



New Product Introduction

March 2024

[PSoC™ Automotive Multitouch Gen6L](#)

[PSoC™ Automotive Multitouch Gen6XL](#)

[600 V CoolMOS™ S7T with integrated temperature sensor](#)

[CoolSiC™ MOSFET 650 V G2](#)

[OptiMOS™ 6 power MOSFET 200 V](#)

[Solid State Isolators](#)

[OptiMOS™ 5 power MOSFET 150 V logic level in SuperSO8](#)

[PrimePACK™ 2 and 3+ with IGBT7](#)

[OptiMOS™ 6 power MOSFET 120 V](#)

[OptiMOS™ 7 40 V product technology for automotive MOSFETs](#)

[OPTIREG™ linear - TLF42772EP](#)

[BGA P2 pre-drivers: 5 V pre-drivers for wireless infrastructure](#)

[OPTIGA™ TPM SLB9672 FW16](#)

[OPTIGA™ TPM SLB 9673](#)

[XENSIV™ – TLE4973 automotive current sensors in TISON package](#)

PSoC™ Automotive Multitouch Gen6L

CYAT6165X is a capacitive slider controller with the sensing and processing technology to resolve the locations and report the positions of up to ten fingers on the slider. The touch controller converts an array of sensor capacitances into an array of digital values, which are processed by touch-detection and position-resolution algorithms in the controller. These algorithms determine the location and signal magnitude of each finger on the slider.



Features

- > Automotive Electronics Council (AEC) Q100 qualified
- > MISRA-C / IATF 16949 compliant
- > Touch controller:
 - > 32-bit Arm® Cortex® CPU
 - > Register-configurable
 - > Noise-suppression technologies for display and EMI:
 - > AutoArmor
 - > Spread-spectrum scanning
 - > Effective 20 V drive
 - > Display synchronization
 - > Water rejection and wet-finger tracking using DualSense
 - > Automatic glove mode switching
 - > Low power wake-up options
 - > Field upgrades via bootloader
 - > Slider sensor self-test
 - > Manufacturing Test Kit (MTK)
- > Performance (config dependent):
 - > Up to 48 sense pins or 135 intersections (45 RX and 3 TX)
 - > 10 touches at up to 250 Hz
 - > Gloves (or overlay) up to 5 mm
 - > TX frequency up to 350 kHz
 - > 9 mW average power
 - > 11 µW typical deep-sleep power
- > Communication:
 - > I²C up to 400 kbps
 - > SPI up to 8 Mbps
- > Packages:
 - > 64-pin TQFP 10 × 10 × 1.4 mm
 - > 56-pin QFN WF 8 × 8 × 1 mm
- > Ambient temperature range:
 - > Automotive-A: -40°C to 85°C
 - > Automotive-S: -40°C to 105°C

Benefits

- > Our Automotive Multitouch solutions are fully tested in an automated way (robot tests) against all specified performance parameters as well as EMI / EMC compliance, ESD, and environment change tests. Validation reports are available to shorten development cycles
- > Infineon's Auto Armor technology meets automotive electromagnetic compatibility (EMC) requirements by preventing false touches caused by EMI from other electronic systems' TX frequency spreading with automatic frequency hopping, reducing electromagnetic emissions by up to 30%
- > Gen6L provides a seamless integration of a capacitive wake-up button. Capable of operating <50 µA for the low-power wake-up button scan to have power budget left for other system components. Enables implementation of both slider and wake-up button functionality using a single integrated device reducing board space and costs

Target applications

- > Door control
- > Buttons / sliders touchpads
- > Touchscreens
- > Optical navigation
- > Capacitive navigation
- > Biometrics and navigation
- > Hands-on detection

Competitive advantage

- > PSoC™ Automotive Gen6L delivers a perfect user experience on touchscreens, touchpads, and sliders with a shorter development cycle while meeting automotive EMC requirements and supports low-power wake-up buttons, support for force touch, cut outs and non-rectangular shapes for touchscreens

Product collaterals / Online support

[Product family page](#)

Product overview incl. datasheet link

OPN	SP Number	Package
CYAT61659-64AS48	SP005656489	PG-TQFP-64
CYAT71658-56LWS41	SP005656497	PG-VQFN-56
CYAT81658-100AS48	SP005656557	PG-TQFP-100

PSoC™ Automotive Multitouch Gen6XL

CYAT8168X is a capacitive touchscreen controller with the sensing and processing technology to resolve the locations and report the positions of up to ten fingers on the touchscreen. The touchscreen controller converts an array of sensor capacitances into an array of digital values, which are processed by touch-detection and position-resolution algorithms in the controller. These algorithms determine the location and signal magnitude of each finger on the touchscreen.



