Melexis
Microelectronic Integrated Systems

Short Form Catalog

Revision 9.0

www.melexis.com


AUTO
OFF
DUAL
LOAD
DISC
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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.

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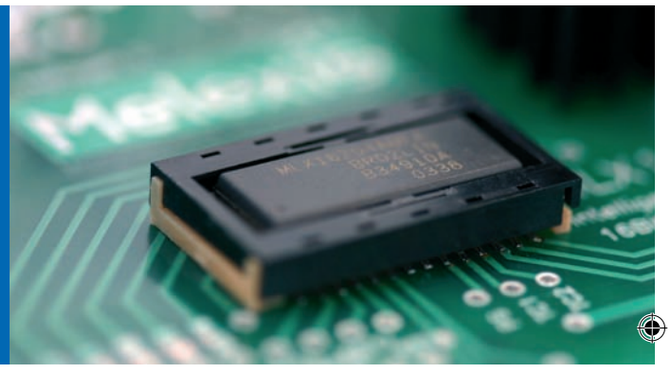
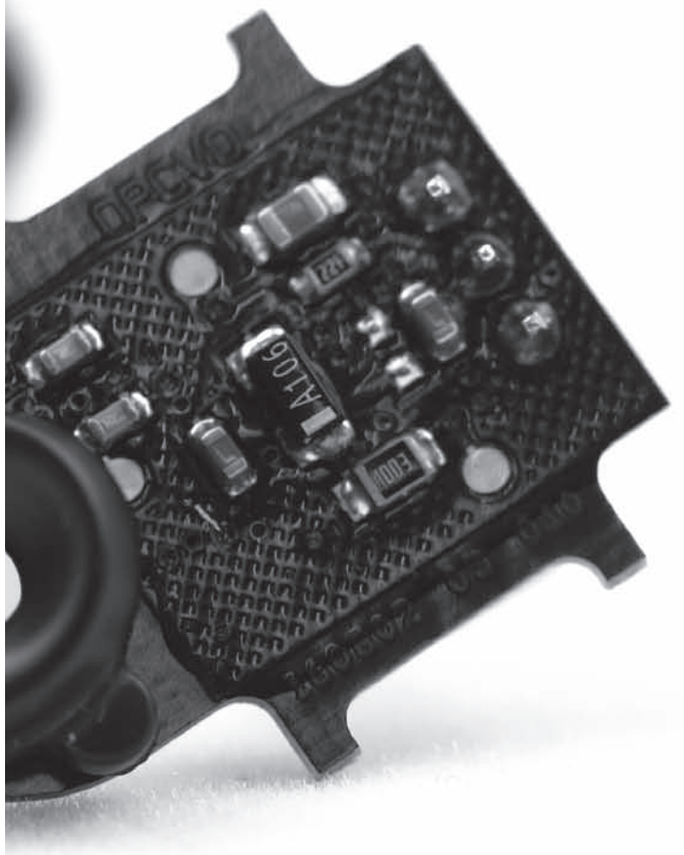
Our Activities & Product Technology

- Hall effect Sensor ICs
- Triaxis® Hall ICs
- Wireless ICs
- Infrared and Opto ICs
- SensorEyeC™ Opto ICs
- Camera Sensor ICs
- Pressure Sensor ICs
- Sensor Interface ICs
- Bus ICs
- Motor Control ICs
- Hardware and Evaluation Boards





OVERVIEW OF ACTIVITIES

Our customers inspire us to create, develop and market advanced integrated circuits primarily used in automotive electronics systems. This strength enables the innovation and introduction of sophisticated ICs and sensors for the broader consumer, medical and industrial markets worldwide.

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 micro-controllers or DSP capabilities.

The market for automotive semiconductors is expecting to experience a growth of 12% (CAGR) in 2010 (Source: Databeans) 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 energy 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.

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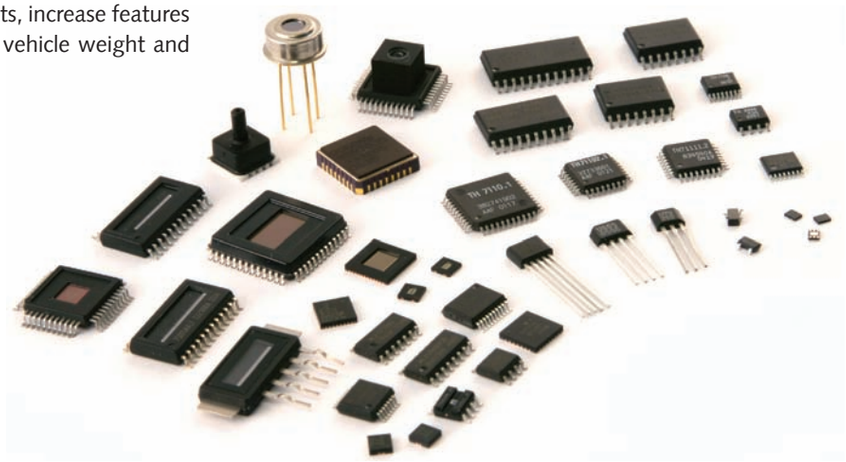
Melexis holds a broad patent portfolio. These patents serve our customers by providing effective and unique solutions in their highly competitive market segments.

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.



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Sensors

Hall Effect Sensors

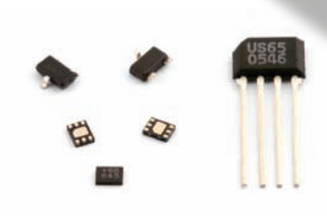
Hall Effect Devices detect magnetic field. Typical uses are for movement, position and speed sensing and also current sensing. Hall devices are immune to dust, dirt, humidity and vibration.

Melexis produced the first Hall IC with programmability: this breakthrough allowed simplification of our customer's modules. Sensing pedal, throttle and steering wheel position, steering torque and transmission shifter, sensing rotation of the cam- and crank-shafts in engines, 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, gaming, computing, personal portable devices and automation equipment.

Melexis markets a patented Hall technology under the brand 'Triaxis®'. This technology enables the realization of cutting-edge contactless magnetic position sensors. Triaxis® ICs are designed in rotary, linear and 3D-joystick position sensors. The final products are used to improve the fuel efficiency, reduce the engine emission (CO2 footprint), enhance the vehicle stability control and increase the steering or braking features. For instance, the Triaxis® technology enables Melexis to actively contribute to programs such as "engine down-sizing" and "start/stop" introduced by the vehicle manufacturers. Human-machine interface (HMI) applications are also addressed by Triaxis® ICs: they enable novel generation of smart shifters (manual and automatic transmission) or controllers for entertainment systems. The Triaxis® technology is also used for current sensors whose market growth is linked to the increase of electrical systems in today's vehicles as well as the positive trend for hybrid and electrical powertrain. The Triaxis® portfolio includes electronic compasses.

Melexis' portfolio of Hall sensors offers solutions for robust switching and 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 vibration motors for cellular phones. Recent innovations include ICs that significantly reduce the acoustic switching noise of cooling fans; an important feature in consumer or office electronic devices. Another example is an ultra-low-power switch or encoder for battery-operated devices such as cellular phones, laptops.



