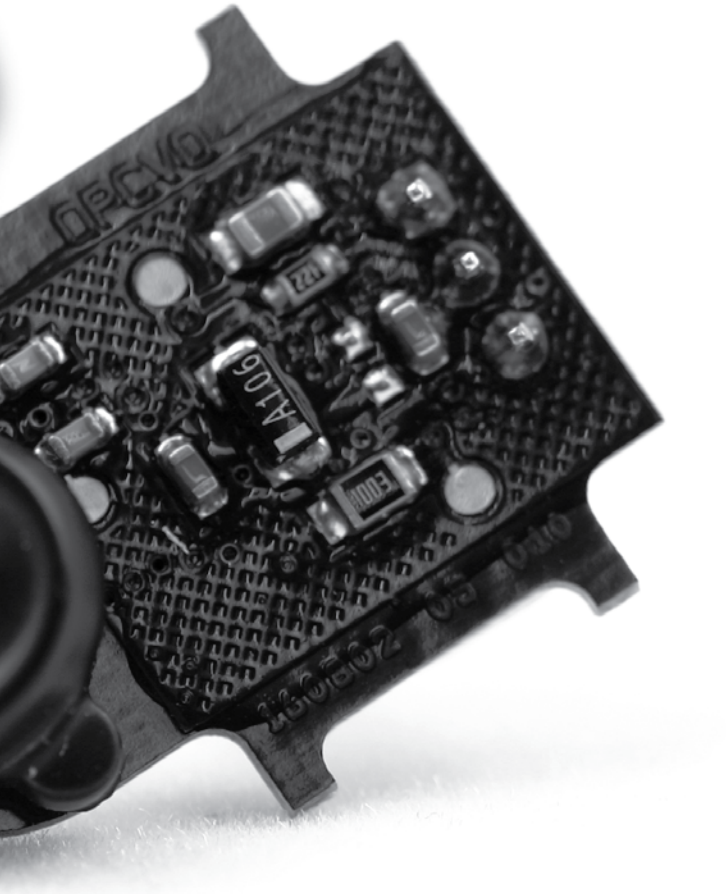
At Melexis, we make the difference Many of our loyal customers know this and appreciate it. They know Melexis is not a run of the mill company. They know it as a stable, solid, successful organization with a strong financial position. A company which takes pleasure in working towards integrated solutions, and in doing so makes an essential contribution to the success of its customers in their respective markets and submarkets, whether in the long-standing automotive market, or in consumer electronics, and industrial or medical applications. In the knowledge that at the end of the day it's the small things that can make a big difference.

www.melexis.com



Our Activities & Product Technology

- Hall effect Sensor ICs
- Triaxis™ Hall ICs
- RF & RFID ICs
- Infrared and Opto ICs
- SensorEyeC™ Opto ICs
- Camera Sensor ICs
- Pressure Sensor ICs
- Sensor Interface ICs
- Bus ICs
- Power Control ICs
- Hardware and Evaluation Boards



OVERVIEW OF ACTIVITIES

Intelligent Integration is increasingly important to provide efficient, effective solutions needed to simplify many complex systems. The compelling need for reducing installed costs of essential systems makes integrated sensing, intelligence and communications solutions essential. Melexis supplies unique sensor, communication and driver chips with analog and digital outputs and often with advanced on board microcontrollers or DSP capabilities.

The market for automotive semiconductors is expected to grow at an annual rate of 7% thanks to the increasing electronic content per vehicle. Government regulations and consumer demand for improved fuel economy, safety and comfort create the need for more electronic sensors and control systems in cars.

Melexis' investment into systems and processes commensurate to automotive industry standards has resulted in customers trusting 100% of their IC requirements to Melexis. Product development cycles at such customers have provided evolutionary design wins for Melexis. This has given Melexis the responsible role of helping our customers steer their product strategy based on research and development progress at Melexis. Melexis ICs result in significant reworking and consolidation of traditional systems into a single modular solution. This progress enables the automotive industry to reduce overall costs, increase features and nearly as important, reduce vehicle weight and power consumption.

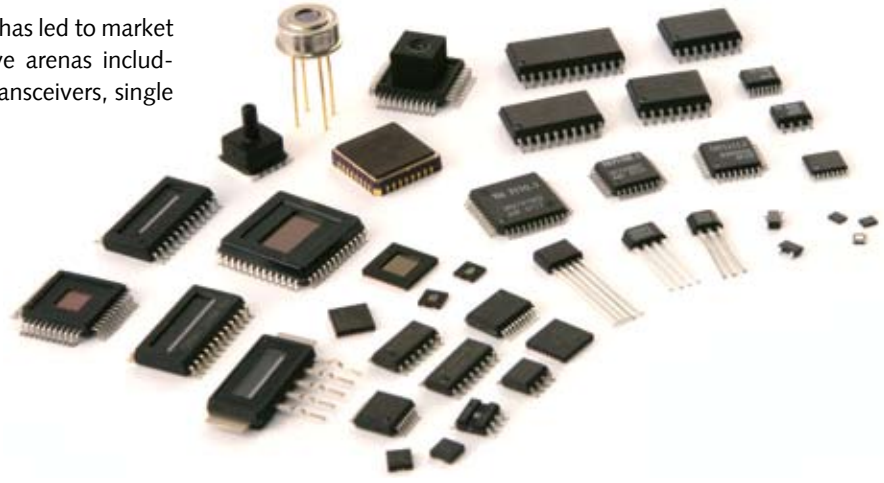
Melexis technology and know-how has led to market leading positions in non-automotive arenas including RF transmitters, receivers and transceivers, single chip cooling fan ICs, infrared remote control ICs and power supply control chips for cell phone chargers. A customer oriented approach and an innovative design methodology have allowed our customers to win significant and in certain cases dominant market positions.

Melexis main products continue to be Hall effect ICs (magnetic sensors), Pressure and Acceleration Sensors, Sensor Interface ICs, Automotive Systems-on-a-Chip, Embedded Microcontrollers, Wireless Communication ICs, Bus System Chips, Optical and Infrared sensors. In each case the products are primarily developed for automotive applications and designated lead customers with subsequent use in commercial and industrial applications.

Melexis holds a broad patent portfolio. These patents serve our customers by providing effective and unique solutions in their highly competitive market segments.

Melexis is a research driven company in which Research and Development has been, and will remain, of paramount importance in the Company's strategy.

Investments in R&D consist of both product development and advanced development in new technologies for the automotive market and beyond. The R&D is on one end driven by customer requests, but equally driven by Melexis market research identifying long term needs.



