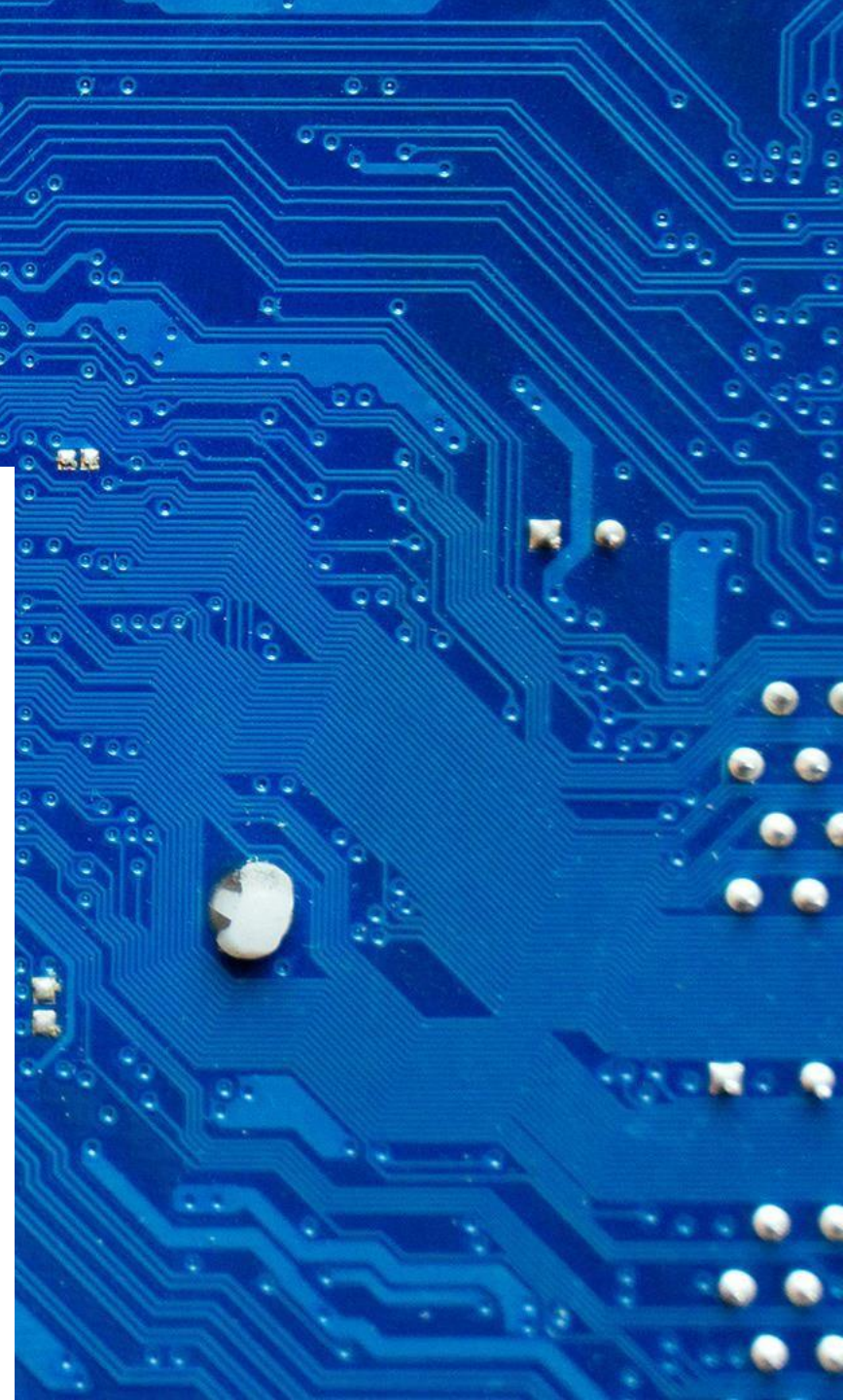


Robotics Playbook



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<u>Agriculture Robots</u>	<u>9</u>
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Introduction

Welcome to Arrow's Robotics Playbook, your roadmap to the realm of robotics. This guide offers insights, projects, and component recommendations to help you craft remarkable robots. Let's dive into the world of innovation and automation, discovering the essential components that bring your creations to life!

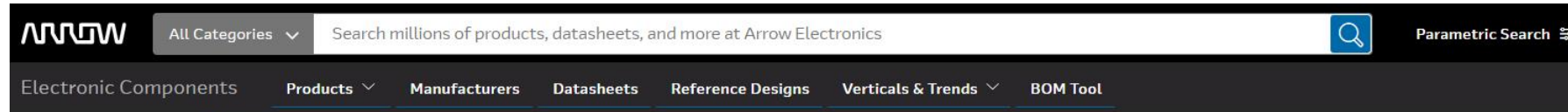
This playbook includes solutions from Top Suppliers, such as:



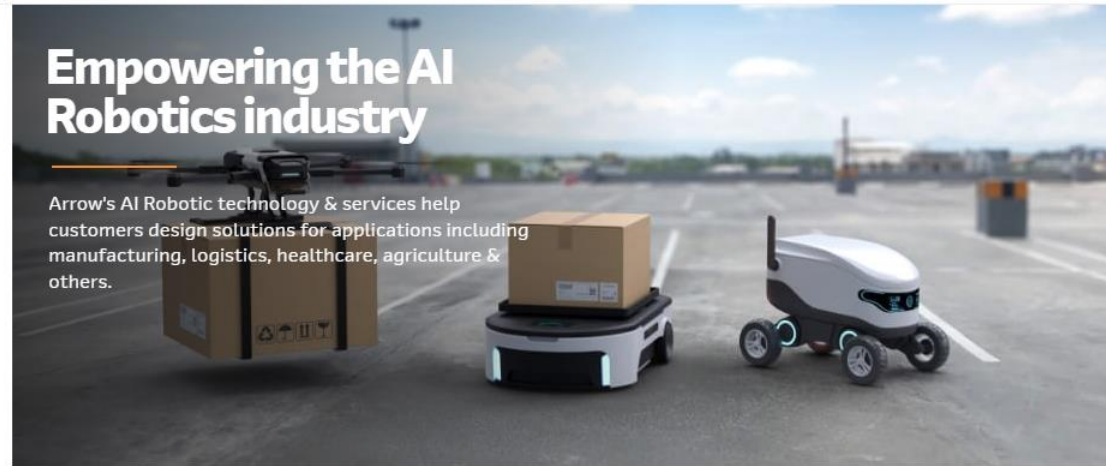
The part numbers listed as solutions are illustrative, for any issues with this document or for additional inquiries, please feel free to contact our engineering support contact at: EngineeringSupport@arrow.com

Robotics services by eInfochips

To know more about Robotics and Autonomous Machines Engineering Services provided by eInfochips and further publications click [here](#).



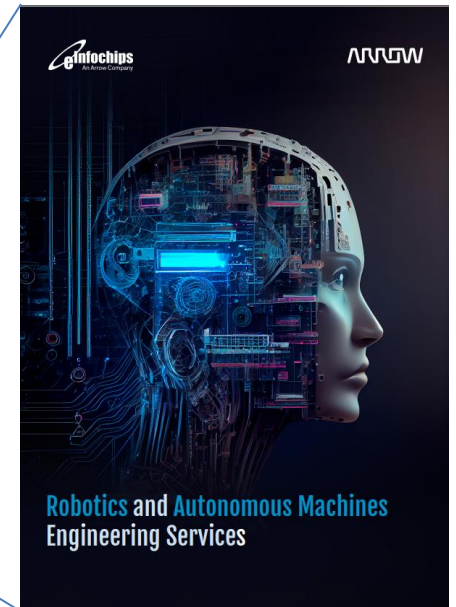
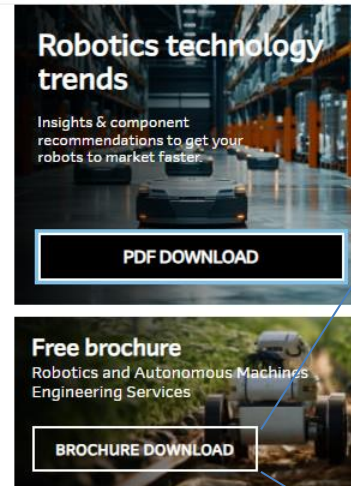
Home / Robotics



Robots and autonomous machines are revolutionizing various industries and market segments, playing a crucial role in enhancing efficiency, productivity, and safety. With advancements in technology, these machines are becoming increasingly capable of performing complex tasks and operating autonomously. Arrow's AI Robotic technology and services can help you with your design solutions for applications including manufacturing, logistics, healthcare, agriculture, and others.

One category of robots and autonomous machines is the **autonomous mobile robot (AMR)**. These robots are equipped with perception sensors and artificial intelligence capabilities that enable them to understand and navigate their environment. Autonomous mobile robots can move independently, making them ideal for applications in factory automation, logistics, warehouse management, and healthcare.

