I^{2}C-It

Digital Infrared Ranging System *with* I^{2}C Protocol Support

Don't use up valuable I/O on your optical sensors! Many microcontrollers offer the robust I^{2}C network, so use the *I^{2}C-It* for your sensor network!

- GP2D12 Sensor (10~80cm / 4″ - 32″) range
- Connect up to 8 sensors in a single chain
- Request data in cm, inches, or raw analog (0-255)
- User-selectable device addressing
- Simple 4-wire I^{2}C interface
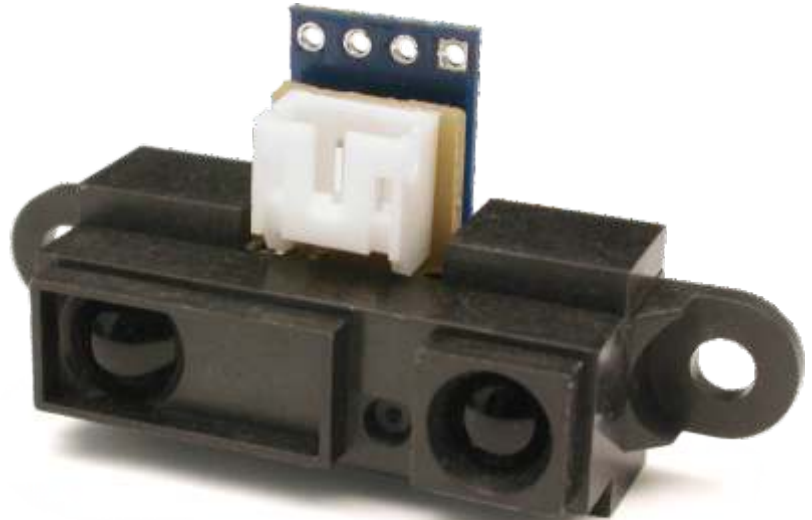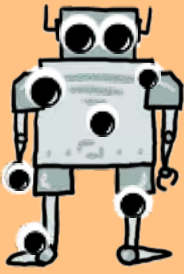
I^{2}C-It

Technical Data

Recommended Operating Conditions:

Parameter	Symbol	Rating	Unit
Operating Voltage	Vcc	4.5 to 5.5	V+
Operating Temperature	T$_{opr}$	-10 to +40	C
Maximum Cable Length	CL$_{max}$	35/14	cm/in
I2C Clock Frequency	SCL	100k	Hz
Bus pull-up Resistance	R$_{line}$	1.2k to 10k	ohms
Required Current	I$_{cc}$	35 to 55	mA

Jumper Addressing (1=solder jumper):

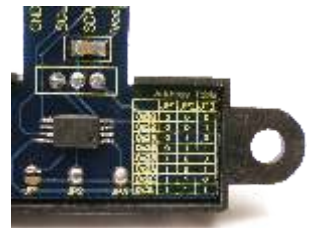| Device Address	JP1	JP2	JP3
0x20	0	0	0
0x22	0	0	1
0x24	0	1	0
0x26	0	1	1
0x28	1	0	0
0x2A	1	0	1
0x2C	1	1	0
0x2E	1	1	1

Device Pin-Out:
The square pad denotes "Pin 1"
Pin1 - Ground (signal ground)
Pin2 - SCL (I^{2}C clock line)
Pin3 - SDA (I^{2}C data line)
Pin 4 - Vcc (+4.5 to +5.5V)

We've put together some sample snippets of code showing how to interface the I^{2}C-It to Atmel, PIC, and PICAxe micros. Download them from our website!
www.HVWTech.com

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