Amphenol
Advanced Sensors

Product Data Sheet

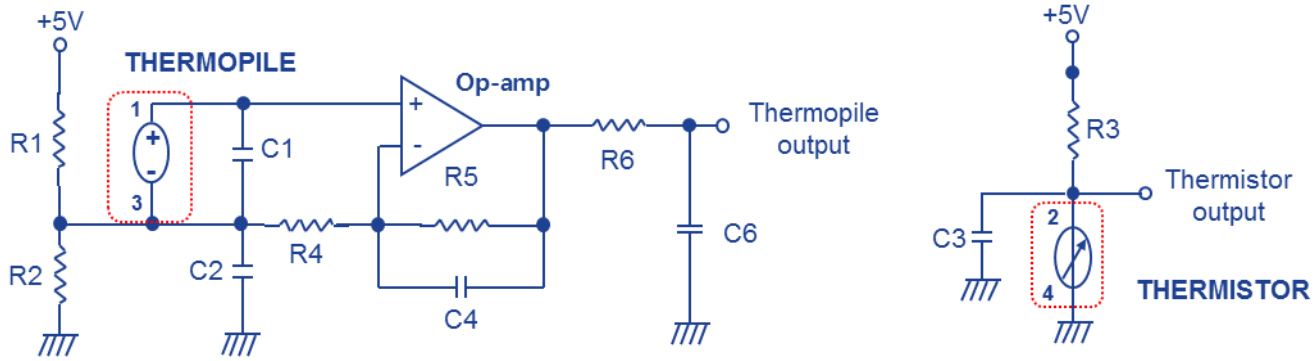
Part Name	IR sensor EVM board	Part No.	-	Rev.	0A

1. Product description

The single IR evaluation module consist of a single element thermopile in a TO-46 housing and signal conditioning circuit.

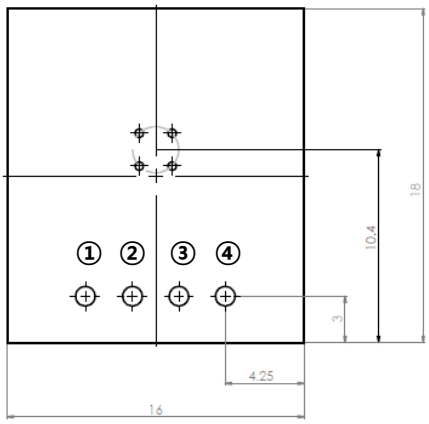
Module provide 2 different signal output. One is thermopile and other is thermistor for temperature compensation.

2. Evaluation board circuit information



Item No.	Value	Item No.	Value
R1	10Kohm	C1	100nF
R2	10Kohm	C2	10nF
R3	100Kohm	C3	100nF
R4	1Kohm	C4	100nF
R5	1Mohm	C6	100nF
R6	0.43Kohm		

3. Dimension and apply sensor information



No.	Function
1	GND
2	Thermopile output
3	Thermistor output
4	VCC(+5VDC)

Applied sensor
ZTP-135SR
ZTP-135SR-F1
ZTP-135BS
ZTP-148SR

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4. Thermistor output temperature

