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HOPERF

RF

RF IC | RF Module

Develop Tool Kit | RF Solution

WiFi Module | BLE Module | LoRa Module | NB-IoT Module

SENSOR

Pressure Sensor | Humiture Sensor | Customized Sensor

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Selection Guide of CMT Series

NextGenRF ™

T/R	Model No.	Modulation	Maximum Data Rate	Frequency Range	Sensitivity	Output Power	Size	Package	Remark
TRX	CMT2300A	OOK/(G)FSK /(G)MSK	0.5-300Kbps(FSK) 0.5-40Kbps(OOK)	127-1020MHz	-120 dBm	20dBm	3*3*0.75mm	QFN(16)3x3	3+1 wire SPI Small Package Low Consumption
TRX SoC	CMT2380F16	OOK/(G)FSK /(G)MSK	0.5-300Kbps(FSK) 0.5-40Kbps(OOK)	127-1020MHZ	-120dBm	20dBm	6*6*0.75mm	QFN48	With 8051 Core MCU
TRX SoC	CMT2380F32	OOK/(G)FSK /(G)MSK	0.5-300Kbps(FSK) 0.5-40Kbps(OOK)	127-1020MHZ	-120dBm	20dBm	5*5*0.75mm	QFN40	With Cortex M0+
TX	CMT2119A	(G)FSK/OOK	0.5-100Kbps(FSK) 0.5-30Kbps(OOK)	240-960MHZ	–	13dBm	2.92*2.8*1.1mm	SOT23-6	1-wire Interface +TWI
TX	CMT2119B	(G)FSK/OOK /(G)MSK	0.5-300Kbps(FSK) 0.5-40Kbps(OOK)	127-1020MHz	–	20dBm	3*3*0.75mm	QFN16	3+1 wire SPI
TX	CMT2110A	OOK	0.5-30Kbps	240-480 MHZ	–	13dBm	2.92*2.8*1.1mm	SOT23-6	1-wire Interface
TX SoC	CMT2189C	OOK/(G)FSK	1-100Kbps(FSK) 1-30Kbps(OOK)	240-960MHZ	–	13dBm	8.65*6*1.75mm	SOP14	With PIC-Like MCU
TX	CMT2150L	OOK	0.5-40 kbps	240-480MHZ	–	13dBm	4.92*6*1.65mm	SOP8	Encoder + 6 Keys
TX	CMT2157B	OOK	0.5-40 kbps	240-960MHZ	–	13dBm	8.65*6*1.75mm	SOP14	Encoder + 10 Keys
TX	CMT2156A	OOK	0.5-40 kbps	240-480MHZ	–	13dBm	8.65*6*1.75mm	SOP14	With Encoder and Micro Energy Collect
TX	CMT2159A	OOK/FSK /(G)FSK	0.5-40ksps (OOK) 0.5-300ksps (FSK)	240-960MHZ	–	13dBm	8.65*6*1.75mm	SOP14	With Encoder and Micro Energy Collect

Superiority

- Parameters flexibly configurable and modifiable with UI software, without software programming
- Built-in EEPROM(optional), support online million times of modification
- Ensure 100% pass of the safety certification of CE and FCC
- Key arbitrarily configurable, avoiding crack
- Pin to pin compatible, replacing directly
- Save raw materials, improve production efficiency

CMOSTEK RF IC
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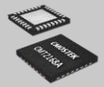
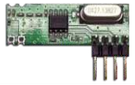
Selection Guide of CMT Series

