



### MRM-100

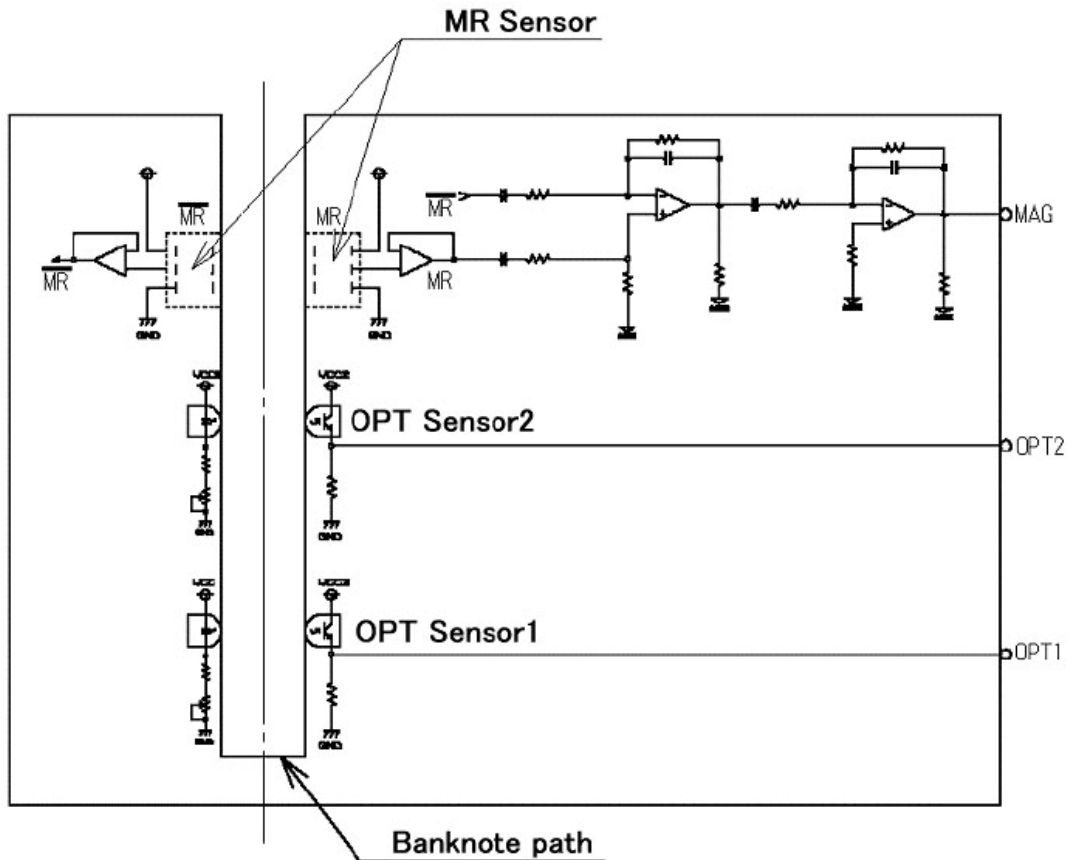
- 1. FEATURES : Validation module for banknote with magnetoresistive sensor and optical sensors
- 2. PURPOSE : Chinese banknote validation
- 3. PHISICAL DIMENSIONS : See the attached drawing

#### 4. TERMINAL CONNECTIONS

Connector 7Pins(pitch = 2.5mm)

Pin Assignment	Pin	Signal
	(7)	+Vcc
	(6)	+Vcc
	(5)	GND
	(4)	AGND (=Vcc/2)
	(3)	Output MAG (Magnetic Signal)
	(2)	Output OPT1 (Optical sensor 1)
	(1)	Output OPT2 (Optical sensor 2)

#### 5. SENSOR MODULE DIAGRAM





## 6. ELECTRICAL CHARACTERISTICS

## 6-1. Absolute Maximum Ratings

Max. Supply Voltage	6V
Operating Temperature	5~45°C

6-2. Standard Testing Voltage DC4. 0V±0. 05V (25°C±3°C)

6-3. Supply Current 20mA Max (at4. 0V)

## 6-4. Magnetoresistive Sensor Specifications

①Detection Width	9mm
②Output Voltage	650mVpeak at 50Hz 950mVpeak at 300Hz 650mVpeak at 700Hz

Input is flux occurred by the current condition of 59mArms of the specified jig.

③Noise at no input signal	180mVp-p
---------------------------	----------

## 6-5. Optical Sensor Specifications

① OPT1 Output Voltage	1. 0V±0. 1V (Shade) 3. 8V±0. 1V (OPEN)
② OPT2 Output Voltage	1. 0V±0. 1V (Shade) 3. 8V±0. 1V (OPEN)

Shade: Shaded with the specified sheets.

## 6-6. Recommended POWER SUPPLY Specifications

In case there is no capacitors on the power supply line to sensors, the references are as follows.

Noise Frequency	Power Supply Noise
~5KHz	250 μVp-p max.
5KHz~20KHz	1mVp-p max.
20KHz~	2. 5mVp-p max.

## 7. CAUTION USE

- Please use POWER SUPPLY with less noises.
- Water, chemical solvent, oil, or corrosive gas should be avoided.
- Airborne particles should be avoided.
- Strong vibration or shock should be avoided.
- Rapid ambient temperature change should be avoided.
- Do not place magnets or ferromagnetic materials near this module.

