

• Description

PCL0A 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:	33 mm x 12 mm x 10 mm
Application:	Fresh Air Fan, Air Detector

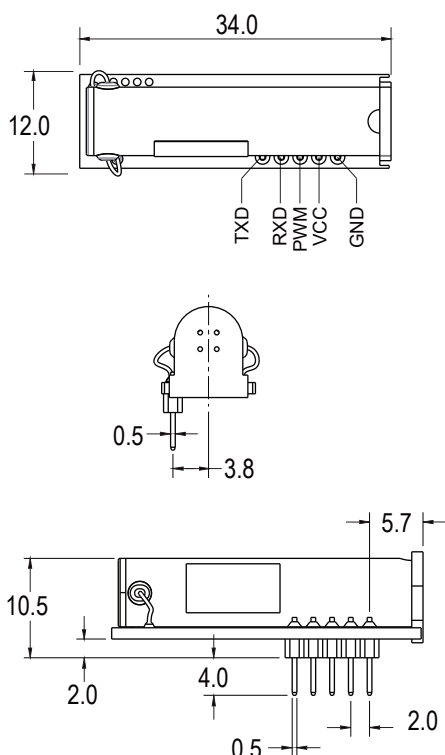
• Environmental

Storage Temperature:	-40°C ~ 70°C
Working Temperature:	-10°C ~ 60°C
Working Humidity:	0% ~ 95%RH non-condensing

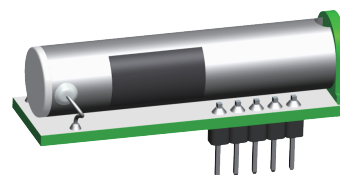
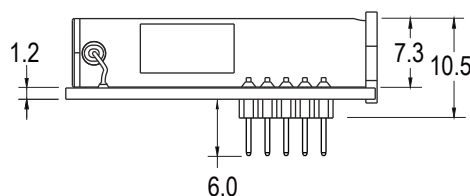
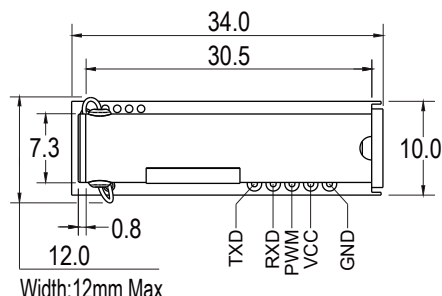
• Interface

Pin 1 - TTL TXD	Pin 4 - +5 VCC
Pin 2 - TTL RXD	Pin 5 - GND
Pin 3 - PWM Output	

• 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.

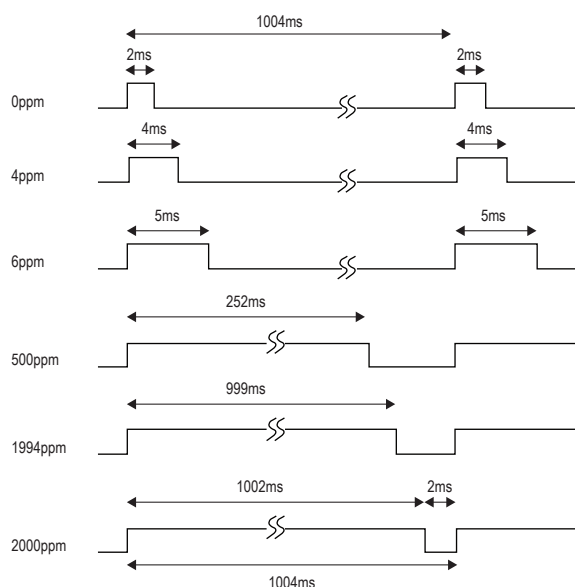
• Technical Data

Description	Parameter	Unit
Detection Range	0 ~ 5,000 (customizable)	ppm
Detection Accuracy	$\pm 50 \text{ ppm} \pm 5\% \text{ reading}$ (customizable)	/
Response Time (T90)	< 2	minutes
Warm-Up Time	Start to Work < 30	seconds
	Precision Reached < 5	minutes
Working Voltage	5 ± 0.5	V
Working Current	$I_{\text{avg}}: 75$	mA
	$I_{\text{peak}}: 140$	mA

• PWM Output

Cycle: 1,004ms $\pm 5\%$

The positive pulse width = (PPM concentration / 2) + 2ms



• UART Protocol

Baud Rate: 19,200 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 12,345 ppm:

		1	2	3	4	5		p	p	m	\r	\n
0x20,	0x20,	0x31,	0x32,	0x33,	0x34,	0x35,	0x20,	0x70,	0x70,	0x6d,	0x0d,	0x0a,