



**THE DATASHEET OF  
IFX27001TFV50ATMA1**





# Industrial standard products

Pocket guide

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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 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 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
IFX30081SJV	50	-40 ... 125	Adj.	5	Y	N	100	42	2.0	1.0			PG-DSO-8
IFX30081LD V33	50	-40 ... 125	3.3	5	Y	N	100	42	2.0	1.0			PG-TSON-10
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 (max.) [mA]	$f_{sw}$ [MHz]	Quiescent current [ $\mu$ A]	Enable (Y/N)	Early warning	Maximum input voltage (Range) [V]	Accuracy output voltage [%]	Over temperature protection	Package
IFX80471SK V/V50 <sup>1)</sup>	Buck controller	-40 ... 125	Adj./5.0	2,300	0.36	2	Y	Y	5.00–60	3	Y	PG-DSO-14
IFX81481ELV <sup>1)</sup>	Synchronous Buck controller	-40 ... 125	Adj.	10,000	0.7	2	Y	N	4.75–45	2	Y	PG-SSOP-14
IFX90121ELV50	Buck regulator	-40 ... 125	5.0	500	2.2	2	Y	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	4.75–45	2	Y	PG-DSO-8-EP
IR3883	Synchronous buck regulator	-40 ... 125	Adj. 0.5 ... 5.5 V	3,000	0.8	1	Y	PGood	14	0.5	Y	PQFN 3 x 3
IR3823	Synchronous buck regulator	-40 ... 125	Adj. $0.5 V_{in} \times 0.86 V_{in}$	3,000	0.25 ... 1.5	1	Y	PGood	21	0.6	Y	PQFN 3.5 x 3.5
IR3897	Synchronous buck regulator	-40 ... 125	Adj. $0.5 V_{in} \times 0.86 V_{in}$	4,000	0.25 ... 1.5	1	Y	PGood	21	0.5	Y	PQFN 4 x 5

1) with external MOSFET

## Voltage tracker

Product	Temperature range [°C]	Output voltage [V]	Output current [mA]	Quiescent current [ $\mu$ A]	Enable (Y/N)	Reverse polarity protection	Dropout voltage [mV]	Input voltage (max.) [V]	Accuracy output voltage [%]	Output capacitor for stability (min.) [ $\mu$ F]	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	Compatible to	Package
IFX1040SJ	-40 ... 125	High-speed CAN with bus wake-up ISO 11898-2 and ISO11898-5	1 Mbit/s	< 30 $\mu$ A @ 5 V stand-by	< 10 mA receive only	Yes	40	Bus wake-up	*1040	PG-DSO-8
IFX1050G	-40 ... 125	High-speed CAN ISO 11898-2	1 Mbit/s	< 10 $\mu$ A @ 5 V stand-by	< 10 mA receive only	No	40	No	*1050/*1051	PG-DSO-8
IFX1050GVIO	-40 ... 125	High-speed CAN ISO 11898	1 Mbit/s	< 10 $\mu$ A @ 5/3.3 V stand-by	< 10 mA receive only	No	40	No	*1050/*1051	PG-DSO-8
IFX1051LE	-40 ... 125	High-speed CAN FD ISO 11898	2 Mbit/s		< 2 mA receive only	No	40	No	*1051	PG-TSON-8
IFX1051SJ	-40 ... 125	High-speed CAN FD ISO 11898	2 Mbit/s		< 2 mA receive only	No	40	No	*1051	PG-DSO-8

## 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 [ $\Omega$ ]	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



RoHS All products are RoHS compliant.