Sensors

■ Hall Effect

Hall Effect Devices detect magnetic flux density produced by a permanent magnet or current in a wire. Typical uses are for movement, position and speed sensing, but also current sensing. Hall devices are by their nature immune to dust, dirt, humidity and vibration, ideal characteristics for performance in an automotive environment.

By integrating the sensing element onto the same silicon as its control logic and interface circuitry, Melexis produces sensors with intelligence. Melexis was the first Hall IC manufacturer to add user programmability to its Hall ICs. This breakthrough innovation has allowed a simplification of our customer's modules due to the flexibility and customizable options of Melexis ICs.

Sensing pedal, throttle and steering wheel position, sensing rotation of shafts like the cam- and crankshaft in the engine, monitoring movement in motors and actuators are staple functions for millions of Melexis Hall ICs in cars today. Other high volume applications for Hall ICs include mobile telephony, computing, personal portable devices and automation equipment.

Melexis Hall Effect Devices enable an optimal use of the smaller feature sizes of which semiconductor technology is capable today. Therefore, very sophisticated mixed analog-digital signal conditioning circuitry (such as Chopper-Stabilized Analog Amplifier, Digital Signal Processing Core, Microcontroller, EEPROM memory) can be integrated. Most of the devices can withstand the severe automotive conditions despite few external components.

Melexis Hall Effect sensors can be seen, on the basis of their performance, as a competitive technical alternative for inductive speed and position sensors, potentiometer type resistive position sensors, bipolar Hall sensors and magneto-resistive sensors.

The Melexis Hall Effect sensors out-perform these alternate sensor technologies by integration of more signal-processing at a competitive cost. The future shows that the value of integration can provide for communication, decision making and flexible functions embedded into a single chip.

Another "worlds first" from Melexis has been created in the dual redundant programmable linear Hall IC. This chip is targeted at safety systems like pedal position sensing in drive by wire control systems. These unique solutions have achieved a significant nexus between total installed cost and fully redundant reliability.

Melexis markets a new Hall technology under the brand "Triaxis™" and based on the patented technology developed by the hi-tech Swiss company, Sentron, acquired in 2004.

The first Triaxis™ product is targeted for contactless 360 degree rotary position sensor. This product has received several technical and business awards since its introduction in 2005 and it has already been designed in many position sensor applications. The product is also proposed in dual redundant construction.

The Triaxis™ technology allows also the realization of 3D-joystick and 1D-linear position sensors but also current sensors and solid-state electronic compasses.

Melexis' portfolio of Hall sensors offers solutions for robust switching, smart brushless DC motor controllers with integrated magnetic sensing. Melexis is the recognized innovator in these markets.

One example is the wide range of specialized Hall sensors used in cooling fans for electronic equipment or in vibromotors for cell phones. Recent innovations include ICs that significantly reduce the acoustic switching noise of cooling fans; an important feature in consumer or office electronic devices.

■ MEMS (Micromachined Electro-Mechanical Systems)

a. Pressure Sensors, Acceleration Sensors, Gyroscopes

Pressure, acceleration, and angular rate sensors are used in various automotive applications such as airbag systems, vehicle stability systems, particle filters, filter monitoring and brake systems. The above mentioned sensors, developed by Melexis, are based on silicon micromachining technology, where the physical parameter being sensed causes a temporary and reversible deformation to a mechanical structure etched into the IC.

Pressure is one of the most measured physical parameters in an automobile. Measurements can be taken using stand-alone sensors, for which Melexis supplies industry leading signal conditioning interface ICs, or using completely integrated pressure sensors. Integrated pressure sensors incorporate both the sensing element, in the form of a silicon deformable membrane, and the conditioning electronics on the same chip. Vehicle airbag systems use one or more acceleration sensors. These acceleration sensors measure the severity of an impact. This information is used by the airbag control unit to decide on airbag deployment. Advanced airbag systems require remote crash sensors located at the spots in the car where the crash can be sensed in the most accurate and quickest way. Melexis is a key technology provider for many years due to its competencies in sensor technology, signal conditioning and IC packaging.

The most recent automotive safety applications introduced on the market, such as vehicle stability systems, ACC (Adaptive Cruise Control) and Rollover

sensing call for the use of angular rate sensors, also called gyroscopes.

To address this market Melexis has developed an innovative gyroscope solution. The Melexis gyroscope, launched on the market in 2006, is also particularly suited for use in navigation systems to implement the so-called dead-reckoning function. Dead-reckoning allows for an accurate positioning of the vehicle even in the absence of the GPS signal.

b. Signal Conditioning Interface ICs

Melexis has profiled itself as one of the world leaders in the automotive segment of this market. Interface ICs allow bridge type piezo and capacitive sensors to communicate intelligently with decision making systems in cars. Typical applications include pressure sensing in electronically controlled automatic transmissions, seat belt tension sensors in mandatory second generation airbag systems, fuel pressure sensors in fuel economy enhancing injection systems and refrigerant liquid pressure in automotive airco systems. The further proliferation of sensor rich automotive systems will continue to fuel the growth of this product line.

Power Control ICs

Motor Drivers

The power control division focuses on high volume automotive electronic systems: The power control products are customer specific (ASIC) or standard available (ASSP) application specific solutions for peripheral ICs, voltage regulators and Bus communication ICs, or the combination of the above with an embedded microcontroller to realize intelligent actuator solutions.

Peripheral ICs can be part of an ECU (Electronic

Hall effect Sensor ICs
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Bus ICs
Power Control ICs
Hardware and Evaluation Boards

Control Unit). Target applications are EPAS (Electrically Power Assisted Steering) and HVAC (Heating, Ventilating and Air-Conditioning). Peripheral ICs that are not part of an ECU typically interface to electrical motor systems. Examples are dashboard indicators, windscreen wipers, remote control door opening and audible warning systems.

Melexis microcontrollers are available with Flash or OTP as well as with ROM firmware memories, and are ideally suited for Comfort as well as Chassis applications and high temperature Engine applications. An optional motor control coprocessor allows for state of the art sensored and sensorless Brushless DC motor control applications including position control actuators, water and fuel pumps and blower and engine cooling fans.

LIN Slaves

Our LIN switch ASSPs have been developed specifically for intelligent switch modules in the seat, door, steering wheel and dashboard. Furthermore they are often the lowest cost solution for simple actuators

like wipers, mirror folding, small pumps, LED control, relay drivers, passive junction box, etc. All these ASSPs feature our state of the art LIN transceivers that are being used by most major car manufacturers. And thanks to our unique dual core design all our ICs can easily migrate from one LIN version to another. The Melexis LIN handler has been approved for LIN1.3, 2.0, 2.1 and J2602. It can be extended with dedicated features like auto configuration and Flash boot loading via LIN.

