

A large, yellow industrial robotic arm is the central focus of the image. It is positioned in a factory setting, with other similar arms and machinery visible in the background. The lighting is bright, highlighting the metallic surfaces of the robots.

Industrial Standard Products

Pocket Guide

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Linear Voltage Regulator

Product	Temperature Range [°C]	Output Voltage [V]	Output Current [mA]	Quiescent Current [μA]	Enable (Y/N)	Reverse Polarity Protection	Dropout Voltage [mV]	Maximum Input Voltage (Range) [V]	Accuracy Output Voltage [%]	Minimum Output Capacitor for Stability [μF]	Pin to Pin	Compatible to	Package
IFX1117MEV	0 ... 125	Adj.	800	5000	N	N	1100	20	2	10.0	xx1117		PG-SOT223
IFX1117MEV33	0 ... 125	3.3	800	5000	N	N	1100	20	2	10.0	xx1117		PG-SOT223
IFX1763XEJ V	-40 ... 125	Adj.	500	30	Y	Y	300	20	2.5	3.3	LT1763		PG-DSO-8-EP
IFX1763XEJ V33	-40 ... 125	3.3	500	30	Y	Y	300	20	2.5	3.3	LT1763		PG-DSO-8-EP
IFX1763XEJ V50	-40 ... 125	5.0	500	30	Y	Y	300	20	2.5	3.3	LT1763		PG-DSO-8-EP
IFX1963TBV	-40 ... 125	Adj.	1500	80000	Y	Y	340	20	1.5	10.0	LT1963, TL1963		PG-TO263-5
IFX1963TEV	-40 ... 125	Adj.	1500	80000	Y	Y	340	20	1.5	10.0	LT1963, TL1963		PG-TO252-5
IFX20001MB V33	-40 ... 125	3.3	30	110	Y	Y	250	45	4	3.3 (2.5Ω ≤ ESR ≤ 6Ω)			PG-SCT595
IFX20001MB V50	-40 ... 125	5.0	30	110	Y	Y	250	45	4	3.3 (2.5Ω ≤ ESR ≤ 8Ω)			PG-SCT595
IFX20002MB V33	-40 ... 125	3.3	30	130	Y	Y	250	45	4	3.3 (ESR ≤ 2Ω)			PG-SCT595
IFX20002MB V50	-40 ... 125	5.0	30	130	Y	Y	250	45	4	3.3 (ESR ≤ 3Ω)			PG-SCT595
IFX21004TN V51	-40 ... 150	5.0/15.0	100/30	700	N	N	5000/3000	40	3/4	1.0			PG-TO220-5
IFX24401EL V50	-40 ... 125	5.0	300	20	Y	N	250	45	2	0.47			PG-SSOP-14
IFX24401TE V50	-40 ... 125	5.0	300	20	Y	N	250	45	2	0.47			PG-TO252-5
IFX25001ME V25	-40 ... 125	2.5	400	100	N	Y	1000	45	4	22.0			PG-SOT223
IFX25001ME V33	-40 ... 125	3.3	400	100	N	Y	700	45	4	22.0			PG-SOT223
IFX25001TC V50	-40 ... 125	5.0	400	100	N	Y	250	45	4	22.0		xx78	PG-TO263-3
IFX25001TF V33	-40 ... 125	3.3	400	100	N	Y	700	45	4	22.0		xx78	PG-TO252-3
IFX25001TF V50	-40 ... 125	5.0	400	100	N	Y	250	45	4	22.0		xx78	PG-TO252-3
IFX25001TS V50	-40 ... 125	5.0	400	100	N	Y	250	45	4	22.0		xx78	PG-TO220-3
IFX25401TB V	-40 ... 125	Adj.	400	100	Y	Y	250	45	2	22.0			PG-TO263-5
IFX25401TB V50	-40 ... 125	5.0	400	100	Y	Y	250	45	2	22.0			PG-TO263-5
IFX25401TE V	-40 ... 125	Adj.	400	100	Y	Y	250	45	2	22.0			PG-TO252-5
IFX25401TE V50	-40 ... 125	5.0	400	100	Y	Y	250	45	2	22.0			PG-TO252-5
IFX27001TF V	-40 ... 125	Adj.	1000	100	N	N	1300	40	3	10.0		xx317	PG-TO252-3
IFX27001TF V15	-40 ... 125	1.5	1000	800	N	N	1300	40	3	10.0		xx317	PG-TO252-3
IFX27001TF V18	-40 ... 125	1.8	1000	800	N	N	1300	40	3	10.0		xx317	PG-TO252-3
IFX27001TF V26	-40 ... 125	2.6	1000	800	N	N	1300	40	3	10.0		xx317	PG-TO252-3
IFX27001TF V33	-40 ... 125	3.3	1000	800	N	N	1300	40	3	10.0		xx317	PG-TO252-3
IFX27001TF V50	-40 ... 125	5.0	1000	100	N	N	1300	40	3	10.0		xx317	PG-TO252-3
IFX2931G V33	-40 ... 125	3.3	100	400	N	Y	850	28	5	10.0	xx2931		PG-DSO-8
IFX2931G V50	-40 ... 125	5.0	100	400	N	Y	300	28	5	10.0	xx2931		PG-DSO-8
IFX2931SJ V	-40 ... 125	Adj.	100	75	Y	Y	300	40	5	10.0	xx2931		PG-DSO-8
IFX4949SJ	-40 ... 125	5.0	100	180	N	N	300	40	1	4.7	xx4949		PG-DSO-8
IFX54441EJ V	-40...125	Adj.	300	30	Y	Y	300	20	2	3.3			PG-DSO-8-EP
IFX54441EJ V33	-40...125	3.3	300	30	Y	Y	300	20	2	3.3			PG-DSO-8-EP
IFX54441EJ V50	-40...125	5.0	300	30	Y	Y	300	20	2	3.3			PG-DSO-8-EP
IFX7805ABTC	-40 ... 125	5.0	1000	2000	N	N	2000	35	4	1.0	xx78	xx317	PG-TO263-3
IFX7805ABTF	-40 ... 125	5.0	1000	2000	N	N	2000	35	4	1.0	xx78	xx317	PG-TO252-3
IFX7805ABTS	-40 ... 125	5.0	1000	2000	N	N	2000	35	4	1.0	xx78	xx317	PG-TO220-3
IFX78M05ABTF	-40 ... 125	5.0	500	2000	N	N	2000	35	4	1.0	xx78	xx317	PG-TO252-3
IFX8117ME V	0 ... 125	Adj.	1000	5000	N	N	1200	20	2	10.0	xx1117		PG-SOT223
IFX8117ME V33	0 ... 125	3.3	1000	5000	N	N	1200	20	2	10.0	xx1117		PG-SOT223
IFX8117ME V50	0 ... 125	5.0	1000	5000	N	N	1200	20	2	10.0	xx1117		PG-SOT223

