AdvanIDe®

ASSA ABLOY

Semiconductors for Identification Products

www.advanide.com

About us

AdvanIDe – the Industry´s Preferred Source of Semiconductors for Smart Card, RFID and Reader Products

AdvanIDe

AdvanIDe – Advanced ID Electronics – is one of the leading silicon distributors, focused on components for RFID transponders, chip cards and RFID readers and terminals. Thanks to its optimized semiconductor supply chain, AdvanIDe can guarantee manufactures of smart cards, RFID transponders and readers the most efficient access to the latest semiconductors.

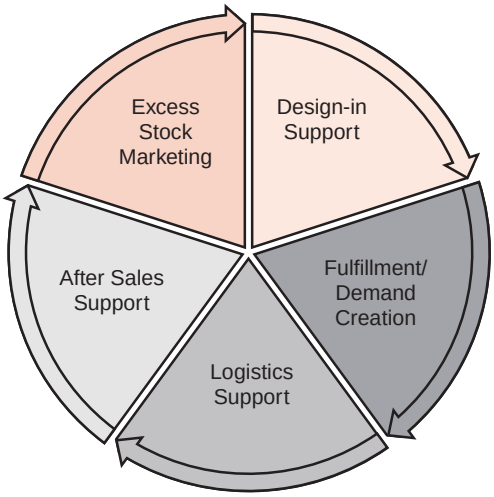
The product range provided by AdvanIDe includes bare silicon chips, smart card modules and RFID reader ICs from leading suppliers such as Atmel, EM Microelectronic, Infineon, LEGIC, Microchip, NXP and Texas Instruments.

Acting as an independent supplier, AdvanIDe has a long track record in interpreting evolving needs by the smart card industry in the different regions of the world thanks to our world wide presence.

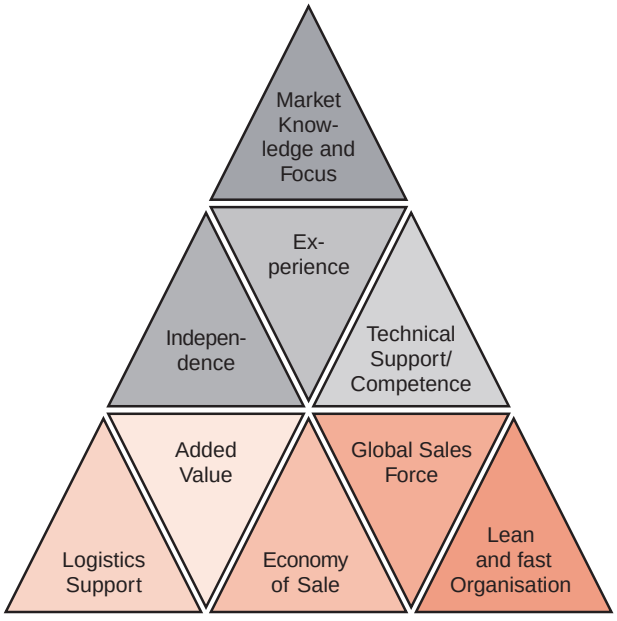
AdvanIDe concentrates on pro-actively identifying emerging trends in order to anticipate rising demand and guarantee prompt availability of the required component in adequate volumes and cost-effectively.

Our aim is to become the most recognized provider of silicon for RFID and chip cards in the identification industry and the prime partner for leading silicon suppliers and their distribution customers.

AdvanIDe is an ASSA ABLOY Group brand. ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience.