MEMS (Micromachined Electro-Mechanical Systems)

a. Pressure Sensors, Acceleration Sensors, Gyroscopes

Sensors are at the core of many modern automotive applications, such as airbag systems, vehicle stability systems, particle filters, filter monitoring and brake systems. Melexis develops pressure sensors, acceleration sensors and gyroscopes based on silicon micro-machining technology, where the physical parameter being sensed causes a temporary and reversible deformation to a mechanical structure etched into the IC. Micro-machining technology borrows the batch manufacturing methods of the microelectronic industry to produce micro-scale mechanical devices with outstanding performance.

Pressure is one of the key control parameters in an automobile. It is measured 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. Melexis is an established player in this market and is committed to stay at the leading edge by continuously investing in the development of innovative products.

b. Signal Conditioning Interface ICs

In 2009 Melexis has consolidated its leading positioning in the automotive segment of this market. With this product line it is now a key supplier to several of the world's largest automotive sensor manufacturers. Interface ICs allow bridge type piezoresistive and capacitive sensors to communicate intelligently with control 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, refrigerant liquid pressure in automotive air-conditioning systems. The challenges imposed on the car industry to make cars more fuel efficient and environmentally friendly can only be met by an extensive use of all types of sensors. Most types of sensors require conditioning of the sensor signal in order to be used in a control system. The automotive market, along with many other industries, is gradually moving towards more digitally based signal processing. This creates new challenges and opportunities in the field of sensor interfaces. Melexis is well positioned to deliver solutions due to its strong market position and experience in this area.

Actuators

Motor Control ICs

Automotive electronics are a means to respond to volatile oil prices, requests for material savings and environmental requirements. Electric motors allow the upgrading of functional units, such as water pumps and oil pumps, from full-time mechanical drive by the engine to on-demand electric drive. This results in reducing CO2 emissions, improved fuel economy and more responsive cars. To realize these functions in a reliable way, Brushless DC (BLDC) motors controlled in a sensorless manner are the technology of choice. Other functions that see an increase in electronic content due to the shift from a DC motor control to a Sensorless BLDC motor control are fuel pumps and engine cooling fans. Melexis delivers and develops controllers and drivers for these BLDC motors. Electrically controlled valves are becoming the norm in engine management systems to reduce emissions while maintaining or improving power. This type of electronics under the hood requires high temperature Flash microcontrollers. Melexis responded to this trend already in 2008 with the launch of a unique family of high temperature Flash products for DC and BLDC motor control. The high integration of Melexis motor controllers enables our customers to slash the component count in their mechatronic solutions from 100 to less than 50, leading the path to high quality, compact cost effective and environmental friendly high volume solutions.

LIN Slaves

The growing functionality in cars also results in an increase in human interactions. Former simple things like switch modules have to become more intelligent in order to reduce wiring effort and to save copper. In today's vehicle architecture, these switch modules are therefore not directly wired anymore, but they will be connected to a LIN bus system (Local Interconnect network).

Melexis launched a new chip family of intelligent network capable switch controllers called "uniROM switch slaves" to support this trend and to keep the development effort as low as possible. This family of chips accomplishes a unique combination of hardware and software. It is a perfect example of how thoughtful application of technology can remove the need for software development and qualifications. UniROM switch slaves for LIN networks can be found in switch modules on the steering wheel, in the car door, in the car roof and in the center console. The LIN bus system is also used more often for different kinds of applications such as intelligent sensors or actuators.

LIN applications may also be realized with discrete microcontrollers. In such implementations a System Basis IC (SBC) is required to provide the physical bus interface functionality. SBC's simplify our customer's development efforts and decrease module cost. This enables the deployment of LIN bus control for a wider range of applications.

Wireless

Wireless ICs

During the last ten years, the Wireless Business Unit of Melexis successfully brought short range connectivity and identification solutions to the markets with its leading edge RF and RFID ICs. The frequency coverage of our wireless products is from a few kHz up to 950MHz. In the automotive area, RF transceivers, receivers and transmitters are widely used in remote keyless entry (RKE) and tire pressure monitoring systems (TPMS), whereas RFID readers and transponders are the building blocks of car immobilizers.

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In industrial markets, our products are key elements of logistic and traceability applications. We also provide our ICs in home and building automation equipment like garage door openers, alarm systems, access control and automatic meter reading (AMR). In the consumer market, RFICs are used in remote controls and our RFID technology is successfully integrated in Near Field Communication (NFC) platforms for mobile phones. An open mindset to understand our customer challenges, a strong system and application knowledge, a large capabilities spectrum to convert requirements into "systems on chip" are part of our core competencies. Combined with the sensing expertise available within Melexis, the Wireless Business Unit builds a market leading position in the Wireless Sensing area. Our next product generation will bring even more innovation to our customers and provide them with highly integrated solutions. In the automotive area, we will strengthen our position in TPMS and Passive Entry and Start (PASE) systems. In industrial applications, we will focus on assets and cold chain management with specialty sensor transponders and active RFID tag ICs. We also target medical monitoring and control applications.

Opto

The SensorEyeC Family

In 2008, Melexis has increased its product portfolio with a new line of optical sensors, the SensorEyeC family. The MLX75303 and MLX75305 are single-pixel optical sensors that offer the customers a specific solution for their application needs: optical switching, optical high-dynamic range measuring and a highly sensitive, linear light-to-voltage sensor.

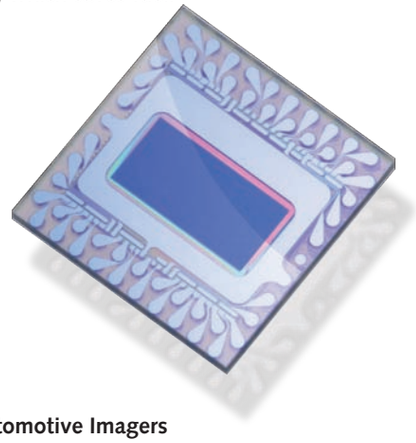
The newest offering, the MLX75309, is a programmable optical switch for indoor use, with a special optical response tuned to mimic the human eye response urve without using external filters. Main applications for the SensorEyeC products include LCD screen backlight dimming in handheld consumer products; automotive and avionic lighting controls; printer and copier controls; proximity sensing and contactless switches. All SensorEyeC devices can contribute to a greener planet through energy saving. Screen dimming not only enhances user comfort when reading screens and displays, it also saves power by automatic dimming. This results in less energy consumption of the screen backlight of mobile devices and flat screen televisions in dark environments. In commercial lighting it can be applied to better match the ambient lighting to the perception of dark or light by the occupants.

Linear Optical Arrays

For its successful product line of linear optical arrays for steering applications, Melexis plans to introduce in 2010 a new member: the MLX75306, our 3rd Generation Linear Optical Array.

This new sensor will allow Melexis customers to improve the current steering applications by reducing the mechanical size, lowering the total system costs, and increasing performance levels to meet the VM needs for the next generation steering systems. Typical applications include steering angle measurement, steering torque measurement, spectroscopy, bar code reading and precise position measurement.

The advent of Electric Powered Assisted Steering (EPAS) avoids using hydraulic-pumps. Traditional hydraulic systems require a constantly pressurized system, which continuously consumes energy and thus fuel. EPAS only consumes energy when power assist is needed; it does not consume fuel while driving straight ahead. Fuel composition analysis using spectroscopy can optimize the engine parameters dependant on the fuel content in the fuel tank (diesel, biodiesel, ethanol, etc), leading to a more efficient combustion in the engine, which saves fuel.