NextGenRF ™

T/R	Model No.	Modulation	Maximum Data Rate	Frequency Range	Sensitivity	Output Power	Size	Package	Remark
TX SoC	CMT2163A	OOK/(G)FSK /(G)MSK	0.5-300Kbps(FSK) 0.5-40Kbps(OOK)	27-960MHz	–	13dBm	9.7*6.4*1.2mm	TSSOP28	With 8051 Core MCU *3D LF Wakeup
TX SoC	 CMT2168A	OOK/(G)FSK /(G)MSK	0.5-300Kbps(FSK) 0.5-40Kbps(OOK)	27-960MHz	–	13dBm	5*5*0.75mm	QFN32	With 8051 Core MCU *3D LF Wakeup with Powerful AFE
TX SoC	CMT2189B	OOK	1-40Kbps	240-960MHZ	–	13dBm	8.65*6*1.75mm	SOP14	With PIC-Like MCU
RX	CMT2219A	OOK/(G)FSK /(G)MSK	0.1-100Kbps(FSK) 0.5-30Kbps(OOK)	300-960 MHZ	-114dBm	–	3*3*0.75mm	QFN16	3+1 wire SPI
RX	CMT2219B	(G)FSK/OOK /(G)MSK	0.5-300Kbps(FSK) 0.5-40Kbps(OOK)	127-1020MHZ	-120dBm	–	3*3*0.75mm	QFN16	3 wire SPI +1-wire Interface
RX	CMT2218B	(G)FSK	0.5-300Kbps	127-1020MHZ	-120dBm	–	3*3*0.75mm	QFN16	Direct Mode
RX	CMT2210LB	OOK	0.1-40Kbps	300-480 MHZ	-113dBm	–	4.92*6*1.65mm	SOP8	Standalone + 1 Dout
RX	CMT2210LH	OOK	0.1-40Kbps	300-480 MHZ	-109dBm	–	4.92*6*1.65mm	SOP8	Standalone + 1 Dout
RX SoC	CMT2280F2	OOK	1-40Kbps	300-960MHZ	- 113dBm	–	10*6.2*4.4mm	SOP16	With PIC-Like MCU
RX SoC	CMT2281F2	OOK	1-40Kbps	300-960MHZ	-109dBm	–	10*6.2*4.4mm	SOP16	With PIC-Like MCU
RX	CMT2217LB	OOK	0.1-40Kbps	300-920MHZ	-113dBm	–	4.92*6*1.65mm	SOP8	Standalone + 1 Dout
RX	CMT2217B	OOK	0.1-40Kbps	300-920MHZ	-113dBm	–	3*3*0.75mm	QFN16	Standalone + 1 Dout

RF Module

RF COB MODULE

Model No.	RFM110W (TX)	RFM217LBW (RX)	RFM210LBW (RX)	RFM217BW (RX)	RFM210LCFW (RX)
Photo					
Frequency(MHz)	315/433	315/433/868/915	315/433	315/433/868/915	315/433
VDD(V)	1.8-3.6	1.8-3.6	1.8-3.6	1.8-3.6	1.8-3.6
Modulation	OOK	OOK	OOK	OOK	OOK
Max. Data Rate (kbps)	30	40	40	40	40
Current (mA) Tx	12.4	–	–	–	–
Current (mA) Rx	–	3.8	3.8	3.8	3.8
Sensitivity (dBm)	–	-113	-113	-113	-113
Output Power (dBm)	13	–	–	–	–
Size(mm)	17.8x12.8x5	32x11x5	32x11x5	32x11x5	32x11x5
Interface	TWI	TWI	TWI	TWI	TWI

Model No.	RFM119W (TX)	RFM119SW (TX)	RFM119BW (TX)	RFM218BW (RX)	RFM219BW (RX)	RFM219SW (RX)
Photo						
Frequency(MHz)	315/433/868/915	315/433/868/915	315/433/868/915	315/433/868/915	315/433/868/915	315/433/868/915
VDD(V)	1.8-3.6	1.8-3.6	1.8-3.6	1.8-3.6	1.8-3.6	1.8-3.6
Modulation	(G)FSK/OOK	(G)FSK/OOK	(G)FSK/OOK	(G)FSK	(G)FSK/OOK	(G)FSK/OOK
Max. Data Rate (kbps)	100/30	100/30	300/40	300	300/40	100/30
Current (mA) Tx	33	33	75	–	–	–
Current (mA) Rx	–	–	–	8.5	7	5.7
Sensitivity (dBm)	–	–	–	-120	-120	-109
Output Power (dBm)	13	13	20	–	–	–
Size(mm)	17.8x12.8x5	16x16x1.9	16x16x1.9	16x16x1.8	16x16x1.9	16x16x5
Interface	TWI	TWI	SPI	TWI	SPI	SPI

