Hall ICs

Omnipolar Detection Hall ICs Detects S- or N-pole Magnetic Fields and Turns the Output ON (active Low)

Part No.	Supply Voltage (V)	Operate Point (mT)		Pulse Drive Period (ms)	Supply Current (Avg.) (μA)	Output	Operating Temperature (°C)	Package (mm)
		S-pole	N-pole					
BD7411G	4.5 to 5.5	+3.4	−3.4	—	2.0 (mA)	CMOS	−40 to +85	SSOP5

Omnipolar Detection Hall ICs with Polarity Discrimination (Polarity Detection for Both S and N Features Dual Outputs)

Features 2 Outputs to Discriminate Between N- and S-pole Detection

BU52271NUZ	1.65 to 3.60	+1.7	−1.7	50	4.4	CMOS (2 Outputs: S, N pole)	−40 to +85	VSON04Z1114A 1.1×1.4, H=Max 0.4
BU52422NUZ	1.65 to 3.60	+2.4	−2.4	50	4.4	Open Drain (2 Outputs: S, N pole)	−40 to +85	VSON04Z1114A 1.1×1.4, H=Max 0.4
BU52272NUZ	1.65 to 3.60	+2.4	−2.4	50	4.4	CMOS (2 Outputs: S, N pole)	−40 to +85	VSON04Z1114A 1.1×1.4, H=Max 0.4
BU52072GWZ	1.65 to 3.60	+2.4	−2.4	50	4.4	CMOS (2 Outputs: S, N pole)	−40 to +85	UCSP35L1 0.8×0.8, H=Max 0.4
BU52273NUZ	1.65 to 3.60	+4.1	−4.1	50	4.4	CMOS (2 Outputs: S, N pole)	−40 to +85	VSON04Z1114A 1.1×1.4, H=Max 0.4
BU52073GWZ	1.65 to 3.60	+4.1	−4.1	50	4.4	CMOS (2 Outputs: S, N pole)	−40 to +85	UCSP35L1 0.8×0.8, H=Max 0.4
BU52274NUZ	1.65 to 3.60	+6.3	−6.3	50	4.4	CMOS (2 Outputs: S, N pole)	−40 to +85	VSON04Z1114A 1.1×1.4, H=Max 0.4
BU52074GWZ	1.65 to 3.60	+6.3	−6.3	50	4.4	CMOS (2 Outputs: S, N pole)	−40 to +85	UCSP35L1 0.8×0.8, H=Max 0.4
BU52075GWZ	1.65 to 3.60	+9.5	−9.5	50	5.0	CMOS (2 Outputs: S, N pole)	−40 to +85	UCSP35L1 0.8×0.8, H=Max 0.4
BU52077GWZ	1.65 to 3.60	+15.0	−15.0	50	5.0	CMOS (2 Outputs: S, N pole)	−40 to +85	UCSP35L1 0.8×0.8, H=Max 0.4
BU52078GWZ	1.65 to 3.60	+24.0	−24.0	50	5.0	CMOS (2 Outputs: S, N pole)	−40 to +85	UCSP35L1 0.8×0.8, H=Max 0.4

Bipolar Latch Hall IC Detects Turn of Pole (S→N or N→S) (N-pole→S-pole: Out put High→Low S-pole→N-pole: Out put Low→High)

Part No.	Supply Voltage (V)	Operate Point (mT)		Pulse Drive Period (ms)	Supply Current (Avg.) (μA)	Output	Operating Temperature (°C)	Package
		S-pole	N-pole					
BU52040HFV	1.65 to 3.30	+3.0	−3.0	0.5	200	CMOS	−40 to +85	HVSOF5

Geomagnetic Sensor IC

3-Axis Digital Magnetometer IC

Part No.	Supply Voltage (V)	Magnetic Measurement (μT)	Magnetic Sensitivity (μT/LSB)	Current Consumption (μA)	I/F	Operating Temperature (°C)	Package (mm)
BM1422AGMV	1.7 to 3.6	±1,200	0.042	150	I²C	−40 to +85	MLGA010V020A 2.0×2.0, H=Max 1.0

Current Sensor IC

Contactless Current Sensor IC

Part No.	Supply Voltage (V)	Magnetic Measurement (μT)	Magnetic Sensitivity (μT/LSB)	Current Consumption (μA)	I/F	Operating Temperature (°C)	Package (mm)
BM14270AMUV-LB	2.7 to 5.5	±280	0.045	70	I²C	−40 to +125	VQFN20QV3535 3.5×3.5, H=Max 1.0