LED Drivers and Voltage Regulators

Our switched mode power ASSPs are the ideal solution to drive high intensity LEDs for automotive applications.

Wireless

RF ICs

Melexis designs and develops Radio Frequency ICs (RFICs) that span the application frequency range of about 27 to 950 MHz. Our key products are standard transmitters, receivers, transceivers and custom specific ICs for the non-licensed industrial-scientific-medical (ISM) band applications from 315 to 434 MHz and 868 to 930 MHz. Typical applications include remote keyless entry (RKE), tire pressure monitoring systems (TPMS), garage door openers, home automation, alarm systems, personal identification and general short range communication. The key to serving this market lies in strong applications support as the RF engineering challenges are known to be quite specialized. Melexis has created strong internal RF application engineering centers in all major markets to ensure the best experience for our customers when they seek to upgrade their products to wireless operation.

RFID ICs

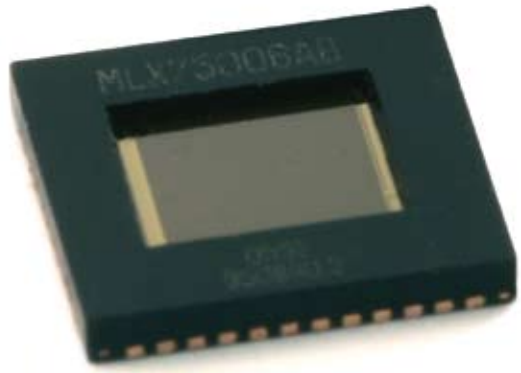
Melexis has been an early innovator in the RFID technology, thanks to its expertise in low power and analog IC design. Our key products are specialty sensor transponders, standard transceivers and custom specific ICs for the 125 kHz and 13.56 MHz frequencies. Typical applications for sensor transponder ICs include tire pressure monitoring systems (TPMS), cold chain monitoring, hazardous substance logistics and medical items identification. RFID transceivers target asset tracking, door lock, transportation, contact-less payment, e-passport and e-document reading applications. Melexis' RFID ICs enable customers to achieve high reading range, low power consumption at the right cost. Melexis expertise in RFID will be considered for the newly emerging challenges in Near Field Communication (NFC).

Opto

Infrared Sensors

There is a strong increase in the demand for IR thermometer modules for the Mobile Air Conditioning (MAC) business. This increase is due to the introduction of the module in new vehicle platforms at existing and new customers. Melexis sees increased interest for their newest dual zone IR sensors for application in multi zone MAC systems. These multi-zone systems require the dual zone IR sensor to replace multiple temperature and sun load sensors, reducing system complexity and cost. Another emerging Melexis market for IR sensors is the building HVAC sector. Here the technology provides the residents of homes and workplaces with a better level of 'thermal comfort'. By measuring the comfort temperature of the residents directly, an HVAC system can more reliably compensate for outside weather conditions and heat generation in the room by equipment and/or people.

In an effort for further integration, simplicity and



reduced costs, Melexis has developed a new signal conditioning ASIC that can be integrated with the temperature sensor in one small package. This miniature, factory calibrated temperature sensor can easily be installed by the customer on his own PCB, eliminating the need for expensive passive components and connectors. This approach allows Melexis to further standardize production and reduce cost.

■ Optical Sensors

Melexis holds varied expertise in both automotive and consumer optical ICs. The Melexis linear array IC is the key sensing element for a high resolution and robust steering wheel position sensor, used as sensor-input for EPAS (Electrically Power Assisted Steering) and ESP (Electronic Stability Program) systems.

EPAS systems offer an efficient means to reduce steering effort, ESP systems aid the driver in avoiding skids.

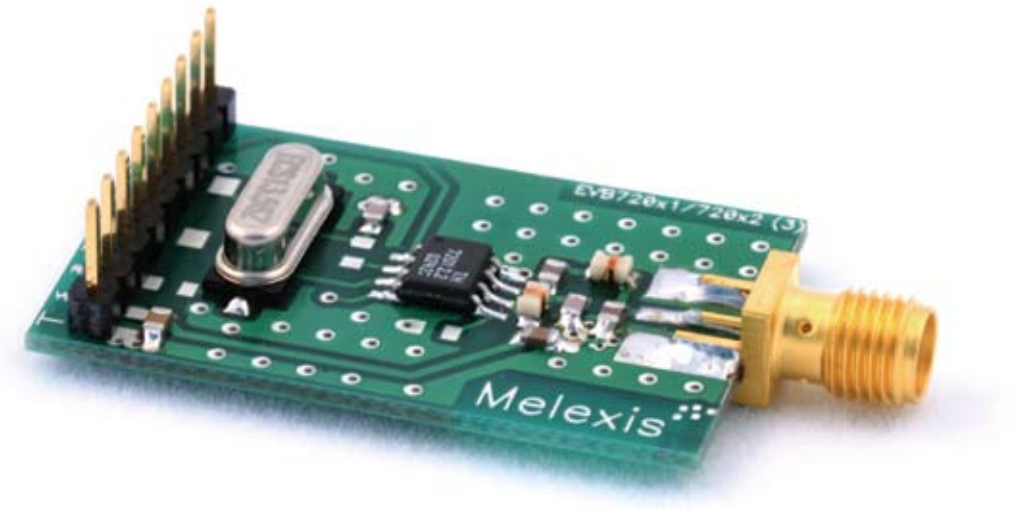
As the market and applications are broadening, Melexis will continue to design, market and develop new generation optical sensors to satisfy the need and demands of the next generation sensing modules, both for automotive as well as consumer and industrial applications.

The Melexis CMOS automotive camera sensors were developed and have been tested by different VMs for different possible series applications. Melexis Image sensor ICs are ready for advanced optical safety being deployed in upcoming vehicle models.

New robust automotive grade light switches and light-to-voltage convertors have been developed to meet the stringent automotive requirements of -40C to +125C operating range. Their built-in protection against strong light-saturation makes them a perfect fit for use in difficult environments.