Model No.	RFM300W (TRX)	RFM300HW (TRX)	RFM63W (TRX)	RFM64W (TRX)	RFM69CW (TRX)	RFM69HCW (TRX)	RFM23BPW (TRX)
Photo							
Frequency(MHz)	315/433/868/915	315/433/868/915	868/915	315/433	315/433/868/915	315/433/868/915	433/868/915
VDD(V)	1.8-3.6	1.8-3.6	2.1-3.6	2.1-3.6	1.8-3.6	1.8-3.6	5-6
Modulation	(G)FSK/OOK	(G)FSK/OOK	FSK/OOK	FSK/OOK	(G)FSK/OOK	(G)FSK/OOK	FSK/OOK
Max. Data Rate (kbps)	300/40	300/40	200	200	300	300	256
Current (mA) Tx	28	75	25	25	45	130	550
Current (mA) Rx	7	7	3	3	16	16	25
Sensitivity (dBm)	-120	-120	-110	-110	-120	-120	-120
Output Power (dBm)	13	20	12	12	13	20	30
Size(mm)	16x16x1.9	16x16x1.9	19.7x16x1.9	19.7x16x1.9	16x16x1.9	16x16x1.9	33x18x1.9
Interface	SPI	SPI	SPI	SPI	SPI	SPI	SPI

*We provide customized service for module products
Please consult the sales staffs for more information

RF Module

RF DATA MODULE

Model No.	HM-TRLR-SW (TRX)	HM-TRLR-D (TRX)	HM-TRPW (TRX)
Photo			
Frequency(MHz)	433/470/868/915	433/470/868/915	434/869/915
VDD(V)	2.4-3.6	3.6-5.5	2.4-3.6
Modulation	LoRa/(G)FSK/OOK	LoRa/(G)FSK/OOK	(G)FSK/OOK
Max. Data Rate (kbps)	37.5 (LoRa) 300 (GFSK)	37.5 (LoRa) 300 (GFSK)	115.2
Current (mA) Tx	120	120	100
Current (mA) Rx	16	16	25
Sensitivity (dBm)	-139	-139	-117
Output Power (dBm)	20	20	20
Size(mm)	16X20X2	47X26X10	16X20X2
Interface	TTL	TTL/RS485/RS232	TTL/RS485/RS232

SoC COB MODULE

Model No.	RFM50W (TRX)	RFM380F32W (TRX)
Photo		
Frequency(MHz)	315/433/868/915	433/868/915
VDD(V)	1.9-3.6	1.8-3.6
Modulation	(G)FSK/OOK	(G)FSK/OOK
Max. Data Rate (kbps)	256	300
Current (mA) Tx	85	80
Current (mA) Rx	13	8.9
Sensitivity (dBm)	-126	-120
Output Power (dBm)	20	20
Size(mm)	16x16x1.9	16x16x3.4
Interface	SoC	SoC

LoRa MODULE

Model No.	RFM90W (TRX)	RFM90CW (TRX)	RFM95W (TRX)	RFM95PW (TRX)	RFM95CW (TRX)	RFM96W (TRX)
Photo						
Frequency(MHz)	433/868/915	150~960	869/915	869/915	137~1020	433/470
VDD(V)	1.8~3.7	1.8~3.7	1.8~3.7	5.0~6.4	1.8~3.7	1.8~3.7
Modulation	LoRa/(G)FSK	LoRa/(G)FSK	LoRa/(G)FSK/OOK	LoRa/(G)FSK/OOK	LoRa/(G)FSK	LoRa/(G)FSK/OOK
Max. Data Rate (kbps)	62.5(LoRa) 300(GFSK)	62.5	37.5 (LoRa) 300 (GFSK)	37.5 (LoRa) 300 (GFSK)	300	37.5 (LoRa) 300 (GFSK)
Current (mA) Tx	118	118mA@915MHz 8.8mA@BW=125MHz	120	450	120	120
Current (mA) Rx	9.3	10.3	10.3	10.3	10.3	10.3
Sensitivity (dBm)	-139	-137dBm@SF=12 BW=125KHz	-139	-139	-136	-139
Output Power (dBm)	22	22	20	27	20	20
Size(mm)	16X16X1.8	16X16X2.8	16X16X1.8	18X35.4	16X16X2.7	16X16X1.8
Interface	SPI	4 wire SPI	SPI	SPI	4 wire SPI	SPI