Automotive Imagers

Camera systems in cars are a fast growing market. Melexis focuses on front vision applications including night vision and driver assistance applications like, for example, lane departure warning, adaptive front lighting and traffic sign recognition. They dramatically improve road safety by proactively alerting the driver of potential dangers.

Through the acquisition of the our most recent Vision team in spring 2009, Melexis offers camera imagers and modules. Our most recent product offering includes the MLX75411 “Avocet” imager and the MLX75403 automotive camera module. The predecessors of the “Avocet” imager are currently in production for automotive night vision and for enhanced forward collision warning applications.

The MLX75411 “Avocet” imager provides crisp picture details from dark to light. Thanks to its high “night vision” light sensitivity, dark scenes come out bright. Because of its 154dB wide dynamic range, the imager does not saturate under extreme light conditions, like when sunlight or headlights shine directly into the camera lens. Maximum picture details are depicted simultaneously in low, mid and high tones by means of the imager’s on-chip automatic exposure control and 6 barrier wide dynamic range control function called “Autobrite®”. Optimal display viewing experience is offered through the on-chip “Autoview” function.

Based on the MLX75411 "Avocet" imager, Melexis is currently demonstrating a world's first automotive color night vision solution, while practically maintaining the system's light sensitivity. Earlier systems only provide a monochrome image. Next to a more natural night look on display, main benefits include improved functioning of driver assistance systems at night, including pedestrian detection, accident avoidance, and lane identification, even when multiple colors are used at road works.

Our automotive camera, the MLX75403, is also enabling vision applications in several other market segments; specifically heavy truck, light and heavy rail, agriculture & construction, autonomous vehicles and robotics applications. Industrial and transportation applications also benefit from this fully integrated camera solution due to its unique combination of high sensitivity, industry leading wide dynamic range, low noise and performance over temperature. Melexis continues to grow these innovative and potentially life-saving camera solutions which open up new market opportunities in automotive and other market segments.

Intelligent InfraRed Thermometers

In 2009, Melexis further expanded the product line of intelligent InfraRed thermometers.

For the general purpose and automotive qualified MLX90614, the product line has been expanded by offering sensors with smaller Field-Of-View, high accuracy and high stability. This makes these thermometers plug-in suitable for use in handheld thermometers, forehead thermometers, professional medical equipment, white goods and industrial applications. These sensors still offer the same high accuracy, wide temperature range and ease-of-use of the basic device.

In this product family Melexis now also offers versions with added measurement accuracy in thermally demanding environments and applications. This greatly simplifies the design-in of the product in real world applications and has led to new design-ins in many diverse applications.

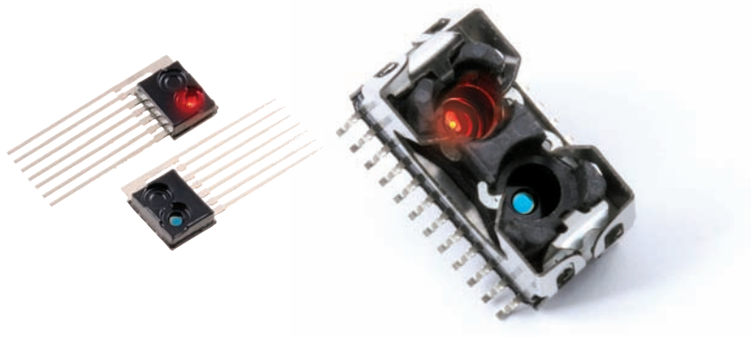
Specifically for the medical market and those applications where the small size of the thermometer is of absolute importance, Melexis has developed the MLX90615. This new thermometer offers the same functionality as his bigger brother MLX90614, but in a half-size package.

The most prominent application for infrared thermometers is measuring body temperature to check for fever and illness. There are three main types of IR fever thermometers: ear thermometers, forehead thermometers and non-contact, distance-read thermometers. This application is only increasing in importance as fever screening in public places is used in more and more countries to contain the spread of infectious diseases.

Industrialization is made much easier for our customers because these sensors all are factory calibrated.

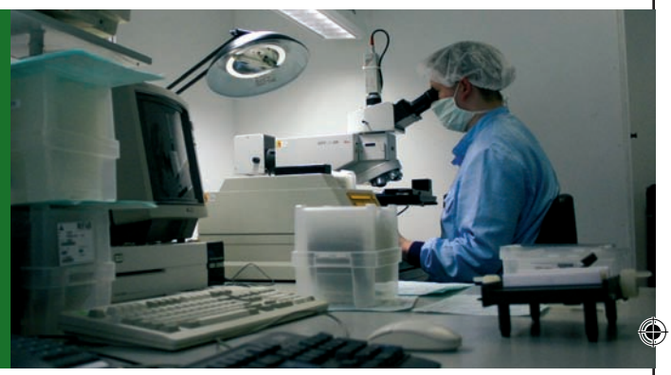
MOST 150 Transceiver

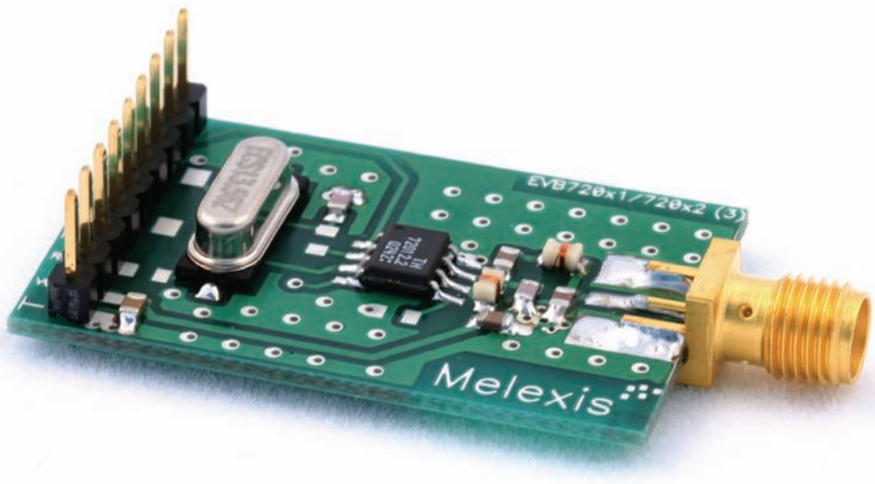
On March 10, 2008 the MOST Cooperation (Media Oriented Systems Transport, the de-facto standard for multimedia and infotainment networking in the automotive industry) published their new MOST Specification Rev. 3.0 enabling the industry to begin to work with the newly defined MOST150 physical layer. At the same time Melexis announced development of a single package solution for a 150 Mbps Fiber Optic Transceiver, dedicated for this newly introduced MOST150 physical layer: the MLX75605. The MLX75605, was subsequently selected by the AEI (Automotive Engineering International, published by SAE) as one of the: 'Top Technology stories of the year' SAE (Society of Automotive Engineers) is a non-profit educational and scientific organization of 89000 members who are dedicated to advancing mobility technology to better serve humanity.