Features

- > Automotive Electronics Council (AEC) Q100 qualified
- > MISRA-C / IATF 16949 compliant
- > Touch controller:
 - > 32-bit Arm® Cortex® CPU
 - > Register-configurable
 - > Noise-suppression technologies for display and EMI:
 - > AutoArmor
 - > Spread-spectrum scanning
 - > Effective 20 V drive
 - > Display synchronization
 - > Non-rectangular touchscreens
 - > Water rejection and wet-finger tracking using DualSense
 - > Automatic glove mode switching
 - > Low power wake-up options
 - > Field upgrades via bootloader
 - > Touchscreen sensor self-test
 - > Manufacturing Test Kit (MTK)
- > Performance (config dependent):
 - > Screen sizes up to 15-inch
 - > 10 touches at up to 250 Hz
 - > Gloves (or overlay) up to 5mm
 - > TX frequency up to 350 kHz
 - > 30-mW average power
 - > 30-µW typical deep-sleep power
- > Communication:
 - > I²C up to 400 kbps
 - > SPI up to 8 Mbps
- > Packages:
 - > 128-pin TQFP 14 × 20 × 1.4 mm
 - > 100-pin TQFP 14 × 14 × 1.4 mm
- > Ambient temperature range:
 - > Automotive-A: -40°C to 85°C
 - > Automotive-S: -40°C to 105°C

Benefits

- > Our Automotive Multitouch solutions are fully tested in an automated way (robot tests) against all specified performance parameters as well as EMI /EMC compliance, ESD, and environment change tests. Validation reports are available to shorten development cycles
- > Infineon's Auto Armor technology meets automotive electromagnetic compatibility (EMC) requirements by preventing false touches caused by EMI from other electronic systems' TX frequency spreading with automatic frequency hopping, reducing electromagnetic emissions by up to 30%
- > Gen6XL provides a seamless integration of a capacitive wake-up button. Capable of operating <50 µA for the low-power wake-up button scan to have power budget left for other system components. Enables implementation of both slider and wake-up button functionality using a single integrated device reducing board space and costs

Target applications

- > User interface for HMI applications
- > Body control and HVAC applications

Competitive advantage

- > PSoC™ Automotive Gen6XL delivers a perfect user experience on touchscreens, touchpads, and sliders with a shorter development cycle while meeting automotive EMC requirements and supports low-power wake-up buttons, support for force touch, cut outs and non-rectangular shapes for touchscreens

Product collaterals / Online support

[Product family page](#)

Product overview incl. datasheet link

OPN	SP Number	Package
CYAT81688-100AS77	SP005659591	PG-TQFP-100
CYAT81688-128AS88Z	SP005659601	PG-TQFP-128

600 V CoolMOS™ S7T with integrated temperature sensor

The CoolMOS™ S7T with embedded temperature sensor increases junction temperature sensing accuracy and robustness while enabling easy implementation. The device is optimized for low-frequency and high-current switching applications. It is an ideal fit for solid-state relay, circuit breaker designs, and line rectification in SMPS. The temperature sensor enhances CoolMOS™ S7 features allowing the best possible utilization of the power transistor.



Features

- > High pulse current capability
- > Optimized price performance
- > Optimized for low frequency switching applications
- > Reduced parasitic source inductance
- > Seamless diagnostics
- > High current capability
- > High power dissipation
- > Enhanced protection
- > Optimized thermal device utilization

Competitive advantage

- > SJ MOSFET with embedded temperature sensor significantly enhances junction temperature sensing accuracy and robustness
- > Better performance: By optimizing the utilization of power transistor, the relay can deliver improved performance by reducing power losses, improving efficiency, and providing better control over the output stage
- > Increased reliability: high availability of the output stage, with a high overcurrent threshold, can significantly reduce the risk of failure, improving overall reliability and reducing maintenance costs for the customer
- > Enhanced durability: robustness of the switch solution can lead to an increase in the lifespan of the relay, reducing the need for replacements and lowering overall costs
- > Improved safety: with a robust switch solution and high overcurrent threshold, the relay can better protect against overloads and short circuits, leading to increased customer safety and peace of mind
- > Reduced energy costs: by maximizing the utilization of the power transistor, the relay can reduce energy costs for the customer by lowering power consumption and increasing efficiency

Benefits

- > Minimized conduction losses
- > Increased system performances
- > Allow more compact design over EMR
- > Lower TCO over prolonged time
- > Enabling of higher power density designs
- > Reduction of external sensing elements
- > Best utilization of power transistor
- > Integrated temperature sensor is
 - > 40% more accurate
 - > 10x faster than discrete sensor solution

Target applications

- > Solid state relay (SSR)
- > Solid state circuit breaker (SSCB)
- > eFuse
- > Motor soft starter
- > Power distribution unit (AC-DC)

Product collaterals / Online support

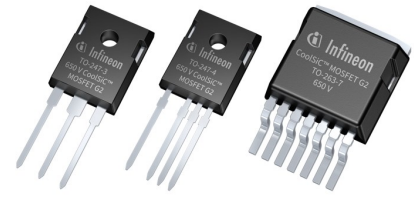
[Product family page](#)

Product overview incl. data sheet link

OPN	SP Number	Package
IPT60T02S7XTMA1	SP005737937	PG-HSOF-8
IPT60T040S7XTMA1	SP005737940	PG-HSOF-8
IPT60T065S7XTMA1	SP005737943	PG-HSOF-8

CoolSiC™ MOSFET 650 V G2

The CoolSiC™ MOSFET 650 V G2, available in single digit $R_{DS(on)}$ from 7 mΩ up to 50 mΩ is available in D2PAK-7, TO-247-3 and TO-247-4 package and excels in reliability and ease-of-use, with the highest flexibility in driving voltage. CoolSiC™ MOSFET 650 V G2 builds on the strengths of Generation 1 technology and enables the accelerated system design of more cost optimized, efficient, compact, and reliable solutions. The Generation 2 comes with significant improvements in key figures-of-merit for both, hard-switching operation and soft-switching topologies, suitable for all common combinations of AC-DC, DC-DC, and DC-AC stages.