LoRa MODULE

Model No.	RFM98PW (TRX)	RFM98W (TRX)	RFM99W (TRX)
Photo			
Frequency(MHz)	169/433/470	433/470	2400~2483
VDD(V)	5.0~6.4	1.8~3.7	1.8~3.7
Modulation	LoRa/(G)FSK/OOK	LoRa/(G)FSK/OOK	LoRa/FLRC/FSK
Max. Data Rate (kbps)	37.5 (LoRa) 300 (GFSK)	37.5 (LoRa) 300 (GFSK)	202(LoRa) 300(FLRC)/2000(FSK)
Current (mA) Tx	300/500	120	24
Current (mA) Rx	10.3	10.3	8.6
Sensitivity (dBm)	-139	-139	-130
Output Power (dBm)	27/30	20	13
Size(mm)	18X35.4	16X16X1.8	16X16X1.8
Interface	SPI	SPI	SPI

2.4GHz MODULE

Model No.	RFM75W (TRX)	RFM75PW (TRX)
Photo		
Frequency(MHz)	2400~2483	2400~2483
VDD(V)	1.9-3.6	3.3-4.2
Modulation	(G)FSK	(G)FSK
Max. Data Rate (kbps)	250K/1M/2M	250K/1M/2M
Current (mA) Tx	18	180
Current (mA) Rx	16	21
Sensitivity (dBm)	-96	-107
Output Power (dBm)	4	28
Size(mm)	16.8x12.8x2	33X18X2
Interface	SPI	SPI

Wireless Module

		WiFi Module			BLE Module		
Model No.		HM-WF8266	HM-WF8710	HM-WF8720	HM-BT2201	HM-BT4502	HM-BT4502B
Photo							
Frequency		2412-2484 MHz	2412~2484MHz	2412~2484MHz	2402~2483.5MHz	2402-2480 MHz	2402-2480 MHz
VDD(V)		2.5~3.6V	3.3V	3.3V	3.3V	1.8~3.6V	1.8~3.6V
Modulation		WiFi	WIFI	WIFI+BLE	BLE	BLE	BLE
Max. Data Rate (kbps)		115.2Kbps	1152000bps	1152000bps	230400bps	115.2Kbps	115.2Kbps
Air Rate		150Mbps	65Mpbs	WIFI:65Mpbs BLE:1Mbps	2Mbps	2M bps	2M bps
Current (mA)	Tx	170mA(Typ.)	218mA @1T MCS7 /BW20M(16dBm)	218mA @1T MCS7 /BW20M(16dBm)	4.1mA @0dBm	<8mA	<8mA
	Rx	<50mA	70mA	70mA	3.6mA @1Mbps	<8mA	<8mA
Sleeping Current (mA)	Rx	<20uA(Deep-Sleep)	30uA @Deep Sleep	30uA @Deep Sleep	0.75uA @EM4	<4uA	<4uA
Sensitivity (dBm)		-91dBm(11Mbps)	-74dBm @HT20 MCS7	-74dBm @HT20 MCS7	-98.9dBm @1Mbps	-97 dBm	-97 dBm
Output Power (dBm)		17dBm	15dBm @OFDM 54Mbps	15dBm @OFDM 54Mbps	+6dBm Max	+10dBm	+10dBm
Size(mm)		16x24x3.2mm	15.0 x 20.5 mm	15.0 x 20.5 mm	12.0 x 17.0 mm	12.5x17x2.5mm	11.2x15.1x2.6mm
Interface		UART	UART	UART	UART	UART	UART

		BLE Module	LoRaWan Module		
Model No.		HM-BT800B	HM-LWNH	RFM6501W	RFM6505W
Photo					
Frequency		2402-2480 MHz	868/915 MHz	470/868/915 MHz	470/868/915 MHz
VDD(V)		1.7~3.6V	1.8~3.6V	2.4~3.7V	2.4~3.7V
Modulation		BLE	LoRa	LoRa	LoRa
Max. Data Rate (kbps)		115.2Kbps	115.2Kbps	115.2Kbps	115.2Kbps
Air Rate		1M bps	5.5Kbps	62.5 kb/s(LoRa) 300 kb/s(GFSK)	62.5 kb/s(LoRa) 300 kb/s(GFSK)
Current (mA)	Tx	8.3 mA TX current (@-2dBm,3.0V)	138mA(Max.145mA)	107mA(470MHz), 118mA(868/915MHz)	107mA(470MHz), 118mA(868/915MHz)
	Rx	7.7 mA (with ideal DC-DC , -2dB)	<24mA	<9mA	<9mA
Sleeping Current (mA)	Rx	<0.8uA	1.8uA(Typ.)	2uA(Typ.)	2uA(Typ.)
Sensitivity (dBm)		-88 dBm	-129 dBm	-137dBm	-137dBm
Output Power (dBm)		+8 dBm	19.5 dBm	+22dBm	+22dBm
Size(mm)		18x12.2x2.3 mm	32X21X2.5mm	16x16x2.8mm	16x20x2.8mm
Interface		UART	UART	UART	UART

