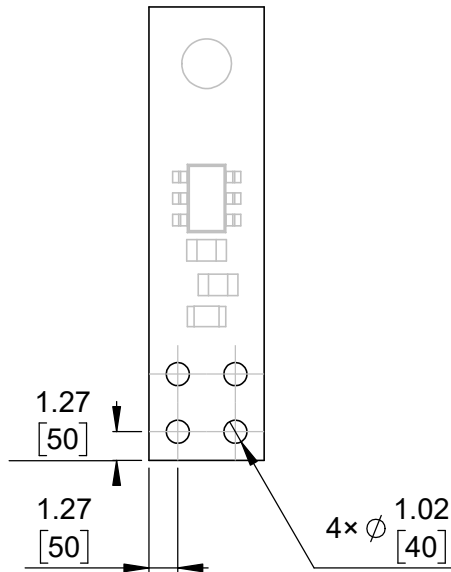


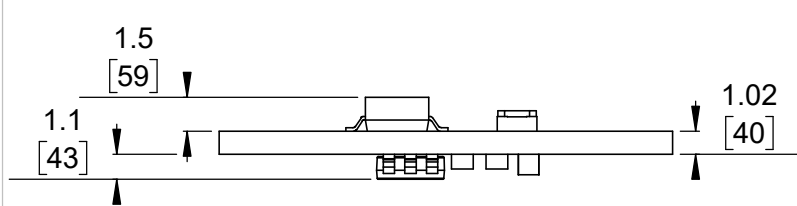
① Board dimensions (top view)
Scale 3:1



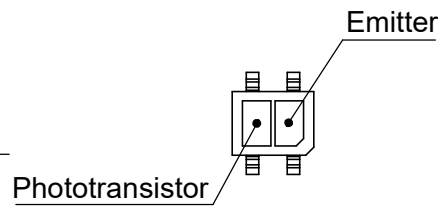
② Connector callouts (bottom view)
Scale 3:1



③ Isometric view
Scale 3:1



④ Profile
Scale 3:1




⑤ QTR sensor
Scale 3:1

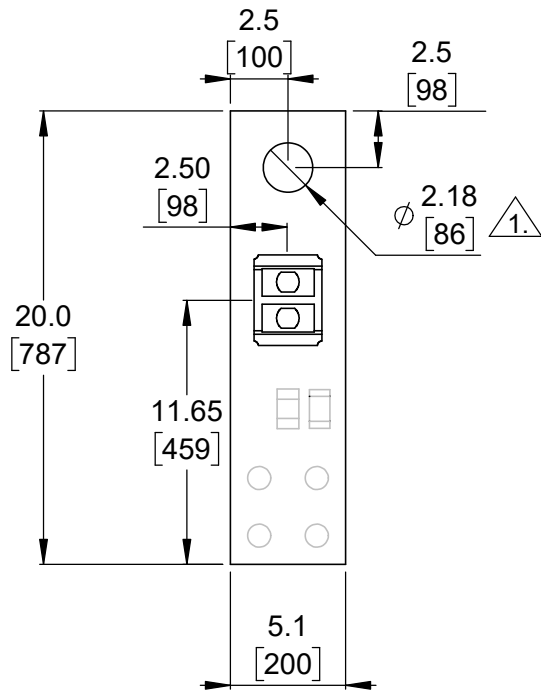


⑥ Actual size
Scale 1:1

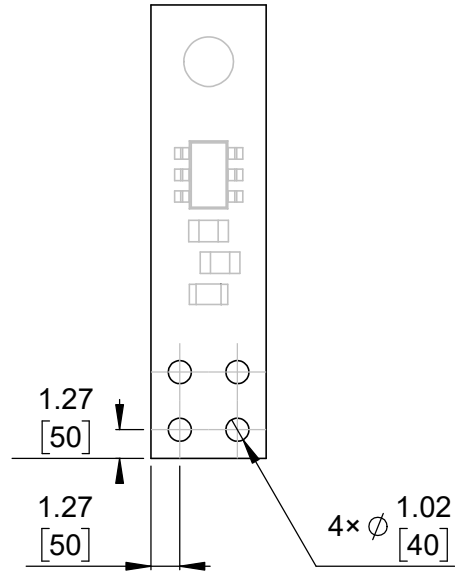
1. Intended for #2 and M2 screws.
2. Grid lines indicate 2.54 mm [100 mil] spacing.
3. To get the specified scale, select 100% in print settings.
4. Drill location tolerance: ± 0.1 [± 5].
5. Board edge tolerance: ± 0.3 [± 10].

<https://www.pololu.com/category/123>

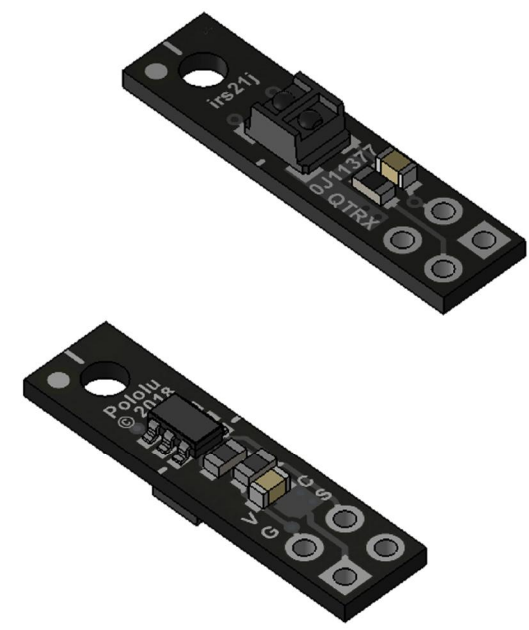
Name: QTR-HD-01x Reflectance Sensor		Item number: 4101, 4201
Drawing date: 21 September 2018	Dev code: irs21a	 Pololu Robotics & Electronics © 2018 Pololu Corporation
Units: mm [mil]	Material: mixed	