Sales Cycles



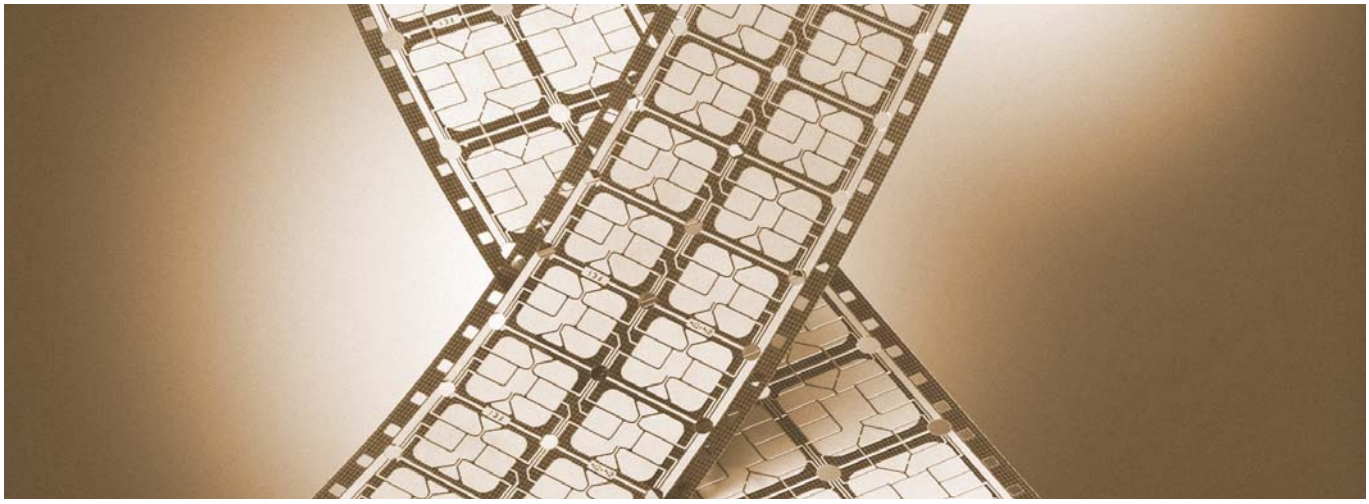
Advantages for our customers

Smart Card Memories

AdvanIDe offers the broadest product range of security memories, security counters and data carriers from all leading manufacturers.

AdvanIDe's product portfolio ranges from security memories, offering highly secure authentication protocols and memory sizes up to 32 KBytes, to various counter solutions, to I²C bus products with a maximum memory size of 128 KBytes.

Manufacturer	Data Carrier	Memory EEPROM	Protocol	Module	Additional Features	Module
ATMEL	AT24C01A	128 KByte	I²C bus	6-contact	2-wire / x8 organization	6 / 8-contact
ATMEL	AT24C02	256 KByte	I²C bus	6-contact	2-wire / x8 organization	6 / 8-contact
ATMEL	AT24C16	2 KByte	I²C bus	6-contact	2-wire / x8 organization	6 / 8-contact
ATMEL	AT24C32	4 KByte	I²C bus	6-contact	2-wire / x8 organization	6 / 8-contact
ATMEL	AT24C64	8 KByte	I²C bus	6-contact	2-wire / x8 organization	6 / 8-contact
ATMEL	AT24C128	16 KByte	I²C bus	8-contact	2-wire / x8 organization	6 / 8-contact
ATMEL	AT24C256	32 KByte	I²C bus	8-contact	2-wire / x8 organization	6 / 8-contact
ATMEL	AT24C512	64 KByte	I²C bus	8-contact	2-wire / x8 organization	6 / 8-contact
ATMEL	AT24C1024	128 KByte	I²C bus	8-contact	2-wire / x8 organization	6 / 8-contact
MICROCHIP	24LC01	128 Byte	I²C bus	6-contact	2-wire / x8 organization	6-contact
MICROCHIP	24LC02	256 Byte	I²C bus	6-contact	2-wire / x8 organization	6-contact
MICROCHIP	24LC04	512 Byte	I²C bus	6-contact	2-wire / x8 organization	6-contact
MICROCHIP	24LC08	1024 Byte	I²C bus	6-contact	2-wire / x8 organization	6-contact
MICROCHIP	24LC16	2 KByte	I²C bus	6-contact	2-wire / x8 organization	6-contact
MICROCHIP	24LC32	4 KByte	I²C bus	6-contact	2-wire / x8 organization	6-contact
MICROCHIP	24LC64	8 KByte	I²C bus	6-contact	2-wire / x8 organization	6-contact
MICROCHIP	24LC128	16 KByte	I²C bus	8-contact	2-wire / x8 organization	8-contact
MICROCHIP	24LC256	32 KByte	I²C bus	8-contact	2-wire / x8 organization	8-contact
MICROCHIP	24LC512	64 KByte	I²C bus	8-contact	2-wire / x8 organization	8-contact