DC/DC Converter

Product	Regulator Type	Temperature Range [°C]	Output Voltage [V]	Output Current [mA]	f _{sw} [MHz]	Quiescent Current [μA]	Enable (Y/N)	Reset	Early Warning	Maximum Input Voltage (Range) [V]	Accuracy Output Voltage [%]	Over Temperature Protection	Package
IFX80471SK V/V50 ¹⁾	Buck Controller	-40 ... 125	Adj./5.0	2,300	0.36	2	Y	Y	Y	5.0–60	3	Y	PG-DSO-14
IFX81481ELV ¹⁾	Synchronous Buck Controller	-40 ... 125	Adj.	10,000	0.7	2	Y	N	N	4.75–45	2	Y	PG-SSOP-14
IFX90121ELV50	Buck Regulator	-40 ... 125	5.0	500	2.2	2	Y	N	N	4.75–45	2	Y	PG-SSOP-14
IFX91041E V/V33/V50	Buck Regulator	-40 ... 125	Adj./3.3/5.0	1,800	0.37	2	Y	N	N	4.75–45	2	Y	PG-DSO-8-EP

1) with external MOSFET

Voltage Tracker

Product	Temperature Range [°C]	Output Voltage [V]	Output Current [mA]	Quiescent Current [μA]	Enable (Y/N)	Reverse Polarity Protection	Dropout Voltage [mV]	Input Voltage (max.) [V]	Accuracy Output Voltage [%]	Output Capacitor for Stability (min.) [μF]	Package
IFX21401MB	-40 ... 125	Adj.	50	140	Y	Y	100	45	0.5	1	PG-SCT595

Transceiver

Product	Temperature Range [°C]	Transceiver Type	Transmission Rate (max.)	Quiescent Current	Standby Current	Bus Wake-up Capability	CAN Input Voltage (max.) [V]	Wake-up Inputs	Bus Failure Management	Compatible to	Package
IFX1021S J	-40 ... 125	LIN 1.3, 2.0, 2.1	20kbit/s	< 10μA sleep mode	< 3mA	Yes	40	Bus wake-up and wake-up pin	LIN bus to GND short-circuit detection	*1021	PG-DSO-8
IFX1040S J	-40 ... 125	High-speed CAN with Bus Wake-up ISO 11898-2 and ISO11898-5	1Mbit/s	< 30μA @ 5V stand-by	< 10mA receive only	Yes	40	Bus wake-up	No	*1040	PG-DSO-8
IFX1050G	-40 ... 125	High-speed CAN ISO 11898-2	1Mbit/s	< 10μA @ 5V stand-by	< 10mA receive only	No	40	No	No	*1050/*1051	PG-DSO-8
IFX1050GVIO	-40 ... 125	High-speed CAN ISO 11898	1Mbit/s	< 10μA @ 5/3.3V stand-by	< 10mA receive only	No	40	No	No	*1050/*1051	PG-DSO-8
IFX1054G	-40 ... 125	Fault Tolerant CAN ISO 11898-3	125kbit/s	< 65μA sleep mode	< 6mA receive only	Yes	40	Bus wake-up and wake-up pin	Fault-tolerant failure management	*1054	PG-DSO-14

