



Industrial Standard Products

Pocket Guide

Issue 2014

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Linear Voltage Regulator

Product	Output Current [mA]	Temperature Range [°C]	Output Voltage [V]	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
IFX1963TBV	1,500	-40 ... 125	Adj.	80,000	Y	Y	340	20	1.5	10.0	LT1963, TL1963		PG-TO263-5
IFX1963TEV	1,500	-40 ... 125	Adj.	80,000	Y	Y	340	20	1.5	10.0	LT1963, TL1963		PG-TO252-5
IFX27001TF V	1,000	-40 ... 125	Adj.	100	N	N	1,300	40	3.0	10.0		xx317	PG-TO252-3
IFX27001TF V15	1,000	-40 ... 125	1.5	800	N	N	1,300	40	3.0	10.0		xx317	PG-TO252-3
IFX27001TF V18	1,000	-40 ... 125	1.8	800	N	N	1,300	40	3.0	10.0		xx317	PG-TO252-3
IFX27001TF V26	1,000	-40 ... 125	2.6	800	N	N	1,300	40	3.0	10.0		xx317	PG-TO252-3
IFX27001TF V33	1,000	-40 ... 125	3.3	800	N	N	1,300	40	3.0	10.0		xx317	PG-TO252-3
IFX27001TF V50	1,000	-40 ... 125	5.0	100	N	N	1,300	40	3.0	10.0		xx317	PG-TO252-3
IFX7805ABTC	1,000	-40 ... 125	5.0	2,000	N	N	2,000	35	4.0	1.0	xx78	xx317	PG-TO263-3
IFX7805ABTF	1,000	-40 ... 125	5.0	2,000	N	N	2,000	35	4.0	1.0	xx78	xx317	PG-TO252-3
IFX7805ABTS	1,000	-40 ... 125	5.0	2,000	N	N	2,000	35	4.0	1.0	xx78	xx317	PG-TO220-3
IFX8117ME V	1,000	0 ... 125	Adj.	5,000	N	N	1,200	20	2.0	10.0	xx1117		PG-SOT223
IFX8117ME V33	1,000	0 ... 125	3.3	5,000	N	N	1,200	20	2.0	10.0	xx1117		PG-SOT223
IFX8117ME V50	1,000	0 ... 125	5.0	5,000	N	N	1,200	20	2.0	10.0	xx1117		PG-SOT223
IFX1117ME V	800	0 ... 125	Adj.	5,000	N	N	1,100	20	2.0	10.0	xx1117		PG-SOT223
IFX1117ME V33	800	0 ... 125	3.3	5,000	N	N	1,100	20	2.0	10.0	xx1117		PG-SOT223
IFX1763XEJ V	500	-40 ... 125	Adj.	30	Y	Y	300	20	2.5	3.3	LT1763		PG-DSO-8-EP
IFX1763XEJ V33	500	-40 ... 125	3.3	30	Y	Y	300	20	2.5	3.3	LT1763		PG-DSO-8-EP
IFX1763XEJ V50	500	-40 ... 125	5.0	30	Y	Y	300	20	2.5	3.3	LT1763		PG-DSO-8-EP
IFX1763LD V	500	-40 ... 125	Adj.	30	Y	Y	300	20	2.5	3.3	LT1763		PG-TSON-10
IFX1763LD V33	500	-40 ... 125	3.3	30	Y	Y	300	20	2.5	3.3	LT1763		PG-TSON-10
IFX1763LD V50	500	-40 ... 125	5.0	30	Y	Y	300	20	2.5	3.3	LT1763		PG-TSON-10
