



V&H Microelectronics Technology Co., Ltd.



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COMPANY PROFILE

Vertical and Horizontal Microelectronics Technology Co., Ltd. (short as V&H Micro) is a semiconductor design company dedicated to the design, development, production, and sales of high-performance and high reliability integrated circuit chips. Its products cover various application fields such as industrial, energy, communication, security, consumer electronics, automotive electronics, information security, etc. We can provide customers with one-stop analog IC and digital analog hybrid IC solutions and continuous technical support.

The products of V&H Micro include various mass-produced signal chain chips (temperature and humidity sensors, isolators, interfaces, etc.), Power chips and Power devices (Driver, IGBT, etc.), as well as rich chip design capabilities and production outsourcing resources. We can also customize and develop various digital chips and mixed digital analog solutions such as MCU controllers, according to customer needs.

Mainstream products:

- Sensor
- Interface
- Isolator
- Isolated driver
- Isolated interface
- IGBT

SENSOR

Optimize efficiency and extend system lifetime with sensors.

Part Number	Interface	T Sensor Accuracy	H Sensor Accuracy	Supply Voltage	Temperature Range	Package	Replacement of
VHLM75AIMX/NOPB	SMBus/I2C	±0.5	/	1.75V ~ 5.5V	-40°C to 125°C	SOP-8	LM75AIMX/NOPB
VHLM75AIMMX/NOPB	SMBus/I2C	±0.5	/	1.75V ~ 5.5V	-40°C to 125°C	MSOP-8	LM75AIMMX/NOPB
VHTMP431ADGKR	SMBus/I2C	±1°C	/	2.7V ~ 5.5V	-40°C to 125°C	MSOP-8	TMP431ADGKR
VHTMP432ADGSR	SMBus/I2C	±1°C	/	2.7V ~ 5.5V	-40°C to 125°C	MSOP-10	TMP432ADGSR
VHMAX31875R0TZS+T	SMBus/I2C	±1°C	/	1.4V ~ 5.5V	-50°C to 150°C	CSP-4	MAX31875R0TZS+T
VHLM60BIM3X/NOPB	/	±1.5°C	/	1.8V ~ 5.5V	-50°C to 150°C	SOT23	LM60BIM3X/NOPB
VHLM20BIM7X/NOPB	/	±1.5°C	/	1.8V ~ 5.5V	-50°C to 150°C	SC70-5	LM20BIM7X/NOPB
VHDS18B20+	/	±0.5°C	/	1.8V ~ 5.5V	-50°C to 150°C	TO-92	DS18B20+
VHTMP175AIDGKR	SMBus/I2C	±0.5°C	/	1.62V ~ 5.5V	-55°C ~ +125°C	MSOP-8	TMP175AIDGKR
VHTMP102AIDRLR	SMBus/I2C	±0.5°C	/	1.71V ~ 3.6V	-40°C to 125°C	SOT563(6)	TMP102AIDRLR
VHSHT21	SMBus/I2C	±0.2°C	±1.5%	1.35V ~ 5.5V	-40°C to 125°C	DFN-3x3-6	SHT21

Part Number	VCC	Primary current	Dielectric Surge Voltage	Bandwidth	Sensitivity	Temperature Range	Package	Replacement of
VHACS723LLCTR-10AU-T	5V	10A	5000Vrms	400KHz	400mV/A	-40°C~125°C	SOW-16	ACS723LLCTR-10AU-T
VHACS724KMATR-65AB-T	5V	65A	3000Vrms	240KHz	30.77mV/A	-40°C~125°C	SOP-8	ACS724KMATR-65AB-T
VHACS724KMATR-50AB-T	5V	50A	3000Vrms	240KHz	40mV/A	-40°C~125°C	SOP-8	ACS724KMATR-50AB-T
VHACS724KMATR-30AB-T	5V	30A	3000Vrms	240KHz	66.67mV/A	-40°C~125°C	SOP-8	ACS724KMATR-30AB-T
VHACS724KMATR-20AB-T	5V	20A	3000Vrms	240KHz	100mV/A	-40°C~125°C	SOP-8	ACS724KMATR-20AB-T

INTERFACE

Increase data reliability and system performance across longer distances.