Manufacturer	Security Memories	Memory size	Protection				Customized coding	Module
		EEPROM	Structure	Read	Write	Authentication		
Infineon	SLE5532	256 byte	1 sector	no	no	no	sample code / RID	6-contact
Infineon	SLE5542	256 byte	1 sector	no	yes	no	sample code / RID	6-contact
Infineon	SLE5552	256 byte	1 sector	yes	yes	no	sample code / RID	6-contact
Infineon	SLE5518	1024 byte	1 sector	no	no	no	sample code / RID	6-contact
Infineon	SLE5528	1024 byte	1 sector	no	yes	no	sample code / RID	6-contact
Infineon	SLE5538	1024 byte	1 sector	yes	yes	no	sample code / RID	6-contact
ATMEL	AT88SC101/102/1003	128 byte	1/2/3 sectors	yes	yes	no	-	8-contact
ATMEL	AT88SC153	192 byte	3 sectors	yes	yes	yes	-	8-contact
ATMEL	AT88SC1601/1604	2048 byte	1/4 sectors	yes	yes	no	-	8-contact
ATMEL	AT88SC1608	2048 byte	8 sectors	yes	yes	yes	-	8-contact
ATMEL	AT88SC0204C	256 byte	4 sectors	yes	yes	encrypted	-	8-contact
ATMEL	AT88SC0404C	512 byte	4 sectors	yes	yes	encrypted	-	8-contact
ATMEL	AT88SC0808C	1024 byte	8 sectors	yes	yes	encrypted	-	8-contact
ATMEL	AT88SC1616C	2048 byte	16 sectors	yes	yes	encrypted	-	8-contact
ATMEL	AT88SC3216C	4096 byte	16 sectors	yes	yes	encrypted	-	8-contact
ATMEL	AT88SC6416C	8192 byte	16 sectors	yes	yes	encrypted	-	8-contact
ATMEL	AT88SC12816C	16383 byte	16 sectors	yes	yes	encrypted	-	8-contact
ATMEL	AT88SC25616C	32768 byte	16 sectors	yes	yes	encrypted	-	8-contact

Manufacturer	Security Countres	Memory size	Protection				Customized coding	Module
		EEPROM	Structure	Read	Write	Authentication		
Infineon	SLE4406SPE	32 bit	1 sector	no	yes	no	2 byte / 3 byte Code	6-contact
Infineon	SLE6636	32 bit	1 sector	no	yes	yes	3 byte / 3 byte Code	6-contact
Infineon	SLE6636com	32 bit	1 sector	no	yes	yes	3 byte / 3 byte Code	6-contact

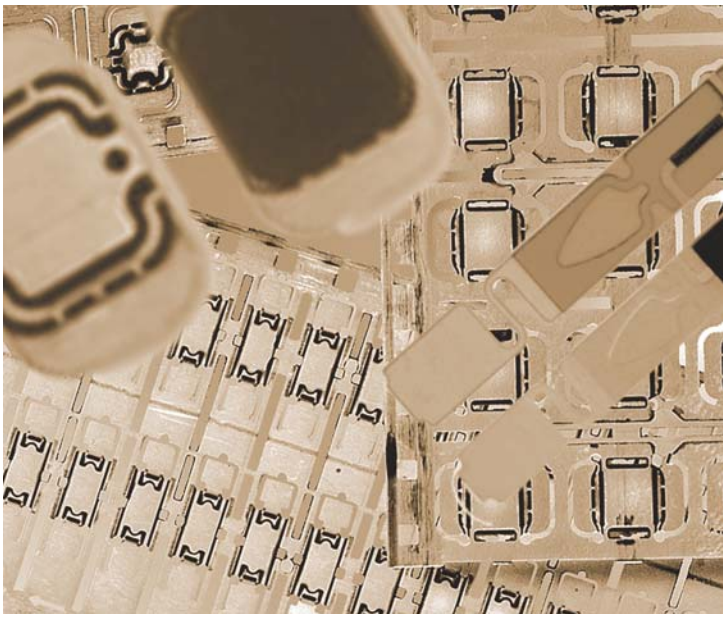
RFID Components

Radio frequency identification (RFID) is an automatic identification technology, which in recent years has become especially commonplace in areas such as access control, transportation, manufacturing and the service sector. The function of RFID applications is to make information about people, animals, goods and products readily available.

The well-known barcode is, in many cases, no longer sufficiently flexible for today's identification applications. While it is particularly cheap to produce, its information storage capabilities are limited and the label cannot be reprogrammed with new information.