Constant Current Relay Driver

Product	Temperature Range [°C]	Hold Current (typ.) [mA]	Supply Voltage (typ.) [V]	Active Time Period (max.) [ms]	Recommended Relay Coil Resistance [Ω]	Current Consumption (typ.) Hold Mode [mA]	Package
IFX52001E J	-40 ... 125	50	12	135	65–100	0.85	PG-DSO-8-EP
TLE4247EL30	-40 ... 150	30	12	135	105–180	0.85	PG-DSO-8-EP

1-Channel Switches (PROFET™)

Product	$R_{DS(on)}$ @ $T_j = 25^\circ\text{C}$ [mΩ]	$R_{DS(on)}$ (max.) @ $T_j = 150^\circ\text{C}$ [mΩ]	Operating Voltage (low)	Operating Voltage (high)	Digital/Sense	Packages
ITS640S2/S2S	30	60	5.0	34	Sense	PG-TO220-7
ITS436L2/L2S	38	76	5.5	40	Digital	PG-TO220-5
ITS428L2	60	120	4.75	41	Digital	PG-TO252-5
ITS724G	90	180	5.5	40	Digital	PG-DSO-20
ITS410E2	220	440	4.7	42	Digital	PG-TO220-5

2-Channel Switches (PROFET™)

Product	$R_{DS(on)}$ @ $T_j = 25^\circ\text{C}$ [mΩ]	$R_{DS(on)}$ (max.) @ $T_j = 150^\circ\text{C}$ [mΩ]	Operating Voltage (low)	Operating Voltage (high)	Digital/Sense	Packages
ITS621L1	100	200	5.0	34	Digital	PG-TO220-7
ITS612N1	200	400	5.0	34	Digital	PG-TO220-7

4-Channel Switches (PROFET™)

Product	$R_{DS(on)}$ @ $T_j = 25^\circ\text{C}$ [mΩ]	$R_{DS(on)}$ (max.) @ $T_j = 150^\circ\text{C}$ [mΩ]	Operating Voltage (low)	Operating Voltage (high)	Digital/Sense	Packages
ITS716G	140	280	5.5	40	Digital	PG-DSO-20
ITS711L1	200	400	5.0	34	Digital	PG-DSO-20

1-Channel Switches (Mini PROFET™)

Product	$R_{DS(on)}$ @ $T_j = 25^\circ\text{C}$ [mΩ]	Load Current (min.) [A]	Load Current (typ.) [A]	$I_{L(SC)}$ (typ.) [A]	E_{AS} [mJ]	Recommended Operating Voltage Range [V]	Diagnostic	Packages
ITS4060S-SJ-N	50	2.6	3.1	17.0	900 @ 1.5A	5.0 ... 34.0	N/A	PG-DSO-8
ITS4100S-SJ-N	70	2.0	2.4	10.0	870 @ 1A	5.0 ... 34.0	N/A	PG-DSO-8
ITS4200S-ME-O	150	0.7	1.1	1.4	700 @ 0.5A	12.0 ... 45.0	N/A	PG-SOT-223
ITS4200S-ME-P	150	1.4	2.2	3.0	160 @ 1A	12.0 ... 45.0	N/A	PG-SOT-223
ITS4200S-SJ-D	150	1.3	1.7	6.5	125 @ 1A	6.0 ... 52.0	Digital	PG-DSO-8
ITS4200S-ME-N	160	0.7	1.2	1.5	500 @ 0.5A	5.0 ... 34.0	N/A	PG-SOT-223
ITS4300S-SJ-D	250	0.4	0.8	1.2	800 @ 300mA	5.0 ... 34.0	Digital	PG-DSO-8
ITS41k0S-ME-N	1000	0.2	0.55	0.9	1000 @ 0.15A	4.9 ... 60.0	N/A	PG-SOT-223

8-Channel Switches (Mini PROFET™)

Product	$R_{DS(on)}$ @ $T_j = 25^\circ\text{C}$ [mΩ]	$R_{DS(on)}$ (max.) @ $T_j = 150^\circ\text{C}$ [mΩ]	Recommended Operating Voltage Range [V]	$I_{L(SC)}$ [A]	Diagnostic	Load Current (typ.) [A]	Packages
ITS42008-SB-D	200	320	11.0 ... 45.0	3.0	Overtemperature	–	PG-DSO-36



All products are RoHS compliant.