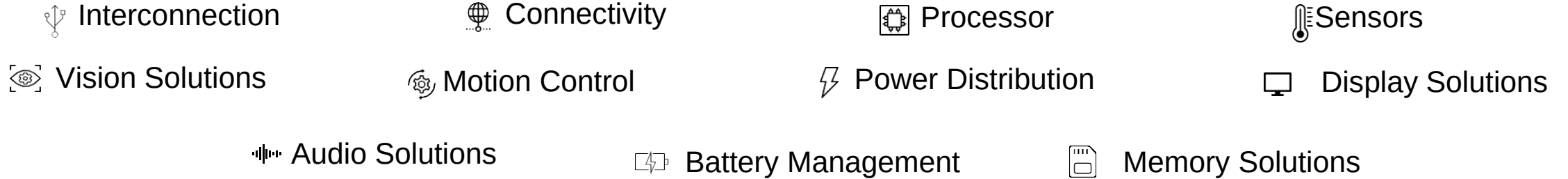
Another type of robot is the **cobot**, also known as a collaborative robot. Cobots are designed to work safely alongside humans, sharing the same workspace. Unlike traditional industrial robots that require a dedicated space or safety barriers, cobots have built-in safety features that enable them to detect human presence and adjust their actions accordingly. These robots are used in industries like manufacturing, assembly, and research, where they can assist humans with tasks that require precision, strength, or repetition.



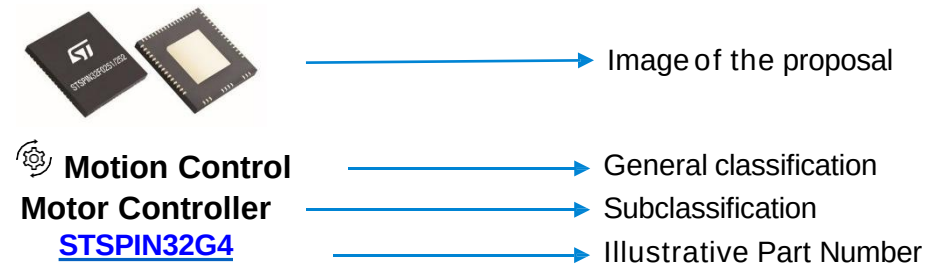
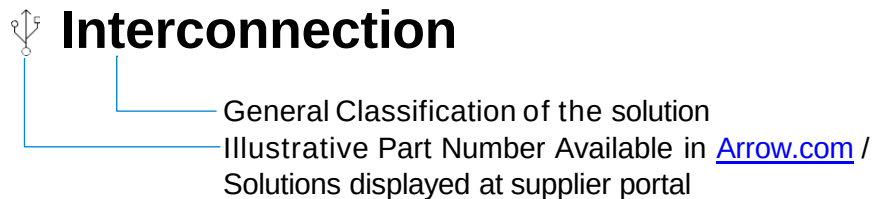
How To Navigate

CLASSIFICATION

Solutions are sorted or grouped based on the technology they are associated with, and these categories are represented by various icons:



SOLUTION BREAKDOWN



Robot vs Supplier Matrix

	Audio	Communication	Computer products	Drivers and interfaces	Circuit protection	Memory	IP&E	Power	Processors	Sensors	Switches	Wire and cable
Robot arm	ADAFRUIT BESTAR TECHNOLOGIES BEP MARINE	ADVANTECH CERMETEK DIGI	8 DEVICES ADAFRUIT MICROCHIP	ONSEMI ADLINK NXP	ABB ALPHA & OMEGA COOPER INDUSTRIES	ADATA TECHNOLOGY ATP ELECTRONICS ADVANTECH	3M ABB ADAMTECH	ARTESYN ADLINK AUTEC	AMD DIGI IXYS	ABRACOM HARTING MOLEX	ABB ALPS ALPINE APEM	3M ADVANTECH FINISAR
Autonomous Patrols	DB UNLIMITED EAO DIGISOUND GROUP	HOLT INTEGRATED IXYS INFINEON	AEON AMERICAN POWER ADLINK	ADVANTECH ALLEGRO ARTESYN	ABRACON BEP MARINE KEMET	DATARAM EVERSPIN FUJITSU	ADAFRUIT SWITCHCRAFT ALTECH	BELPOWER ADAFRUIT BULGIN	INFINEON INTEL LANTRONIX	ADAFRUIT HONEYWELL NXP	ALTECH BEP BOURNS	SAMTEC ALPHAWIRE HARTING
Agriculture Robots	INFINEON INVENSENSE KINGSGATE	INTEL LANTRONIX LITTELFUSE	LITTELFUSE KONTRON KINGSTON	BELDEN BRIDGETEK DIGI	ALTECH BEL DIODES	GIGADEVICE HONEYWELL INFINEON	ALTRAN MAGNETICS AMPHENOL APTIV	TDK ADVANTECH CINCON	LATTICE MICROCHIP NVIDIA	ALLEGRO IXIS PHOENIX CONTACT	BULGIN C&K EAO	ABB ALTECH HELLERMANNTYTON
Food Delivery	MALLORY SONALERT MARINCO LITTELFUSE	LEGRAND MELEXIS MICROCHIP	ADVANTECH CHERRY AMERICAS SEED TECHNOLOGY	DIODES FTDI CHIP IXYS	BOURNS BULGIN DIOTEC	INTEGRATED SILICON KIOXIA KINGSTON	TE ASSMAN WSW BURNDY	MURATA POWER AIMTEC DIGI	NXP NORDIC NUVOTON	ALTECH INFINEON PANASONIC	EATON GRAYHILL HONEYWELL	ADAMTECH AMPHENOL ITT
Hospitality robot	MURATA STMICRO SPARKFUN	MULTI-TECH SYSTEMS NXP NORDIC SEMI	ARTESYN DIGI LANTRONIX	INFINEON INTEGRATED SILICON INTEL	CHEMI-CON CENTRAL SEMI EIC SEMICONDUCTOR	INTEL MACRONIX MICROCHIP	BEL BELDEN BOURNS	DELTA ALTECH EATON	QUALCOMM ST SILICON LABS	AMPHENOL MOLEX SENSATA	LITTELFUSE MARQUARDT MOLEX	ADAFRUIT APTIV LEGRAND
Medical robots	SYFER TECHNOLOGY TE TDK	NUVOTON TECH QUALCOMM QUECTEL	CONNECT TECH MULTI-TECH SYSTEMS PORTWELL	LEGRAND LITTELFUSE MICROCHIP	CAMDENBOSS COMCHIP TECHNOLOGY TE	MICRON NANYA TECHNOLOGY ROHM	BULGIN C&K CINCH	VICOR N2POWER FRIWO	SKYWORKS TOSHIBA ZILOG	BELDEN LITTELFUSE SENSIRION	NIDEC COPAL NKK OHMITE	ASSMANNWSW BELDEN LITTELFUSE
Drones	TAOGLAS ADAFRUIT BESTAR TECHNOLOGIES	ST SEMTECH SILICON LABS	HONEYWELL SAMSUNG NXP	NISSHINBO NUVOTON QUELTEC	EATON VISHAY INFINEON	STMICRO SAMSUNG SILICON MOTION	CNC TECH CONXALL WAGO	MEANWELL SL POWER HARTING	IWAVE SYSTEMS ONSEMI AMD	BOSCH MURATA SILICON LABS	OMRON PANASONIC RAFI GMBH	BELKIN BULGIN MARINCO
Cleaning robots	BEP MARINE DB UNLIMITED EAO	SKYWORKS TELIT ONSEMI	INTEL SUPERMICRO COMP MICRON	ROHM SG MICRO CORP STMICRO	YAGEO KYOCERA LITE-ON TECHNOLOGY	SKYHIGH SWISSBIT TDK	DELTA EATON GLENAIR	SCHAFFNER OMNION - ABB HONEYWELL	DIGI IXYS INFINEON	BOURNS NTE TE	SCHURTER SWITCHCRAFT TE	CINCH CNCTECH MOLEX
Telepresence - Teaching	DIGISOUND GROUP INFINEON INVENSENSE	U-BLOX ABRACON ADAFRUIT	NVIDIA SOLIDRUN APEM	SEMTECH SILICON LABS SKYWORKS	LITTELFUSE MCC MICROCHIP	TELEDYNE WESTERN DIGITAL WINBOND	HARTING ITT KYOCERA	NUENERGY 3Y POWER HAMMOND	INTEL LANTRONIX LATTICE	BULGIN DIODES ONSEMI	ZF ELECTRONICS KNITTER-SWITCH ABB	GLENAIR HAMMOND NTEELECTRONICS
Humanoids	KINGSGATE MALLORY SONALERT MARINCO	ANTENOVA CALIFORNIA EASTERN DITOM MICROWAVE	GRAYHILL TDK TE	TAIWAN SEMI TELEDYNE TOSHIBA	MOLEX NIC COMPONENTS NTE	ONSEMI ADATA TECHNOLOGY ATP ELECTRONICS	LITTELFUSE MARINCO MOLEX	PHOENIX CONTACT LANTRONIX INFINEON	MICROCHIP NVIDIA NXP	C&K EVERLIGHT STMICRO	ALPS ALPINE APEM ALTECH	OMRON PHOENIXCONTACT PANDUIT
Pill Dispenser Robot	LITTELFUSE MURATA STMICRO	HUBER+SUHNER HONEYWELL KYOCERA	ADATA BRADY CORPORATION WESTERN DIGITAL	TRIPP LITE WAGO WIZNET	NXP PHOENIX CONTACT PANASONIC	ADVANTECH DATARAM EVERSPIN	MURATA OMRON PHOENIX CONTACT	LITTELFUSE PANDUIT MICROCHIP	NORDIC NUVOTON QUALCOMM	DFROBOT EPSON PULSE ELECTRONICS	BEP BOURNS BULGIN	QUALTEK SCHURTER SWITCHCRAFT
Toy Robot	SPARKFUN SYFER TECHNOLOGY TE	MOLEX MURATA PANASONIC	VIRTUUM LLC CONGATEC AG IWAVE SYSTEMS	WINBOND ZILOG AMS OSRAM	PROTEK DEVICES SCHURTER SEMTECH	FUJITSU GIGADEVICE HONEYWELL	PANDUIT PULSE SAMTEC	NTE SAMSUNG STMICRO	ST SILICON LABS SKYWORKS	DIGI EATON GRAYHILL	C&K EAO EATON	TE TENSILITY TRIPPLITE