Product Portfolio

- Hall effect Sensor ICs
- Triaxis® Hall ICs
- Wireless ICs
- Infrared and Opto ICs
- SensorEyeC™ Opto ICs
- Camera Sensor ICs
- Pressure Sensor ICs
- Sensor Interface ICs
- Bus ICs
- Motor Control ICs
- Hardware and Evaluation Boards





Short Form Catalog

Hall Effect Latches / Bipolar Switches

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX92211LSE	New Generation I Very High Sensitivity I 2.7~24V +/-60G max I +/-10G min I Integrated Protection	-40°C to 150°C	SE	3
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
US1882LUA	Low Sensitivity I +/-300G max +/-140G min I 3.5~24V	-40°C to 85°C	UA	3
US1883LUA	Medium Sensitivity I +/-180G max +/-100G min I 3.5~24V	-40°C to 85°C	UA	3
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 3.5~24V	-40°C to 150°C	UA	3
US2881ESE	Very High Sensitivity I +/-60G max, -/+10G min 3.5~24V I North Pole Active	-40°C to 85°C	SE	3
US2881LSE	Very High Sensitivity I +/-60G max, -/+20G min 3.5~24V I North Pole Active	-40°C to 150°C	SE	3
US2882EUA	Very High Sensitivity I +/-60G max, -/+30G min 3.5~24V	-40°C to 85°C	UA	3
US2882LUA	Very High Sensitivity I +/-60G max, -/+35G min 3.5~24V	-40°C to 150°C	UA	3
US2882LSE	Very High Sensitivity I +/-60G max, -/+35G min 3.5~24V I North Pole Active	-40°C to 150°C	SE	3
US2884ESE	Very High Sensitivity I +/-60G max, -/+20G min 3.5~24V	-40°C to 85°C	SE	3
US2884LSE	Very High Sensitivity I +/-60G max, -/+20G min 3.5~24V	-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
US4881EUA	Very High Sensitivity I +/-60G max, -/+10G min 2.2~18V	-40°C to 85°C	UA	3
US4881LUA	Very High Sensitivity I +/-60G max, -/+10G min 2.2~18V	-40°C to 150°C	UA	3
US4881ESE	Very High Sensitivity I +/-60G max, -/+10G min 2.2~18V I North Pole Active	-40°C to 85°C	SE	3
US4881LSE	Very High Sensitivity I +/-60G max, -/+10G min 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
US5681ESE	High Sensitivity I Bop max = 72G Brp min = 20G I 3.5~24V	-40°C to 85°C	SE	3
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

Short Form Catalog

Low Power Hall Latches & Switches

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX92213ELD	Latch I Micropower I 1.6~3.6V I 50uA @ 5V I +/-50G max I +/-5G min	-40°C to 85°C	LD	6
MLX90248ESE (Gen II)	Omnipolar Switch I Micropower I 1.5~3.6V I 5uA @ 3V I Bopmax = +/-60G I Brp min = +/-5G	-40°C to 85°C	SE	3
MLX90248ELD (Gen II)	Omnipolar Switch I Micropower I 1.5~3.6V I 5uA @ 3V I Bopmax = +/-60G I Brp min = +/-5G	-40°C to 85°C	LD	3
MLX90248ESE-H	Omnipolar Switch I Micropower I 3.5~5.5V I 25uA @ 5V I Bopmax = +/-60G I Brp min = +/-5G	-40°C to 85°C	SE	3

Dual Hall Latches

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX90224EVA-A	Hall A & Hall B outputs I 1.85mm Hall spacing 5~24V I +/-55G max	-40°C to 85°C	VA	4
MLX90224EVA-B	Speed & Direction outputs I 1.85mm Hall spacing 5~24V I +/-55G max	-40°C to 85°C	VA	4
MLX92251LSE-A	Speed & Direction outputs I 1.45mm Hall spacing 2.7~24V I +/-100G max I +/-50G min Integrated Protection	-40°C to 150°C	SE	6

Programmable Latch/Switch

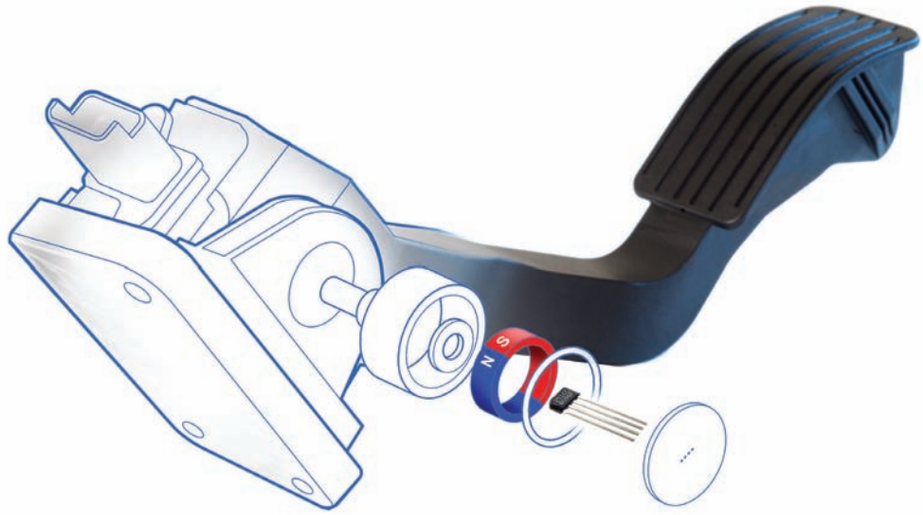
Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX90275LSE	Programmable Hall effect Latch/Switch	-40°C to 150°C	SE	5

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	Programmable Linear Hall IC (Gen I)	-40°C to 85°C	VA	4
MLX90215LVA	Programmable Linear Hall IC (Gen I)	-40°C to 150°C	VA	4
MLX90251EVA-0	Programmable Linear Hall IC (Gen II) Option code 0: 2.6<Sens<15mV/mT	-40°C to 85°C	VA	4
MLX90251EVA-1	Programmable Linear Hall IC (Gen II) Option code 1: 10<Sens<35mV/mT	-40°C to 85°C	VA	4
MLX90251EVA-2	Programmable Linear Hall IC (Gen II) Option code 2: 18<Sens<90mV/mT	-40°C to 85°C	VA	4
MLX90251EVA-3	Programmable Linear Hall IC (Gen II) Option code 3: 50<Sens<210mV/mT	-40°C to 85°C	VA	4
MLX90251LVA-0	Programmable Linear Hall IC (Gen II) Option code 0: 2.6<Sens<15mV/mT	-40°C to 150°C	VA	4
MLX90251LVA-1	Programmable Linear Hall IC (Gen II) Option code 1: 10<Sens<35mV/mT	-40°C to 150°C	VA	4
MLX90251LVA-2	Programmable Linear Hall IC (Gen II) Option code 2: 18<Sens<90mV/mT	-40°C to 150°C	VA	4
MLX90251LVA-3	Programmable Linear Hall IC (Gen II) Option code 3: 50<Sens<210mV/mT	-40°C to 150°C	VA	4
MLX34102LDC	Programmable Linear Hall IC (Gen III) Featuring 125Hz PWM output	-40°C to 150°C	DC	8
MLX16602LVA	Programmable Linear Hall IC (Gen III) Featuring PSI-5 or PWM programmable Ireg output	-40°C to 150°C	VA	4
MLX90288LDC	Programmable Linear Hall IC (Gen III) Featuring ratiometric analog output	-40°C to 150°C	DC	8
MLX91207LDC	High Speed Programmable Linear Hall sensor (Gen III) Featuring ratiometric analog output	-40°C to 150°C	DC	8