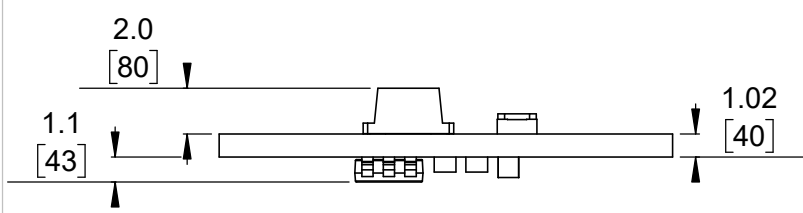
① Board dimensions (top view)
Scale 3:1



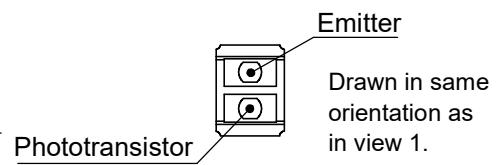
② Connector callouts (bottom view)
Scale 3:1



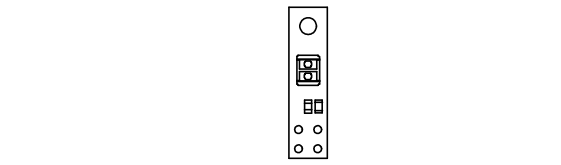
③ Isometric view
Scale 3:1



④ Profile
Scale 3:1




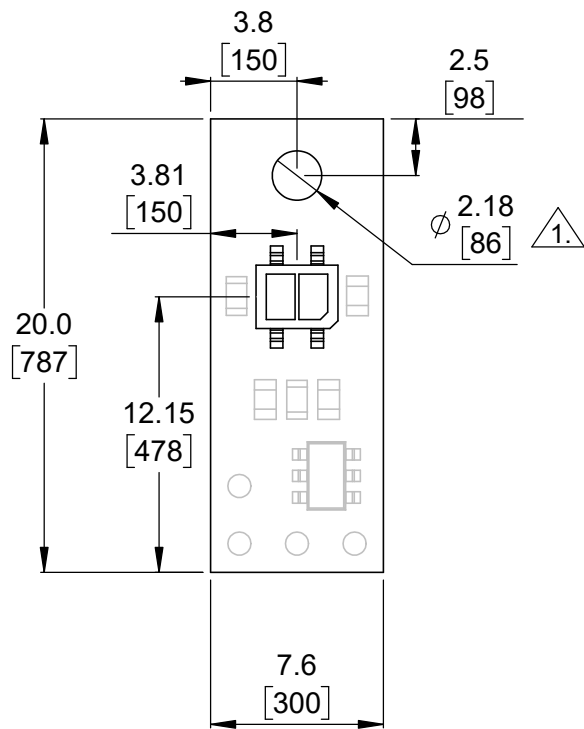
⑤ QTRX/QTRXL sensor
Scale 3:1



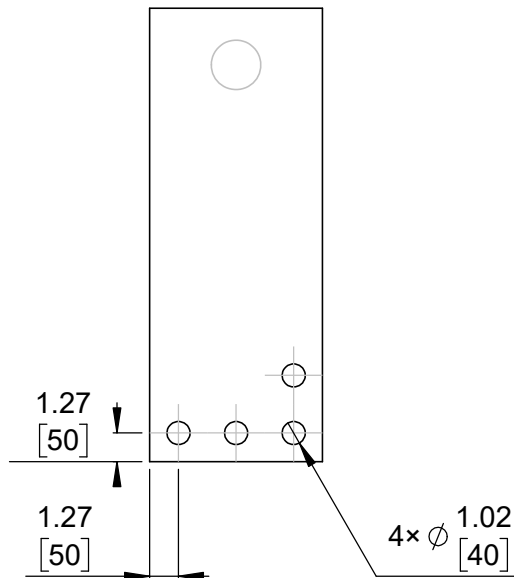
⑥ Actual size
Scale 1:1

- 1. Intended for #2 and M2 screws.
- 2. Grid lines indicate 2.54 mm [100 mil] spacing.
- 3. To get the specified scale, select 100% in print settings.
- 4. Drill location tolerance: ± 0.1 [± 5].
- 5. Board edge tolerance: ± 0.3 [± 10].

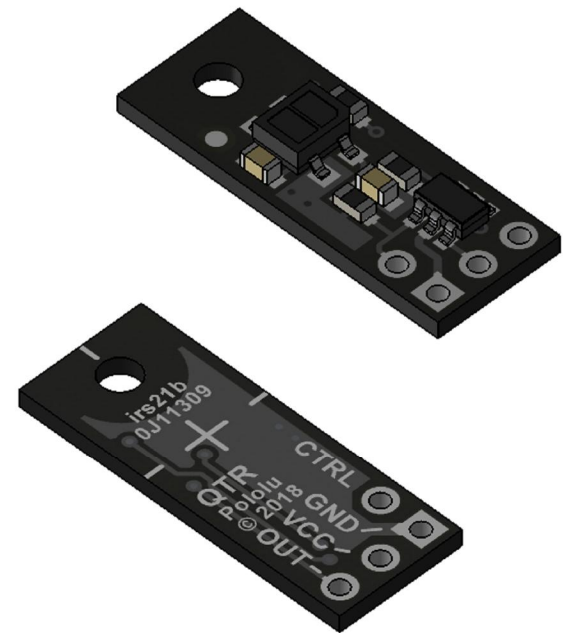
https://www.pololu.com/category/123	
Name: QTRX/QTRXL-HD-01x Reflectance Sensor	Item number: 4301, 4401, 4501, 4601
Drawing date: 21 September 2018	Dev code: irs21j
Units: mm [mil]	Material: mixed
 Pololu Robotics & Electronics © 2018 Pololu Corporation	



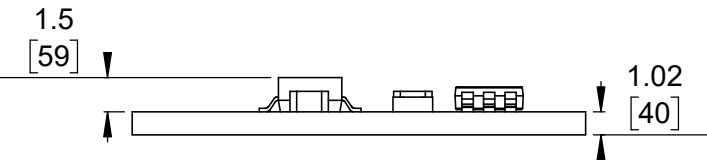
① Board dimensions (top view)
Scale 3:1



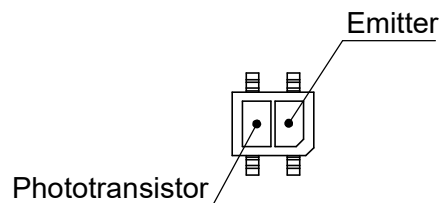
② Connector callouts (bottom view)
Scale 3:1