Product Selection by Application Requirement

Product Type/Application Type	Lowest Current Consumption	Fault Tolerant Communication	High Input Voltage (> 30V)	Optimized for Battery Powered Systems	Smallest Form Factor	High Current Output (> 400mA)	Highest Efficiency	As 2 nd Load/Sensor Supply	Cost efficient Communication	For optimized Heat Spreading	Dual Output V _{REG}	High Speed Communication	Fixed Output Voltages Below 3.3V	Compatible to Industry Market Standard Devices
LIN Transceiver/IFX1021									X					X
Hi-Speed CAN Transceiver/IFX1050G/IFX1050GVIO/IFX1040SJ									X			X		X
Fault-Tolerant CAN Transceiver/IFX1054		X							X					X
Voltage Regulator/IFX20001/IFX20002			X		X									
Dual Voltage Regulator/IFX21004			X					X			X			
Voltage Tracker/IFX21401			X		X			X		X				
Voltage Regulator/IFX24401	X		X	X										
Voltage Regulator/IFX25001			X										X	
Voltage Regulator/IFX25401			X											
Voltage Regulator/IFX27001			X			X							X	
Voltage Regulator/IFX2931														X
Voltage Regulator/IFX4949														X
Voltage Regulator/IFX1117/IFX8117						X								X
Voltage Regulator/IFX1763/IFX54441	X			X		X								X
Voltage Regulator/IFX1963			X			X								X
Voltage Regulator/IFX7805/78M05						X								X
DC/DC Converter/IFX80471/IFX91041	X		X	X		X	X							
DC/DC Converter/IFX81481	X		X			X	X							
DC/DC Regulator/IFX90121	X		X	X		X	X							
Constant Current Relay Driver/IFX52001/TLE4247EL30	X			X			X							

Application Areas by Product

Product Type/Application Type	Smart Metering	Industrial Automation	Medical & Healthcare	Telecom	Security/ Access Ctrl.	Building Automation	White Goods	Heating/Cooling Systems (HVAC)
LIN Transceiver/IFX1021		X	X	X	X	X		X
Hi-Speed CAN Transceiver/IFX1050G/IFX1050GVIO/IFX1040SJ		X	X	X	X	X		
Fault-Tolerant CAN Transceiver/IFX1054		X	X		X	X		
Voltage Regulator/IFX20001/IFX20002		X	X			X	X	X
Dual Voltage Regulator/IFX21004		X					X	
Voltage Tracker/IFX21401	X	X	X	X		X	X	X
Voltage Regulator/IFX24401	X	X	X	X	X	X	X	X
Voltage Regulator/IFX25001		X	X	X		X	X	X
Voltage Regulator/IFX25401		X	X	X		X	X	X
Voltage Regulator/IFX27001		X	X	X		X	X	X
Voltage Regulator/IFX2931		X	X	X	X	X	X	X
Voltage Regulator/IFX4949		X		X			X	
Voltage Regulator/IFX1117/IFX8117		X	X	X		X	X	X
Voltage Regulator/IFX1763/IFX54441	X	X	X	X	X	X	X	X
Voltage Regulator/IFX1963		X	X	X	X	X	X	X
Voltage Regulator/IFX7805/78M05		X	X	X		X	X	X
DC/DC Converter/IFX80471/IFX91041	X	X	X			X		
DC/DC Converter /IFX81481		X	X	X		X	X	X
DC/DC Regulator /IFX90121		X	X	X		X	X	X
Constant Current Relay Driver/IFX52001/TLE4247EL30	X	X	X	X	X	X	X	X

Voltage Regulators for Infineon Microcontrollers

Microcontroller Family	Input Voltage [V]	Input Current (max.) [mA]	Voltage Regulator
XMC1000	1.8–5.5	< 100	IFX2931/IFX4949/IFX25001/IFX544xx/IFX1117
XMC4000	3.3	< 500/300	IFX1763/IFX544xx
XC8xx	3.3–5.0	200	IFX20001/IFX24401/IFX2931/IFX21401/IFX4949/IFX544xx
XE166/XC2000	1.5 and 3.3 or 5.0	100	IFX25401/IFX24401/IFX2931/IFX4949
TriCore™	1.5–3.3	> 400	IFX27001/IFX8117/IFX91041/IFX80471/IFX25001/IFX1117

Applications



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