A much more flexible option is to transmit data from the data medium to a reading device using contactless technology. Such media (e.g. contactless smart cards, tags or labels) are based on RFID transponders. These contain high performance memory capabilities, take up very little space, are completely maintenance-free and have a high service life.

The data media do not require any contact to transmit information between the chip and the reading device or computer. The data is transmitted in the form of radio waves either at low frequency (< 135 kHz), high frequency (13.56 MHz) or ultra high frequency (850-950 MHz or 2.45 GHz).



	Manufacturer	Product	Frequency	EEPROM	ISO Compliance
125 kHz LOW FREQUENCY	**EM MICROELECTRONIC**	EM4026	125 kHz	8 byte (read only)	none
	EM MICROELECTRONIC	EM4100	125 kHz	8 byte (read only)	none
	EM MICROELECTRONIC	EM4102	125 kHz	8 byte (read only)	none
	EM MICROELECTRONIC	EM4005/EM4105	125 kHz	16 byte	11784, 11785
	EM MICROELECTRONIC	EM4205/EM4305	125 kHz	64 byte	none
	EM MICROELECTRONIC	EM4369	125 kHz	64 byte	none
	EM MICROELECTRONIC	EM4450	125 kHz	125 byte	none
	EM MICROELECTRONIC	EM4550	125 kHz	125 byte	none
	EM MICROELECTRONIC	EM4569	125 kHz	64 byte	11784, 11785
	NXP	Hitag 1 HT1 ICS30	125 kHz	256 byte	none
	NXP	Hitag 2 HT2 ICS20	125 kHz	32 byte	11784/85
	NXP	Hitag 2 HT2 DC20 S20	125 kHz	32 byte	11784/85
	NXP	Hitag S HTS ICH56	125 kHz	32 byte	11784/85
	NXP	Hitag S HTS ICH48	125 kHz	256 byte	11784/85
13.56 MHz HIGH FREQUENCY	**EM MICROELECTRONIC**	EM4135	13.56 MHz	288 byte	15693
	EM MICROELECTRONIC	EM4034	13.56 MHz	56 byte	15693
	EM MICROELECTRONIC	EM4035 Crypto	13.56 MHz	400 byte	15693
	Infineon	SLE66R35 Mifare NRG	13.56 MHz	1024 byte	14443 A
	Infineon	SLE55R04 my-d proximity	13.56 MHz	770 byte	14443 A
	Infineon	SLE55R16 my-d proximity	13.56 MHz	2560 byte	14443 A
	Infineon	SRF55V02P my-d vicinity	13.56 MHz	256 byte	15693
	Infineon	SRF55V02P HC my-d vicinity	13.56 MHz	256 byte	15693
	Infineon	SRF55V02S my-d vicinity	13.56 MHz	256 byte	15693
	Infineon	SRF55V10P my-d vicinity	13.56 MHz	1024 byte	15693
	Infineon	SRF55V10P HC my-d vicinity	13.56 MHz	1024 byte	15693
	Infineon	SRF55V10S my-d vicinity	13.56 MHz	1024 byte	15693
	Infineon	SRF55V01P my-d light vicinity	13.56 MHz	52 byte	15693
	Infineon	SRF66V10IT PJM	13.56 MHz	1016 byte	none
	Infineon	SRF66V10ST PJM	13.56 MHz	1016 byte	none
	LEGIC	advant ATC128-MV*	13.56 MHz	128 byte	15693
	LEGIC	advant ATC256-MV*	13.56 MHz	256 byte	15693
	LEGIC	advant ATC512-MP*	13.56 MHz	512 byte	14443
	LEGIC	advant ATC1024-MV*	13.56 MHz	1024 byte	15693
	LEGIC	advant ATC2048-MP*	13.56 MHz	2048 byte	14443
	LEGIC	advant ATC4096-MP*	13.56 MHz	4096 byte	14443
	LEGIC	prime MIM256*	13.56 MHz	256 byte	none
	LEGIC	prime MIM1024*	13.56 MHz	1024 byte	none
	NXP	Mifare Ultralight MF0 ICU1x	13.56 MHz	64 byte	14443 A
	NXP	Mifare mini MF1 ICS20	13.56 MHz	320 byte	14443 A
	NXP	Mifare Standard MF1 ICS50	13.56 MHz	1024 byte	14443 A
	NXP	Mifare 4K MF1 ICS70	13.56 MHz	4096 byte	14443 A
	NXP	Mifare DESFire MF3 ICD40	13.56 MHz	4096 byte	14443 A
	NXP	I-Code 1 SL1 ICS30	13.56 MHz	64 byte	none
	NXP	I-Code 1 HC SL1 ICS31	13.56 MHz	64 byte	none
	NXP	I-Code SL2 ICS20	13.56 MHz	128 byte	15693
	NXP	I-Code SLI-L SL2 ICS50	13.56 MHz	64 byte	15693
	NXP	I-Code SLI-L HC SL2 ICS51	13.56 MHz	64 byte	15693
	NXP	I-Code SLI-S SL2 ICS53	13.56 MHz	256 byte	15693
	NXP	I-Code SLI-S HC SL2 ICS54	13.56 MHz	256 byte	15693
	NXP	I-Code EPC SL2 ICS10	13.56 MHz	17 byte	EPC
	NXP	I-Code UID SL2 ICS11	13.56 MHz	24 byte	EPC
	NXP	I-Code UID-OTP SL2 ICS12	13.56 MHz	24 byte	EPC
	TEXAS INSTRUMENTS	Tag-it HF-I Plus	13.56 MHz	256 byte	15693
	TEXAS INSTRUMENTS	Tag-it HF-I Standard	13.56 MHz	32 byte	15693
	TEXAS INSTRUMENTS	Tag-it HF-I Pro	13.56 MHz	32 byte	15693
850-950 MHz or 2.45 GHz ULTRA HIGH FREQUENCY	**EM MICROELECTRONIC**	EM4122	UHF/2.45 GHz	8 byte (read only)	none
	EM MICROELECTRONIC	EM4444	UHF/2.45 GHz	64 byte	none
	NXP	UCode HSL SL3 ICS30	UHF/2.45 GHz	256 byte	none
	NXP	UCode EPC G2 SL3 ICS10	UHF	64 byte	EPC Gen2
	NXP	UCode G2XM SL3 ICS1002	UHF	64 byte	EPC Gen2
	NXP	UCode G2XL SL3 ICS1202	UHF	none	EPC Gen2