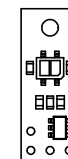
③ Isometric view
Scale 3:1



④ Profile
Scale 3:1




⑤ QTR sensor
Scale 3:1

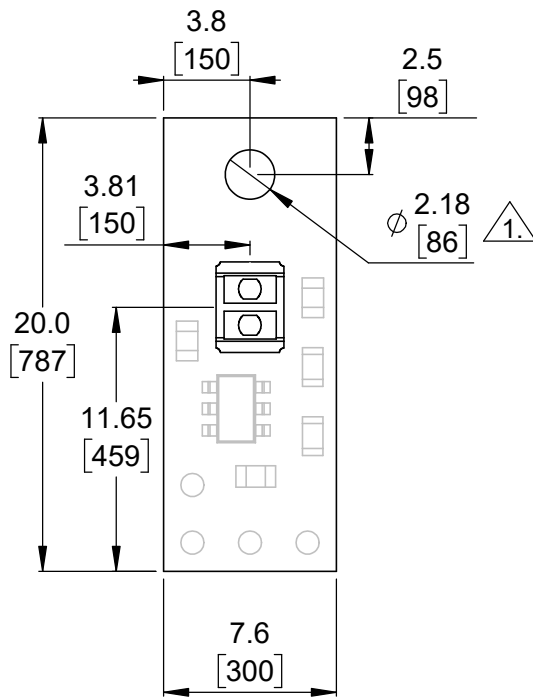


⑥ Actual size
Scale 1:1

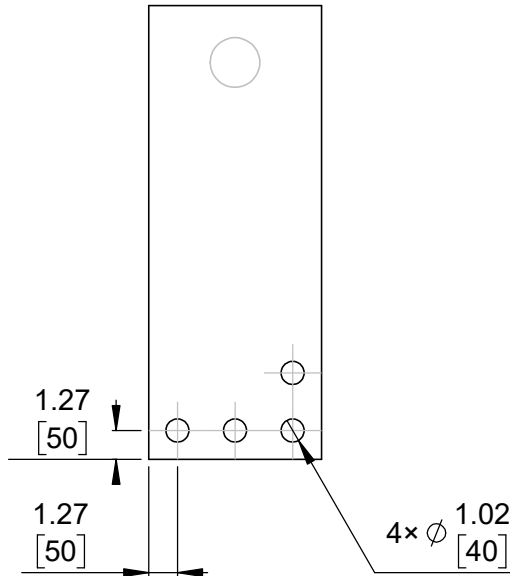
1. Intended for #2 and M2 screws.
2. Grid lines indicate 2.54 mm [100 mil] spacing.
3. To get the specified scale, select 100% in print settings.
4. Drill location tolerance: ± 0.1 [± 5].
5. Board edge tolerance: ± 0.3 [± 10].

<https://www.pololu.com/category/123>

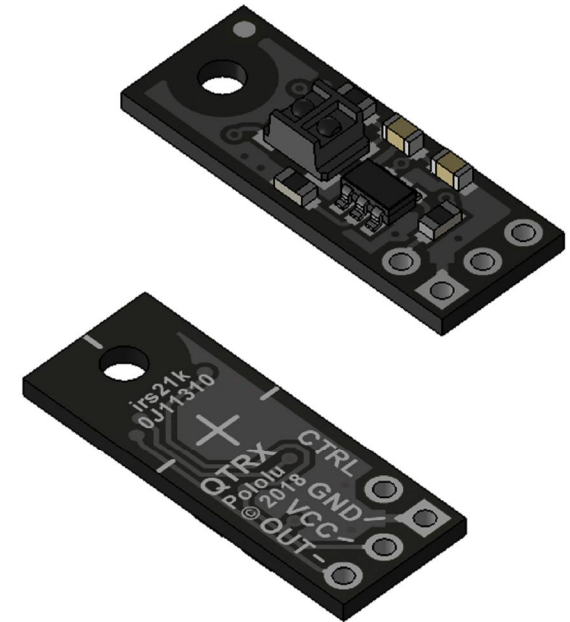
Name: QTR-MD-01x Reflectance Sensor		Item number: 4141, 4241	
Drawing date: 21 September 2018	Dev code: irs21b	 © 2018 Pololu Corporation	
Units: mm [mil]	Material: mixed		



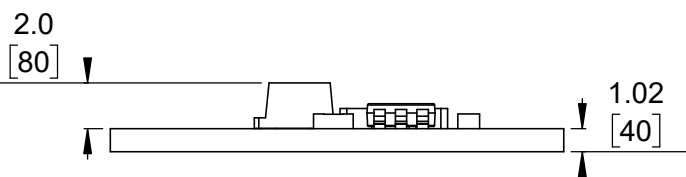
① Board dimensions (top view)
Scale 3:1



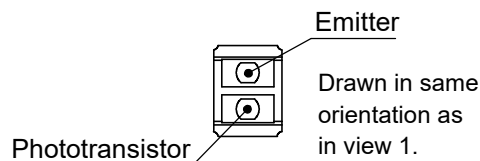
② Connector callouts (bottom view)
Scale 3:1