IFX78M05ABTF	500	-40 ... 125	5.0	2,000	N	N	2,000	35	4.0	1.0	xx78	xx317	PG-TO252-3
IFX25001ME V25	400	-40 ... 125	2.5	100	N	Y	1,000	45	4.0	22.0			PG-SOT223
IFX25001ME V33	400	-40 ... 125	3.3	100	N	Y	700	45	4.0	22.0			PG-SOT223
IFX25001TC V50	400	-40 ... 125	5.0	100	N	Y	250	45	4.0	22.0		xx78	PG-TO263-3
IFX25001TF V33	400	-40 ... 125	3.3	100	N	Y	700	45	4.0	22.0		xx78	PG-TO252-3
IFX25001TF V50	400	-40 ... 125	5.0	100	N	Y	250	45	4.0	22.0		xx78	PG-TO252-3
IFX25001TS V50	400	-40 ... 125	5.0	100	N	Y	250	45	4.0	22.0		xx78	PG-TO220-3
IFX25401TB V	400	-40 ... 125	Adj.	100	Y	Y	250	45	2.0	22.0			PG-TO263-5
IFX25401TB V50	400	-40 ... 125	5.0	100	Y	Y	250	45	2.0	22.0			PG-TO263-5
IFX25401TE V	400	-40 ... 125	Adj.	100	Y	Y	250	45	2.0	22.0			PG-TO252-5
IFX25401TE V50	400	-40 ... 125	5.0	100	Y	Y	250	45	2.0	22.0			PG-TO252-5
IFX24401EL V50	300	-40 ... 125	5.0	20	Y	N	250	45	2.0	0.47			PG-SSOP-14
IFX24401TE V50	300	-40 ... 125	5.0	20	Y	N	250	45	2.0	0.47			PG-TO252-5
IFX54441EJV	300	-40 ... 125	Adj.	30	Y	Y	300	20	2.0	3.3			PG-DSO-8-EP
IFX54441EJ V33	300	-40 ... 125	3.3	30	Y	Y	300	20	2.0	3.3			PG-DSO-8-EP
IFX54441EJ V50	300	-40 ... 125	5.0	30	Y	Y	300	20	2.0	3.3			PG-DSO-8-EP
IFX54441LD V	300	-40 ... 125	Adj.	30	Y	Y	300	20	2.0	3.3			PG-TSON-10
IFX54441LD V33	300	-40 ... 125	3.3	30	Y	Y	300	20	2.0	3.3			PG-TSON-10
IFX54441LD V50	300	-40 ... 125	5.0	30	Y	Y	300	20	2.0	3.3			PG-TSON-10
IFX54211MB V33	150	-40 ... 125	3.3	50	Y	N	290	18	3.0	1.0			PG-SCT595
IFX2931G V33	100	-40 ... 125	3.3	400	N	Y	850	28	5.0	10.0	xx2931		PG-DSO-8
IFX2931G V50	100	-40 ... 125	5.0	400	N	Y	300	28	5.0	10.0	xx2931		PG-DSO-8
IFX4949SJ	100	-40 ... 125	5.0	180	N	N	300	40	1.0	4.7	xx4949		PG-DSO-8
IFX21004TN V51	100/30	-40 ... 150	5.0/15.0	700	N	N	5,000/3,000	40	3.0/4.0	1.0			PG-TO220-5
IFX20001MB V33	30	-40 ... 125	3.3	110	Y	Y	250	45	4.0	3.3 (2.5Ω ≤ ESR ≤ 6Ω)			PG-SCT595
IFX20001MB V50	30	-40 ... 125	5.0	110	Y	Y	250	45	4.0	3.3 (2.5Ω ≤ ESR ≤ 8Ω)			PG-SCT595
IFX20002MB V33	30	-40 ... 125	3.3	130	Y	Y	250	45	4.0	3.3 (ESR ≤ 2Ω)			PG-SCT595
IFX20002MB V50	30	-40 ... 125	5.0	130	Y	Y	250	45	4.0	3.3 (ESR ≤ 3Ω)			PG-SCT595