Features

- > Excellent figures of merit (FOMs)
- > Best in class $R_{DS(on)}$
- > High robustness and overall quality
- > Flexible driving voltage range
- > Support for unipolar driving, $V_{GS(off)} = 0$
- > Best immunity against turn-on effects
- > Improved package interconnect with .XT

Target applications

- > Switched mode power supplies (SMPS)
- > Solid state circuit breaker (SSCB)
- > EV charging
- > PV inverters
- > Energy storage systems

Product collaterals / Online support

[Product family page](#)

Benefits

- > Enables BOM savings
- > Maximizes the system performance per \$
- > Highest reliability
- > Enables top efficiency and power density
- > Ease-of-use
- > Full compatibility with existing vendors
- > Allows designs without fan or heatsink

Competitive advantage

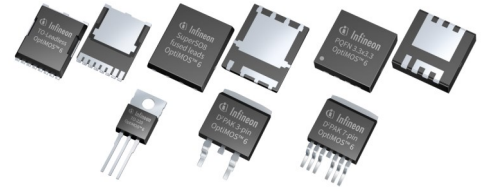
- > Very low switching losses
- > Benchmark gate threshold voltage, $V_{GS(th)} = 4.5$ V
- > Robust against parasitic turn-on, 0 V turn-off gate voltage can be applied
- > Flexible driving voltage and compatibility with bipolar driving
- > Robust body diode for hard commutation
- > .XT interconnection technology for best-in-class thermal performance

Product overview incl. datasheet link

OPN	SP Number	Package
IMBG65R007M2HXTMA1	SP005912570	TO-263-7
IMBG65R015M2HXTMA1	SP005917205	TO-263-7
IMBG65R020M2HXTMA1	SP005917206	TO-263-7
IMBG65R040M2HXTMA1	SP005917207	TO-263-7
IMBG65R050M2HXTMA1	SP005917208	TO-263-7
IMW65R015M2HXKSA1	SP005917210	PG-TO247-3
IMW65R020M2HXKSA1	SP005917211	PG-TO247-3
IMW65R040M2HXKSA1	SP005917212	PG-TO247-3
IMW65R050M2HXKSA1	SP005917213	PG-TO247-3
IMZA65R015M2HXKSA1	SP005917215	PG-TO247-4
IMZA65R020M2HXKSA1	SP005882823	PG-TO247-4
IMZA65R040M2HXKSA1	SP005917216	PG-TO247-4
IMZA65R050M2HXKSA1	SP005917217	PG-TO247-4

OptiMOS™ 6 power MOSFET 200 V

The new OptiMOS™ 6 200 V MOSFET family represents Infineon's state of the art trench MOSFET technology. It addresses the need for high power density, high efficiency, and high reliability. The technology features a significantly reduced $R_{DS(on)}$ resulting in lower conduction losses. A narrow gate threshold voltage spread and reduced transconductance make the OptiMOS™ 6 200 V a superior device for paralleling. Together with the soft diode behavior and the low reverse recovery charge, in addition to a linearity improvement of output capacitance, the OptiMOS™ 6 200 V provides the lowest switching losses, enhancing the system efficiency across all operating conditions.



Features

- > Compared to the previous generation:
 - > 42% lower $R_{DS(on)}$
 - > More than 3 times softer diode and improved capacitance linearity
 - > 89% lower Q_{rr}
 - > Improved SOA
- > Pb-free plating and RoHS compliant

Benefits

- > Low conduction losses
- > Low switching losses
- > Stable operation with improved EMI
- > Less paralleling required
- > Better current sharing when paralleling
- > Environmentally friendly

Target applications

- > Drives
- > SMPS
- > Solar
- > BMS
- > Audio

Competitive advantage

- > Best-in-class performance in 200 V
- > Combination of a soft diode, low Q_{rr} and more linear capacitances
- > Improved current sharing when paralleling
- > Available in a wide range of packages

Product collaterals / Online support

[Product family page](#)

Product overview incl. datasheet link

OPN	SP Number	Package
ISC151N20NM6ATMA1	SP005562947	PG-TDSON-8
IPT067N20NM6ATMA1	SP005562939	PG-HSOF-8
IPF067N20NM6ATMA1	SP005562927	PG-TO263-7
ISZ520N20NM6ATMA1	SP005562952	PG-TSDSON-8
IPT129N20NM6ATMA1	SP005562935	PG-HSOF-8
IPP069N20NM6AKSA1	SP005562956	PG-TO220-3
IPB068N20NM6ATMA1	SP005562848	PG-TO263-3

Solid State Isolators

The advanced solid-state isolator family provides powerful energy transmission over a galvanic isolation barrier to drive the gates of MOS-controlled power transistors, such as CoolMOS™, OptiMOS™, TRENCHSTOP™ IGBT, or CoolSiC™. The output side of the solid-state isolator family does not require a dedicated voltage supply to drive the power transistor's gate, offers advanced control functions such as fast turn-on/off, overcurrent protection and over-temperature protection to easily and safely build up solid-state relays for various applications.