Robot arm



Interconnection



Heavy Duty
Connectors



Sensor



Motor Control



Power Connectors



Power Management



Vision Solutions0



I/O Connectors



Power Relay



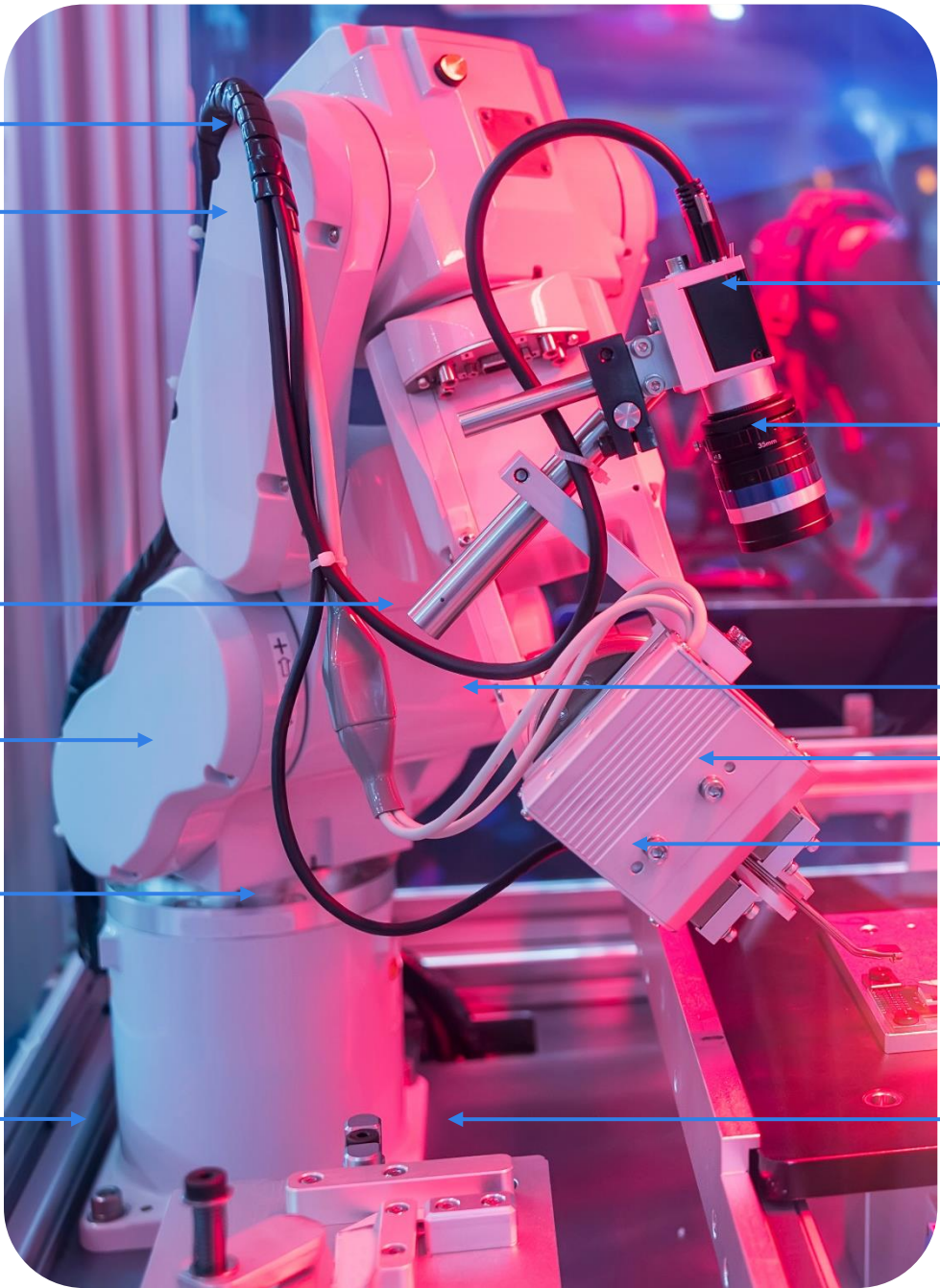
Connectivity



Processor



AC-DC, DC-DC
Converters



See More

Robot Arm Solutions



 Processor
System on Module
[QRB2210](#)



 Sensor
Angular Sensor
[TLE5009E1000FUMA1](#)



 Power Solutions
Power Management
[IR38263MTRPBFAUMA1](#)



 Interconnection
RCP 36 POS 5mm
[208063-5](#)



 I/O Connectors
Circular connectors
[211398-4](#)



 I/O Connectors
Industrial RJ45
[2120892-1](#)



 AC-DC Power Supply
Single-OUT
[LCC600-28U-9P](#)



 Connectivity
Wireless
[STM32WB5MMGH6TR](#)



 Isolated Fixed-Ratio
DC-DC Converter
[BCM4414VH0E5035T02](#)



 Power solutions
Power Relay
[RTS3T048](#)



 PL 5 POS 3.96mm
Crimp ST
[1-1123722-5](#)



 Power Distribution
DBL Block
[1SNL308010R0000](#)



 Motor Control
Power-MOSFET
[BSZ0502NSIATMA1](#)



 Power Supply
DC-DC Converter
[MIC23159YML-TR](#)



 Sensors
Position Sensor
[NCS32100XMNTXG](#)



 Push Button Switch
Emergency stop
[ES-2002-T312-020B](#)



 Power Connectors
Entry module EMI
[15EJHP](#)



 Telecom Connector
ZQSFP+ CAGE
[2308171-4](#)