Short Form Catalog

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

Triaxis®

Programmable Triaxis® Position Sensor ICs (Unprogrammed) Gen I

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

Programmable Triaxis® Position Sensor ICs (Unprogrammed) Gen I

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX90316EDC-BDG-SPI	360-Degree Rotary Position Sensor Serial Protocol	-40°C to 85°C	DC	8
MLX90316KDC-BDG-SPI	360-Degree Rotary Position Sensor Serial Protocol	-40°C to 125°C	DC	8
MLX90316LDC-BDG-SPI	360-Degree Rotary Position Sensor Serial Protocol	-40°C to 150°C	DC	8
MLX90316EGO-BDG-SPI	360-Degree Dual Rotary Position Sensor Serial Protocol	-40°C to 85°C	GO	16
MLX90316KGO-BDG-SPI	360-Degree Dual Rotary Position Sensor Serial Protocol	-40°C to 125°C	GO	16
MLX90316LGO-BDG-SPI	360-Degree Dual Rotary Position Sensor Serial Protocol	-40°C to 150°C	GO	16
MLX90316KDC-BCG-PPA	360-Degree Rotary Position Sensor Analog Output - 10%VDD … 90%VDD	-40°C to 125°C	DC	8
MLX90316KGO-BCG-PPA	360-Degree Dual Rotary Position Sensor Analog Output - 10%VDD … 90%VDD	-40°C to 125°C	GO	16
MLX90316KDC-BCG-PPD	360-Degree Rotary Position Sensor PWM Output - 1 kHz - 10%DC … 90%DC	-40°C to 125°C	DC	8
MLX90316KGO-BCG-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

Triaxis® Current Sensor ICs

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX91205KDC-HB	Triaxis Current Sensor IC	-40°C to 125°C	DC	8
MLX91205KDC-LB	Triaxis Current Sensor IC	-40°C to 125°C	DC	8

Programmable Triaxis® Position Sensor ICs (Unprogrammed) Gen II

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX90360SDC	Programmable Rotary or Linear Position Sensor	-20°C to 85°C	DC	8
MLX90360EDC	Programmable Rotary or Linear Position Sensor	-40°C to 85°C	DC	8
MLX90360KDC	Programmable Rotary or Linear Position Sensor	-40°C to 125°C	DC	8
MLX90360LDC	Programmable Rotary or Linear Position Sensor	-40°C to 150°C	DC	8
MLX90360EGO	Dual Full Redundant Programmable Rotary or Linear Position Sensor	-40°C to 85°C	GO	16
MLX90360KGO	Dual Full Redundant Programmable Rotary or Linear Position Sensor	-40°C to 125°C	GO	16
MLX90360LGO	Dual Full Redundant Programmable Rotary or Linear Position Sensor	-40°C to 150°C	GO	16

Short Form Catalog

Integrated Hall BLDC Motor Driver ICs

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX90287LDC	Single Coil I 5~16V I 300mA continuous I FG Speed Control I Minimal Speed I Low Noise I Soft Start	-40°C to 150°C	DC	8
MLX90285LVK-FG	Two-Coil I 5~30V I 300mA continuous Low Noise with RPM Closed Loop I FG	-40°C to 150°C	VK	4
MLX90285LDC-FG	Two-Coil I 5~30V I 300mA continuous Low Noise with RPM Closed Loop I FG	-40°C to 150°C	DC	8
MLX90285LVK-RD	Two-Coil I 5~30V I 300mA continuous Low Noise with RPM Closed Loop I RD	-40°C to 150°C	VK	4
MLX90285LDC-RD	Two-Coil I 5~30V I 300mA continuous Low Noise with RPM Closed Loop I RD	-40°C to 150°C	DC	8
US168ESE	Single-Coil I 1.8~6.5V I 300mA continuous Low Noise I Tachometer (FG)	-40°C to 85°C	SE	5
US168ELD	Single-Coil I 1.8~6.5V I 300mA continuous Low Noise I Tachometer (FG)	-40°C to 85°C	LD	6
US169ESE	Single-Coil I 1.8~6.5V I 300mA continuous Low Noise I Rotation Detection (RD)	-40°C to 85°C	SE	5
US169ELD	Single-Coil I 1.8~6.5V I 300mA continuous Low Noise I Rotation Detection (RD)	-40°C to 85°C	LD	6
US72EDC	Single-Coil I 4.5~28V I 350mA continuous I FG	-40°C to 85°C	DC	8
US73EDC	Single-Coil I 4.5~28V I 350mA continuous I RD	-40°C to 85°C	DC	8
US90AEVK	Two-Coil I 4.7~30V I 250mA continuous I FG	-40°C to 85°C	VK	4
US90AEDC	Two-Coil I 4.7~30V I 250mA continuous I FG	-40°C to 85°C	DC	8
US91AEVK	Two-Coil I 4.7~30V I 250mA continuous I RD	-40°C to 85°C	VK	4
US91AEDC	Two-Coil I 4.7~30V I 250mA continuous I RD	-40°C to 85°C	DC	8
US651EDC	Two-Coil I 3~18V I 350mA continuous I Low Noise Adjustable Slope I FG	-40°C to 85°C	DC	8
US661EDC	Two-Coil I 3~18V I 350mA continuous I Low Noise Adjustable Slope I RD	-40°C to 85°C	DC	8
US890EVK	Two-Coil I 2.6~18V I 600mA continuous I FG	-40°C to 85°C	VK	4
US891EVK	Two-Coil I 2.6~18V I 600mA continuous I RD	-40°C to 85°C	VK	4
US62EVK	Two-Coil I 3.2~18V I 250mA continuous I FG	-40°C to 85°C	VK	4
US63EVK	Two-Coil I 3.2~18V I 250mA continuous I 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
MLX90283ELD	BLDC Vibration Motor Driver I 1.8~3.6V 150mA continuous I Active Start	-40°C to 85°C	LD	6

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 60 to 140 mbar FS	-40°C to 150°C	UF	-
MLX90807LUF-1	Relative Integrated Pressure Sensor 0.4 - 2 bar FS	-40°C to 150°C	UF	-
MLX90807LUF-2	Relative Integrated Pressure Sensor 2.0 - 8.0 bar FS	-40°C to 150°C	UF	-
MLX90807LUF-3	Relative Integrated Pressure Sensor 8.0 - 15.0 bar FS	-40°C to 150°C	UF	-
MLX90807LUF-4	Relative Integrated Pressure Sensor 15.0 - 45.0 bar FS	-40°C to 150°C	UF	-
MLX90808LUF-1	Absolute Integrated Pressure Sensor 0.6 to 3 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-3	Absolute Integrated Pressure Sensor 8.0 to 15.0 bar FS	-40°C to 150°C	UF	-
MLX90808LUF-4	Absolute Integrated Pressure Sensor 15.0 to 45.0 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
MLX90314LDF	Versatile High-Gain Programmable Sensor Interface	-40°C to 150°C	DF	16
MLX90320LFR	Automotive Programmable Sensor Interface	-40°C to 150°C	FR	14
MLX90320LUF	Automotive Programmable Sensor Interface	-40°C to 150°C	UF	-
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