Features

- > Integrated isolated gate bias supply for gate driving
- > High-impedance, CMOS input
- > High output voltage up to 18 V - no series / parallel configuration required for powerful gate driving
- > High output peak current of 185 μ A (direct drive variants) or 400 mA (buffered variants)
- > Fast turn-on and turn-off for safe switches' safe operating area (SOA) operation
- > Temperature sensor and current sensor protection inputs
- > Dynamic Miller clamping protection
- > Wide-body package with high creepage and clearance for UL 1577 / IEC 60747-17

Competitive advantage

- > Total Cost of Ownership versus Electromechanical Relays (EMR's)
- > BOM reduction in volume, size, component count and cost
- > System and switch level protection

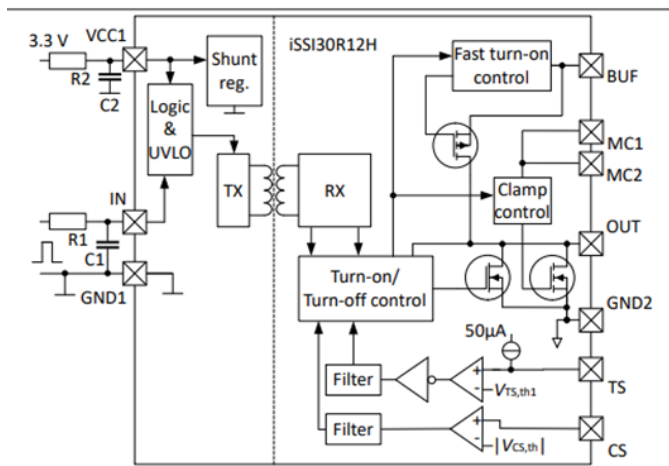
Benefits

- > Enables high system reliability - no moving parts
- > Enables energy transfer across the isolation barrier
- > No need for isolated power supply
- > Minimizes the need for heatsinks
- > Safe turn-on and turn-off inside Switch SOA
- > System level protection: over-current protection (OCP), over-temperature protection (OTP)

Target applications

- > Solid-state relay AC and DC applications
- > Electro-mechanical relay replacements
- > Programmable logic controllers
- > Industrial automation, and controls
- > Smart building and home automation systems (thermostat, lighting, heating control)
- > Instrumentation equipment
- > Battery management systems
- > Power distribution cabinets

Block diagram



Product overview incl. data sheet link

Product collaterals / Online support

[Product family page](#)

OPN	SP Number	Package
ISSI20R02HXUMA1	SP005739073	PG-DSO-8
ISSI20R03HXUMA1	SP005739075	PG-DSO-8
ISSI20R11HXUMA1	SP005739079	PG-DSO-8
ISSI30R11HXUMA1	SP005739083	PG-DSO-16
ISSI30R12HXUMA1	SP005739108	PG-DSO-16

OptiMOS™ 5 power MOSFET 150 V logic level in SuperSO8

The OptiMOS™ 5 power MOSFET 150 V logic level family offers the same excellent performance of the OptiMOS™ 5 150 V products with the capability of operating with just 4.5 V of V_{GS} . It features very low $R_{DS(on)}$ and Q_g at 4.5 V in an industry standard SuperSO8 package, enabling optimal thermal management in small and lightweight USB-PD EPR charger and adapter applications.



Features

- > Competitive $R_{DS(on)}$ level
- > Very low switching losses
- > Fully optimized for $V_{GS} = 4.5$ V
- > Tailored to SR that provide 5 V

Benefits

- > Highly efficient designs
- > Lower temperature when $V_{GS} < 10$ V
- > Improved thermal management
- > Less system complexity

Target applications

- > USB C adapters and chargers
- > Auxiliary power supply for home appliances

Competitive advantage

- > OptiMOS™ 5 150 V's competitive $R_{DS(on)}$ and market leading switching performance
- > Lowest FOMg among all 150 V logic level alternatives in the market
- > Even lower $R_{DS(on)}$ when $V_{GS} = 4.5$ V than OptiMOS™ 5 150 V normal level
- > Operation with lower V_{GS} reduces the synchronous rectification controller losses and temperature

Product collaterals / Online support

[Product family page](#)

Product overview incl. datasheet link

OPN	SP Number	Package
BSC088N15LS5ATMA1	SP005825833	PG-TDSON-8
BSC105N15LS5ATMA1	SP005825836	PG-TDSON-8
BSC152N15LS5ATMA1	SP005825839	PG-TDSON-8

PrimePACK™ 2 and 3+ with IGBT7

New two launched IGBT modules in PrimePACK™ 2 and 3+ housing with TRENCHSTOP™ IGBT7 technology targeting Drives and CAV applications.

PrimePACK™ 2 1600 A offers 77% more current output in the same package and enables frame size reduction compared to PrimePACK™ 3.

PrimePACK™ 3+ 2400 A offers 37% higher output current in the same frame size and enables higher converter rating possibilities up to 710 kW instead of 450 kW.



Features

- > Latest TRENCHSTOP™ IGBT7 chip technology
- > Best-in-class for switching frequency 1 kHz - 2.5 kHz
- > Housing isolation VISOL 4 kV
- > Robustness against humidity and H2S

Benefits

- > Higher power density
- > Operation at 175°C continuous at overload
- > Drastically lower conduction losses
- > Simplification of the inverter systems
- > System cost reduction