Product Portfolio

- Hall effect Sensor ICs
- Triaxis™ Hall ICs
- RF & RFID ICs
- Infrared and Opto ICs
- SensorEyeC™ Opto ICs
- Camera Sensor ICs
- Pressure Sensor ICs
- Sensor Interface ICs
- Bus ICs
- Power Control ICs
- Hardware and Evaluation Boards



Short Form Catalog

Hall effect Latches

Melexis Order number	Description	Temp. Range	Package	N° Pins
US1881EUA	High Sensitivity I +/-95G max +/-5G min I 3.5~24V	-40°C to 85°C	UA	3
US1881LUA	High Sensitivity I +/-95G max +/-5G min I 3.5~24V	-40°C to 150°C	UA	3
US1881ESE	High Sensitivity I +/-95G max +/-5G min I 3.5~24V I North Pole Active	-40°C to 85°C	SE	3
US1881LSE	High Sensitivity I +/-95G max +/-5G min I 3.5~24V I North Pole Active	-40°C to 150°C	SE	3
US3881EUA	High Sensitivity I +/-90G max +/-10G min I 2.2~18V	-40°C to 85°C	UA	3
US3881LUA	High Sensitivity I +/-90G max +/-10G min I 2.2~18V	-40°C to 150°C	UA	3
US3881ESE	High Sensitivity I +/-90G max +/-10G min I 2.2~18V I North Pole Active	-40°C to 85°C	SE	3
US3881LSE	High Sensitivity I +/-90G max +/-10G min I 2.2~18V I North Pole Active	-40°C to 150°C	SE	3

Hall effect Unipolar Switches

Melexis Order number	Description	Temp. Range	Package	N° Pins
US5781EUA	Medium Sensitivity I Bop max = 150G Brp min = 35G I 3.5~24V	-40°C to 85°C	UA	3
US5781LUA	Medium Sensitivity I Bop max = 150G Brp min = 35G I 3.5~24V	-40°C to 150°C	UA	3
US5781ESE	Medium Sensitivity I Bop max = 150G Brp min = 35G I 3.5~24V I North Pole Active	-40°C to 85°C	SE	3
US5781LSE	Medium Sensitivity I Bop max = 150G Brp min = 35G I 3.5~24V I North Pole Active	-40°C to 150°C	SE	3
US5782ESE	Medium Sensitivity I Bop max = 150G Brp min = 35G I 3.5~24V	-40°C to 85°C	SE	3
US5782LSE	Medium Sensitivity I Bop max = 150G Brp min = 35G I 3.5~24V	-40°C to 150°C	SE	3
US5881EUA	Low Sensitivity I Bop max = 300G Brp min = 95G I 3.5~24V	-40°C to 85°C	UA	3
US5881LUA	Low Sensitivity I Bop max = 300G Brp min = 95G I 3.5~24V	-40°C to 150°C	UA	3
US5881ESE	Low Sensitivity I Bop max = 300G Brp min = 95G I 3.5~24V I North Pole Active	-40°C to 85°C	SE	3
US5881LSE	Low Sensitivity I Bop max = 300G Brp min = 95G I 3.5~24V I North Pole Active	-40°C to 150°C	SE	3

Hall effect Bipolar Switches

Melexis Order number	Description	Temp. Range	Package	N° Pins
US2881EUA	Very High Sensitivity I +/-60G max -/+10G min I 3.5~24V	-40°C to 85°C	UA	3
US2881LUA	Very High Sensitivity I +/-60G max, -/+20G min I 3.5~24V	-40°C to 150°C	UA	3
US2881ESE	Very High Sensitivity I +/-60G max, -/+10G min I 3.5~24V I North Pole Active	-40°C to 85°C	SE	3
US2881LSE	Very High Sensitivity I +/-60G max, -/+20G min I 3.5~24V I North Pole Active	-40°C to 150°C	SE	3
US2882EUA	Very High Sensitivity I +/-60G max, -/+30G min I 3.5~24V	-40°C to 85°C	UA	3
US2882LUA	Very High Sensitivity I +/-60G max, -/+35G min I 3.5~24V	-40°C to 150°C	UA	3
US2882ESE	Very High Sensitivity I +/-60G max, -/+30G min I 3.5~24V I North Pole Active	-40°C to 85°C	SE	3
US2882LSE	Very High Sensitivity I +/-60G max, -/+35G min I 3.5~24V I North Pole Active	-40°C to 150°C	SE	3
US2884ESE	Very High Sensitivity I +/-60G max, -/+20G min I 3.5~24V	-40°C to 85°C	SE	3
US2884LSE	Very High Sensitivity I +/-60G max, -/+20G min I 3.5~24V	-40°C to 150°C	SE	3
US4881EUA	Very High Sensitivity I +/-60G max, -/+10G min I 2.2~18V	-40°C to 85°C	UA	3
US4881LUA	Very High Sensitivity I +/-60G max, -/+10G min I 2.2~18V	-40°C to 150°C	UA	3
US4881ESE	Very High Sensitivity I +/-60G max, -/+10G min I 2.2~18V I North Pole Active	-40°C to 85°C	SE	3
US4881LSE	Very High Sensitivity I +/-60G max, -/+10G min I 2.2~18V I North Pole Active	-40°C to 150°C	SE	3

Short Form Catalog

Hall effect Omnipolar® Switches

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX90248ESE	High Sensitivity I Bop max = +/-60G Brp min = +/-5G I Micropower	-40°C to 85°C	SE	3
MLX90248ELD	High Sensitivity I Bop max = +/-60G Brp min = +/-5G I Micropower	-40°C to 85°C	LD	6

Dual Hall effect Latches

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX90224EVA-A	Dual Hall effect Latch, Quadrature Output	-40°C to 85°C	VA	4
MLX90224EVA-B	Dual Hall effect Latch, Speed & Direction Outputs	-40°C to 85°C	VA	4
MLX90224KVA-A	Dual Hall effect Latch, Quadrature Output	-40°C to 125°C	VA	4
MLX90224KVA-B	Dual Hall effect Latch, Speed & Direction Outputs	-40°C to 125°C	VA	4