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BLDC Motor Controller

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX81200KLQ	Intelligent BLDC Motor Controller **	-40°C - 125°C*	LQ	48
MLX81200KPF	Intelligent BLDC Motor Controller **	-40°C - 125°C*	PF	48
MLX81201KLQ	Intelligent BLDC Motor Controller **	-40°C - 125°C*	LQ	48

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

DC Motor Controller

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX81100KLQ	Intelligent DC Motor Controller **	-40°C - 125°C*	LQ	40
MLX81100KPF	Intelligent DC Motor Controller **	-40°C - 125°C*	PF	48

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

Bus Transceiver (LIN and Single Wire CAN)

Melexis Order number	Description	Temp. Range	Package	N° Pins
TH8055JDC	Single Wire CAN Transceiver (GMW3089 V1.26)	-40°C - 125°C	DC	8
TH8056KDC-A	Single Wire CAN Transceiver (GMW3089 V2.x)	-40°C - 125°C	DC	14
TH8056KDC-A8	Single Wire CAN Transceiver (GMW3089 V2.x)	-40°C - 125°C	DC	8
TH8080KDC	LIN Transceiver	-40°C - 125°C	DC	8
TH8082KDC	LIN Transceiver with INH Control	-40°C - 125°C	DC	8
MLX80020KDC-A	2nd Gen LIN Transceiver (LIN2.x)	-40°C - 125°C	DC	8
MLX80020KDC-B	2nd Gen LIN Transceiver (J2602)	-40°C - 125°C	DC	8
MLX80001KLQ	Four-channel LIN Tranceiver	-40°C - 125°C	LQ	20

LIN System Basis ICs

Melexis Order number	Description	Temp. Range	Package	N° Pins
TH8062KDC-B	LIN Transceiver with 5V/70mA Regulator	-40°C - 125°C	DC	8
TH8065KDC	LIN Transceiver with 5V/70mA Regulator and analog Watchdog	-40°C - 125°C	DC	14

LIN Switches

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX80103KLQ	LIN Slave for intelligent Switch modules (LIN2.0)	-40°C - 125°C	LQ	28
MLX80104KLQ	LIN Slave for intelligent Switch modules (LIN2.x and J2602)	-40°C - 125°C	LQ	28

LED Driver

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX10803KDC	High Power LED Driver	-40°C - 125°C	DC	8

Gauge Drivers

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX10407EDF	Five channel Gauge Driver w/serial Link	-40°C - 85°C	DF	24
MLX10420RFR	Three channel Gauge Driver w/serial Link	-40°C - 105°C	FR	20

RFID ICs

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX12115EFR	13.56MHz Transceiver IC (Not recommended fot new designs)	-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, ISO14443B & 15693 compliant	-40°C to 85°C	FR	20
MLX90129RGO	13.56MHz Sensor Tag IC, 15693 compliant	-40°C to 105°C	GO	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	-10°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
TH72031CDC	868/915MHz FSK Transmitter	-10°C to 70°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
MLX90615ESG-DAG	Integrated Infrared Thermometer, 3V, single sensor, medical accuracy for ear thermometers	-40°C to 115°C	-40°C to 85°C	SG	4

Product Portfolio

Linear Optical Arrays

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX90255KWB-BAM	Linear Optical Array - 128 pixels - GLP5 with glass Analog output	-40°C to 125°C	WB	5
MLX90255KXA-BCR	Linear Optical Array - 128 pixels - SOIC24 without glass Analog output	-40°C to 125°C	XA	24
MLX75005KXA	Linear Optical Array – 170 pixels - SOIC24 without glass SPI digital output	-40°C to 125°C	XA	24
MLX75306KXZ	Linear Optical Array – 170 pixels – SOIC16 without glass SPI digital output	-40°C to 125°C	XZ	16

Optical Sensors: SensorEyeC family

Melexis Order number	Description	Temp. Range	Package	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
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

Camera Solutions

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX75403	Automotive camera module with monochrome NTSC output	-40°C to 85°C/105°C	Module	6
MLX75411-mono	Wide Dynamic Range Imager 1024x512 pixels – monochrome	-40°C to 85°C/115°C	BGA	55
MLX75411-RGBi	Wide Dynamic Range Imager 1024x512 pixels – RGBi	-40°C to 85°C/115°C	BGA	55

MOST 150 Mbps

Melexis Order number	Description	Temp. Range	Package	N° Pins
MLX75603	150 Mbps MOST Fiber Optic Receiver in Sidelooker package	-40C to +95C	SIL	7
MLX75604	150 Mbps MOST Fiber Optic Transmitter in Sidelooker package	-40C to +95C	SIL	7
MLX75605	150 Mbps MOST Fiber Optic Transceiver in SMD package with integrated optical connector	-40C to +95C	SOIC	24

Wireless IC Products
Evaluation Boards and Development Kits

Melexis Order number*	Description	Contents
EVB71101-XXX-YYY-Z	Evaluation Board for TH71101 Receiver	PC Board w/ connector input and receiver circuit featuring TH71101 receiver chip
EVB71102-XXX-YYY-Z	Evaluation Board for TH71102 Receiver	PC Board w/ connector input and receiver circuit featuring TH71102 receiver chip
EVB71111-XXX-YYY-Z	Evaluation Board for TH71111 Receiver	PC Board w/ connector input and receiver circuit featuring TH71111 receiver chip
EVB71112-XXX-YYY-Z	Evaluation Board for TH71112 Receiver	PC Board w/ connector input and receiver circuit featuring TH71112 receiver chip
EVB71121-XXX-Z	Evaluation Board for MLX71121 Receiver	PC Board w/ connector input and receiver circuit featuring MLX71121 receiver chip
EVB71122-XXX-Z	Evaluation Board for MLX71122 Receiver	PC Board w/ connector input and receiver circuit featuring MLX71122 receiver chip
EVB7122-XXX-YYY-Z	Evaluation Board for TH7122 Receiver	PC Board w/ RF connector I/O and transceiver circuit featuring TH7122 and TH71121 transceiver chips
EVB72005-XXX-YYY-Z	Evaluation Board for TH72005 Transmitter	PC Board w/ printed loop antenna and transmitter circuit featuring TH72005 transmitter chip and TH72001/02 functionality
EVB72006-XXX-YYY-Z	Evaluation Board for TH72006 Transmitter	PC Board w/ connector output and transmitter circuit featuring TH72006 transmitter chip
EVB72015-XXX-YYY-Z	Evaluation Board for TH72015 Transmitter	PC Board w/ printed loop antenna and transmitter circuit featuring TH72015 transmitter chip and TH72011/12 functionality
EVB72016-XXX-YYY-Z	Evaluation Board for TH72016 Transmitter	PC Board w/ connector output and transmitter circuit featuring TH72016 transmitter chip
EVB72035-XXX-YYY-Z	Evaluation Board for TH72035 Transmitter	PC Board w/ printed loop antenna and transmitter circuit featuring TH72035 transmitter chip and TH72031/32 functionality
EVB72036-XXX-YYY-Z	Evaluation Board for TH72036 Transmitter	PC Board w/ connector output and transmitter circuit featuring TH72036 transmitter chip
EVB90109	Evaluation Board for MLX90109	Evaluation board of transceiver + antenna, featuring the MLX90109
DVK90109	Development Kit for MLX90109	Includes EVB90109, 125 KHz tags and board with microcontroller
EVB90121	Evaluation Board for MLX90121	Evaluation board of transceiver + antenna, featuring the MLX90121
DVK90121	Development Kit for MLX90121	Includes EVB90121, 13.56 MHz tags and board with microcontroller
DEMO90121LR	RFID Long Range Reader Demonstrator	Demonstrator of RFID high power reader (1W) for logistic application based on MLX90121
EVB90129	Evaluation Board for MLX90129	Sensor Tag & data logger evaluation board featuring the MLX90129
DVK90129	Development Kit for MLX90129	Includes EVB90129, ProximaRF® reader and user interface software