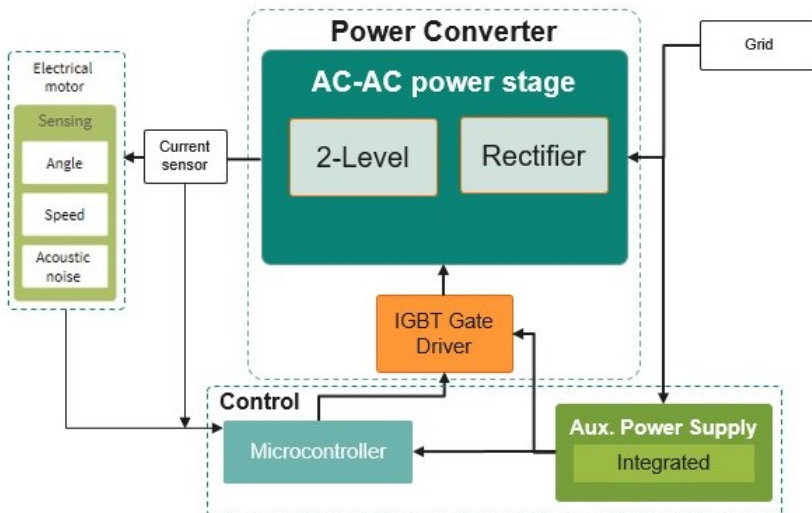
Competitive advantage

- > High current density portfolio extension
- > Best-in-class conduction losses
- > FF1600R12IP7 enable frame size jumps in existing inverter platforms
- > Operation at 175°C continuous at overload
- > Robustness against humidity and H2S

Target applications

- > Drives
- > CAV

Block diagram



Product collaterals / Online support

[Product page FF1600R12IP7](#)

[Product page FF2400R12IP7](#)

[Product page FF2400R12IP7P](#)

Product overview incl. datasheet link

OPN	SP Number	Package
FF1600R12IP7BOSA1	SP005411824	AG-PRIME2-731
FF2400R12IP7BPSA1	SP005418144	AG-PRIME3+-731
FF2400R12IP7BPBSA1	SP005675959	AG-PRIME3+-731

OptiMOS™ 6 power MOSFET 120 V

Infineon's OptiMOS™ 6 power MOSFET 120 V family is suitable for both hard- and soft-switching applications, at high- and low-switching frequencies, and is available in both normal and logic levels. It can be used in various applications such as industrial power supplies, solar, power chargers, low-voltage drives and power tools.



Features

- > Industry's lowest $R_{DS(on)}$ in 120 V
- > Best balance between switching and conduction losses for various applications
- > Lower $R_{DS(on)}$ and FOMs where 150 V is not needed
- > Wide package selection: SMD for FR4 and IMS PCBs, top-side cooling and THD
- > Industrial qualification and $T_{j,max} = 175^{\circ}\text{C}$ for superior power handling and ruggedness

Benefits

- > High efficiency
- > High power density
- > High system reliability
- > Efficient devices, leading to less cooling needs and less number of paralleled devices
- > Flexibility in choice of PCB materials

Competitive advantage

- > Significant reduction in $R_{DS(on)}$ is achieved, resulting in lower conduction losses (I^2R)
- > Improvements in Q_g and Q_{gd} enable faster turn on and off behavior which results in lower switching losses
- > Lower Q_{rr} decreases voltage overshoot and switching losses

Product collaterals / Online support

[Product family page](#)

Target applications

- > Power and gardening tools
- > Adapters and fast chargers
- > Solar
- > Telecom
- > Light electric vehicles

Product overview incl. datasheet link

OPN	SP Number	Package
ISC030N12NM6ATMA1	SP005578327	PG-TSON-8
ISC032N12LM6ATMA1	SP005548365	PG-TDSON-8
ISC037N12NM6ATMA1	SP005434366	PG-TDSON-8
ISC073N12LM6ATMA1	SP005586060	PG-TDSON-8
ISC078N12NM6ATMA1	SP005586109	PG-TDSON-8
ISC104N12LM6ATMA1	SP005586043	PG-TDSON-8
ISC110N12NM6ATMA1	SP005586047	PG-TDSON-8
ISC320N12LM6ATMA1	SP005586034	PG-TDSON-8
ISZ106N12LM6ATMA1	SP005586116	PG-TSDSON-8
ISZ330N12LM6ATMA1	SP005578331	PG-TSDSON-8
IPT017N12NM6ATMA1	SP005560061	PG-HSOF-8
IPTC017N12NM6ATMA1	SP005586134	PG-HDSOP-16
IPTG017N12NM6ATMA1	SP005915722	PG-HSOG-8
IPF019N12NM6ATMA1	SP005586125	PG-TO263-7

OptiMOS™ 7 40 V product technology for automotive MOSFETs

OptiMOS™ 7 40 V is Infineon's new automotive MOSFET technology. It presents a 25 percent Ron improvement when compared to the previous OptiMOS™ 6. This way, OptiMOS™ 7 offers the highest power density and energy efficiency at the industry's lowest on-state resistance. With leading best-in-class Ron A, Infineon underlines its leading-edge position for automotive power MOSFETs for the coming years.



Features

- > Very low drain-source on-resistance (or $R_{DS(on)}$)
- > High avalanche capability
- > High safe operating area (or S-O-A) ruggedness
- > Fast switching times (turn on / off)
- > Leadless packages with copper-clip
- > Leading thin wafer copper-technology and leading 300 mm in-house production

Competitive advantage

- > OptiMOS™ 7 40 V is setting an industry benchmark in terms of Ron A, power-density, current capability, switching performance and chip ruggedness
- > Additionally it is available in Infineon's famous robust package portfolio and is extended to top-side cooling packages for the most efficient automotive designs

Product collaterals / Online support

[Product family page](#)

Benefits

- > High power density and efficiency
- > Increased current capability
- > Improved design ruggedness
- > Superior switching performance
- > Small footprint and efficient cooling
- > Automotive quality product design
- > High automotive quality production