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RF — Based on Sub-GHz abilities to develop the relative fields

Smart Home Remote Control

a. Sub-GHz remote control/kinetic energy (elf-powered) switch / socket scheme

b. Sub-GHz remote control/kinetic energy (elf-powered)doorbell scheme

c. Sub-GHz thermostat

Security Control

a. Wireless magnetometer

b. Emergency call / alarm remote control

c. Alarm host data receiving module

Electric vehicle, car rear loading electronic

a. Electric vehicle / motorcycle anti-theft device

b. One way anti-theft for car rear loading

c. Bi-directional anti-theft device for car rear loading

d. Car rear loading TPMS (tire pressure monitoring) etc.

Instruments & Apparatuses

a. Data transparent transmission module

b. Data transmission module developed by a specified protocol

Remark: Not involving measurement and measurement parts

Lighting control

a. Sub-GHz dual color LED remote control and dimming scheme

Active RFID

a. Low power Sub-GHz active label product scheme

Sensor — Various types of sensors & related applications based on MEMS

Pressure Sensors

a. High precision and stable capacitive digital pressure sensor used to model high, floor detection, outdoor wear, specific industrial applications

b. High precision digital pressure sensor for resistance type, used in barometer, weather forecast machine, altimeter

Temperature & Humidity sensors

a. High precision digital temperature sensor that used in the heater, HVAC, ventilation facilities, constant temperature environment, indoor temperature measurement, medical contact temperature measurement

b. High precision digital temperature and humidity sensor
Used for heating humidifier, constant temperature & humidity environment, air conditioning, measurement of medical respiration temperature and humidity

Waterproof Pressure Sensors

High stability waterproof type digital pressure sensor
Used for wearable equipment, outdoor waterproof equipment, dive depth detection, industrial pressure measurement

SOP Pressure Sensors

High precision pressure gauge SOP package Sensor (analog quantity)

For the sphygmomanometer, the ventilator, the pressure gauge, ventilation system, smart home

Personalized Custom Sensors

Customizing Sensors

Development Kit & TOOLS

Writer

USB Programmer

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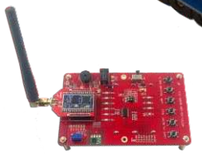
* Support whole series of HOPERF Module development

HopeDuino™

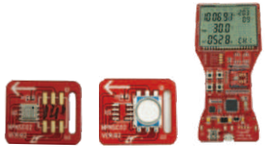
* Compatible for Arduino IDE
* Support whole series of HOPERF Sensor Module development