Programmable Latch/Switch

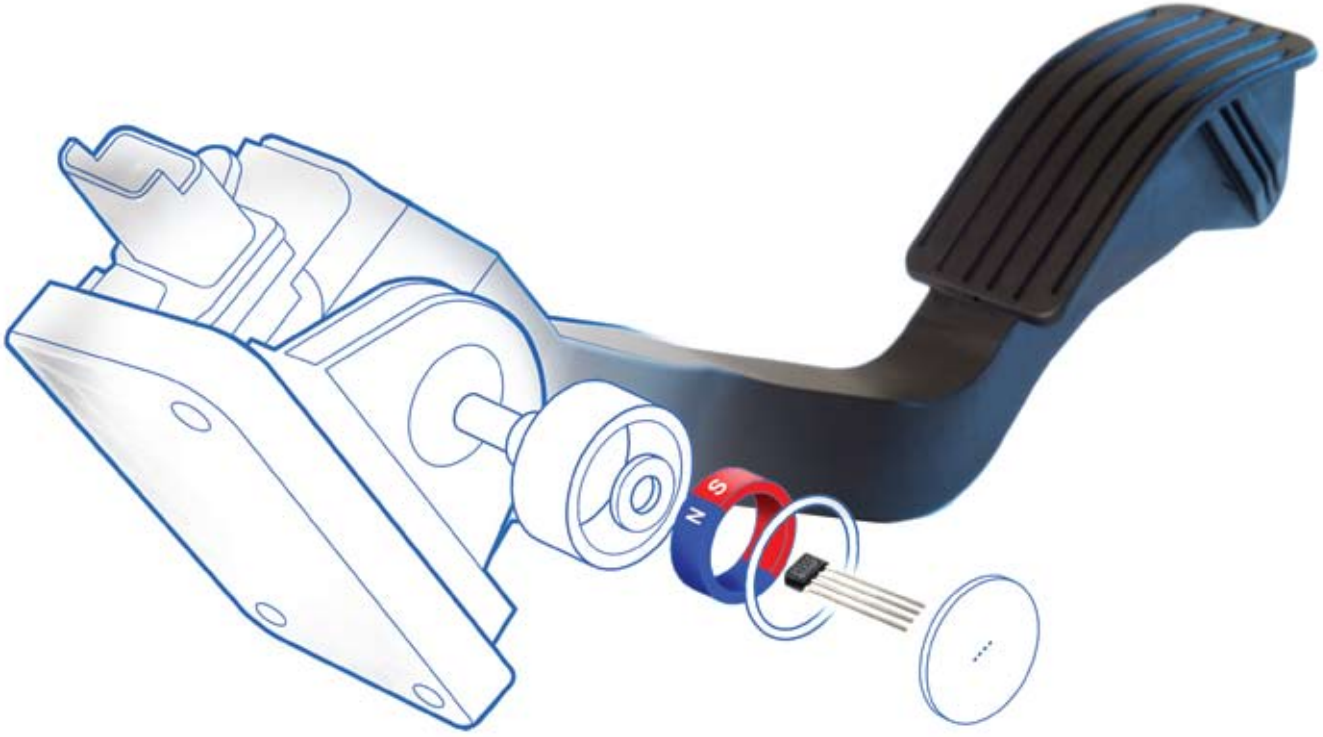
Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX90275LSE	Programmable Hall effect Latch/Switch	-40°C to 150°C	SE	5

Geartooth Sensor ICs

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX90217LUA	Zero-Speed Peak Detector Geartooth Speed Sensor	-40°C to 150°C	UA	3
MLX90254LVA	AC-Coupled Differential Geartooth Sensor 20 Hz < Frequency < 10 kHz	-40°C to 150°C	VA	4

Programmable Linear Hall ICs (Unprogrammed)

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX90215EVA	Precision Programmable Linear Hall IC (Gen I)	-40°C to 85°C	VA	4
MLX90215LVA	Precision Programmable Linear Hall IC (Gen I)	-40°C to 150°C	VA	4
MLX90251EVA-0	Precision Programmable Linear Hall IC (Gen II) Option code 0: 2.6<Sens<15mV/mT	-40°C to 85°C	VA	4
MLX90251EVA-1	Precision Programmable Linear Hall IC (Gen II) Option code 1: 10<Sens<35mV/mT	-40°C to 85°C	VA	4
MLX90251EVA-2	Precision Programmable Linear Hall IC (Gen II) Option code 2: 18<Sens<90mV/mT	-40°C to 85°C	VA	4
MLX90251EVA-3	Precision Programmable Linear Hall IC (Gen II) Option code 3: 50<Sens<210mV/mT	-40°C to 85°C	VA	4
MLX90251LVA-0	Precision Programmable Linear Hall IC (Gen II) Option code 0: 2.6<Sens<15mV/mT	-40°C to 150°C	VA	4
MLX90251LVA-1	Precision Programmable Linear Hall IC (Gen II) Option code 1: 10<Sens<35mV/mT	-40°C to 150°C	VA	4
MLX90251LVA-2	Precision Programmable Linear Hall IC (Gen II) Option code 2: 18<Sens<90mV/mT	-40°C to 150°C	VA	4
MLX90251LVA-3	Precision Programmable Linear Hall IC (Gen II) Option code 3: 50<Sens<210mV/mT	-40°C to 150°C	VA	4



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Linear Hall ICs (Fixed-Programmed)

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX90242LUA-CC03	Fixed Programmed Linear Hall effect Sensor Sens 40mV/mT Voq 2.5	-40°C to 150°C	UA	3
MLX90242ESE-CC03	Fixed Programmed Linear Hall effect Sensor Sens 40mV/mT Voq 2.5	-40°C to 85°C	SE	3
MLX90242ESE-BC03	Fixed Programmed Linear Hall effect Sensor Sens 15mV/mT Voq 2.5	-40°C to 85°C	SE	3

Programmable Triaxis™ Hall effect ICs (Unprogrammed)

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX90316SDC	Programmable Rotary Position Sensor	-20°C to 85°C	DC	8
MLX90316EDC	Programmable Rotary Position Sensor	-40°C to 85°C	DC	8
MLX90316KDC	Programmable Rotary Position Sensor	-40°C to 125°C	DC	8
MLX90316LDC	Programmable Rotary Position Sensor	-40°C to 150°C	DC	8
MLX90316EGO	Dual Full Redundant Programmable Rotary Position Sensor	-40°C to 85°C	GO	16
MLX90316KGO	Dual Full Redundant Programmable Rotary Position Sensor	-40°C to 125°C	GO	16
MLX90316LGO	Dual Full Redundant Programmable Rotary Position Sensor	-40°C to 150°C	GO	16
MLX90324LDC	Under-the-Hood Programmable Rotary Position Sensor featuring SENT protocol	-40°C to 150°C	DC	8
MLX90324LGO	Dual Full Redundant Under-the-Hood Programmable Rotary Position Sensor featuring SENT protocol	-40°C to 150°C	GO	16
MLX90333EDC	Programmable 3D-Joystick Position Sensor	-40°C to 85°C	DC	8
MLX90333KDC	Programmable 3D-Joystick Position Sensor	-40°C to 125°C	DC	8
MLX90333LDC	Programmable 3D-Joystick Position Sensor	-40°C to 150°C	DC	8
MLX90333EGO	Dual Full Redundant Programmable 3D-Joystick Position Sensor	-40°C to 85°C	GO	16
MLX90333KGO	Dual Full Redundant Programmable 3D-Joystick Position Sensor	-40°C to 125°C	GO	16
MLX90333LGO	Dual Full Redundant Programmable 3D-Joystick Position Sensor	-40°C to 150°C	GO	16