Target applications

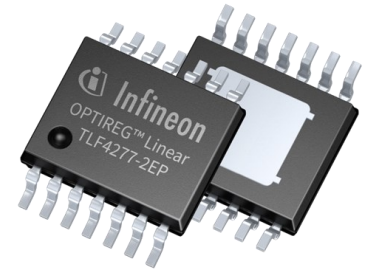
- > Electric power steering
- > Power disconnect switches
- > Zone control units and E-fuse box
- > DC to DC
- > USB charging and braking
- > All automotive applications
- > Brushless DC (or BLDC) drives in a wide variety

Product overview incl. datasheet link

OPN	SP Number	Package
IAUCN04S7L004ATMA1	SP005754376	PG-TDSON-8
IAUCN04S7N004ATMA1	SP005402881	PG-TDSON-8
IAUCN04S7L005ATMA1	SP005754380	PG-TDSON-8
IAUCN04S7N005ATMA1	SP005569114	PG-TDSON-8
IAUCN04S7L006ATMA1	SP005754382	PG-TDSON-8
IAUCN04S7N006ATMA1	SP005754389	PG-TDSON-8
IAUCN04S7L009ATMA1	SP005754398	PG-TDSON-8
IAUCN04S7N009ATMA1	SP005754400	PG-TDSON-8
IAUCN04S7L011ATMA1	SP005754418	PG-TDSON-8
IAUCN04S7N012ATMA1	SP005754419	PG-TDSON-8
IAUCN04S7L014ATMA1	SP005754420	PG-TDSON-8
IAUCN04S7N015ATMA1	SP005754421	PG-TDSON-8
IAUCN04S7L019ATMA1	SP005754422	PG-TDSON-8
IAUCN04S7N020ATMA1	SP005754423	PG-TDSON-8
IAUCN04S7L028ATMA1	SP005402879	PG-TDSON-8
IAUCN04S7N030ATMA1	SP005754406	PG-TDSON-8

OPTIREG™ linear - TLF42772EP

The TLF42772EP is an active antenna supply with a linear voltage regulator and integrated current sense. The new OPTIREG™ linear is a monolithic integrated low dropout voltage regulator that can supply loads up to 400 mA. It is ideal for supplying critical applications requiring tight current limitation and diagnostics, with monitoring and protection features and a high side power switch. The adjustable output voltage makes it capable of supplying most standard active antennas.



Features

- > Integrated current monitor
- > Overvoltage detection, overtemperature detection and overcurrent detection
- > Adjustable output voltage
- > Output current up to 400 mA
- > Adjustable output current limitation
- > Stable with ceramic output capacitor of 1 μ F
- > Wide input voltage range up to 40 V
- > Reverse polarity protection
- > Short circuit protection

Benefits

- > Robust protection features
- > Wide input operation and temperature range
- > Integrated current monitor

Competitive advantage

- > Integrated current monitor
- > Very low current consumption
- > Very low dropout voltage

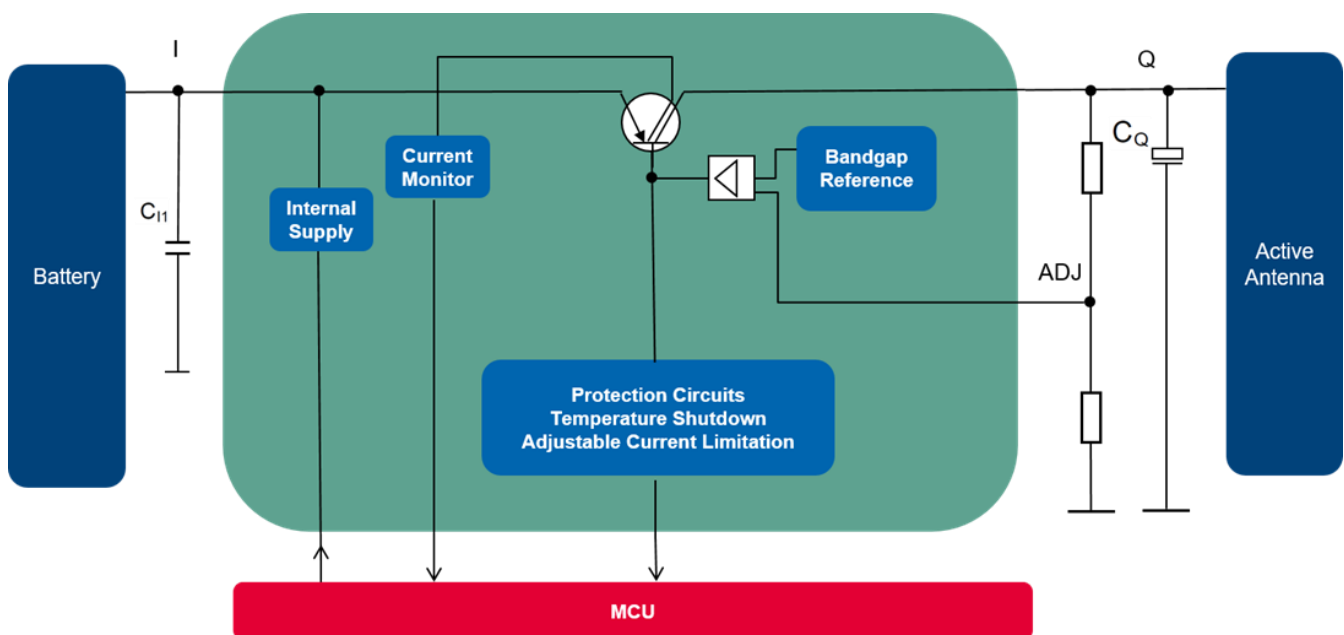
Target applications

- > Automotive sensor supply
- > Automotive telematics systems
- > Camera and radar supply