### 1-channel switches (Industrial PROFET™)

Product	$R_{DS(on)}$ @ $T_j = 25\text{ °C}$ [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-T0252-5
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-T0252-5
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	$R_{DS(on)}$ @ $T_j = 25\text{ °C}$ [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-LD	2,500	0.25	4.5	42	Digital	PG-TSON-10

### 4-channel switches (Industrial PROFET™)

Product	$R_{DS(on)}$ @ $T_j = 25\text{ °C}$ [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	$R_{DS(on)}$ @ $T_j = 25\text{ °C}$ [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	1.4	OT, SC to GND	-	PG-DSO-36



## Product selection by application requirement

Product type/application type	Lowest current consumption	High input voltage (> 30 V)	Optimized for battery powered systems	Smallest form factor	High current output (> 400 mA)	Highest efficiency	As 2 <sup>nd</sup> load/sensor supply	Cost efficient communication	For optimized heat spreading	Dual output V <sub>REG</sub>	High speed communication	Output voltages below 3.3 V	Compatible to Industry market standard devices
Hi-speed CAN transceiver/ IFX1050G/IFX1050GVIO/IFX1040SJ/IFX1051				•				•			•		•
Voltage regulator/IFX20001/IFX20002		•		•									
Dual voltage regulator/IFX21004		•					•			•			
Voltage tracker/IFX21401		•		•			•		•			•	
Voltage regulator/IFX24401	•	•	•										
Voltage regulator/IFX25001		•										•	
Voltage regulator/IFX25401		•										•	
Voltage regulator/IFX27001		•			•							•	
Voltage regulator/IFX2931													•
Voltage regulator/IFX4949													•
Voltage regulator/IFX1117/IFX8117					•							•	•
Voltage regulator/IFX1763/IFX54441/IFX54211	•		•		•							•	•
Voltage regulator/IFX1963		•			•							•	•
Voltage regulator/IFX7805/78M05					•								•
Voltage regulator/IFX30081	•	•	•	•			•					•	
DC/DC converter/IFX80471/IFX91041	•	•	•		•	•						•	
DC/DC converter/IFX81481	•	•	•		•	•						•	
DC/DC regulator/IFX90121	•	•	•		•	•						•	
DC/DC regulator IR38xy Family	•	•	•	•	•	•						•	
Constant current relay driver/IFX52001/TLE4247EL30	•		•			•							

## 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)
Hi-speed CAN transceiver/ IFX1050G/IFX1050GVIO/IFX1040SJ/IFX1051		•	•	•	•	•		
Fault-tolerant CAN transceiver		•	•		•	•		
Voltage regulator/IFX20001/IFX20002		•	•			•	•	•
Dual voltage regulator/IFX21004		•				•		
Voltage tracker/IFX21401	•	•	•	•		•	•	•
Voltage regulator/IFX24401	•	•	•	•	•	•	•	•
Voltage regulator/IFX25001		•	•	•		•	•	•
Voltage regulator/IFX25401		•	•	•		•	•	•
Voltage regulator/IFX27001		•	•	•		•	•	•
Voltage regulator/IFX2931		•	•	•	•	•	•	•
Voltage regulator/IFX4949		•	•	•		•	•	•
Voltage regulator/IFX1117/IFX8117		•	•	•		•	•	•
Voltage regulator/IFX1763/IFX54441/IFX54211	•	•	•	•	•	•	•	•
Voltage regulator/IFX1963		•	•	•	•	•	•	•
Voltage regulator/IFX7805/78M05		•	•	•		•	•	•
Voltage regulator/IFX30081	•	•	•	•	•	•	•	•
DC/DC converter/IFX80471/IFX91041	•	•	•			•	•	•
DC/DC converter /IFX81481		•	•	•		•	•	•
DC/DC regulator /IFX90121		•	•	•		•	•	•
DC/DC regulator IR38xy Family		•	•	•	•	•	•	•
Constant current relay driver/IFX52001/TLE4247EL30	•	•	•	•	•	•	•	•

## 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
XMC4x00	3.3	< 500/300	IFX1763/IFX54441/IFX90121/IFX1117
XC8xx	3.3-5.0	200	IFX20001/IFX24401/IFX2931/IFX21401/IFX4949/IFX54441/IFX54211
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-LD
IFX1763	Linear voltage regulator	IFX1763/IFX54441 Family
IFX30081	Linear voltage regulator	IFX30081SJV
ITS7xy	High-side switch	ITS711L1, ITS716G, ITS7246
ITS42008	High-side switch	ITS42008-SB-D



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