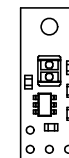
③ Isometric view
Scale 3:1



④ Profile
Scale 3:1




⑤ QTRX/QTRXL sensor
Scale 3:1

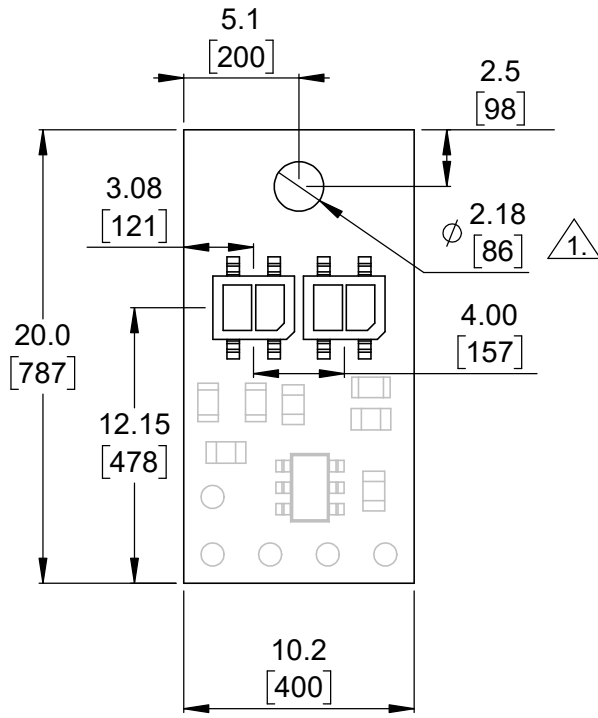


⑥ Actual size
Scale 1:1

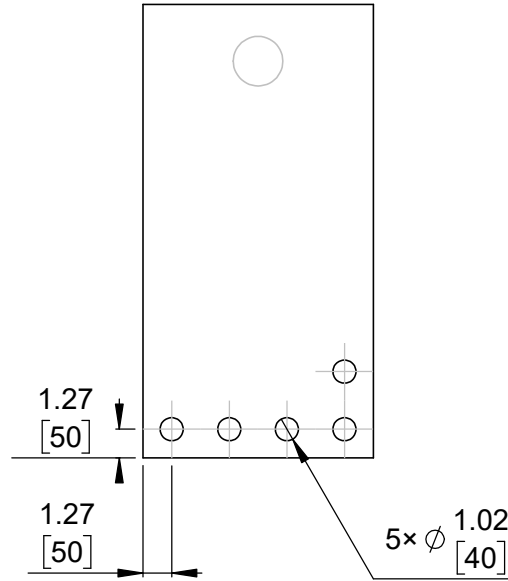
- 1. Intended for #2 and M2 screws.
- 2. Grid lines indicate 2.54 mm [100 mil] spacing.
- 3. To get the specified scale, select 100% in print settings.
- 4. Drill location tolerance: ± 0.1 [± 5].
- 5. Board edge tolerance: ± 0.3 [± 10].

<https://www.pololu.com/category/123>

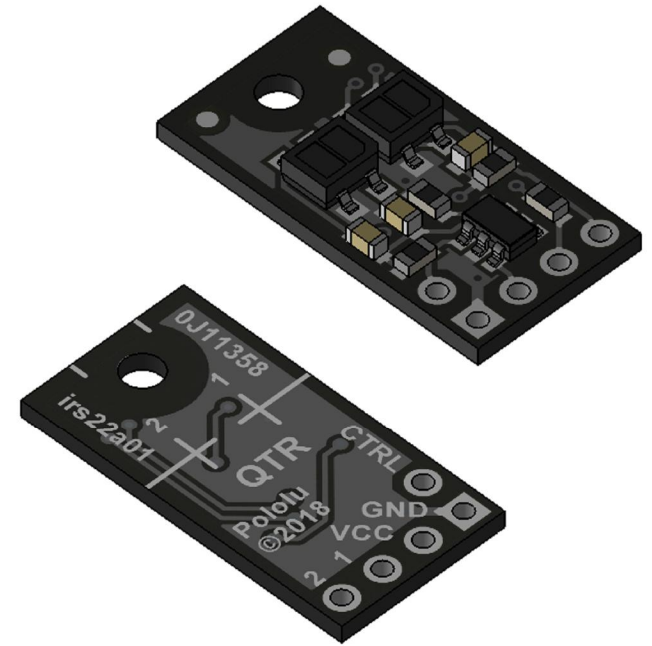
Name: QTRX/QTRXL-MD-01x Reflectance Sensor		Item number: 4341, 4441, 4541, 4641
Drawing date: 21 September 2018	Dev code: irs21k	 © 2018 Pololu Corporation
Units: mm [mil]	Material: mixed	



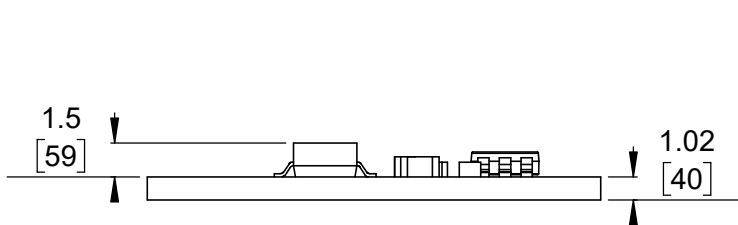
① Board dimensions (top view)
Scale 3:1



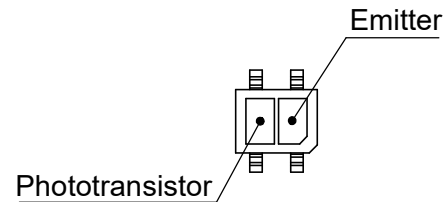
② Connector callouts (bottom view)
Scale 3:1



