



## Product Data Sheet

### NDIR CO2 SENSOR MODEL EOC-GDM-CO2-IRM300SS

#### • Description

IRM300SS is a general infrared CO2 sensor module formed using the NDIR infrared absorption detection principle.

#### • Performance Characteristics

Output Mode:	UART,PWM
No. of Channel:	Single
Dimension:	57 mm X 35 mm X 16 mm
Application:	HVAC, Air Quality

#### • Environmental

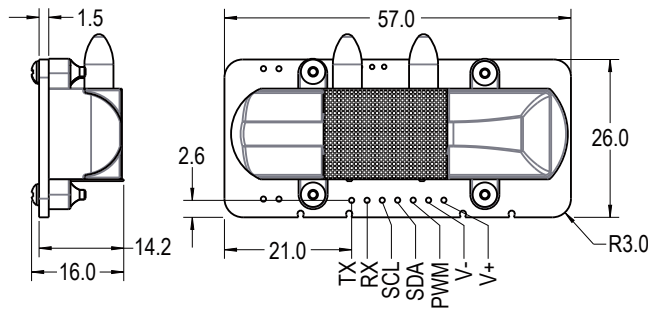
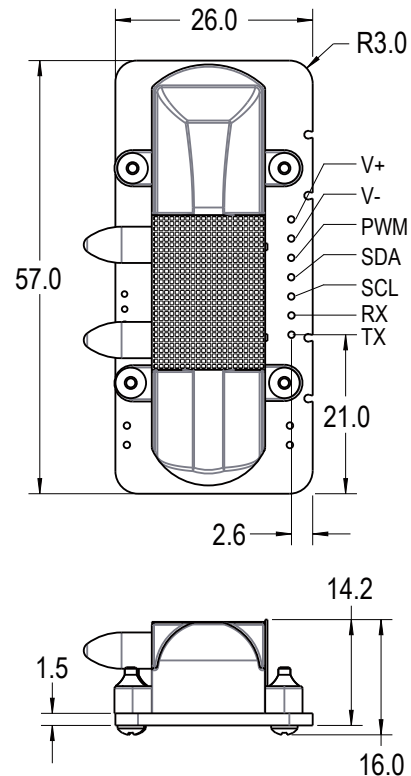
Storage Temperature:	-40°C ~ 70°C
Working Temperature:	0°C ~ 50°C
Working Humidity:	0% ~ 95%RH non-condensing

#### • Interface

Pin 1 - VCC	Pin 6 - RX(UART)
Pin 2 - GND	Pin 7 - TX(UART)
Pin 3 - PWM Output	Pin 8- GND

#### • Installation Instructions

#### • Product Dimensions



All dimensions in mm

All tolerances ± 0.20 mm unless otherwise stated

#### • Note

All the above performance parameters are measured in a standard test environment. Please contact us if you need more details.

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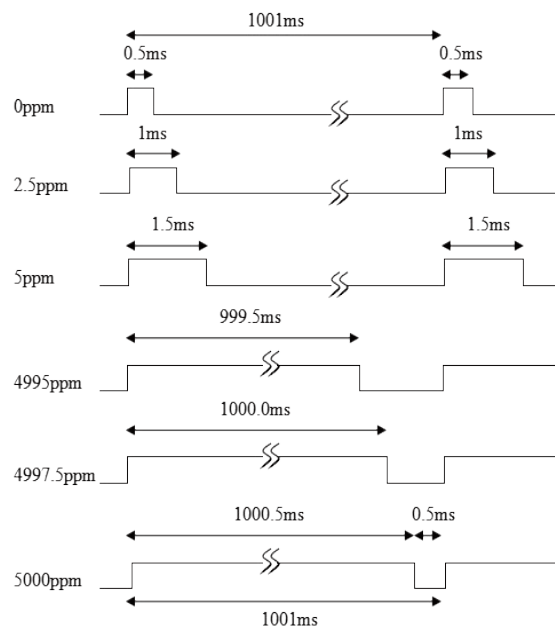
### • Technical Data

Description	Parameter	Unit
Detection Range	0~5000	ppm
Detection Accuracy	±50ppm±5% reading	/
Response Time T90	diffusing: 60	seconds
	pumping: 10	seconds
Preheat Time	T <sub>warm</sub> : 120	seconds
Working Voltage	5±0.5	V
Working Current	I <sub>avg</sub> : 75	mA

### • PWM Output

Cycle: 1001 ms±5%

$$C_{ppm} = 5000 \times (TH - 0.5ms) / (TH + TL - 1ms)$$



### • UART Protocol

Baud Rate: 19200 bps, 8 data bits, 1 stop bit, no check bit. The concentration readout and return data are in hexadecimal.

Concentration uploaded automatically in ASCII with the format:

32	32	x	x	x	x	x	32	p	p	m	\r	\n
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For example: output of 12345 ppm:

		1	2	3	4	5		p	p	m
0x20,	0x20,	0x31,	0x32,	0x33,	0x34,	0x35,	0x20,	0x70,	0x70,	0x6d,