Programmable Triaxis™ Hall effect ICs (Pre-programmed)

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX90316EDC-SPI	360-Degree Rotary Position Sensor Serial Protocol	-40°C to 85°C	DC	8
MLX90316KDC-SPI	360-Degree Rotary Position Sensor Serial Protocol	-40°C to 125°C	DC	8
MLX90316LDC-SPI	360-Degree Rotary Position Sensor Serial Protocol	-40°C to 150°C	DC	8
MLX90316EGO-SPI	360-Degree Dual Rotary Position Sensor Serial Protocol	-40°C to 85°C	GO	16
MLX90316KGO-SPI	360-Degree Dual Rotary Position Sensor Serial Protocol	-40°C to 125°C	GO	16
MLX90316LGO-SPI	360-Degree Dual Rotary Position Sensor Serial Protocol	-40°C to 150°C	GO	16
MLX90316KDC-PPA	360-Degree Rotary Position Sensor Analog Output - 10%V_{DD} … 90%V_{DD}	-40°C to 125°C	DC	8
MLX90316KGO-PPA	360-Degree Dual Rotary Position Sensor Analog Output - 10%V_{DD} … 90%V_{DD}	-40°C to 125°C	GO	16
MLX90316KDC-PPD	360-Degree Rotary Position Sensor PWM Output - 1 kHz - 10%$_{DC}$ … 90%$_{DC}$	-40°C to 125°C	DC	8
MLX90316KGO-PPD	360-Degree Dual Rotary Position Sensor PWM Output - 1 kHz - 10%$_{DC}$ … 90%$_{DC}$	-40°C to 125°C	GO	16
MLX91204KDC-1	360-Degree Hi-Speed Rotary Position Sensor Analog Sine/Cosine - Sensitivity = 25 V/T	-40°C to 125°C	DC	8
MLX91204KDC-2	360-Degree Hi-Speed Rotary Position Sensor Analog Sine/Cosine - Sensitivity = 50 V/T	-40°C to 125°C	DC	8
MLX91204KDC-3	360-Degree Hi-Speed Rotary Position Sensor Analog Sine/Cosine - Sensitivity = 100 V/T	-40°C to 125°C	DC	8
MLX91205KDC	Analog Hi-Speed Current Sensor Sensitivity = 280 V/T	-40°C to 125°C	DC	8

Short Form Catalog

Integrated Hall BLDC Motor Driver ICs

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX90283ELD	BLDC Vibration Motor Driver I 1.8~3.6V I 150mA continuous I Active Start	-40°C to 85°C	LD	6
US168ESE	Single-Coil I 1.8~6.5V I 300mA continuous I Low Noise I Tachometer (FG)	-40°C to 85°C	SE	5
US169ESE	Single-Coil I 1.8~6.5V I 300mA continuous I Low Noise I Rotation Detection (RD)	-40°C to 85°C	SE	5
US168ELD	Single-Coil I 1.8~6.5V I 300mA continuous I Low Noise I Tachometer (FG)	-40°C to 85°C	LD	6
US169ELD	Single-Coil I 1.8~6.5V I 300mA continuous I Low Noise I Rotation Detection (RD)	-40°C to 85°C	LD	6
US72EDC	Single-Coil I 4.5~28V I 350mA continuous I Tachometer (FG)	-40°C to 85°C	DC	8
US73EDC	Single-Coil I 4.5~28V I 350mA continuous I Rotation Detection (RD)	-40°C to 85°C	DC	8
US65EDC	Two-Coil I 3~18V I 600mA continuous I Low Noise I Adjustable Slope I Tachometer (FG)	-40°C to 85°C	DC	8
US66EDC	Two-Coil I 3~18V I 600mA continuous I Low Noise I Adjustable Slope I Rotation Detection (RD)	-40°C to 85°C	DC	8
US651EDC	Two-Coil I 3~18V I 350mA continuous I Low Noise I Adjustable Slope I Tachometer (FG)	-40°C to 85°C	DC	8
US661EDC	Two-Coil I 3~18V I 350mA continuous I Low Noise I Adjustable Slope I Rotation Detection (RD)	-40°C to 85°C	DC	8
US90EVK	Two-Coil I 4.7~30V I 250mA continuous I Tachometer (FG)	-40°C to 85°C	VK	4
US90EDC	Two-Coil I 4.7~30V I 250mA continuous I Tachometer (FG)	-40°C to 85°C	DC	8
US91EVK	Two-Coil I 4.7~30V I 250mA continuous I Rotation Detection (RD)	-40°C to 85°C	VK	4
US91EDC	Two-Coil I 4.7~30V I 250mA continuous I Rotation Detection (RD)	-40°C to 85°C	DC	8
US890EVK	Two-Coil I 2.6~18V I 600mA continuous I Tachometer (FG)	-40°C to 85°C	VK	4
US891EVK	Two-Coil I 2.6~18V I 600mA continuous I Rotation Detection (RD)	-40°C to 85°C	VK	4
US62EVK	Two-Coil I 3.2~18V I 250mA continuous I Tachometer (FG)	-40°C to 85°C	VK	4
US63EVK	Two-Coil I 3.2~18V I 250mA continuous I Rotation Detector (RD)	-40°C to 85°C	VK	4
US79KUA	Two-Coil I 3.5~18V I 350mA continuous	-40°C to 125°C	UA	3

Pressure Sensor ICs

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX90210CUF	Relative Pressure Sensor, 0 - 1.0 bar	0°C to 70°C	UF	-
MLX90807LUF-0	Relative Integrated Pressure Sensor 100 mbar FS	-40°C to 150°C	UF	-
MLX90807LUF-1	Relative Integrated Pressure Sensor 1.2 - 3.0 bar FS	-40°C to 150°C	UF	-
MLX90807LUF-2	Relative Integrated Pressure Sensor 3.0 - 7.0 bar FS	-40°C to 150°C	UF	-
MLX90807LUF-3	Relative Integrated Pressure Sensor 7.0 - 10.0 bar FS	-40°C to 150°C	UF	-
MLX90807LUF-4	Relative Integrated Pressure Sensor 15.0 - 30.0 bar FS	-40°C to 150°C	UF	-
MLX90808LUF-1	Absolute Integrated Pressure Sensor 0.8 to 2.5 bar FS	-40°C to 150°C	UF	-
MLX90808LUF-2	Absolute Integrated Pressure Sensor 3.0 to 8.0 bar FS	-40°C to 150°C	UF	-
MLX90808LUF-4	Absolute Integrated Pressure Sensor 17.0 to 35.0 bar FS	-40°C to 150°C	UF	-