Ambient Light Sensor ICs

Analog Current Output type Ambient Light Sensor ICs

Part No.	Supply Voltage (V)	Sensitivity Variations (%)	Detection Range (lx)	Sensitivity (μA/lx)	IR Cut	I/F	Operating Temperature (°C)	Package
BH1603FVC	2.4 to 5.5	±15	0 to 100,000	0.6	—	Linear Current Output (Source)	−40 to +85	WSOF6
BH1620FVC	2.4 to 5.5	±15	0 to 100,000	0.6	—	Linear Current Output (Source)	−40 to +85	WSOF5
BH1680FVC	2.4 to 5.5	±15	0 to 50,000	6	✓	Linear Current Output (Source)	−40 to +85	WSOF5

Digital 16bit Serial Output type Ambient Light Sensor ICs

Part No.	Supply Voltage (V)	Sensitivity Variations (%)	Detection Range (lx)	Sensitivity (at 100ms) (lx/count)	IR Cut	I/F	Operating Temperature (°C)	Package
BH1721FVC	2.4 to 3.6	±15	0 to 65,000	1	—	I²C	−40 to +85	WSOF5
BH1730FVC	2.4 to 3.6	±15	0 to 65,000	0.007	—	I²C	−40 to +85	WSOF6
BH1726NUC	2.4 to 3.6	±15	0 to 30,000	0.002	✓	I²C	−40 to +85	WSON008X2120
New BU27030NUC	1.7 to 3.6	±15	0 to 20,000	0.0007	✓	I²C	−40 to +85	WSON008X2120

Color Sensor IC

Digital 16bit Serial Output type Color Sensor IC

Part No.	Supply Voltage (V)	λP (nm)				Illuminance Measurement (lx)	High Sensitivity	IR Cut	Fricker detection	I/F	Operating Temperature (°C)	Package (mm)
		Red	Green	Blue	IR							
BH1749NUC	2.3 to 3.6	630	540	460	825	0 to 80,000	✓	✓	–	I²C	−40 to +85	WSON008X2120
BU27007MUC-Z	1.7 to 3.6	630	540	460	730	0 to 50,000	✓	✓	✓	I²C	−40 to +85	WQFN12X2520A 2.5×2.0, H=Max 0.55

Optical Sensor for Heart Rate Monitor ICs

Optical Sensor for Heart Rate Monitor ICs

Part No.	Analog Supply Voltage (V)	IO Supply Voltage (V)	Sampling Frequency (Hz)	Red Light, IR Cut	I/F	Operating Temperature (°C)	Package (mm)
BH1790GLC	2.5 to 3.6	1.7 to 3.6	32/64	✓	I²C	−20 to +85	WLGA010V28 2.8×2.8, H=Max 1.0
BH1792GLC	2.5 to 3.6	1.7 to 3.6	32/64/128/256/1,024	✓	I²C	−20 to +85	WLGA010V28 2.8×2.8, H=Max 1.0

Pressure Sensor ICs

Digital Pressure Sensor ICs with Built-in Temperature Compensation Function

Part No.	Supply Voltage (V)	Pressure Range (hPa)	Relative Pressure Accuracy (hPa)	Absolute Pressure Accuracy (hPa)	Average Current Consumption (μA)	I/F	Operating Temperature (°C)	Waterproof	Package (mm)
☆BM1389GLV	1.7 to 3.6	300 to 1,300	±0.025	±1	3.0	I²C	−40 to +85	–	RLGA10V020T 2.0×2.0, H=Max 1.0
☆BM1390GLV	1.7 to 3.6	300 to 1,300	±0.060	±1	3.0	I²C	−40 to +85	✓	RLGA10VG020T 2.0×2.0, H=Max 1.0

☆: Under Development

Temperature Sensor ICs

Analog Output Temperature Sensor IC

Part No.	Supply Voltage (V)	Temperature Accuracy (°C)		Temperature Sensitivity (mV/°C)	Output Voltage (V) (Ta=+30°C, VDD=3V)	Supply Current (μA)	Operating Temperature (°C)	Package
		Ta=+30°C	Ta=−30, +100°C					
BD1020HFV	2.4 to 5.5	±1.5	±2.5	−8.2	1.3	4.0	−30 to +100	HVSOF5

Digital Output Temperature Sensor IC

Part No.	Supply Voltage (V)	Temperature Accuracy (°C) Ta=−20 to +85°C	Current Consumption (μA)	I/F	Operating Temperature (°C)	Package
BH1900NUX	2.7 to 3.6	±3	75	I²C	−30 to +95	VSON008X2030

Amplifier for Human Body Detector IC

Pyroelectric Infrared Sensor Amplifier

Part No.	Supply Voltage (V)	DRAIN Voltage (V)	Amp.1/Amp.2 Gain (dB)	Output type	Package
BD9251FV	2.97 to 6.00	2.3	Max 46	Analog/CMOS	SSOP-B14