Autonomous Patrols

 Depth camera

 Touch screen display

 Microphone

 Thermal Camera

 LiDAR sensor

 Battery Management

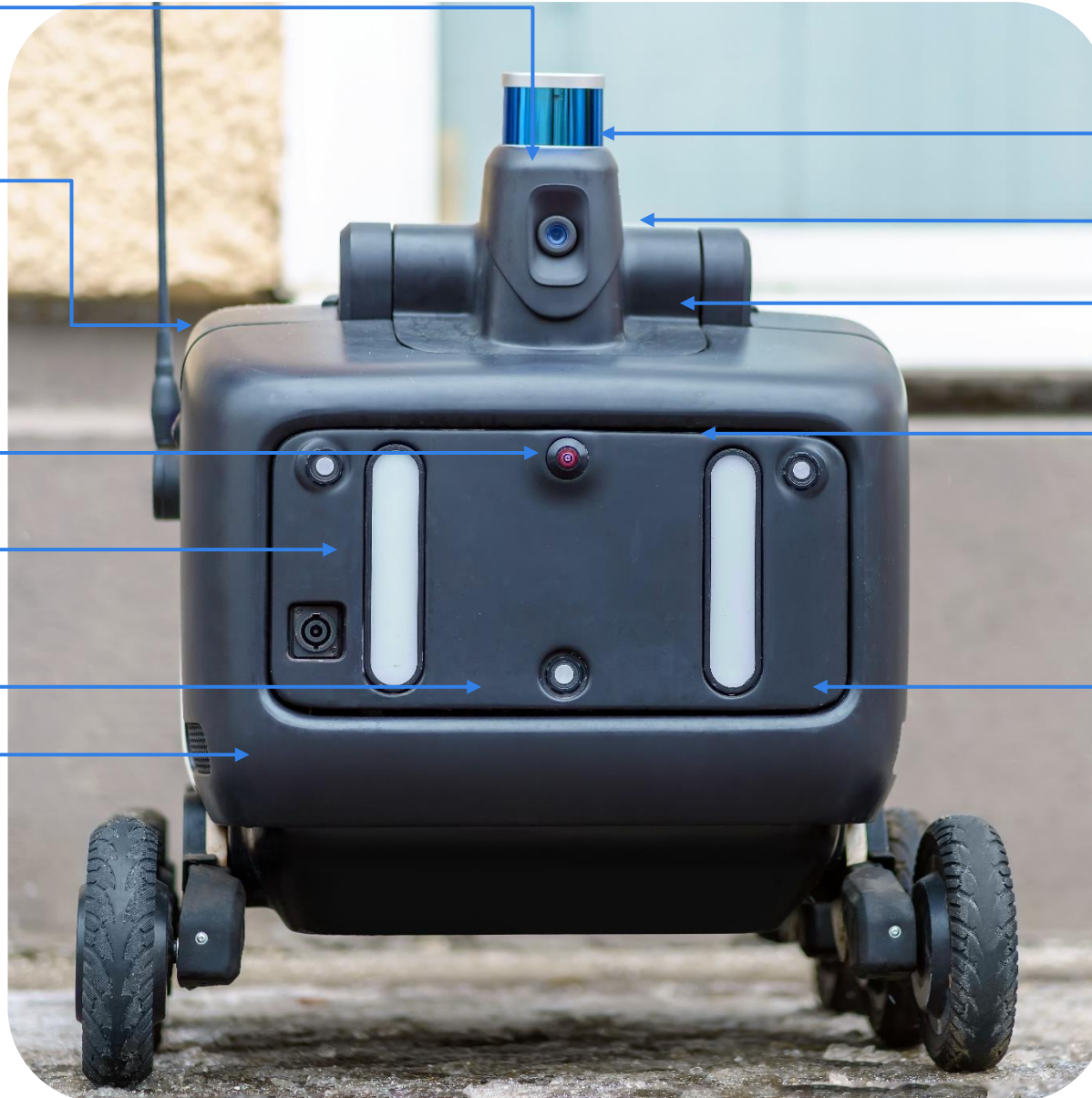
 Connectivity

 Sensors

 Interconnection

 RFID reader

 Processor



 See More

Autonomous Patrols Solutions



 Sensors
Inertial Measure Unit
[BMI088](#)



 Processor
Microcontroller
[MIMX8UD3CVP08SC](#)



 Connectivity
GPS Receiver
[TESEO-LIV3R](#)



 Connectivity
Antennas
[2108848-1](#)



 Connectivity
Antenna attachment
[ANT-MAG-B50-RPS](#)



 Interconnection
SO-DIMM
[2309413-1](#)



 Processors
Microcontroller
[STM32F722IET6](#)



 Motion Control
Motor Controller
[STSPIN32G4](#)



 DC/DC converter
1-OUT 5V 3A
[S24SE05003PDFA](#)



 Connectivity
Antennas
[FTRA6171M5PB-001](#)



 PL 5 POS 3.96mm
Crimp ST
[1-1123722-5](#)



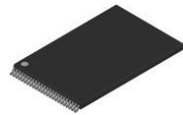
 Sensors
Humidity
[HPP805A031](#)



 Power supply
1-OUT 24V
[CUS150M24](#)



 LED Signaling
LED Drivers
[BCR601](#)



 Memory
SRAM Chip
[CY62177EV30LL-55ZXI](#)



 Interconnection
RCP 6 POS
[1-1418469-1](#)



 I/O Connectors
USB Connector
[2305018-2](#)



 Connectors
FFC Connector
[2-487937-4](#)

Agriculture Robots



Connectivity



Processor



Sensors



Signaling



ToF



Emergency Switch



Battery Management



Power Management



Isolated DC-DC Converter



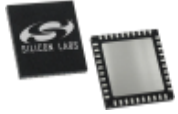
Motion Control



Interconnection



Agriculture Robot Solutions



 Connectivity
RF Transceivers
[EFR32F2](#)



 Processor
Application SOCs
[MIMX8MN1CVPIZAA](#)



 Power
Single-OUT 48V 42.9A
[LCC1200-48U-4P](#)



 Connectivity
Antennas
[MTRA61274CB2-001](#)



 Interconnection
Highspeed
[9-2367337-1](#)



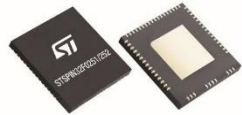
 Power
Industrial Relays
[1-1415898-8](#)



 Sensors
Gases
[BME688](#)



 Power
Gate Drivers
[STDRIVEG600W](#)



 Motion Control
Motor Controller
[STSPIN32G4](#)



 IP&E
Emergency stop switches
[ES-2012-T111](#)



 Interconnection
PCB Connectors
[2304372-1](#)



 Sensors
Temperature
[A1004BT22P0](#)



 LED Driver
2000uA Supply
[LED1202QTR](#)



 Processor
Plug and Trust Secure Element
[SE050F2HQ1/Z018HZ](#)



 Isolated Fixed-Ratio
DC-DC Converter
[BCM4414VH0E5035T02](#)



 Sensors
Temperature and Humidity
[HPP845E031R4](#)



 Interconnection
SO-DIMM
[2309413-1](#)



 Electromechanical
Battery Disconnect
[35-210-051-R-900](#)

Food Delivery



Connectivity



Battery
Management



Processor



DC-DC
Converter



LiDAR



Camera



Speakers



Interconnection



See More

Food Delivery Solutions



 Processor
System on Module
[900-13701-0080-000](#)



 Connectivity
Wireless
[STM32WB5MMGH6TR](#)



 Power
DC-DC 1-OUT 12V 50A
[AIF50B300-L](#)



 Connectivity
Antennas
[2108848-1](#)



 Power
Industrial Relays
[1-1415898-8](#)



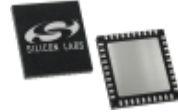
 Connectors
FFC Connector
[2-487937-4](#)



 DC-DC
Converter
[DCM2322T72](#)
[S13A0T60](#)



 Power
Protection MOSFET
[IRL40SC228](#)



 Connectivity
RF Transceivers
[EFR32F2](#)



 Connectivity
Antennas
[FTFA6171M5PB-001](#)



 Interconnection
Highspeed
[9-2367337-1](#)



 Sensor
Photoelectric
[10104019-20](#)



 Motion Control
Motor Controller
[STSPIN32G4](#)



 Sensor
Radar Sensor
[BGT24LTR22E6327XTSA1](#)



 Sensors
Proximity Sensors
[VL53L8CXV0GC/1](#)



 Interconnection
Power Connector
[IEC-F-1](#)



 Connectivity
Antenna attachment
[ANT-MAG-B50-RPS](#)



 Interconnection
SO-DIMM
[2309413-1](#)

Hospitality robot



Microphone



LED Signaling



Loudspeakers



Processor



Power supply



Power Management



Touchscreen



GPS



Connectivity



Proximity Sensor



Electromechanical



Ultrasonics



See More

Hospitality Robot Solutions



⚡ Power
PMIC
[PCA9450AAHNY](#)



🔌 Processor
Plug and Trust Secure Element
[SE050F2HQ1/Z018HZ](#)



🔊 Audio Components
Audio Amplifiers
[IR4322MTRPBF](#)



🌐 Connectivity
Antennas
[FTRA6171M5PB-001](#)



⚙️ Electromechanical
Switches
[W33-S1N1Q-5](#)



⚡ Signal Relay
12VDC 2A DPDT
[IM06GR](#)



⚡ Power supply
Single-OUT 12V
[PMT-12V150W1AA](#)



⚡ Power
Motor Controller
[STSPIN250](#)



⚡ DC-DC
Converter
[DCM2322T72](#)
[S13A0T60](#)



💡 LED Signaling
Switches
[AV1610P112R04](#)



🔌 PL 5 POS 3.96mm
Crimp ST
[1-1123722-5](#)



🔌 Interconnection
RCP 10 POS
[1-2201197-0](#)



💾 Memory
RAM Memory
[MTFC32GAZAQHD-WT](#)



💡 LED Signaling
LED Drivers
[BCR601](#)



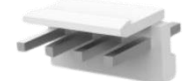
🌡️ Sensor
Radar Sensor
[BGT24LTR22E6327XTSA1](#)



🔌 Interconnector
POS 2.5mm
[2132415-4](#)



🔌 Interconnection
Shrouded 8 POS
2.5mm
[8-1971798-1](#)



🔌 Wire to Board HDR
4 POS 3.96mm
[1-1123723-4](#)