RF-EB



LoRa Demo Board

LoRaWan Gateway



HP20x Demo Board

Pressure Sensor

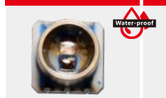
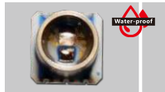
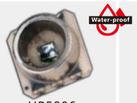
P/N	Pressure Range	Relative Accuracy	Resolution Ratio	Temp Range (℃)	Working Voltage (V)	Woking Current (mA)	Sleep Current (uA)	Size (mm)	Package	Interface
HP100	150Kpa 700Kpa 2000Kpa	N/A	N/A	-40~85℃	0~10V	N/A	N/A	3.8*3.6*1.2mm	DFN8	MV
HP107	10Kpa 40Kpa 200Kpa	N/A	N/A	-40~85℃	0~10V	N/A	N/A	7*10.6*10mm	SOP6/DIP6	MV
HP303S	300~1200 Hpa	0.2 Hpa	0.06Pa	-40~85℃	1.7~3.6V	2.1mA	<0.5uA	2.5*2*0.95mm	LGA8	I²C,SPI
HP303F	300~1200 Hpa	0.2Hpa	0.06Pa	-40~85℃	1.7~3.6V	2.1mA	<0.5uA	3.8*3.6*1.2mm	LGA8	I²C,SPI
HP303B	300~1200 Hpa	0.5 Hpa	0.06Pa	-40~85℃	1.7~3.6V	2.1mA	<0.5uA	3.8*3.6*1.2mm	LGA8	I²C,SPI
HP206C	300~1200 Hpa	1. 5 Hpa	1Pa	-40~85℃	1.8~3.6V	2.2mA	<0.1uA	6.8*6.2*3mm	DFN6	I²C
HP206F	300~1200 Hpa	2. 0 Hpa	1Pa	-40~85℃	1.8~3.6V	2.2mA	<0.1uA	6.8*6.2*3mm	DFN6	I²C
HP203B	300~1200 Hpa	1. 5 Hpa	1Pa	-40~85℃	1.8~3.6V	2.2mA	<0.1uA	3.8*3.6*1.2mm	DFN8	I²C
HP203N	300~1200 Hpa	2. 0 Hpa	1Pa	-40~85℃	1.8~3.6V	2.2mA	<0.1uA	3.8*3.6*1.2mm	DFN8	I²C
HP203W	1KPa ~200Kpa	1. 5 Hpa	0.05Pa	-40~85℃	1.8~5.5V	4.5mA	<0.1uA	3.8*3.6*1.2mm	DFN8	I²C
HP209-002G	2KPa~200Kpa	1%FSO	0.01%	-40~85℃	1.8~3.6V	2.2mA	<0.1uA	9*9*4.4mm	DFN6	I²C

Applications

- Measuring the absolute altitude and relative height
- Forecast 3-6 kinds of weather conditions of the next 6 hours
- Set high, slow descent, hover and return for aeromodelling toys
- Locate fast and accurately with fusion algorithms of GPS and pressure
- High pressure with more dissolved oxygen, to determine the depth of fishing spots & bait
- Test the pressure of coal gas, fue gas and warm gas pipelines

SENSOR
HOPERF

Pressure Sensor

P/N	Pressure Range	Relative Accuracy	Resolution Ratio	Temp Range (℃)	Working Voltage (V)	Woking Current (mA)	Sleep Current (uA)	Size (mm)	Package	Interface
 HP5804-20BA	30Kpa ~2000Kpa	2Kpa	0.01Kpa	-40~85℃	1.8~3.6V	2.2mA	<0.1uA	4.5*4.5*2.5mm	DFN6	I²C
 HP5804	300~ 1200Hpa	1.5pa	1pa	-40~85℃	1.8~3.6V	2.2mA	<0.1uA	4.5*4.5*2.5mm	DFN6	I²C
HP5834-20BA	30Kpa ~2000Kpa	2Kpa	0.01Kpa	-40~85℃	1.8~3.6V	2.2mA	<0.1uA	4.5*4.5*3.1mm	DFN6	I²C
HP5834	300~ 1200Hpa	1.5Hpa	1pa	-40~85℃	1.8~3.6V	2.2mA	<0.1uA	4.5*4.5*3.1mm	DFN6	I²C
 HP5806	300～1200 Hpa	0.2 Hpa	0.06Pa	-40~85℃	1.7~3.6V	0.05mA	<0.5uA	4.5*4.5*2.5mm	DFN6	I²C
WP10	0~2000Kpa	2Kpa	0.01Kpa	-40~85℃	1.8~3.6V	4.3mA	<0.5uA	H20.8*27.8 *G1/4mm	G1/4 金属螺纹	I²C

Humiture Sensor

P/N	Temp Range (℃)	Temp Resolution (℃)	Temp Range (℃)	Humidity Resolution	Working Voltage (V)	Sleep Current (uA)	Size (mm)	Interface
TH10	-40～+125℃	+/-0.1℃	0%～100%	+/-1.5%	2.4～5.5V	0.2μA	10.8*9.1*1.8mm	I²C
TH08	-40～+125℃	+/-0.3℃	0%～100%	+/-2%	1.9~3.6V	0.06μA	10.8*9.1*1.8mm	I²C
TH06	-40～+125℃	+/-0.5℃	0%～100%	+/-5%	1.9~3.6V	0.05μA	10.8*9.1*1.8mm	I²C
T06	-40～+125℃	+/-0.3℃	N/A	N/A	1.7～5.5V	0.05μA	SOT23-5	I²C