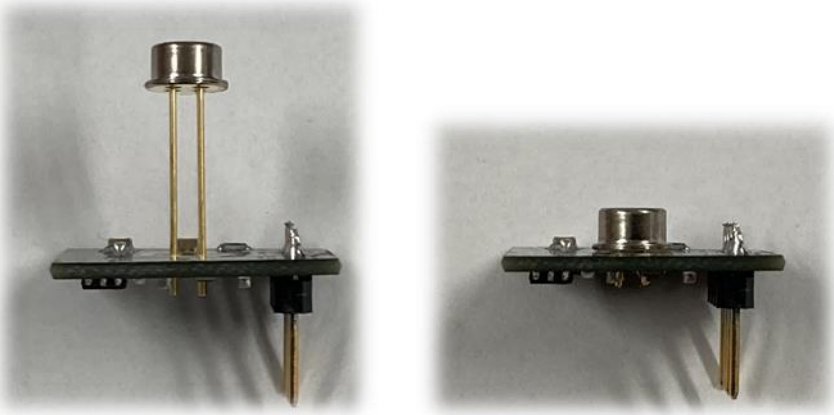
Temp (℃)	Typical (kohm)	Thermistor output(V)
-20.0	942.32	4.52
-19.0	890.46	4.50
-18.0	841.76	4.47
-17.0	795.99	4.44
-16.0	752.97	4.41
-15.0	712.52	4.38
-14.0	674.47	4.35
-13.0	638.66	4.32
-12.0	604.96	4.29
-11.0	573.22	4.26
-10.0	543.32	4.22
-9.0	515.15	4.19
-8.0	488.59	4.15
-7.0	463.55	4.11
-6.0	439.93	4.07
-5.0	417.64	4.03
-4.0	396.60	3.99
-3.0	376.74	3.95
-2.0	357.98	3.91
-1.0	340.25	3.86
0.0	323.50	3.82
1.0	307.66	3.77
2.0	292.68	3.73
3.0	278.51	3.68
4.0	265.10	3.63
5.0	252.41	3.58
6.0	240.40	3.53
7.0	229.01	3.48
8.0	218.23	3.43
9.0	208.01	3.38
10.0	198.32	3.32
11.0	189.14	3.27
12.0	180.42	3.22
13.0	172.16	3.16
14.0	164.31	3.11
15.0	156.86	3.05
16.0	149.79	3.00
17.0	143.08	2.94
18.0	136.69	2.89
19.0	130.63	2.83
20.0	124.87	2.78
21.0	119.38	2.72
22.0	114.17	2.67
23.0	109.21	2.61
24.0	104.49	2.55
25.0	100.00	2.50
26.0	95.72	2.45
27.0	91.65	2.39
28.0	87.77	2.34
29.0	84.08	2.28
30.0	80.55	2.23
31.0	77.20	2.18
32.0	74.00	2.13
33.0	70.94	2.07
34.0	68.03	2.02
35.0	65.25	1.97
36.0	62.60	1.92
37.0	60.07	1.88
38.0	57.66	1.83
39.0	55.35	1.78
40.0	53.14	1.74
41.0	51.04	1.69
42.0	49.03	1.64
43.0	47.10	1.60
44.0	45.26	1.56
45.0	43.50	1.52
46.0	41.82	1.47
47.0	40.21	1.43
48.0	38.67	1.39
49.0	37.20	1.36
50.0	35.79	1.32
51.0	34.44	1.28
52.0	33.14	1.24
53.0	31.91	1.21
54.0	30.72	1.18
55.0	29.58	1.14
56.0	28.49	1.11
57.0	27.45	1.08
58.0	26.450	1.05
59.0	25.485	1.02
60.0	24.564	0.99
61.0	23.680	0.96
62.0	22.832	0.93
63.0	22.018	0.90
64.0	21.236	0.88
65.0	20.486	0.85
66.0	19.766	0.83
67.0	19.074	0.80
68.0	18.410	0.78
69.0	17.771	0.75
70.0	17.158	0.73
71.0	16.568	0.71
72.0	16.002	0.69
73.0	15.457	0.67
74.0	14.933	0.65
75.0	14.429	0.63
76.0	13.944	0.61
77.0	13.478	0.59
78.0	13.029	0.58
79.0	12.598	0.56
80.0	12.182	0.54
81.0	11.782	0.53
82.0	11.397	0.51
83.0	11.026	0.50
84.0	10.668	0.48
85.0	10.324	0.47
86.0	9.992	0.45
87.0	9.673	0.44
88.0	9.364	0.43
89.0	9.067	0.42
90.0	8.781	0.40
91.0	8.505	0.39
92.0	8.239	0.38
93.0	7.982	0.37
94.0	7.734	0.36
95.0	7.495	0.35
96.0	7.265	0.34
97.0	7.042	0.33
98.0	6.827	0.32
99.0	6.620	0.31
100.0	6.420	0.30

5. IR sensor assembly instruction

A. Check key direction and insert IR sensor

B. Adjust sensor install condition

- Sensor lead length is 13.5mm so can adjust height for application condition



C. Soldering

- 4 point soldering