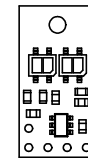
③ Isometric view
Scale 3:1



④ Profile
Scale 3:1




⑤ QTR sensor
Scale 3:1

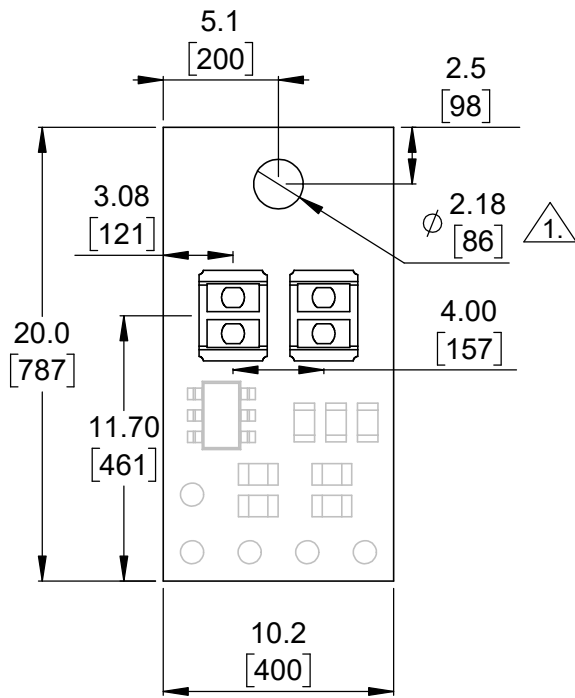


⑥ Actual size
Scale 1:1

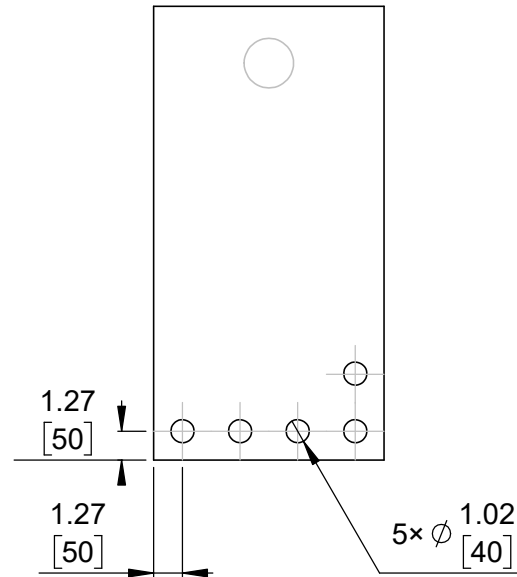
- 1. Intended for #2 and M2 screws.
- 2. Grid lines indicate 2.54 mm [100 mil] spacing.
- 3. To get the specified scale, select 100% in print settings.
- 4. Drill location tolerance: ± 0.1 [± 5].
- 5. Board edge tolerance: ± 0.3 [± 10].

<https://www.pololu.com/category/123>

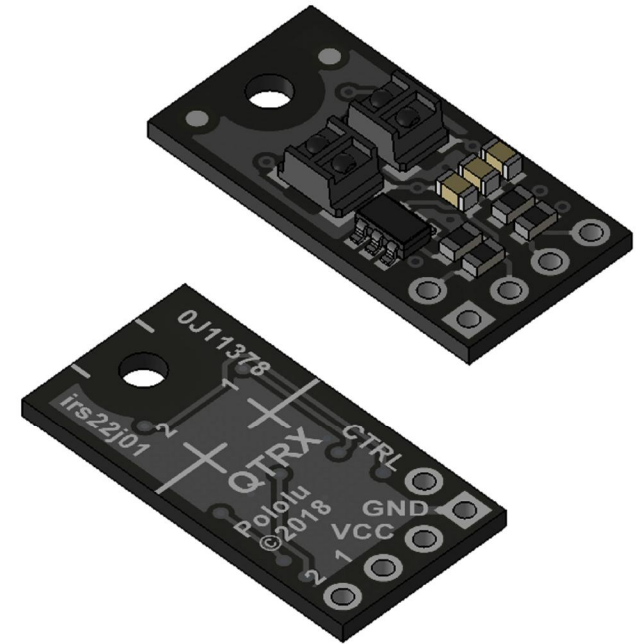
Name: QTR-HD-02x Reflectance Sensor Array		Item number: 4102, 4202
Drawing date: 21 September 2018	Dev code: irs22a	 Pololu Robotics & Electronics © 2018 Pololu Corporation
Units: mm [mil]	Material: mixed	



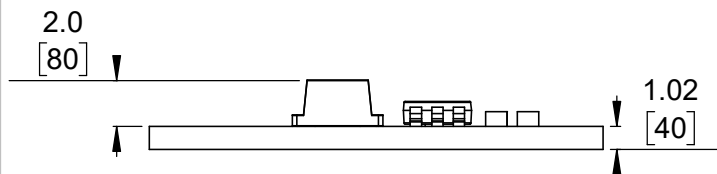
1 Board dimensions (top view)
Scale 3:1



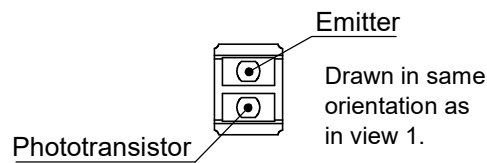
2 Connector callouts (bottom view)
Scale 3:1