* Use key below to specify options:
XXX = 315 or 433 or 868 or 915 (operating frequency in MHz)
YYY = FSK or ASK (modulation)
Z = A or C (antenna or connector board)

All Other IC Products
Evaluation Boards and Development Kits

Melexis Order number	Description	Contents
EVB10803-1	Evaluation board for MLX10803 in a buck topology. Not suited for EMC evaluation.	Reference design PCB without high intensity LED
EVB10803-3 Boost/Buck	Evaluation board for cascoded boost-buck topology, using an MLX10803 for the boost and another MLX10803 for the buck stage. not suited for EMC evaluation.	Reference design PCB without high intensity LED
EVB10803-5	4W Buck-Boost reference design using MLX10803. validated for emission according CISPR25 class 5	Reference design PCB without high intensity LED
EVB80103-A	Evaluation board for MLX80103	Evaluation board
EVB80103-B	Switch board to connect to EVB80103-A	Board with connector cable
EVB80104-A1	MLX80104 uniROM Evaluation PCB	Equipped with MLX80104 uniROM
EVB80104-A2	MLX80104 Software development PCB, Equipped with MLX80108 Flash like IC	Neccessary for software development
EVB80104-A3	MLX80105 OTP Evaluation PCB	Equipped with QFN 5x5 Socket for MLX80105
EVB80104-B	Sample Switch board for Connection to MLX80104 Evaluation Board	Sample Application for uniROM
EVB81100-A	MLX81100 evaluation PCB	Evaluation PCB needed for MLX81100 software development
EVB81100-B	MLX81100 Power PCB	PCB for connection to MLX81100 evaluation board. It includes a FET full bridge for connection of a reversible DC motor
EVB81100-C	DC-Motor	DC-Motor to work with MLX81100 evaluation board together with the MLX81100 Power Board
EVB81200-A	MLX81200 Evalution Board	Evaluation PCB needed for MLX81200 software development
EVB81200-B	MLX81200 Power Board	PCB for connection to MLX81200 evaluation Board. It includes 3 FET bridges for connection of a BLDC Motor
EVB81200-C	MLX81200 Load Control	PCB for connection to the electronically controllable load of EVB81200-D
EVB81200-D	BLDC Motor + electronically controlable load	Works with EVB81200-A, EVB81200-B and EVB81200-C
EVB81200-G	MLX81200 High Current Demonstration Board	Single board, that contains all needed electronics in order to control a BLDC motor.
MLX LIN Master	LIN Master: Interface between PC and LIN devices via USB	LIN Master in PVC box, USB cable, Software
EVB90316-DC	Evaluation board for MLX90316 rotary position Sensor	Evaluation board with pre-programmed MLX90316KDC-PPA with reference application diagram and magnetic knob
EVB90316-GO	Evaluation board for MLX90316 rotary position Sensor	Evaluation board with pre-programmed MLX90316KGO-PPA with reference application diagram and magnetic knob
DMB 90316	Demonstration board for MLX90316	EVB90316-DC with 9V battery holder and DVM display
EVB90320	Evaluation board for MLX90320 Sensor Interface	Evaluation board with SSOP socket, datasheet and programming manual, software, 90320 samples. Compatible with MLX90320/MLX90326
EVB90333-DC	Evaluation Board for MLX90333 Programmable Linear or 3D-Joystick Position Sensor	Evaluation Board with pre-programmed MLX90333KDC-PPA with reference application diagram and magnetic knob
EVB90807	Evaluation Board for MLX90807 and MLX90808 Pressure Sensors	Evaluation board with programming manual, software
EVB90308	Evaluation board for MLX90308 Sensor Interface	Evaluation board with SOIC socket, serial interface cable, datasheet and programming manual, software, (5) 90308 samples. Compatible with MLX90308/MLX90314/MLX90323
EVB90614	Evaluation board for MLX90614 Infrared Thermometer	Evaluation/configuration board with USB interface cable
EVB90615	Evaluation board for MLX90615 Infrared Thermometer	Evaluation/configuration board with USB interface cable
EVB90609-XX*	Evaluation board for MLX90609 Angular Rate Sensor	Evaluation board, Documentation CD
DVK90609	Development Kit for MLX90609 Angular Rate Sensor	PCB, USB cable, software
DVK91205	Development kit to evaluate the current sensors MLX91205	Sensors, PCB's and 2 shields. The kit does not include a busbar.
EVB90314	Evaluation Board for MLX90314	Evaluation board with SOIC socket, serial interface cable, datasheet and programming manual (on diskette), software, (5) 90314 samples

* Specify E2, R2, or N2 for "XX"

IC Programmers and Emulators

Melexis Order number	Description	Contents
PTC04	Programmer for Melexis PTC devices: 90215, 90244, 90251, 90277 with additional Board: 90316, 90264, 90275 and Microcontroller Products	Main board; PTC04-DB-HALL01 in metal case, Power supply 100W switching adapter, USB and RS232 cable, CD
PTC04-DB-Calib	Supporting daughter board for calibration of PTC04 programmer	Additonal board to mount into a PTC04
PTC04-DB-Hall02	Supporting daughter board to program 90275, 90264 on a PTC04 programmer	Additonal board to mount into a PTC04
PTC04-DB-Hall03	Daughter board for mounting in PTC-04 programmer. Needed for devices : MLX90288; MLX34102	Additional board to mount into PTC04
PTC04-DB-90316	Daughter board for PTC-04 programmer for MLX90316 Hall sensor	Additional board to mount into PTC04
PTC04-DB-DEBUG	Universal debugging daughter board	Additional board to mount into PTC04
PTC-testbench MLX90316	Testbench for MLX90316	Additional board to mount into PTC04 Includes 2 magnets and socket for MLX90316
PTC-testbench magnetic	Testbench for magnetic devices	Additional board to mount into PTC04 Includes 3 magnets and sockets for: MLX90277, MLX90251, MLX90215
PTC04-DB-FL	Supporting daughter board board for supporting LIN products on a PTC04 programmer	Additional board to mount into PTC04
Mini-E-MLX	Hardware emulator for software development of Melexis MCUs	Hardware emulator for connection of emulation PC software to MLX integrated debug interface, connection to the PC via USB port

MELEXIS PART NUMBERING SYSTEM

(1)	(2)	(3)	(4)	(5)
MLX	90308	L	DF	-CCC
US	1881	L	UA	
TH	8061	K	DC	-A

1. Prefix

This is a 2-3 character alphabetic prefix

2. Product Family

The product family is a 4-5 digit numeric code, which denotes the circuit.