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
IFX91041EJ 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
IFX1021SJ	-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
IFX1040SJ	-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
IFX52001EJ	-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 (Industrial PROFET™)

Product	$R_{DS(on)}$ @ $T_j = 25^\circ\text{C}$ [mΩ]	Load Current (typ.) [A]	$I_{L(SC)}$ (typ.) [A]	E_{AS} [mJ]	Recommended Operating Voltage Range [V]	Diagnostic	Packages
ITS4060S-SJ-N	50	3.1	17.0	900 @ 1.5A	5.0 ... 34.0	N/A	PG-DSO-8
ITS428L2	60	7.0	22.0	190 @ 7.0A	4.75 ... 41.0	Digital	PG-TO252-5
ITS4100S-SJ-N	70	2.4	10.0	870 @ 1.0A	5.0 ... 34.0	N/A	PG-DSO-8
ITS4200S-ME-O	150	1.1	1.4	700 @ 0.5A	12.0 ... 45.0	N/A	PG-SOT223
ITS4200S-ME-P	150	2.2	3.0	160 @ 1.0A	12.0 ... 45.0	N/A	PG-SOT223
ITS4200S-SJ-D	150	1.7	6.5	125 @ 1.0A	6.0 ... 52.0	Digital	PG-DSO-8
ITS4200S-ME-N	160	1.2	1.5	500 @ 0.5A	5.0 ... 34.0	N/A	PG-SOT223
ITS4141D	200	1.1	2.1	12,000 @ 0.5A	12.0 ... 45.0	N/A	PG-TO252-5
ISP752T	200	1.7	6.5	125 @ 1.0A	5.0 ... 34.0	N/A	PG-DSO-8
ITS4300S-SJ-D	250	0.8	1.2	800 @ 0.3A	5.0 ... 34.0	Digital	PG-DSO-8
ISP742RI	350	0.8	1.2	800 @ 0.3A	5.0 ... 34.0	Digital	PG-DSO-8
ITS41k0S-ME-N	1,000	0.55	0.9	1,000 @ 0.15A	4.9 ... 60.0	N/A	PG-SOT223

2-Channel Switches (Industrial PROFET™)

Product	$R_{DS(on)}$ @ $T_j = 25^\circ\text{C}$ [mΩ]	Load Current (typ.) [A]	Operating Voltage (low)	Operating Voltage (high)	Digital/Sense	Packages
ITS5215L	90	2.0	5.5	40	Digital	PG-DSO-12
ITS42k5D-EL	2,500	0.25	4.5	42	Digital	PG-SSOP-14
ITS42k5D-LD	2,500	0.25	4.5	42	Digital	PG-TSON-10

4-Channel Switches (Industrial PROFET™)

Product	$R_{DS(on)}$ @ $T_j = 25^\circ\text{C}$ [mΩ]	Load Current (typ.) [A]	Operating Voltage (low)	Operating Voltage (high)	Digital/Sense	Packages
ITS724G	90	2	5.5	40	Digital	PG-DSO-20
ITS716G	140	1	5.5	40	Digital	PG-DSO-20
ITS711L1	200	1	5.0	34	Digital	PG-DSO-20

8-Channel Switches (Industrial PROFET™)

Product	$R_{DS(on)}$ @ $T_j = 25^\circ\text{C}$ [mΩ]	Load Current (typ.) [A]	Recommended Operating Voltage Range [V]	$I_{L(SC)}$ [A]	Diagnostic	Load Current (typ.) [A]	Packages
ITS42008-SB-D	200	0.6	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/IFX54211 ¹⁾	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/IFX54211 ¹⁾	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

1) SOP 2015

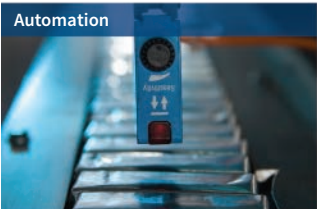
Voltage Regulators for Infineon Microcontrollers

Microcontroller Family	Input Voltage [V]	Input Current (max.) [mA]	Voltage Regulator
XMC1x00	1.8-5.5	< 100	IFX2931/IFX4949/IFX25001/IFX54441/IFX54211 ¹⁾
XMC4x00	3.3	< 500/300	IFX1763/IFX54441/IFX90121/IFX1117
XC8xx	3.3-5.0	200	IFX20001/IFX24401/IFX2931/IFX21401/IFX4949/IFX54441/IFX54211 ¹⁾
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

Available Evaluation Boards

Demoboard	Type	For Device
IFX91041	DC/DC Regulator	IFX91041EJ V
IFX80471	DC/DC Controller	IFX80471SK V
IFX1050G	CAN Transceiver	IFX1050G/IFX1050G VIO/IFX1040SJ
Industrial PROFET™	High-Side Switch	ITS4100/ITS4200/ITS4060/ITS4300/ITS41k0S
IFX81481	DC/DC Controller	IFX81481EL V
IFX90121	DC/DC Regulator	IFX90121EL V50
ITS42k5D	High-Side Switch	ITS42k5D-EL/ITS42k5D-LD

Applications



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