Customized Sensor

Custom Types	Measurement Range	Applications	Pic
Gauge Pressure Sensor	15kpa～3.5MPa	Tire Pressure Monitoring,Security, Air Conditioning, Industrial Control, Industrial Instrument , Etc.	
Differential Pressure Sensor	2kpa～3.5MPa	Flow, Level, Medical,Leak Detection, Etc.	

About HOPERF

SHEN ZHEN HOPE MICROELECTRONICS (hereinafter referred to as "HOPERF")was founded in 1998. It is a national level high tech company which focused on wireless radio frequency and sensor products. With a global operation comprising a vertically integrated factory, HOPERF has developed into the first intact industry chain group company in China which integrating ASIC chip design, MEMS sensor chip design, package test calibration technique and application services. The company has patented technology of NextGenRF ™ algorithm for analog and digital hybrid RF chips with independent intellectual property rights, as well as related IoT application solutions, etc. Until now, it has obtained 9 enterprise certifications, 31 invention patents, 31 utility model patents, 39 software copyrights, etc.

Products of HOPERF are covering from RF chips, RF modules, LoRaWan modules, transparent transmission modules to sensor products. The sensor products are including pressure sensors and temperature & humidity sensors. Also the new IoT related products such as WiFi modules, BLE modules, NB-IoT modules and 4G-LTE modules. The products cover the fields of information collection, information transmission and signal processing, and have a broad application space for expansion.

HOPERF has a mature R & D design team, including expert engineers in the field of digital / analog, packaging, testing and calibration, and has working experience in the international companies such as Germany, the United States, and Switzerland. The company also has a long-term cooperation with international chip leading companies, evolution of design technology routes and cultivation of independent research and development forces. HOPERF passed the ISO9001:2000 quality management system, with international certifications such as Pb-free & RoHS, SGS, REACH, ETSI, etc., strictly in accordance with international general standards for quality control, adhere to strengthen quality management, improve corporate efficiency; continue to strengthen customers Confidence, expand market share. We also introduced first-class packaging, testing production equipment, high-precision testing and measurement instruments from Germany, the United States and other places, and established a high-level dust-free workshop, which fully guaranteed the reliability and stability of product quality. At present, it has a modern production base of 30,000 square meters in Taihu Science and Technology Park in Wuxi, which will built a solid hardware foundation for the rapid expansion of production capacity in the future and occupy a higher level in the industry.

After more than 20 years of stable operation, HOPERF started from market application service offering to find customer needs for targeted development, provided technical research and development system services, to intelligent mass production, to master upstream independent intellectual property chip design, etc. It has deep accumulation and accumulation in the industry subdivisions, which has strongly promoted the process of chip localization. HOPERF's products have already applied in dozens countries and served for more than 1000 brand customers from world-wide. Our products were comprehensively applied in Outdoor Sport, Electronic Navigation, Industrial Measurement, Environmental Monitoring, Medical, Smart Health, Diving and Aircraft etc. The self-developed CMT series RF chips and high-precision sensors have successfully replaced corresponding internationally renowned products, effectively promoting the upgrade of China's integrated circuit products, technological innovation, and the pace of localization. In the future, HOPERF will, as always, insists on innovative R & D, scientific layout of product portfolio, dedicated to serving customers, and to promote the continuous development of the industry.

In June 2020, the Shenzhen headquarter was relocated to the VANKE Cloud City Innovation Base in Xili, Nanshan, which was an important milestone in the development of HOPERF. The brand new technological innovation environment has brought a broader perspective and offer more opportunities. HOPERF will take this relocation as an opportunity to further optimize management and build the underlying innovation capability of core products to win the trust and support of more customers with sincerity and professional ability.

President:

Certificates & Honors

and More>>

Applications of HOPERF products covering security, agriculture, transportation, environmental protection, fire protection, personal consumption, public utilities and so on.We are committed to providing a comprehensive solution for all trades with low power consumption, cost-effective, easy to expand, and easy to apply.

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