3. Temperature Code

The one-character temperature range denotes standard operating temperatures ranges.

Melexis Temperature Codes

Code	Temp. Range
C	0°C to +70°C
S	-20°C to +85°C
E	-40°C to +85°C
P	-40°C to +95°C
R	-40°C to +105°C
K or J	-40°C to +125°C
M	-55°C to +125°C
T	-40°C to +135°C
L	-40°C to +150°C

4. Package Code

Melexis uses a two-character alpha package code, which denotes the type of package the chip is molded (or assembled) in.

5. Option Code

The option code is designed to denote any specal information related to the device. This information can include chip revision, chip variation, bonding option, programming option or lead forming option, etc. Unlike the tempcode and package codes, this code is non-rigid, and will have no standard lookup table for reference. The option code will follow the entire ordering code, separated by a (-) hyphen.

Example: MLX90308LDF-CCC

Short Form Catalog

Industry Standard Packages

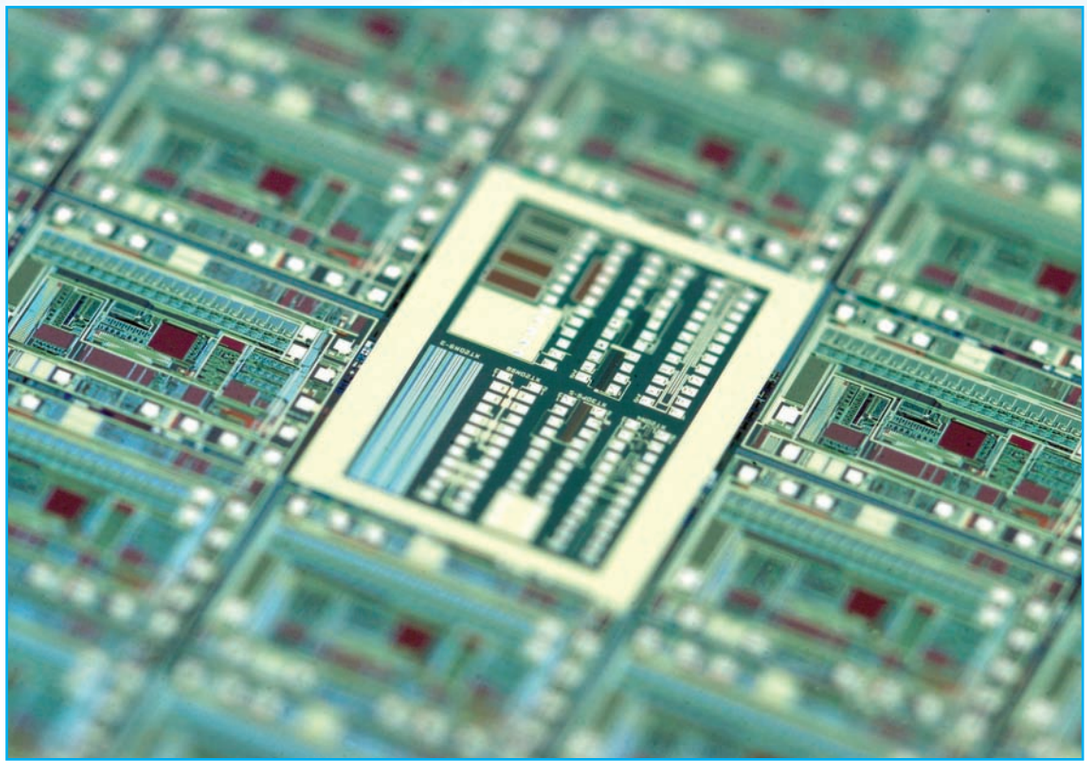
MLX Code	Industry Code	Description	Min No Pins	Max No Pins
AA	PDIP	Plastic Dual In Line Package, 300 mil	8	40
DC	SOIC	Plastic Small Outline, 150 mil	8	16
DF	SOIC	Plastic Small Outline, 300 mil	16	44
EA	CLCC	Ceramic Leadless Chip Carrier	1	-
FC	QSOP	Plastic Shrink Small Outline, 150 mil	16	16
FR	SSOP	Plastic Shrink Small Outline, 209 mil	8	64
GO	TSSOP	Thin Plastic Shrink Small Outline, 173 mil	8	56
HK	PLCC	Plastic Leaded Chip Carrier	28	84
LD	QFN Dual	Quad Flat No leads Dual	8	-
LQ	QFN Quad	Quad Flat No leads Quad	8	-
MG	MQFP	Metric Quad Flat Package, Body Size 10x10	44	64
NE	LQFP	Low Profile Quad Flat Package, Body Size 7x7	32	48
NG	LQFP	Low Profile Quad Flat Package, Body Size 10x10	44	64
NK	LQFP	Low Profile Quad Flat Package, Body Size 14x14	64	100
PF	TQFP	Thin Quad Flat Package, Body Size 7x7, Exposed Pad	32	32
SA	TO-92	Plastic Single In Line Transistor, Through-Hole Mount	3	3
SE	TSOT	Thin Small Outline Transistor	3	8
SO	SOT-23	Plastic Small Outline Transistor Surface Mount	3	6
UA	TO-92 (flat)	Plastic Single In Line, Through-Hole Mount	3	3

Melexis Exclusive Packages

MLX Code	Description	Min No Pins	Max No Pins
SF	TO-39 package with aperture for infrared sensors	4	4
VA	Plastic Single In Line, thickness 1.1-1.2mm	4	4
VK	Plastic Single In Line, thickness 1.5-1.6mm	4	4
VM	Plastic Single In Line, thickness 1.45-1.65mm	5	5
WB	Glass GLP-5 package for opto sensors	5	5
XA	Open cavity SOIC-24 package for opto sensors	24	24
XD	Open cavity SOIC-8 package for opto sensors	8	8
XE	Open cavity DFN3x3-C package for opto sensors	10	10
ZA	Denotes Module - mechanical specs	-	-
ZF	Ceramic SO-8 “tophat” package for pressure sensors available in product datasheets	8	8

Unpackaged Die

MLX Code	Description
UC	Die on wafer (unsawn)
UF	Die on foil
UJ	Die on tape
UD	Goldbumped die on wafer (unsawn)
UG	Goldbumped die on foil
UH	Goldbumped die on tape



Latest Product Information

Melexis strives to provide you with the most timely and accurate information on our products and services.

Printed material is prone to typographical errors, omissions, misstatements and incomplete data once it is sent to press. In our quest for World Class service levels we will maintain a periodically updated **Short Form Catalog** on our web site at **www.melexis.com/sfc/** between printing runs of this hard copy Short Form Catalog. Please check this document when consulting this catalog or contact a Melexis Sales or Applications specialist if you have questions or concerns about the content of this catalog.

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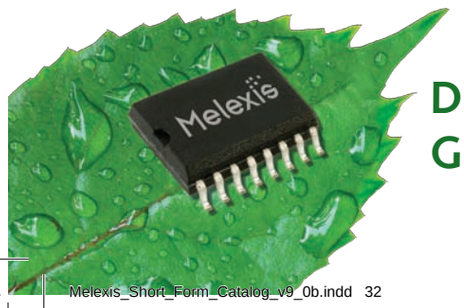

Driving Green Solutions

Melexis
Microelectronic Integrated Systems