Part Number	Description	Supply Voltage	Clock Frequency(Max)	Operating Temperature	Package	Replacement of
VHTHVD1454DRCR	Half-duplex RS485	3.0V~5.5V	/	-40°C~125°C	SOP8	THVD1454DRCR
VHTHVD2412VDR	Full-duplex RS485	3.0V~5.5V	/	-40°C~125°C	SOP14	THVD2412VDR
VHTCAN1051HDR	CAN Transceiver	4.5V~5.5V	/	-40°C~125°C	SOP8	TCAN1051HDR
VHTCAN1051HVDR	CAN Transceiver	4.5V~5.5V	/	-40°C~125°C	SOP8	TCAN1051HVDR
VHPCA9555PW,118	I ² C to GPIO	2.3V~5.5V	400kHz	-40°C~85°C	TSSOP 24	PCA9555PW,118
VHPCA9554PW,118	I ² C to GPIO	1.65V~5.5V	1.0MHz	-40°C~85°C	TSSOP 16	PCA9554PW,118
VHPCA9511ADP	I ² C buffer	2.7V~5.5V	400kHz	-40°C~105°C	MSOP8	PCA9511ADP
VHPCA9511AD	I ² C buffer	2.7V~5.5V	400kHz	-40°C~105°C	SOP8	PCA9511AD
VHTXS0102DCU	I ² C voltage translator	1.65V~5.5V	24M/2M	-40°C~85°C	DFN2x3-8	TXS0102DCU
VHTXS0104EPWR	I ² C voltage translator	1.65V~5.5V	40M/2M	-40°C~85°C	TSSOP 14	TXS0104EPWR
VHPCA9306DP,118	I ² C voltage translator	1.2V~5.5V	400kHz/100kHz	-40°C~85°C	MSOP8	PCA9306DP,118
VHPCA9306DCUR	I ² C voltage translator	1.2V~5.5V	400kHz/100kHz	-40°C~85°C	VSSOP8	PCA9306DCUR
VHPCA9306DCTR	I ² C voltage translator	1.2V~5.5V	400kHz/100kHz	-40°C~85°C	TSSOP8	PCA9306DCTR
VHPCA9545APWR	I ² C switch	1.65V~5.5V	1.0MHz	-40°C~85°C	TSSOP 20	PCA9545APWR
VHTCA9548APWR	I ² C switch	1.65V~5.5V	1.0MHz	-40°C~85°C	TSSOP 24	TCA9548APWR
VHTCA9545APWR	I ² C switch	1.65V~5.5V	400kHz	-40 to 105°C	TSSOP 20	TCA9545APWR



ISOLATION

High-voltage isolation for robust and reliable system operation.

Part Number	Channels	Max Data Rate	Supply Voltage	Fail-safe output state	CMTI	Isolation Voltage	Surge Voltage Capability	Operating Temperature	Package	Replacement of
VHISO7710D	1	150Mbps	2.5V~5.5V	High	200kV/us	3750V	7000V	-40°C~125°C	SOP8	ISO7710D
VHISOW7821DWE	2	150Mbps	3V~5.5V	High	150kV/us	4500V	7000V	-40°C~125°C	SOW16	ISOW7821DWE
VHISOW7844DWE	4	150Mbps	3V~5.5V	High	150kV/us	4500V	7000V	-40°C~125°C	SOW16	ISOW7844DWE
VHISOW7842DWE	4	150Mbps	3V~5.5V	High	150kV/us	4500V	7000V	-40°C~125°C	SOW16	ISOW7842DWE
VHISOW7841DWE	4	150Mbps	3V~5.5V	High	150kV/us	4500V	7000V	-40°C~125°C	SOW16	ISOW7841DWE
VHISO7721D	2	150Mbps	2.5V~5.5V	High	250kV/us	3750V	7000V	-55°C~125°C	SOP8	ISO7721D
VHISO7721FD	2	150Mbps	2.5V~5.5V	Low	250kV/us	3750V	7000V	-55°C~125°C	SOP8	ISO7721FD
VHISO7521CDW	2	10Mbps	3V~5.5V	High	120kV/us	5000V	6500V	-40°C~125°C	SOW16	ISO7521CDW
VHISO7840DW	4	150Mbps	2.5V~5.5V	High	250kV/us	5000V	10000V	-55°C~125°C	SOW16	ISO7840DW
VHISO7840FDW	4	150Mbps	2.5V~5.5V	Low	250kV/us	5000V	10000V	-55°C~125°C	SOW16	ISO7840FDW
VHISO7760DW	6	150Mbps	2.5V~5.5V	High	200kV/us	5000V	10000V	-55°C~125°C	SOW16	ISO7760DW
VHISO7760FDW	6	150Mbps	2.5V~5.5V	Low	200kV/us	5000V	10000V	-55°C~125°C	SOW16	ISO7760FDW