Wafers: 6'' or 8'' bumped or unbumped / sawn or unsawn on Film-Frame-Carrier (FFC). ***LEGIC**: only for licencees, **Modules: Philips:** MOA2, MOA4, FCP2, TSSOP8, FCS2 (Polymer Strap) **Infineon:** MCC2, MCC8, **NedCard:** NOA3, NOA3-T ***LEGIC:** MCC2, MOA4 only for licencees

Smart Card Controllers

AdvanIDe offers microcontrollers with corresponding operating systems from leading suppliers and for various applications such as access control, e-passports, PKI, banking & payment, mobile communications and multi-applications.

Our portfolio includes:

- EEPROM sizes from 2 - 400 KBytes
- Contact and contactless interfaces according to ISO 7816, ISO 14443 A and B
- Security microcontrollers with DES and 3DES encryption
- Cryptocontrollers with RSA and ECC encryption
- Compliance with ITSEC EAL4 and German Signature Act
- Certified true random generator
- MasterCard M/Chip 4 Lite
- VISA VSDC

The following operating systems are available:

Java solutions according to Global Platform and Java Card™ specifications

JCOP- 10, 21, 31, 41, S10, S20, S30
JTOP

Available on NXP, Infineon and Samsung hardware as contact, contactless, dual and triple interface module.

ISO 7816 file system and command set

Sicrypt®

TCOS

Multos

CardOS

Furthermore, AdvanIDe provides tools for the development of microcontroller operating systems, applications and Java Card™ applets along with the support and consultancy.

RFID Reader ICs

AdvanIDe provides a complete range of components for the manufacturing of state-of-the-art RFID readers.

The portfolio comprises reader ICs, modules and chip sets from various semiconductor partners and covers both frequencies, 125 kHz and 13.56 MHz.