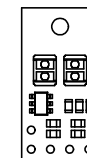
3 Isometric view
Scale 3:1



4 Profile
Scale 3:1




5 QTRX/QTRXL sensor
Scale 3:1

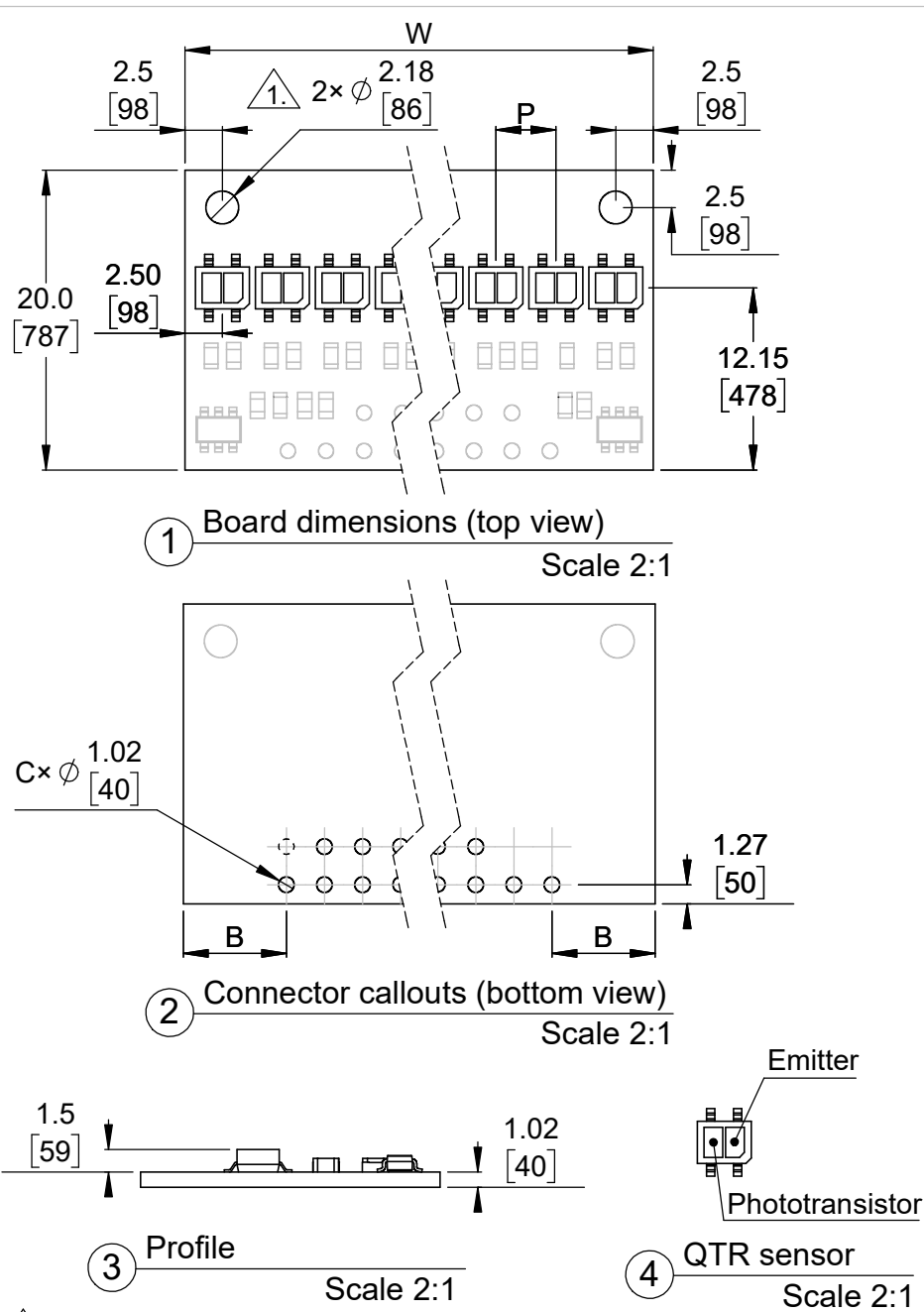


6 Actual size
Scale 1:1

1. Intended for #2 and M2 screws.
2. Grid lines indicate 2.54 mm [100 mil] spacing.
3. To get the specified scale, select 100% in print settings.
4. Drill location tolerance: ± 0.1 [± 5].
5. Board edge tolerance: ± 0.3 [± 10].

<https://www.pololu.com/category/123>

Name: QTRX/QTRXL-HD-02x Reflectance Sensor Array		Item number: 4302, 4402, 4502, 4602
Drawing date: 21 September 2018	Dev code: irs22j	 Pololu Robotics & Electronics © 2018 Pololu Corporation
Units: mm [mil]	Material: mixed	




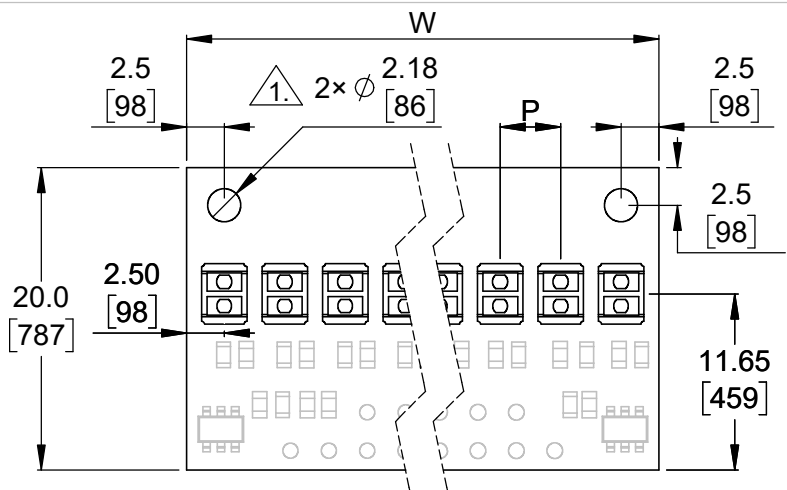
1. Intended for #2 and M2 screws.
2. Grid lines indicate 2.54 mm [100 mil] spacing.
3. To get the specified scale, select 100% in print settings.
4. Drill location tolerance: ± 0.1 [± 5].
5. Board edge tolerance: ± 0.3 [± 10].

Item numbers*	W (width)	P (pitch)	N (number of sensors)	B	C (hole count)
4103, 4203	13.0 [512]	4.00 [157]	3	1.42 [56]	7
4142, 4242		8.00 [315]	2		
4104, 4204	17.0 [669]	4.00 [157]	4	3.42 [135]	8
4105, 4205	21.0 [827]	4.00 [157]	5	4.15 [163]	9
4143, 4243		8.00 [315]	3		
4106, 4206	25.0 [984]	4.00 [157]	6	6.15 [242]	10
4107, 4207	29.0 [1142]	4.00 [157]	7	6.88 [271]	11
4144, 4244		8.00 [315]	4		
4108, 4208	33.0 [1299]	4.00 [157]	8	8.88 [350]	12
4109, 4209	37.0 [1457]	4.00 [157]	9	9.61 [378]	13
4145, 4245		8.00 [315]	5		
4111, 4211	45.0 [1772]	4.00 [157]	11	12.34 [486]	15
4146, 4246		8.00 [315]	6		
4113, 4213	53.0 [2087]	4.00 [157]	13	15.07 [593]	17
4147, 4247		8.00 [315]	7		
4115, 4215	61.0 [2402]	4.00 [157]	15	17.80 [701]	19
4108, 4208		8.00 [315]	8		
4117, 4217	69.0 [2717]	4.00 [157]	17	20.53 [808]	21
4109, 4209		8.00 [315]	9		
4119, 4219	77.0 [3031]	4.00 [157]	19	23.26 [916]	23
4110, 4210		8.00 [315]	10		

*Some items available by special order only.