Medical robots

⚡ Power solutions

📡 LiDAR

👁 Vision Solutions

🧠 Processor

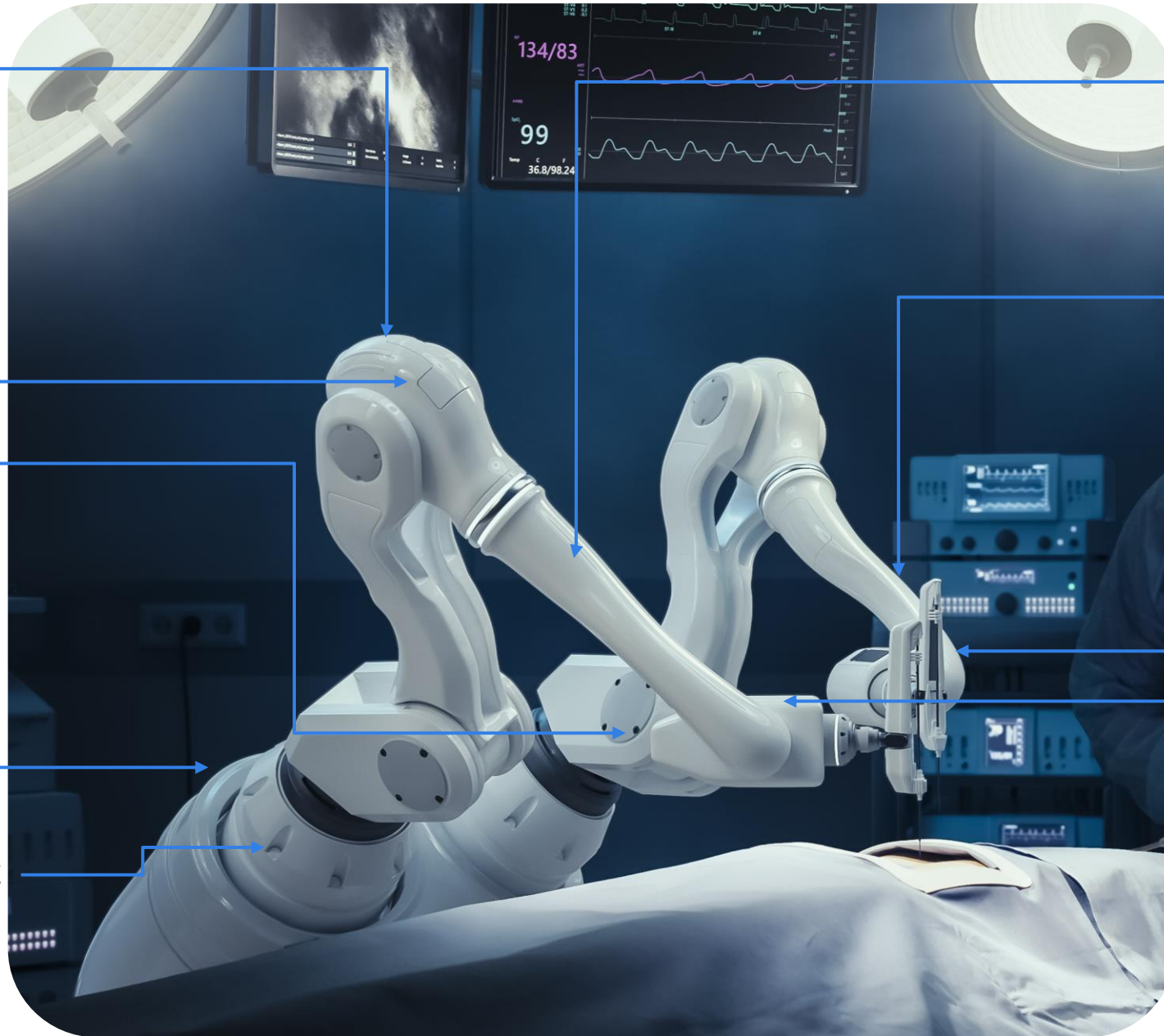
🔋 Battery management

🌐 Connectivity

🌡 Sensors

⚙ Electromechanical

🌀 Motion Control



👁 See More

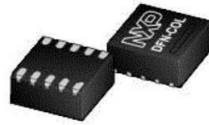
Medical Robot Solutions



⚡ Power
AC/DC Power Supply
[CUS100ME15](#)



🌡️ Sensor
Angular Sensor
[TLE5009E1000FUMA1](#)



🌡️ Sensors
Accelerometer
[FXLS8974CFR3](#)



🌡️ Sensors
Angular and Linear
Position
[SP1-50](#)



🌡️ Sensors
Pressure
[SMI-1A-48-100-BAUU](#)



🌡️ Sensor
Photoelectric
[10104019-20](#)



⚡ 36 to 72 VDC
DC/DC Front End
[PEC1300-12-074ND](#)



⚡ Power
Wireless Power Transfer
[WCT38466-N0E0SST101](#)



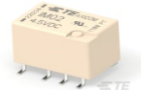
🔋 Battery Management
Monitoring and Balancing
[TLE9012DQUXUMA1](#)



🌡️ Sensors
Sleep Tracking
[10184000-01](#)



🌡️ Sensor - Air Flow
Bubble Detection
[071-06402](#)



⚡ Low Power
Signal Relay
[1462037-9](#)



🌐 Connectivity RF
Transceiver
[ATA8350-7MQW](#)



🌐 Connectivity Combo
Wireless
[IW416HN/A1CK](#)



💡 LED Signaling
LED Drivers
[BCR601](#)



⚙️ Electromechanical
Emergency Switches
[PBES16N50R](#)



⚙️ Electromechanical
Switches- Knobs
[PKG40B1/8](#)



⚡ Power Connectors
Entry module EMI
[15EJHP](#)

Drones



Drone Solutions



 Processor
MCU
[MKV42F128VLF16](#)



 Power
RF Amplifiers
[AFIC10275NR1](#)



 DC/DC converter
12VIN 1-OUT
[OKI-78SR-3.3/1.5-W36-C](#)



 Power connectors
HDR 2POS 2.5mm
[2132415-2](#)



 Memory
DDR4 DIMM Connector
[2199155-1](#)



 Sensors
Altimeter
[MS561101BA03-50](#)



 Sensors
Proximity Sensors
[VL53L8CXV0GC/1](#)



 Power
BLDC Motor driver
[STSPIN233](#)



 Sensor
Radar Sensor
[BGT60LTR11AIP6327XUMA2](#)



 I/O Connectors
USB Connector
[1-2305018-2](#)



 Connectivity
Antenna
[2195889-1](#)



 Connectivity
RF Connectors
[2334884-1](#)



 Connectivity
BT + ZigBee Chip
[EFR32BG24A010F1024IM40-BR](#)



 DC/DC converter
1-OUT 5V 3A
[S24SE05003PDFA](#)



 Sensor
Accelerometer
[FXLS8964AFR3](#)



 Interconnection
Board-to-Board
[4-2363961-0](#)



 Sensors
Humidity Sensor
[HPP815A533](#)



 Interconnection
FPC Connector
[1-84952-6](#)

Cleaning robots

⚡ Power conversion

💡 LED Signaling

🌡️ Anti-Collision System

🌡️ ToF

⚙️ Motor Control

🌐 Connectivity

⚡ Battery Management

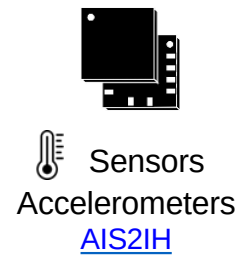
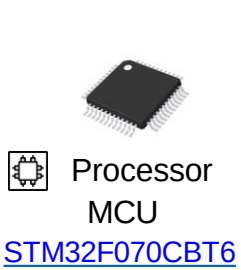
🧠 Processor

🌡️ Sensors

⚡ Signal Conditioning



Cleaning Robot Solutions



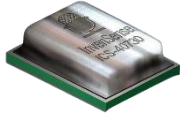
Telepresence - Teaching



Telepresence Robot Solutions



 Display Solutions
Touchscreen
[IDK-1107WR-50WSA1E](#)



 Audio Components
Microphone
[ICS-40730](#)



 Power supply
Single-OUT
24V
[PQC250-24](#)



 Connectivity
Antenna
[RD2458-5-SMA](#)



 Power connectors
HDR 23POS
[776087-1](#)



 Interconnection
FFC Connectors
[5-487508-7](#)



 Sensor
Accelerometer
[ISM330DHCXTR](#)



 Power Solutions
PMIC
[PM-8250-0-FOWPSP161-HR-03-0](#)



 Sensor
PIR Sensor
[STHS34PF80TR](#)



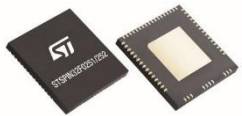
 Power Distribution
Power line filters
[6609043-2](#)



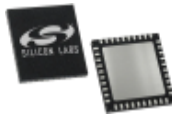
 I/O Connectors
Docking Connector
[2129260-2](#)



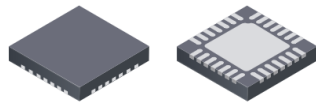
 I/O Connectors
Audio and Video
[2013978-2](#)



 Motion Control
Motor Controller
[STSPIN32G4](#)



 Connectivity
RF Transceivers
[EFR32F2](#)



 Motion Control
Motor Driver
[A4915METTR-T](#)



 I/O Connectors
Telecom
[2350278-1](#)