Sensor Interface ICs

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX90308LDF	Versatile Programmable Sensor Interface	-40°C to 150°C	DF	16
MLX90308LUF	Versatile Programmable Sensor Interface	-40°C to 150°C	UF	-
MLX90314LDF	Versatile High-Gain Programmable Sensor Interface	-40°C to 150°C	DF	16
MLX90314LUF	Versatile High-Gain Programmable Sensor Interface	-40°C to 150°C	UF	-
MLX90320LFR	Automotive Programmable Sensor Interface	-40°C to 150°C	FR	14
MLX90320LUC	Automotive Programmable Sensor Interface	-40°C to 150°C	UC	-
MLX90323KDF	4-20mA Current Loop Programmable Sensor Interface	-40°C to 125°C	DF	16
MLX90326LFR	Industrial Programmable Sensor Interface	-40°C to 150°C	FR	14

Angular Rate Sensor ICs

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX90609EEA-N2	Angular Rate Sensor, ±75 deg/s Full Scale	-40°C to 85°C	EA	32
MLX90609EEA-E2	Angular Rate Sensor, ±150 deg/s Full Scale	-40°C to 85°C	EA	32
MLX90609EEA-R2	Angular Rate Sensor, ±300 deg/s Full Scale	-40°C to 85°C	EA	32

Short Form Catalog

Power Control ICs

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX10407EDF-CA	Five-Channel Gauge Driver w/ Serial Link	-40°C to 85°C	DF	24
MLX10420RFR	Three-Channel Gauge Driver w/ Serial Link ***	-40°C to 105°C	FR	20
MLX10801RLD	Power LED driver (max 750 mA)	-40°C to 105°C	LD	8
MLX10803KDC	High power LED driver	-40°C to 125°C	DC	8
MLX81100KLQ	Intelligent DC-Motor Controller **	-40°C to 125°C*	LQ	40
MLX81100KPF	Intelligent DC-Motor Controller **	-40°C to 125°C*	PF	48
MLX81200KLQ	Intelligent BLDC-Motor Controller **	-40°C to 125°C*	LQ	48
MLX81200KPF	Intelligent BLDC-Motor Controller **	-40°C to 125°C*	PF	48

* Available in 150°C temperature range on request
** Embedded MCU-software development setup is necessary
*** Engineering samples available in January 2009

CAN-Bus Transceiver

Melexis Order number	Description	Temp. Range	Package	N° Pins
TH8055JDC	Single Wire CAN Transceiver (GMW3089 V1.26)	-40°C to 125°C	DC	8
TH8056KDC-A	Single Wire CAN Transceiver (GMW3089 V2.x)	-40°C to 125°C	DC	14
TH8056KDC-A8	Single Wire CAN Transceiver (GMW3089 V2.x)	-40°C to 125°C	DC	8

LIN-Bus Transceiver

Melexis Order number	Description	Temp. Range	Package	N° Pins
TH8062KDC	LIN Transceiver with 5 V 70 mA Regulator	-40°C to 125°C	DC	8
TH8065KDC	LIN Transceiver with 5 V 70 mA Regulator and analog watchdog	-40°C to 125°C	DC	14
TH8080KDC	LIN Transceiver	-40°C to 125°C	DC	8
TH8082KDC	LIN Transceiver with INH Control	-40°C to 125°C	DC	8
MLX80001KLQ	Four-channel LIN Transceiver	-40°C to 125°C	LQ	20

K-Bus Transceiver

Melexis Order number	Description	Temp. Range	Package	N° Pins
TH3122.4KDF	K-Bus Transceiver with 5 V 100 mA Regulator	-40°C to 125°C	DF	16

LIN-System ICs

Melexis Order number	Description	Temp. Range	Package	N° Pins
TH8103KLQ	LIN Slave for intelligent Switch modules (LIN 1.3)	-40°C to 125°C	LQ	28
MLX80103KLQ	LIN Slave for intelligent Switch modules (LIN 2.0)	-40°C to 125°C	LQ	28
MLX81100KLQ	Intelligent DC-Motor Controller **	-40°C to 125°C*	LQ	40
MLX81100KPF	Intelligent DC-Motor Controller **	-40°C to 125°C*	PF	48
MLX81200KLQ	Intelligent BLDC-Motor Controller **	-40°C to 125°C*	LQ	48
MLX81200KPF	Intelligent BLDC-Motor Controller **	-40°C to 125°C*	PF	48

* Available in 150°C temperature range on request
** Embedded MCU - software development setup is necessary

RFID ICs

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX12115EFR	13.56MHz Transciver IC; TI S6700 drop-in replacement	-40°C to 85°C	FR	20
MLX90109CDC	125 kHz Transceiver IC	0°C to 70°C	DC	8
MLX90109EDC	125 kHz Transceiver IC	-40°C to 85°C	DC	8
MLX90121EFR	13.56MHz Transceiver, ISO14443A/B & 15693 compliant	-40°C to 85°C	FR	20
MLX90129KGO	13.56MHz Sensor Tag IC, 15693 compliant	-40°C to 85°C	GO	20
MLX90129KLQ	13.56MHz Sensor Tag IC, 15693 compliant	-40°C to 85°C	LQ	20

RF Transmitters

Melexis Order number	Description	Temp. Range	Package	N° Pins
TH72001KDC	315MHz FSK Transmitter	-40°C to 125°C	DC	8
TH72002KDC	315MHz ASK Transmitter	-40°C to 125°C	DC	8
TH72005KLD	315MHz FSK/ASK Transmitter	-40°C to 125°C	LD	10
TH72006KLD	315MHz FSK/ASK Transmitter w/ clock O/P	-40°C to 125°C	LD	10
TH72011KDC	433MHz FSK Transmitter	-40°C to 125°C	DC	8
TH72012KDC	433MHz ASK Transmitter	-40°C to 125°C	DC	8
MLX72013CDC	433MHz FSK/ ASK high power Transmitter	0°C to 70°C	DC	8
MLX72013KDC	433MHz FSK/ ASK high power Transmitter	-40°C to 125°C	DC	8
TH72015KLD	433MHz FSK/ASK Transmitter	-40°C to 125°C	LD	10
TH72016KLD	433MHz FSK/ASK Transmitter w/ clock O/P	-40°C to 125°C	LD	10
TH72031KDC	868/915MHz FSK Transmitter	-40°C to 125°C	DC	8
TH72032KDC	868/915MHz ASK Transmitter	-40°C to 125°C	DC	8
TH72035KLD	868/915MHz FSK/ASK Transmitter	-40°C to 125°C	LD	10
TH72036KLD	868/915MHz FSK/ASK Transmitter w/ clock O/P	-40°C to 125°C	LD	10