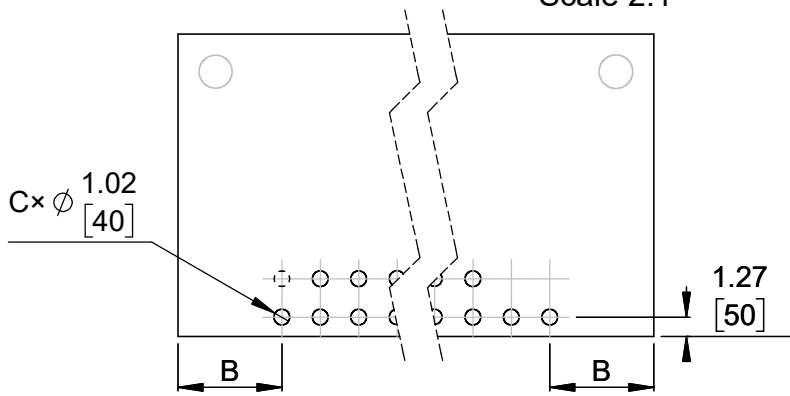
<https://www.pololu.com/category/123>

Name: QTR Reflectance Sensor Array		Item number: see table
Drawing date: 21 September 2018	Dev code: irs23a-irs39a	 © 2018 Pololu Corporation
Units: mm [mil]	Material: mixed	



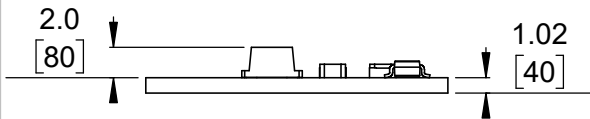
1 Board dimensions (top view)

Scale 2:1



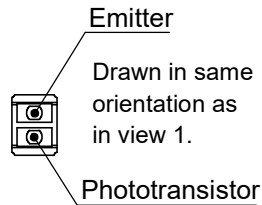
2 Connector callouts (bottom view)

Scale 2:1



3 Profile

Scale 2:1



4 QTRX/QTRXL sensor

Scale 2:1




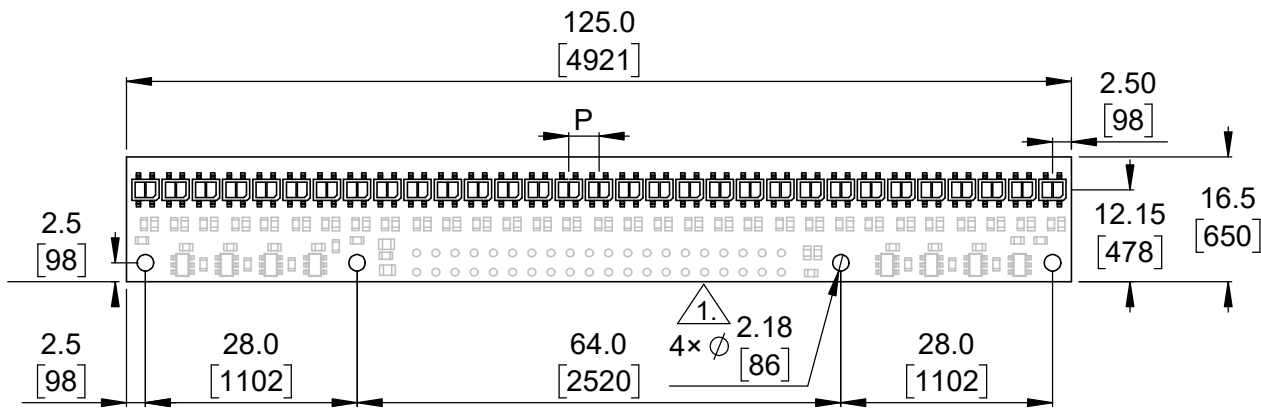
1. Intended for #2 and M2 screws.
2. Grid lines indicate 2.54 mm [100 mil] spacing.
3. To get the specified scale, select 100% in print settings.
4. Drill location tolerance: ± 0.1 [± 5].
5. Board edge tolerance: ± 0.3 [± 10].

Item numbers*	W (width)	P (pitch)	N (number of sensors)	B	C (hole count)
4303, 4403, 4503, 4603	13.0 [512]	4.00 [157]	3	1.42 [56]	7
4342, 4442, 4542, 4642		8.00 [315]	2		
4304, 4404, 4504, 4604	17.0 [669]	4.00 [157]	4	3.42 [135]	8
4305, 4405, 4505, 4605	21.0 [827]	4.00 [157]	5	4.15 [163]	9
		8.00 [315]	3		
4306, 4406, 4506, 4606	25.0 [984]	4.00 [157]	6	6.15 [242]	10
4307, 4407, 4507, 4607	29.0 [1142]	4.00 [157]	7	6.88 [271]	11
		8.00 [315]	4		
4308, 4408, 4508, 4608	33.0 [1299]	4.00 [157]	8	8.88 [350]	12
4309, 4409, 4509, 4609	37.0 [1457]	4.00 [157]	9	9.61 [378]	13
		8.00 [315]	5		
4311, 4411, 4511, 4611	45.0 [1772]	4.00 [157]	11	12.34 [486]	15
		8.00 [315]	6		
4313, 4413, 4513, 4613	53.0 [2087]	4.00 [157]	13	15.07 [593]	17
		8.00 [315]	7		
4315, 4415, 4515, 4615	61.0 [2402]	4.00 [157]	15	17.80 [701]	19
		8.00 [315]	8		
4317, 4417, 4517, 4617	69.0 [2717]	4.00 [157]	17	20.53 [808]	21
		8.00 [315]	9		
4319, 4419, 4519, 4619	77.0 [3031]	4.00 [157]	19	23.26 [916]	23
		8.00 [315]	10		

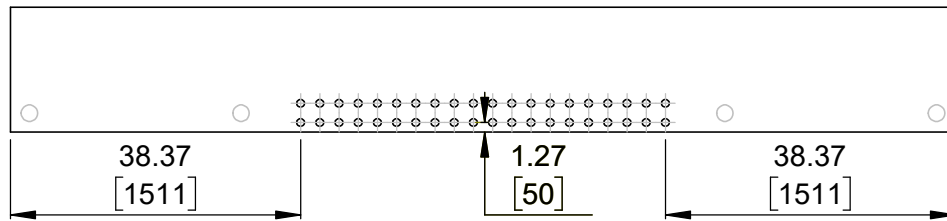
*Some items available by special order only.