Part Number	Description	Max Data Rate	Supply voltage	CMTI	Isolation Voltage	Surge Voltage Capability	Operating Temperature	Package	Replacement of
VHADM2587EBRWZ	Isolated RS485	16Mbps	3V~5.5V	150kV/us	5000V	7000V	-40°C~105°C	SOW20	ADM2587EBRWZ
VHADM2484EBRWZ	Isolated FULL RS485	16Mbps	2.5V~5.5V	150kV/us	5000V	10000V	-40°C~105°C	SOW16	ADM2484EBRWZ
VHADM2483BRW	Isolated HALF RS485	12Mbps	2.5V~5.5V	150kV/us	5000V	10000V	-40°C~105°C	SOW16	ADM2483BRW
VHISO1042BDWV	Isolated CAN	5Mbps	2.5V~5.5V	150kV/us	5000V	10000V	-40°C~125°C	SOW8	ISO1042BDWV
VHTJA1052IT/5	Isolated CAN	5Mbps	2.5V~5.5V	150kV/us	5000V	10000V	-40°C~125°C	SOW16	TJA1052IT/5
VHISO1050DW	Isolated CAN	1Mbps	2.5V~5.5V	100kV/us	5000V	10000V	-40°C~125°C	SOW16	ISO1050DW
VHISO1050DUB	Isolated CAN	1Mbps	2.5V~5.5V	100kV/us	3000V	7000V	-40°C~125°C	DUB8	ISO1050DUB
VHADuM1250ARZ	Isolated I2C	2Mbps	2.5V~5.5V	150kV/us	3750V	7000V	-40°C~125°C	SOP8	ADuM1250ARZ
VHISO1540D	Isolated I2C	2Mbps	3V~5.5V	120kV/us	3000V	4700V	-40°C~125°C	SOP8	ISO1540D

Part Number	Description	VDD1 (max)	FSR	VIOWM (rms)	VISO (rms)	Input offset error(max)	Gain error (max)	CMTI	Temperature Range	Package	Replacement of
VHAMC1311DWVR	Isolated Voltage Amplifier	5.5V	±1.2V	1500V	5000V	±5mV	±1%	100kV/us	-40°C~125°C	SOW8	AMC1311DWVR
VHAMC1306M05DWV	Isolated Current Amplifier	5.5V	±50mV	1500V	5000V	±50uV	±0.2%	150kV/us	-40°C~125°C	SOW8	AMC1306M05DWV
VHAMC1306M25DWV	Isolated Current Amplifier	5.5V	±250mV	1500V	5000V	±100uV	±0.2%	150kV/us	-40°C~125°C	SOW8	AMC1306M25DWV
VHAMC1305M05DW	Isolated Current Amplifier	5.5V	±50mV	1500V	5000V	±50uV	±0.2%	150kV/us	-40°C~125°C	SOW16	AMC1305M05DW
VHAMC1305M25DW	Isolated Current Amplifier	5.5V	±250mV	1500V	5000V	±100uV	±0.2%	150kV/us	-40°C~125°C	SOW16	AMC1305M25DW
VHAMC1200BDWV	Isolated ADC	5.5V	±250mV	1500V	5000V	±500uV	±0.3%	150kV/us	-40°C~125°C	SOW8	AMC1200BDWV
VHAMC1200BDUB	Isolated ADC	5.5V	±250mV	1500V	5000V	±500uV	±0.3%	150kV/us	-40°C~125°C	DUB8	AMC1200BDUB