 Interconnection
Highspeed
[9-2367337-1](#)



 Signal Relay
12VDC 2A DPDT
[IM06GR](#)

Humanoids

Microphone

Processor

Security

Memory

IMU

Depth camera

Sensors

Motor control

Connectivity

Power supply

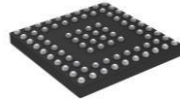


[See More](#)

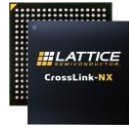
Humanoid Robot Solutions



⚡ AC to DC power supply
Single-OUT 12V
[D1U54P-W-450-12-HA4C](#)



⚡ Processor
FPGA
[LIF-MD6000-6JMG80I](#)



⚡ Processor
FPGA
[LIFCL-40-8MG289I](#)



⚡ Interconnection
RCP 6 POS
[1-1418469-1](#)



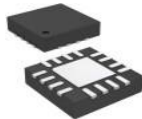
⚡ Interconnection
Highspeed
[9-2367337-1](#)



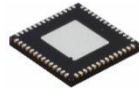
⚡ Interconnection
SO-DIMM
[2309413-1](#)



⚡ Power
PMIC
[PCA9450AAHNY](#)



⚡ Power
Motor Controller
[STSPIN250](#)



⚡ Motion Control
Motor Driver
[MC33GD3000EP](#)



⚡ Power Distribution
Power line filters
[6609066-3](#)



⚡ I/O Connectors
Telecom
[1-2120864-1](#)



⚡ PL 5 POS 3.96mm
Crimp ST
[1-1123722-5](#)



⚡ AC to DC power supply
1-OUT 48V 85A
[TPS4000-48](#)



⚡ Power Wireless
Power Transfer
[WCT38466-N0E0SST101](#)



⚡ Sensor
Radar Sensor
[BGT24LTR22E6327XTSA1](#)



⚡ Sensors
Angular and Linear
Position
[SP1-50](#)



⚡ Interconnection
Board-to-Board
[4-2363961-0](#)



⚡ Sensors
Humidity Sensor
[HPP815A533](#)

Pill Dispenser Robot

 LCD Display

 LED Signaling

 Loudspeakers

 Sensors

 Connectivity

 Processor

 Motor

 Ultrasonic Sensor



 See More

Pill Dispenser Solutions



Processor
MCU

[MKV42F128VLF16](#)



Display Solutions
Screen Controllers

[AT42QT1010-TSHR](#)



Audio Components
Audio Amplifiers

[IR4322MTRPBF](#)



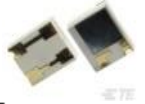
Power connectors
HDR 2POS 2.5mm

[2132415-2](#)



Electromechanical
Switches

[W33-S1N1Q-5](#)



Sensor
Photoelectric

[10104019-20](#)



Display Solutions
ADC

[MCP3221A6T-E/OT](#)



Power supply
Single-OUT 24V

[PQC250-24](#)



Sensors
Proximity Sensors

[VL53L8CXV0GC/1](#)



LED Signaling
Switches

[AV1610P112R04](#)



Connectivity
Antenna

[2195889-1](#)



Interconnection
SO-DIMM

[2309413-1](#)



Connectivity
BT+ZigBee Chip

[EFR32BG24A010F1024IM40-BR](#)



LED Signaling
LED Drivers

[BCR601](#)



DC/DC converter
12VIN 1-OUT

[OKI-78SR-3.3/1.5-W36-C](#)



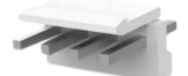
Inteconnection
Shrouded 8 POS
2.5mm

[8-1971798-1](#)



I/O Connectors
USB Connector

[2305018-2](#)



Wire to Board HDR
4 POS 3.96mm

[1-1123723-4](#)

Toy Robot

🔊 Microphone

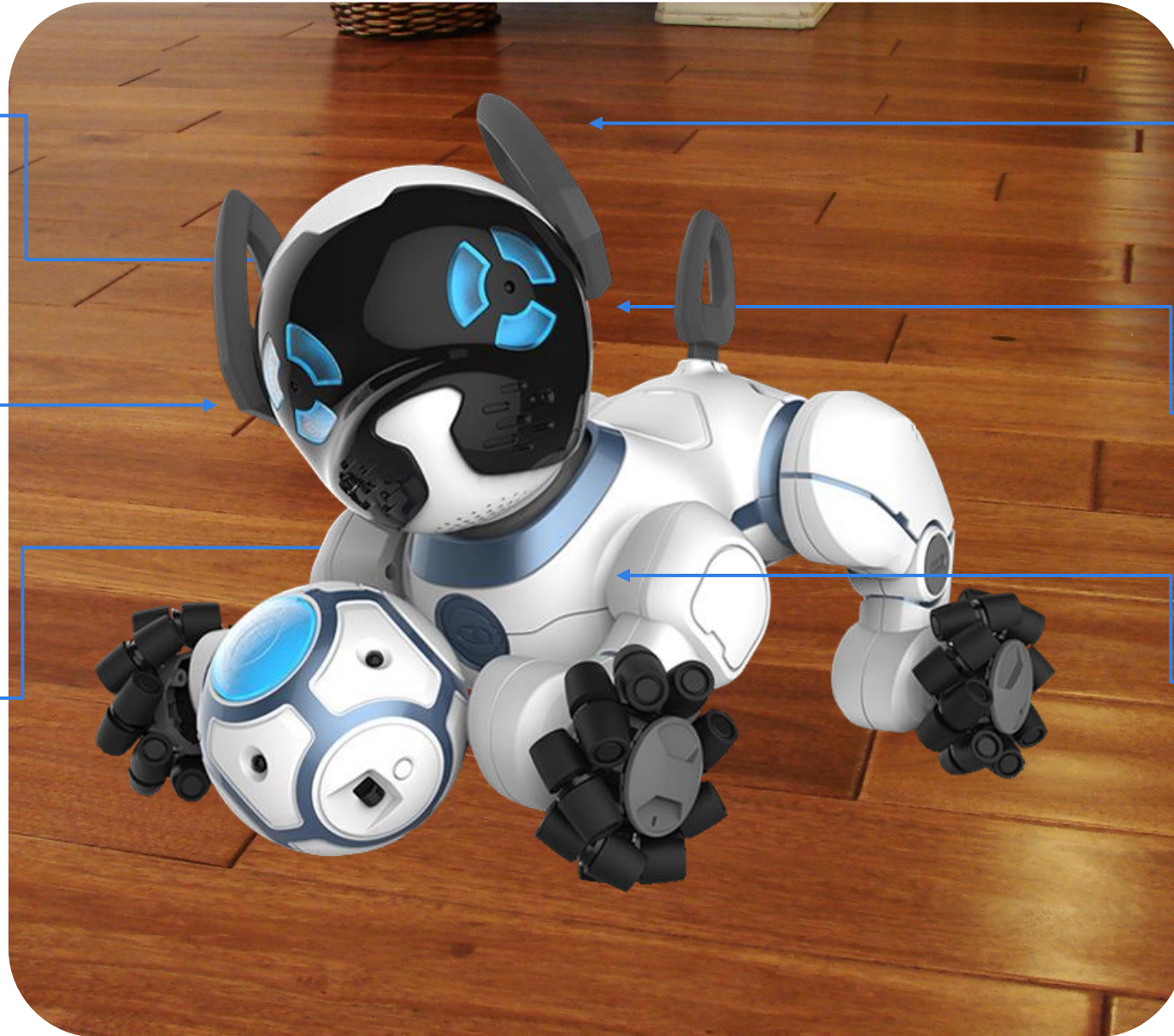
🔋 Battery management

🔌 Interconnection

🌐 Connectivity

🔊 Loudspeakers

⚡ Power Management

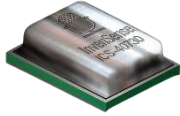


👁 See More

Toy Robot Solutions



 Sensors
Proximity
[VL53L0CXV0DH/1](#)



 Audio Components
Microphone
[ICS-40730](#)



 Audio Components
Audio Amplifiers
[IR4322MTRPBF](#)



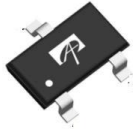
 Power connectors
HDR 2POS 2.5mm
[2132415-2](#)



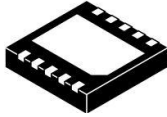
 Connectivity
Antenna
[1513247-1](#)



 Interconnection
FPC Connector
[1-84952-6](#)



 Power
MOSFET
[AO3401A](#)



 Power
Voltage Regulator
[NCP51200MNTXG](#)



 LED Signaling
Driver
[PCA9634D,118](#)



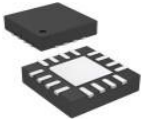
 I/O Connectors
USB Connector
[1-2305018-2](#)



 Interconnection
4 Sides HDR 2 POS 2mm
[1-2232829-2](#)



 Sensor
Photoelectric
[10104019-20](#)



 Power
Motor driver
[STSPIN233](#)



 DC/DC converter
12VIN 1-OUT
[OKI-78SR-3.3/1.5-W36-C](#)