Shock Sensor Amplifier

Shock Sensor Amplifier

Part No.	Supply Voltage (V)	Current Consumption (mA)	Notch Frequency (kHz)	Notch Attenuation Rate (dB)	Operating Temperature (°C)	Package
New BD3852MUZ-Z	1.6 to 2.3	1.6 to 4.5	31.0	−23.0	−40 to +85	VQFN16Z3030A

Accelerometers

(Kionix products)

3-Axis Accelerometers

Part No.	Axis	Full-Scale Range	I/F Output	Current Consumption (μA)	Size, No. of Pins, Package	Features
KXTJ3-1057	3	User-selectable 2g, 4g, 8g, 16g	Digital I²C	10 to 155	2×2×0.9mm, 12pin, LGA	User-configurable wakeup function.
KX132-1211	3	User-selectable 2g, 4g, 8g, 16g	Digital SPI/I²C	0.53 to 148	2×2×0.9mm, 12pin, LGA	512B FIFO/Stream/Trigger buffer. Wide range of ODRs from 0.781Hz to 25.6kHz, Mechanical resonance frequency (−3dB) 4.2kHz (xy), 2.9kHz (z)
KX134-1211	3	User-selectable 8g, 16g, 32g,64g	Digital SPI/I²C	0.53 to 148	2×2×0.9mm, 12pin, LGA	512B FIFO/Stream/Trigger buffer. Wide range of ODRs from 0.781Hz to 25.6kHz, Mechanical resonance frequency (−3dB) 8.2kHz (x), 8.5kHz (y), 5.6kHz (z)

*For Automotive Non-Safety

Capacitive Switch Controller ICs

Capacitive Switch Controller ICs

Part No.	Supply Voltage (V)	Cap. Switch (ch)	LED_Driver (ch)	LED_PWM Control	Matrix Control	I/F	MCU (bit)	Program Memory	Intermittent Motion	Package
BU21079F	3.0 to 5.5	8	–	–	4×4	I²C	32	ROM	✓	SOP16
BU21072MUV	3.0 to 5.5	10	6	✓	4×4	I²C	32	ROM	–	VQFN024V4040
BU21078MUV	3.0 to 5.5	12	8	✓	6×6	I²C	32	ROM	–	VQFN028V5050
BU21078FV	3.0 to 5.5	12	8	✓	6×6	I²C	32	ROM	–	SSOP-B28
New **BU21181FS**	3.0 to 5.5	18	–	–	–	I²C	32	ROM	✓	SSOP-A32
BU21182FS	3.0 to 5.5	20	–	–	–	I²C	32	ROM	–	SSOP-A32

Touch Screen Controller ICs

Resistive type

Part No.	Supply Voltage (V)	MCU (bit)	Resolution	Touch Detection	Standby Current (μA)	Active Current (mA)	Host I/F	Operating Temperature (˚C)	Package (mm)	Automotive Grade AEC-Q100
BU21029MUV	1.65 to 3.6	–	4096×4096	2 points/Single	100	0.8	I²C	–20 to +85	VQFN020V4040	–
BU21029GUL	1.65 to 3.6	–	4096×4096	2 points/Single	100	0.8	I²C	–20 to +85	VCSP50L2 2.0×2.0, t=0.55	–
BU21023MUV	2.7 to 3.6	8	1024×1024	2 points/Single	60	4.0	I²C/SPI	–20 to +85	VQFN028V5050	–
BU21023GUL	2.7 to 3.6	8	1024×1024	2 points/Single	60	4.0	I²C/SPI	–20 to +85	VCSP50L2 2.6×2.6, t=0.55	–
BU21024FV-M	2.7 to 3.6	8	1024×1024	2 points/Single	60	4.0	I²C/SPI	–40 to +85	SSOP-B28	YES
BU21027MUV	2.7 to 3.6	32	4096×4096	2 points/Single	70	8.0	I²C	–20 to +85	VQFN020V4040	–
BU21025GUL	1.65 to 3.6	–	4096×4096	Single	0.8	0.12	I²C	–30 to +85	VCSP50L2 2.0×1.5, t=0.55	–
BU21026MUV	1.65 to 3.6	–	4096×4096	Single	0.8	0.12	I²C	–30 to +85	VQFN020V4040	–

Touch Screen I/F LSIs Supporting SPI/I²C (LAPIS Technology products)

Part No.	Supply Voltage (V)	MCU	Resolution	Touch Detection	Stand-by Current (μA)	Active Current (mA)	Host I/F	Operating Temperature (°C)	Package	Halogen free Support*1	Automotive Grade
ML26700CGD	2.7 to 3.6	–	4096×4096	Single	30	0.42	I²C	–40 to +85	WQFN12-0303-0.50	✓	–
ML26700SGD							SPI		WQFN12-0303-0.50	✓	–

*1 A check mark of halogen free support means that we will be able to ship out the halogen free products. For details, please inquire to the sales.