Part Number	Output Supply Voltage	UVLO(V)	CMTI	Propagation Delay	Isolation Voltage	Surge Voltage Capability	Operating Temperature	Package	Replacement of
VHUCC5350SBD	10V~32V	9	150kV/us	78ns	3000Vrms	5500Vpk	-40°C~125°C	SOP8	UCC5350SBD
VHUCC5320SCD	10V~32V	13	150kV/us	78ns	3000Vrms	5500Vpk	-40°C~125°C	SOP8	UCC5320SCD
VHUCC5320SCDWV	13.7V~32V	13	150kV/us	78ns	5700Vrms	10000Vpk	-40°C~125°C	SOW8	UCC5320SCDWV
VHUCC23513BDWYR	10V~32V	9	150kV/us	75ns	5700Vrms	10000Vpk	-40°C~125°C	SOW6	UCC23513BDWYR
VHUCC23513DWYR	14V~32V	13	150kV/us	75ns	5700Vrms	10000Vpk	-40°C~125°C	SOW6	UCC23513DWYR
VHSi8261BAC-C-IP	10V~32V	9	150kV/us	75ns	5000Vrms	10000Vpk	-40°C~125°C	DUB8	Si8261BAC-C-IP
VHSi8261BCC-C-IP	14V~32V	13	150kV/us	75ns	5000Vrms	10000Vpk	-40°C~125°C	DUB8	Si8261BCC-C-IP
VHTLP350F	14V~32V	13	150kV/us	75ns	5000Vrms	10000Vpk	-40°C~125°C	DUB8	TLP350F
VHSi8233BB-D-IS1	9.2V~25V	9.2	100kV/us	19ns	3000Vrms	6500Vpk	-40°C~125°C	SOP16	Si8233BB-D-IS1
VHSi8233AB-D-IS1	6.5V~25V	6.5	100kV/us	19ns	3000Vrms	6500Vpk	-40°C~125°C	SOP16	Si8233AB-D-IS1
VHSi8233BD-D-IS1	9.2V~25V	9.2	100kV/us	19ns	5000Vrms	6500Vpk	-40°C~125°C	SOW14	Si8233BD-D-IS1
VHSi8233AD-D-IS1	6.5V~25V	6.5	100kV/us	19ns	5000Vrms	6500Vpk	-40°C~125°C	SOW14	Si8233AD-D-IS1
VHISO5452DWR	13V~32V	13	150kV/us	80ns	5700Vrms	10000Vpk	-40°C~125°C	SOW16	ISO5452DWR
VHISO5451DWR	13V~32V	13	150kV/us	80ns	5700Vrms	10000Vpk	-40°C~125°C	SOW16	ISO5451DWR
VHADuM4221ARIZ	7V~25V	6	150kV/us	25ns	5700Vrms	10000Vpk	-40°C~125°C	SOW16	ADuM4221ARIZ
VHADuM4221BRIZ	9.4V~25V	8	150kV/us	25ns	5700Vrms	10000Vpk	-40°C~125°C	SOW16	ADuM4221BRIZ
VHADuM4221CRIZ	14.2V~25V	13	150kV/us	25ns	5700Vrms	10000Vpk	-40°C~125°C	SOW16	ADuM4221CRIZ



POWER DEVICE

Improve drive ability and efficiency of the system

Part Number	Description	V _{CE}	V _{CE(sat)} Typ.	I _c	Package	Operating temperature
VHFGH75T65SQDT	IGBT	750V	1.90V	200A	TO-264-3	-40°C ~ 175°C
VHAUIRG4PH50S	IGBT	1200V	1.8V	40A	TO247-3	-40°C ~ 175°C
VHFS820R08A6P2B	IGBT	750V	1.4	820A	HPD	-40°C ~ 175°C
VHFF600R12ME4 B72	IGBT	1200V	1.84	600A	Me4	-40°C ~ 150°C



POWER MODULE



DC/DC Module:
DC-DC Power Module, 9-60VDC input,
0-60VDC output, output current 50A

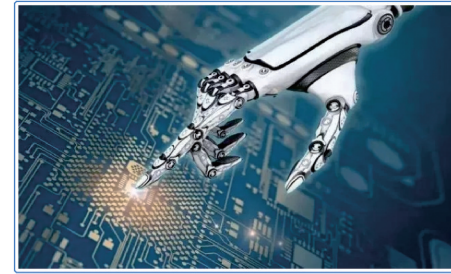


AC/DC Module:
30/40/60KW Maintenance-free Charging Pile Module

AC/DC Module	
Efficiency	≥ 97%
Input voltage range	380Vac ± 20%
Rated output power	30KW/40KW/60KW
Output voltage range	200Vdc-900Vdc
Power factor	≥ 0.98



APPLICATIONS



Industrial control



Energy



Communication



Security



Automobiles



Consumer



ENCLOSED POWER SUPPLY (OUTPUT FROM 240W TO 1500W)



Main Application:

- ◆ Household appliance
- ◆ Industrial control
- ◆ Power system

Input	100~240Vac 50Hz 5.0A						
Output	Voltage	12.0-15.0V	22-31.9V	12.0-15V	22-31.9V	15.1-21.9V	32-41.9V
	Current	5~20A	15.0A	50.0A	32.0A	65A	41.6A
	Power	240W	360W	600W	900W	1170W	1500W