Product collaterals / Online support

[Product page](#)

Block diagram

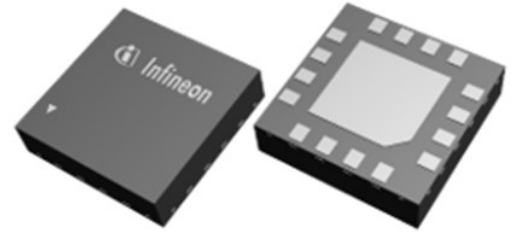


Product overview incl. datasheet link

OPN	SP Number	Package
TLF42772EPXUMA1	SP005570906	PG-TSDSO-14

BGA P2 pre-drivers: 5 V pre-drivers for wireless infrastructure

The Infineon wireless infrastructure driver amplifiers can be used as pre-drivers or drivers in RF applications from massive MIMO 5G base stations to small cells and access points. The tiny but mighty amplifiers sit typically between transceiver IC and power amplifier but can also be used as power amplifier for low power applications. The driver amplifiers boast high linearity and an excellent wide-band gain flatness for optimum linearization results of the driven PA. The BGA P2 series operates at a supply voltage of 5 V and offers differential as well as single-ended input variants.



Features

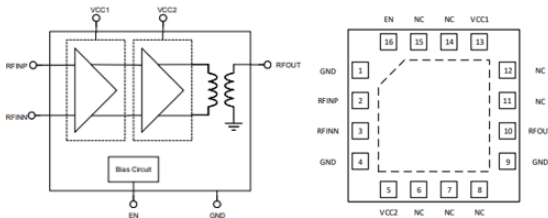
- > Supply voltage: 5 V
- > Gain flatness: ≤ 0.4 dB
- > High gain: 35 dB
- > High OP1dB: 28.5 dBm
- > Frequency range: 2.3 – 2.7 and 3.3 – 4.2 GHz
- > Differential input and single-ended input interface
- > Internally matched to 50 Ω

Benefits

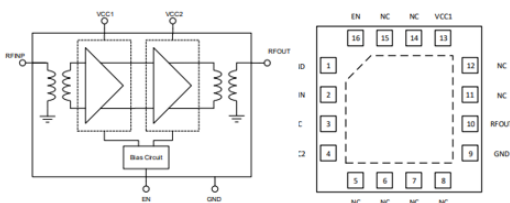
- > BiCMOS technology for an optimized performance: BiCMOS facilitates optimized performance and enhanced power efficiency
- > High gain and high power: 28.5 dBm P1 dB and 35 dB gain: minimum number of components in TX line-up and low variation over process, voltage and temperature
- > Wide BW covers 2.3 - 2.7 and 3.3 - 4.2 GHz: ≤ 0.4 dB gain flatness in 100 MHz band for simplified compensation
- > Internal matching: no need for external matching components. Fewer external components, saving PCB area and cost
- > Small 3 x 3 mm² 16-pin TSNP-16 leadless package: easy design in and small area footprint

Block diagram

Differential Input Version:



Single Input Version:



Target applications

- > 5G massive MIMO
- > Small cells
- > Base stations
- > Distributed antenna systems

Product collaterals / Online support

[Product family page](#)

Product overview incl. datasheet link

OPN	SP Number	Package
BGAP2D20AE6327XTSA1	SP005831158	PG-TSNP-16
BGAP2D30AE6327XTSA1	SP005616724	PG-TSNP-16
BGAP2S20AE6327XTSA1	SP005831162	PG-TSNP-16
BGAP2S30AE6327XTSA1	SP005750244	PG-TSNP-16

OPTIGA™ TPM SLB9672 FW16

The OPTIGA™ TPM SLB 9672 FW16.xx is a future-proof TPM optimized for connected devices.

It comes with extended memory plus stronger algorithms, and is the first TPM on the market to offer a PQC-protected firmware update mechanism. Resiliency features allow the TPM firmware to be recovered in compliance with the NIST SP 800-193 guidelines. Available in consumer-grade quality, the TPM supports industrial use cases with a temperature range from -40°C to +105°C and a lifetime of up to 10 years.



Features

- > PQC-protected firmware update mechanism using XMSS signatures
- > Support for latest specifications of TCG TPM 2.0 standard (revision 1.59)
- > TCG, CC, and FIPS certifications
- > Support for latest cryptographic algorithms: up to RSA-4096, AES-128, AES-192, AES-256, ECC NIST P384, SHA2-384
- > Full personalization with 4 endorsement keys (EK) and 4 EK certificates (RSA 2048, RSA 3072, ECC NIST P256, ECC NIST P384)
- > SPI interface

Benefits

- > Proven, standardized turnkey security solution
- > High confidence level based on Common Criteria and FIPS certifications
- > Faster cryptographic operations compared with the previous generation (2 to 4 times faster, depending on the functions)
- > Easy integration with Windows and Linux OS platforms

Target applications

- > Enterprise printers
- > Industrial automation (factory robots, PLC)
- > Smart building (surveillance camera)
- > Network infrastructure (routers, switches, access point, gateway, 5G equipment)

Competitive advantage

- > Low integration costs
- > Strong protection against sophisticated attacks
- > Compliance with demanding industrial needs
- > System high reliability