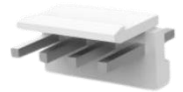
 AC/DC Adapter
1-OUT 5V 1A
[1898333](#)



 Interconnection
Shrouded 8 POS
2.5mm
[8-1971798-1](#)



 Connectivity
Antenna
[2195889-1](#)



 Wire to Board HDR
4 POS 3.96mm
[1-1123723-4](#)

Top products by technology

- [Audio](#) 
- [Communication](#) 
- [Computer Products](#) 
- [Connectors](#) 
- [Diodes](#) 
- [Drivers and Interfaces](#) 
- [Fans and blowers](#) 
- [Filters](#) 
- [Industrial Computer Products](#) 
- [Linear](#) 
- [Memory](#) 
- [Opto Discrete - LED](#) 
- [IP&E](#) 
- [Power](#) 
- [Power Discrete](#) 
- [Power Management](#) 
- [Off-board power](#) 
- [Processors](#) 
- [RF/MW](#) 
- [Semiconductor](#) 
- [Sensors](#) 
- [Switches](#) 
- [Standard Logic](#) 
- [Transistors](#) 
- [Wire and Cable](#) 

Top products



Omni-Directional -26dB
[IM73D122V01XTMA1](#)

Microphones

Audio



CAN 1MBd Shutdown
[L9616](#)

Controller Area Network



CAN 5Mbps Normal/Silent
[TJA1051T/E/1J](#)

4-Port 100Mbps
[KSZ8794CNXIC-TR](#)

Ethernet Switch



GNSS with 6-axis IMU
[TESEO-VIC3D](#)

GPS Receiver



1-CH 1.1V/2.5V/3.3V
[TJA1103AHN/0Z](#)

PHY

Communication



LTE Cat 4
[IX15-00G4-XBP2](#)

Network Gateways

Computer Products



SiC 650V 20A
[STPSC20065GY-TR](#)

Rectifier



TVS
[SP0503BAHTG](#)

TVS



1-CH 1.1V/2.5V/3.3V
[SZMMSZ4678T1G](#)

Zener

Diodes



USB 2.0 to I2C/UART
[MCP2221-I/ML](#)

Interface Controllers



2000uA Supply Current
[LED1202QTR](#)

LED Driver

Drivers and Interfaces



USB to Basic UART
[FT230XQ-R](#)

USB Interface IC



Hub Controller USB 2.0
[USB2514BI-AEZG-TR](#)



10000uA Supply
[PCA9685PW,118](#)

LED Driver

Drivers and Interfaces



DC Fan Axial Sleeve
[ASB02512VHA-A76N](#)

Fans and blowers

Fans and blowers



EMI 0Hz to 400Hz 16A
[FN2030-16-06](#)

Filters



Ferrite Core Clamp
[ZCAT2035-0930A](#)

Filters

Top products



Jetson Xavier NX
[900-83668-0000-000](tel:900-83668-0000)



SOM with Core Processor
[QRB5165-SOM-A](tel:900-83668-0000-000)



Jetson Orin NX 16GB
[900-13767-0000-000](tel:900-83668-0000-000)



Op Amp Single GP R-R I/O
[MCP6141-I/SN](tel:900-83668-0000-000)



1-Channel Single ADC
[MCP3221A6T-E/OT](tel:900-83668-0000-000)



DAC 1-CH Resistor-String
[MCP4725A0T-E/CH](tel:900-83668-0000-000)

System On Module (SOM)

Misc Computer

Amplifier - Operational

Data Acquisition - ADC

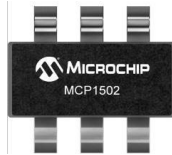
Data Acquisition - DAC

Industrial Computer Products

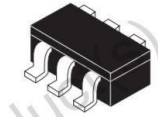
Linear



I2C Interface 3400kHz
[MCP23009-E/MG](tel:900-83668-0000-000)



Precision 2.5V 20mA
[MCP1502T-25E/CHY](tel:900-83668-0000-000)



Sense Amp Single 26V
[TSC210ICT](tel:900-83668-0000-000)



5.5V 0.4A to 3.3A
[NX5P3090UKZ](tel:900-83668-0000-000)



Mobile LPDDR4 32Gbit
[MT53E1G32D2FW-046 WT:B](tel:900-83668-0000-000)



Serial-I2C 256K-bit 32K
[24AA256UID-I/SN](tel:900-83668-0000-000)

Interface - I/O Expander

Voltage Reference

Amplifier –
Special Purpose

Interface - USB
Power Switch

DRAM

EEPROM

Linear

Memory



1G/2G/4G-bit NAND
[MX30LF1GE8AB-XKI](tel:900-83668-0000-000)



Serial 1G-bit
[MX30LF1G18AC-XKJ](tel:900-83668-0000-000)



512 GB
[MTFDHBL512TDQ-1AT12ATYY](tel:900-83668-0000-000)



Square RA Clear
[PLPQ2-10MM-FF](tel:900-83668-0000-000)



AC-DC PowerSupply
[568-0122-222F](tel:900-83668-0000-000)



B/G/R 468nm/519nm/630nm
[KRTBEILQ51.3A-5B5C-0112-0-R18](tel:900-83668-0000-000)

Flash

NAND FLASH

Solid State Drives

LED Light Pipes

Low Power LED

Opto Discrete - LED

Memory

Top products



RCP 6 POS
4mm Crimp
[1-1418469-1](#)



RCP 2 POS 2.54mm
[0050579402](#)



RCP 8 POS 3mm
Crimp
[794617-8](#)



RCP 4 POS
4.2mm Crimp ST
[1586019-4](#)



PL 5 POS 3.96mm
Crimp ST
[1-1123722-5](#)



HDR 4Power POS 2.5mm
[2132415-4](#)

Discrete Wire Housings

Headers & PCB Receptacles



HDR 6 POS 1.25mm
[0533980671](#)



HDR 2 POS 2mm Solder RA
[1775469-2](#)



HDR 10 POS
1.27mm Solder RA
[TMS-110-01-L-S-RA](#)



HDR 2 POS 2.5mm Solder
[171825-2](#)



AMPSEAL HDR 23
POS 4mm RA
[776087-1](#)

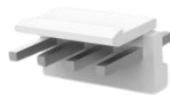


RCP 10 POS
0.4mm
[1-2201197-0](#)

Headers & PCB Receptacles



4 Sides HDR 2 POS 2mm
[1-2232829-2](#)



Wire to Board HDR
4 POS 3.96mm
[1-1123723-4](#)

Headers & PCB Receptacles



Shrouded 8 POS
2.5mm
[8-1971798-1](#)



Magnet for antenna
attachment
[ANT-MAG-B50-RPS](#)



Type N 0Hz to 11GHz
[172234](#)

RF Connector



3 POS 250VAC 15A
[IEC-F-1](#)
Connectors

Top products



Antenna Cellular 3.8dBi
Gain 960MHz
[ANT-ELE-S01-005](#)
Antenna



Conn Card Edge F 67 POS
[MDT420STD001](#)
Card Edge



Micro USB B receptacle
[10118192-0001LF](#)
Connector USB



SKT 40 POS
0.5mm Solder RA
[5051104091](#)
FFC-FPC



Micro SD Card
HDR 8 POS 1.1mm
[0473521001](#)
Memory Card



DDR4 DIMM 260 POS
[2309409-1](#)
Sockets



Battery
Disconnecter 200A
[35-210-051-R-900](#)



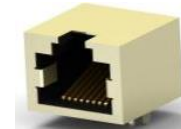
PIN Crimp ST
18-22AWG
[3-350566-1](#)



Contact F Crimp ST Cable
Mount 14-18AWG
[3-770060-1](#)



Jack RA 8P8C
[RJHSE5380](#)



RJ-45 8 POS RA Cat 3
[1734795-1](#)



Busbar Connector
PIN 2 POS 36mm
[1-2394061-2](#)

Switch Selector

Contacts

Telephone and Telecomm

Power Connector



Quick Disconnect
Terminal 18-22AWG
[42068-1](#)



Quick Disconnect
Terminal 14-16AWG
[3-350820-2](#)



Automotive Terminal,
Receptacle
[2-2293004-3](#)



Automotive Terminal,
Receptacle
[2317017-2](#)



Push Button Switch,
Emergency Stop
[ES-2002-T312-020B](#)



SPLC 1500-5000
020TPBR
[62306-2](#)

Terminals Lugs Splices

Switch Emergency Stop

Cable accessories IP&E

Top products



Switch Tactile OFF
[KMR221G LFS](#)

Misc IP&E

[IP&E](#)



4.5V to 61V Step Down
[L7987](#)

DC/DC Converter



4.4V to 50V Step Down
[MCP16331T-E/CH](#)



Application Processors
[PCA9450CHNY](#)

Misc Power



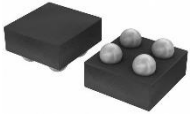
Power Mgmt Unit
[IRPS5401MTRPBF](#)