Reader ICs / Modules / Chip Sets

Manufacturer	Product	Frequency	ISO Compliance	Packaging
EM MICROELECTRONIC	EM4094	13.56 MHz	14443 A / 15693	SO16/20, TSSOP16/20
EM MICROELECTRONIC	EM4294	13.56 MHz	14443 A+B / 15693	SO24s
EM MICROELECTRONIC	EM4095	125 kHz	none	SO16
NXP	Hitag HT RC110	125 kHz	none	SO14
NXP	Mifare MF RC500	13.56 MHz	14443 A	SO32
NXP	Mifare MF RC522	13.56 MHz	14443 A	HVQFN32
NXP	Mifare MF RC523	13.56 MHz	14443 A	HVQFN32
NXP	Mifare MF RC530	13.56 MHz	14443 A	SO32
NXP	Mifare MF RC531	13.56 MHz	14443 A+B	SO32
NXP	I-Code SL RC400	13.56 MHz	15693	SO32
NXP	I-Code & Mifare CL RC632	13.56 MHz	14443 A / 15693	SO32
NXP	NFC PN511	13.56 MHz	14443 A / 18092	HVQFN32/40
NXP	NFC PN512	13.56 MHz	14443 A+B / 18092	HVQFN32/40
NXP	NFC PN531	13.56 MHz	14443 A / 18092	HVQFN40
NXP	NFC PN532	13.56 MHz	14443 A+B / 18092	HVQFN40
TEXAS INSTRUMENTS	TMS3705ADR	134.2 kHz	none	SO16
TEXAS INSTRUMENTS	RI-R6C-001A	13.56 MHz	14443 A / 15683	SSOP20
TEXAS INSTRUMENTS	TRF7960-61	13.56 MHz	14443 A+B / 15693	QFN32
LEGIC	SM05-S*	13.56 MHz	none	PLCC52
LEGIC	SM100-S*	13.56 MHz	none	DIL
LEGIC	advant SC-2140 / SC-2140C*	13.56 MHz	14443 A	SSOP20
LEGIC	advant SC-2240 / SC-2240C*	13.56 MHz	15693	SSOP20
LEGIC	advant SC-2560 / SC-2560C*	13.56 MHz	14443 A / 15683	SSOP20
LEGIC	advant SM-2570 / SM-2570C*	13.56 MHz	14443 A / 15683	PLCC84
NXP / Frosch	Hitag HT CM401 (Hitag S compatible)	125 kHz	none	Module on PCB
NXP / Frosch	Hitag HT RM401 (Hitag S compatible)	125 kHz	none	Module on PCB
NXP / Frosch	Hitag HT RM801 (Hitag S compatible)	125 kHz	none	Module on PCB

*only for licencees

Tools

Manufacturer	Product	Frequency
Infineon	Evaluation-Kit my-d	13.56 MHz
NXP / Frosch	Hitag HT EV801	125 kHz
NXP	I-Code SL EV400	13.56 MHz
NXP	I-Code & Mifare CL RD701	13.56 MHz
NXP	Mifare MF EV700	13.56 MHz
NXP	Mifare MF EV800	13.56 MHz
NXP	NFC OM5555	13.56 MHz
NXP	NFC OM5571	13.56 MHz
LEGIC	Sales Kit	13.56 MHz
LEGIC	Development Kit**	13.56 MHz
LEGIC	advant Development Kit DK-2000**	13.56 MHz
LEGIC	System Analyser*	13.56 MHz
LEGIC	MIMIU PC Software*	13.56 MHz
LEGIC	advant Configurator Hardware CHW-2000*	13.56 MHz
LEGIC	advant Configurator Software CSW-2000*	13.56 MHz
TEXAS INSTRUMENTS	RI-K2A-001A Series 2000	134.2 kHz
TEXAS INSTRUMENTS	RI-K3A-001A Series 2000	134.2 kHz

*only for licencees
** LEGIC NDA required

Our Partners

Manufactures	Product Group				Contactless Technologies			Contact Technologies			Dual Interface Technologie	
	IC Wafer	IC Module	Reader IC	Reader Module	Low Frequency	High Frequency	Ultra High Frequency	Memory Products	CPU Products	Operation Systems	CPU Products	Operating Systems
ATMEL	✓	✓	✓		✓	✓		✓	✓			
EM MICROELECTRONIC - Marin SA SWATCH GROUP ELECTRONIC SYSTEMS	✓	✓	✓		✓	✓	✓		✓			
infineon	✓	✓				✓		✓	✓	✓	✓	✓
LEGIC innovation in ID technology	✓	✓	✓	✓		✓						
MICROCHIP	✓	✓						✓				
NXP founded by Philips	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
Texas Instruments	✓	✓	✓	✓	✓	✓	✓					

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