Product collaterals / Online support

[Product page](#)

[Board page OPTIGA™ TPM SLB 9672 PC evaluation board](#)

[Board page OPTIGA™ TPM 9672 RPI EVAL](#)

Product overview incl. datasheet link

OPN	SP Number	Package
SLB9672XU20FW1613XTMA1	SP005919744	PG-UQFN-32
SLB9672AU20FW1613XTMA1	SP005919746	PG-UQFN-32
TPM9672FW1523PCEBTOBO1	SP005932944	Eval Board
TPM9672FW1613RPIEBTOBO1	SP006005644	Eval Board

OPTIGA™ TPM SLB 9673



OPTIGA™ TPM SLB 9673 is Infineon's standardized, ready-to-use security solution with an I²C interface. It serves as a robust foundation to identify and authenticate network infrastructure and light industrial machines such as factory robots, Programmable Logic Controllers (PLC), and to protect data integrity and confidentiality. This latest addition to the family is future-proof thanks to a PQC-protected firmware update mechanism, extended memory, and stronger algorithms. Tools to support design activities allow for easy integration. With OPTIGA™ TPM SLB 9673, customers can rely on Infineon's commitment to long-term availability and support.

Features

- > I²C interface up to 1 MHz
- > Support for latest cryptographic algorithms: up to RSA-4096, ECC NIST P384, SHA2-384
- > TCG, CC and FIPS certifications
- > Support for TCG TPM 2.0 standard (revision 1.59)
- > PQC-protected firmware upgrade mechanism using XMSS signatures

Target applications

- > Enterprise printers
- > Smart building
- > Renewable energy
- > Smart mobility
- > Network infrastructure

Benefits

- > Proven, standardized turnkey security solution
- > High confidence level based on common criteria and FIPS certifications
- > Faster cryptographic operations (2 to 4 times faster, depending on the functions)
- > Easy integration with Linux OS platforms

Competitive advantage

- > Future-proof
- > Robust security
- > Long-term availability and support
- > Easy integration

Product collaterals / Online support

[Product page](#)

[Board page OPTIGA™ TPM 9673 RPI EVAL](#)

Product overview incl. datasheet link

OPN	SP Number	Package
SLB9673AU20FW2613XTMA1	SP005919750	PG-UQFN-32
SLB9673XU20FW2613XTMA1	SP005919748	PG-UQFN-32
TPM9673FW2613RPIEBTOBO1	SP006005648	Eval Board

XENSIV™ – TLE4973 automotive current sensors in TISON package

TLE4973 works at 5 V with an analog output as well as over current detection output. One digital control and diagnostic interface provides temperature readout, safety status readout, read/write programming access to internal EEPROM. Infineon's Hall technology enables accurate and highly linear measurement. TISON-8-6 package enables optical inspection in the assembly line. The measurement range of up to ± 132 A allows to sense currents without negative effects, e.g. hysteresis and saturation.



Features

- > Galvanic 1150 V isolation between current rail and sensing circuitry
- > Ultra-low ohm internal current rail (typ. 220 $\mu\Omega$)
- > Digital control and diagnostic interface
- > Programmable sensitivity and overcurrent threshold
- > Very fast overcurrent detection (typ. response time 0.7 μs)
- > ISO 26262-compliant development for safety requirements up to ASIL B, UL certified device

Target applications

- > Electric drivetrain
- > Adapters and chargers
- > Onboard battery charger
- > Photovoltaic
- > Uninterruptible power supplies (UPS)
- > Automotive Battery Management System (BMS)

Benefits

- > No hysteresis, no saturation
- > Robustness against surge voltage
- > Very low power dissipation
- > Protection against over currents
- > Single wire interface for programming sensitivity and overcurrent thresholds and executing diagnosis from μC
- > Support for safety critical applications

Competitive advantage

- > Excellent integrated current rail with 220 $\mu\Omega$
- > Very low sensitivity error over temperature and lifetime
- > Separate path for very fast overcurrent detection (typ. response time < 0.7 μs)
- > Digital control and diagnostic interface for programming and diagnosis purpose

Product collaterals / Online support

[Product family page](#)

Product overview incl. datasheet link

OPN	SP Number	Package
TLE4973A025T5S0001XUMA1	SP005448257	PG-TISON-8
TLE4973A050T5S0001XUMA1	SP005448253	PG-TISON-8
TLE4973A075T5S0001XUMA1	SP005448249	PG-TISON-8
TLE4973A120T5S0001XUMA1	SP005448245	PG-TISON-8
TLE4973R025T5S0001XUMA1	SP005448239	PG-TISON-8
TLE4973R050T5S0001XUMA1	SP005448229	PG-TISON-8
TLE4973R075T5S0001XUMA1	SP005448224	PG-TISON-8
TLE4973R120T5S0001XUMA1	SP005448220	PG-TISON-8
TLE4973R025T5S0010XUMA1	SP005448202	PG-TISON-8
TLE4973R050T5S0010XUMA1	SP005448197	PG-TISON-8
TLE4973R075T5S0010XUMA1	SP005448191	PG-TISON-8
TLE4973R120T5S0010XUMA1	SP005448187	PG-TISON-8
TLE4973R025T5US0010XUMA1	SP005960607	PG-TISON-8
TLE4973R050T5US0010XUMA1	SP005960615	PG-TISON-8
TLE4973R075T5US0010XUMA1	SP005960643	PG-TISON-8
TLE4973R120T5US0010XUMA1	SP005960666	PG-TISON-8