4 Active Low/Open Drain
[STM6710FWB6F](#)

Processor
Supervisory Circuit

[Power](#)



Hi Side 1-OUT 1.5A
[NX3P1108UKZ](#)

Switch



Triple Half Bridge
[STSPIN32G4](#)

Motor Controller

[Power](#)



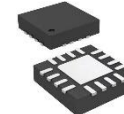
Chip N-CH 1200V 40A
[GT40QR21\(STA1,E,D](#)

Transistor - IGBT
Component



Battery Charger Controller
[MCP73831T-2ACI/OT](#)

Battery Management



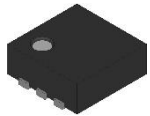
Battery Charger Li-Ion/Li-Pol
[L6924D013TR](#)



1-CH 80V N-Channel
[XDP710001XUMA1](#)

Hot Swap Controller

[Power Management](#)



0.8V to 4.5V 0.2A
[STLQ020PUR](#)

Linear Regulator

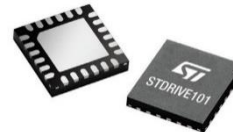


1.8V 0.2A 3-Pin
[MCP1700T-1802E/TT](#)



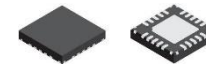
Monitor 2.5V to 20V
[ZXCT1010E5TA](#)

Power Supply
Controllers and Monitors



Driver 3-OUT
[STDRIVE101](#)

Gate and Power Driver



3.5V to 36V
Synch. Step Down
[ARG81800KESJSR](#)

DC/DC Converter & Regulator Modules



4.4V to 50V Step Down Single
[MIC28303-1YMP-TR](#)

[Power Management](#)

Top products



DC-DC 1-OUT 12V 50A

[AIF50B300-L](#)



1-OUT 12V 5A 60W

[DDR-60L-12](#)



12VIN 1-OUT 3.3V 1.5A 4.95W

[OKI-78SR-3.3/1.5-W36-C](#)



Isolated Fixed-Ratio
DC-DC Converter

[BCM4414VH0E5035T02](#)



DC-DC
Converter

[DCM2322T72
S13A0T60](#)



28VIN 1-OUT 12V
26.67A 320W

[DCM3414V50M13
C2C01](#)

DC/DC Converter & Regulator Modules



24VIN 1-OUT 5V
3A 15W

[S24SE05003PDFA](#)



36 to 72 VDC
DC/DC Front End

[PEC1300-12-
074ND](#)



Single-OUT 393V 1.83A

[AIT02ZPFC-01NL](#)



Single-OUT 48V 42.9A

[LCC1200-48U-4P](#)



1-OUT 28V 21.43A 600W

[LCC600-28U-9P](#)



1-OUT 48V 85A
4080W

[TPS4000-48](#)

DC/DC Converter & Regulator Modules

AC to DC Power Supply



1-OUT 24V
5A/6.25A

[CUS150M24](#)



Single-OUT 24V
5A 120W

[DRF120241/HL](#)



Single-OUT 12V 37.5A
450W

[D1U54P-W-450-12-HA4C](#)



Single-OUT 24V
250W 22-Pin

[PQC250-24](#)



Single-OUT 12V
12.5A 150W

[PMT-12V150W1AA](#)



Quad-OUT
500W 47-Pin

[CPA500-4530G](#)

AC to DC Power Supply

Off-board power

Top products



Accelerometer Triple
[IIS2DLPCTR](#)
Accelerometers



Light to Digital Ambient Light Sensor
[VD6283TX45/1](#)
Ambient Light Sensors



5.5V/3.6V Analog Output
[AS5600-ASOT](#)
Angular and Linear
Position



AC/DC Current 3.3V
[TL4971A120T5UE0001XUMA1](#)



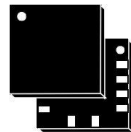
Open Loop AC/DC Current
[ACS711ELCTR-25AB-T](#)



Mass Air $\pm 5\%$ 1L/mFlow
[D6FP0010A1](#)
Flow Sensors



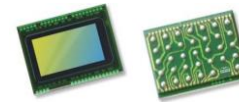
Low Power/Voltage
Magnetic Switch
[NMH1000T1](#)



2.5V 12-Pin LGA
[IIS2MDCTR](#)
Hall Effect



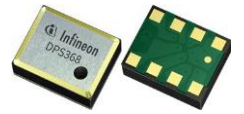
5mA Omnipolar 2.8V
[SL353LT](#)



Color 1920x1080Pixels
[OV02740-H34A](#)



CMOS 1920x1200Pixels
[AR0234CSSM00SUKA0-CP](#)



30kPa to 120kPa Absolute
[DPS368XTSA1](#)
Pressure



20kPa to 110kPa Absolute
[MPL3115A2ST1](#)

Pressure



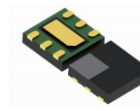
TOF 400cm 3.13V-3.47VDC
[VL53L8CXV0GC/1](#)

Proximity



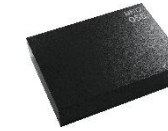
Digital 6m 1-CH
[STHS34PF80TR](#)

PIR Sensors



2-Wire, I2C, SMBus
[STTS22HTR](#)

Temperature and Humidity



Absolute Orientation
[BNO055](#)

Misc Sensors



Accelerometer and
Gyroscope
[ISM330DHCXTR](#)

[Sensors](#)

Top products



SOC i.MX 8M ARM Cortex

[MIMX8ML8DVNLZAB](#)



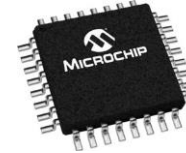
Plug and Trust
Secure Element

[SE050F2HQ1/Z018HZ](#)



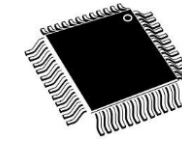
Authenticator CMOS 6KB

[STSAFA110DFSPL02](#)



8-bit AVR RISC 32KB

[ATMEGA328P-AU](#)



32-bit M3 RISC 64KB

[STM32F103C8T6](#)



IC CPU LPDDR5

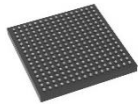
[QRB-5165-0-MPSP](#)
[1099-MT-02-0-AA](#)

Application Processors and SOC

Authenticators

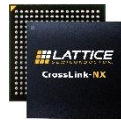
Microcontroller

Processors



Advanced General
Purpose FPGAs

[LFCPNX-100-7BBG484I](#)



Embedded vision &
processing FPGA

[LIFCL-17-7BG256C](#)

FPGA

Processors



ZigBee Pro IoT 2400MHz

[XB3-24Z8UM](#)

802.15.4 LR-WPAN



BT+NFC+ZigBee Module

[451-00001C](#)



Bluetooth v5.4 (BLE)

[STM32WB1MMCH6TR](#)

Bluetooth



Bluetooth v5.3 (BLE)

[BGM240PB22VNA3](#)

RF/MW



BT+ZigBee Chip

[EFR32BG24A010F1024IM40-BR](#)

Combo Wireless Module



Low Energy 5.0

[STM32WB5MMGH6TR](#)



2400MHz to 2500MHz

[MLPF-WB55-01E3](#)

RF Filter



LNA/PA RF 2dB

[SKY66403-11](#)

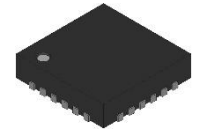
RF Front End



RF Receiver 3.3V

[BGT24LTR11N16E6327XTSA1](#)

Transceiver



ASK/FSK/OOK 3.3V

[S2-LPCBQTR](#)

RF/MW

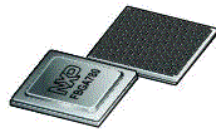
Top products



Boson for FRAMOS
[NGX007](#)



Interlial module
[ISM330ISNTR](#)



S32R45 Processor
[S32R458AAAK0MUDT](#)



2-CH Bidirectional
[NTSX2102GU8H](#)



Off On SPST
[1-1825059-3](#)



OFF Mom SPST
[PTS645SL702 LFS](#)

Misc Semi

Semiconductors

Level Translator
Standard Logic

DIP

Tactile
Switches



ON SPDT 50000Cycles
[AS12CH](#)

Slide



N.O./N.C. SPDT
[111SM2-T](#)

Snap action



ON SP3T 3 Knob
[NR01103ANG13-1C](#)

Rotary



OFF Mom SPST
[KFB2DNA1BBB](#)

Push Button



OFF Mom SPST
[K12P BK 1.5 5N](#)

Switch Key



OFF Mom SPST
[ESE-16J001](#)

Detector
Switches



GaN 650V 25A
[SGT65R65AL](#)



N-CH 60V 19A
[BSC039N06NSATMA1](#)

FET - MOSFET



N-CH 120V 13.5A
[FDMS86202ET120](#)

Transistors



UL 10002 0.15m 22AWG
[2181011022](#)



Flat Twinax 0.25m
[8KC3-0726-0250](#)

Cable assembly



0.1m 29AWG 1mm
[0152670229](#)

Wire and Cable

Thank You



Five Years Out