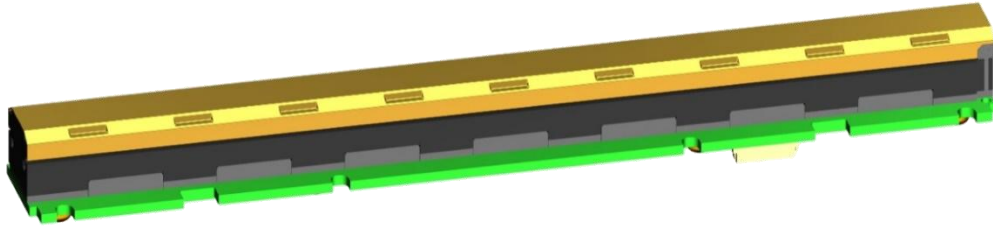


LTM-XM-056B-3.2-DS



1. Part Numbering

(Part Number)

LTM	XM	056B-3.2-DS	YYWWA000
①	②	③	④

- ① Product family ID
- ② Background Magnet
- ③ Characteristics (056 = channels; B = cover type; 3.2 = channel width in mm; DS = signal output type of the sensor, digital serial output)
- ④ Individual Specification Code

* "(Part Number)" shows only an example which might be different from actual part number.

* Any other definitions than "Product ID" might have different digit number from actual part number.

2. Features

- a) Magnetic mapping sensor based on TMR technology.
- b) High sensitivity and excellent gap characteristics.
- c) Output voltage is independent of scanning speed.
- d) Excellent CMRR performance due to differential design.
- e) Each Sensor has detection width of 179 mm, without non-detection area.
- f) LTJ-XM-CH056 has 56x channels and channel width of 3.2 mm.

3. Applications

- a) Bank note validator.
- b) Magnetic ink document reader.

4. Parameters

4.1. Absolute parameters

Item		Value	Unit
Max. Supply Voltage	$V_a \text{ max}$	-0.2 ~ 8.0	V
Supply Current	I_{DD}	0.5	A
Isolation Voltage	$V_{I \text{ max}}$	200	V
Working Temperature	T_{opg}	-10 ~ +65	°C
Storage Temperature	T_{stg}	-30 ~ +85	°C
Working Humanity	H_{RH}	10% ~ 90%	
ESD Level (HBM)		2	kV

4.2. Electrical specifications

All specifications typical at $T_A = -10^\circ\text{C}$ to 65°C , $V_{DD} = 5\text{V}$, unless otherwise specified.

Item		Min	Typ	Max	Unit
Supply Voltage	V_{DD}	4.5	5	7	
Work Voltage	V_{CC}		3.3		V
Digital input Voltage	V_{Do}		2.5		V
Sensitivity ^①	V_{P-P}		2		V
Noise	V_{nw}			50	mV
High-level input voltage	V_{IH}				V
Low-level input voltage	V_{IL}				V
High-level output voltage	V_{OH}				V
Low-level output voltage	V_{OL}				V

① The sensitivity can be calculated by using the testing method described below (Fig. 1).

4.3. Physical parameters

Item		Part Number	Min	Typ	Max	Unit
Detection Width	W_d	LTJ-XM-CH056		179		mm
Surface Field ^①	H	LTJ-XM-CH056		850		Gs
Channel width	W_c	LTJ-XM-CH056		3.2		mm

① The magnetic field on the surface of the sensor along the width direction.

5. Magnetic Sensor Dimensions