Short Form Catalog

RF Receivers

Melexis Order number	Description	Temp. Range	Package	N° Pins
TH71101ENE	315/433MHz FSK/ASK Receiver Single-Conversion Version	-40°C to 85°C	NE	32
TH71102ENE	315/433MHz FSK/ASK Receiver Double-Conversion Version	-40°C to 85°C	NE	32
TH71111ENE	868/915MHz FSK/ASK Receiver Single-Conversion Version	-40°C to 85°C	NE	32
TH71112ENE	868/915MHz FSK/ASK Receiver Double-Conversion Version	-40°C to 85°C	NE	32
MLX71120KLQ	300 to 930MHz FSK/ASK Receiver Multi-band, single channel	-40°C to 125°C	LQ	32
MLX71121KLQ	300 to 930MHz FSK/ASK Receiver fixed frequency, antenna diversity	-40°C to 125°C	LQ	32
MLX71122RLQ	300 to 930MHz FSK/ASK Receiver multi channel, SPI programmable	-40°C to 105°C	LQ	32

RF Transceivers

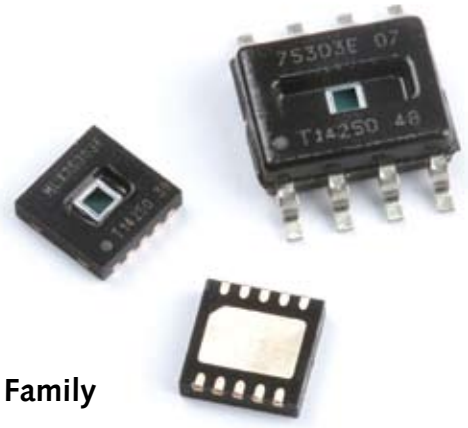
Melexis Order number	Description	Temp. Range	Package	N° Pins
TH7122ENE	27 to 930MHz FSK/ASK Transceiver	-40°C to 85°C	NE	32
TH71221ELQ	27 to 930MHz FSK/ASK Transceiver	-40°C to 85°C	LQ	32

Infrared Sensor ICs

Melexis Order number	Description	Object Temp. Calib. Range*	Temp. Range	Package	N° Pins
MLX90614ESF-AAA	Integrated Infrared Thermometer, 5V, single sensor, standard accuracy	-70°C to 380°C	-40°C to 85°C	SF	4
MLX90614ESF-BAA	Integrated Infrared Thermometer, 3V, single sensor, standard accuracy	-70°C to 380°C	-40°C to 85°C	SF	4
MLX90614ESF-DAA	Integrated Infrared Thermometer, 3V, single sensor, medical accuracy	-70°C to 380°C	-40°C to 85°C	SF	4
MLX90614ESF-ABA	Integrated Infrared Thermometer, 5V, dual sensor, standard accuracy	-70°C to 380°C	-40°C to 85°C	SF	4
MLX90614ESF-BBA	Integrated Infrared Thermometer, 3V, dual sensor, standard accuracy	-70°C to 380°C	-40°C to 85°C	SF	4
MLX90614ESF-ACC	Integrated Infrared Thermometer, 5V, single zone thermal gradient compensated, 35° viewing angle	-70°C to 380°C	-40°C to 85°C	SF	4
MLX90614ESF-BCC	Integrated Infrared Thermometer, 3V, single zone thermal gradient compensated, 35° viewing angle	-70°C to 380°C	-40°C to 85°C	SF	4
MLX90614ESF-ACF	Integrated Infrared Thermometer, 5V, single sensor, thermal gradient compensated, 10° viewing angle	-70°C to 380°C	-40°C to 85°C	SF	4
MLX90614ESF-BCF	Integrated Infrared Thermometer, 3V, single sensor, thermal gradient compensated, 10° viewing angle	-70°C to 380°C	-40°C to 85°C	SF	4
MLX90614KSF-AAA	Integrated Infrared Thermometer, 5V, single sensor, standard accuracy	-70°C to 380°C	-40°C to 125°C	SF	4
MLX90614KSF-ABA	Integrated Infrared Thermometer, 5V, dual sensor, standard accuracy	-70°C to 380°C	-40°C to 125°C	SF	4
MLX90614KSF-ACC	Integrated Infrared Thermometer, 5V, single zone thermal gradient compensated, 35° viewing angle	-70°C to 380°C	-40°C to 125°C	SF	4
MLX90615ESG-DAA	Integrated Infrared Thermometer, 3V, single sensor, medical accuracy	-40°C to 115°C	-40°C to 85°C	SG	4

Opto Sensor ICs

Melexis Order number	Description	Temp. Range	Pack-age	N° Pins
MLX90255KWB-BAM	Linear Optical Array-GLP5 with Glass	-40°C to 125°C	WB	5
MLX90255KXA-BCR	Linear Optical Array-SOIC24 without Glass	-40°C to 125°C	XA	24



Opto Sensor ICs: SensorEyeC™ Family

Melexis Order number	Description	Temp. Range	Pack-age	N° Pins
MLX75303SXD	5V Optical Switch SensorEyeC™	-20°C to 85°C	XD	8
MLX75303SXE	5V Optical Switch SensorEyeC™	-20°C to 85°C	XE	10
MLX75303KXD	3.3/5V Optical Switch SensorEyeC™	-40°C to 125°C	XD	8
MLX75303KXE	3.3/5V Optical Switch SensorEyeC™	-40°C to 125°C	XE	10
MLX75304SXD	Light to Frequency Convertor SensorEyeC™	-20°C to 85°C	XD	8
MLX75304SXE	Light to Frequency Convertor SensorEyeC™	-20°C to 85°C	XE	10
MLX75304KXD	Light to Frequency Convertor SensorEyeC™	-40°C to 125°C	XD	8
MLX75304KXE	Light to Frequency Convertor SensorEyeC™	-40°C to 125°C	XE	10
MLX75305SXD	Light to Voltage Convertor SensorEyeC™	-20°C to 85°C	XD	8
MLX75305SXE	Light to Voltage Convertor SensorEyeC™	-20°C to 85°C	XE	10
MLX75305KXD	Light to Voltage Convertor SensorEyeC™	-40°C to 125°C	XD	8
MLX75305KXE	Light to Voltage Convertor SensorEyeC™	-40°C to 125°C	XE	10