<https://www.pololu.com/category/123>

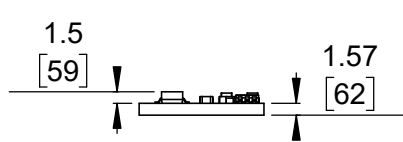
Name: QTRX/QTRXL Reflectance Sensor Array		Item number: see table
Drawing date: 21 September 2018	Dev code: irs23j-irs39j	 © 2018 Pololu Corporation
Units: mm [mil]	Material: mixed	



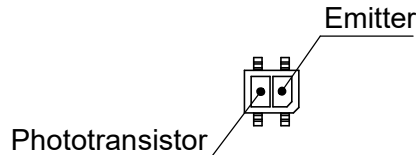
1 Board dimensions (top view)
 Scale 1:1



2 Connector callouts (bottom view)
 Scale 1:1



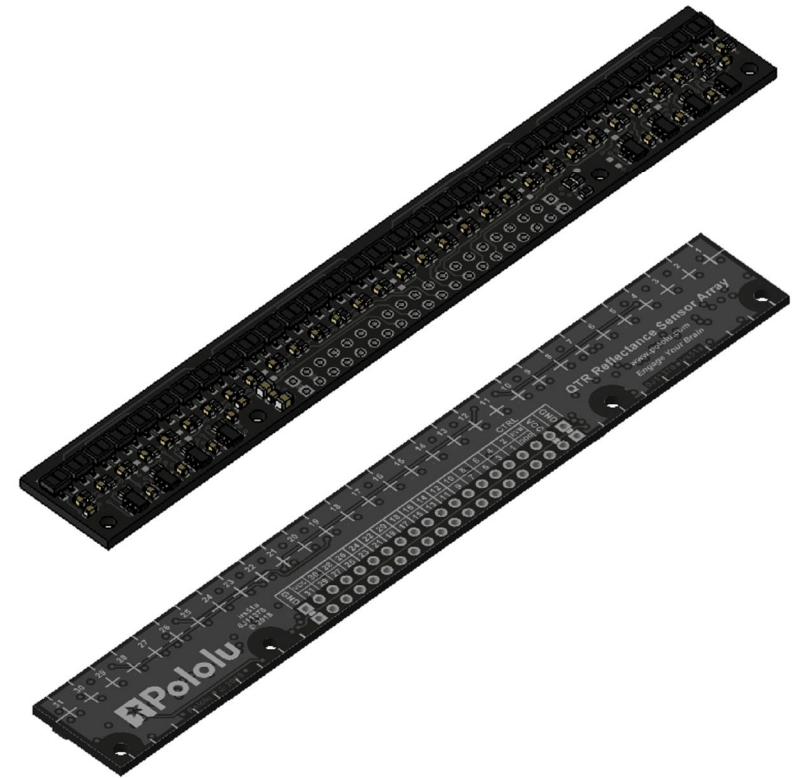
3 Profile
 Scale 1:1



4 QTR sensor
 Scale 2:1

Item numbers*	P (pitch)	N (number of sensors)
4131, 4231	4.00 [157]	31
4156, 4256	8.00 [315]	16

*Some items available by special order only.

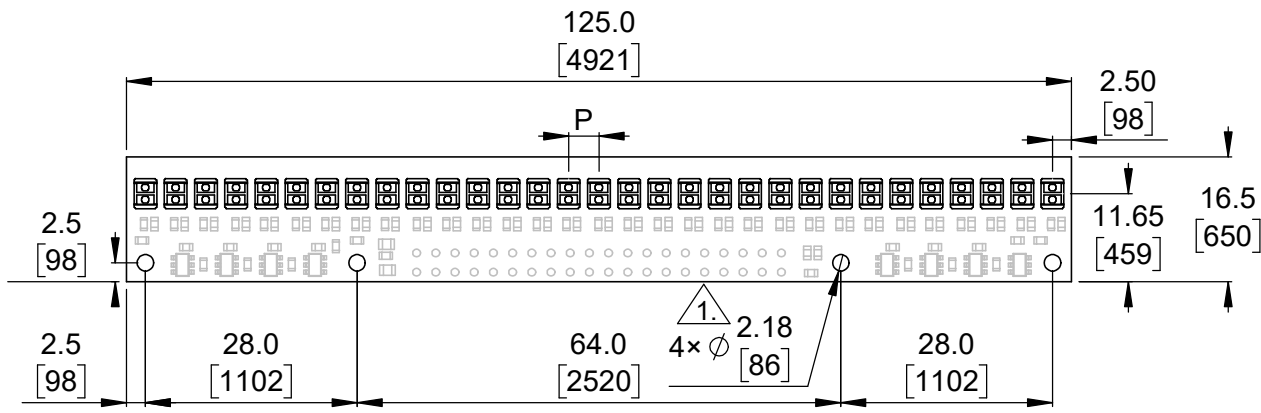


5 Isometric view
 Scale 1:1

- 1. Intended for #2 and M2 screws.
- 2. Grid lines indicate 2.54 mm [100 mil] spacing.
- 3. To get the specified scale, select 100% in print settings.
- 4. Drill location tolerance: ±0.1 [±5].
- 5. Board edge tolerance: ±0.3 [±10].

<https://www.pololu.com/category/123>

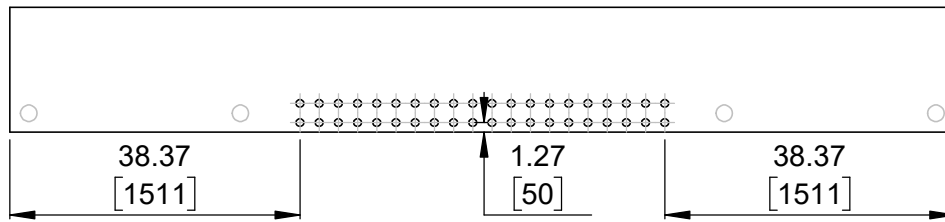
Name: QTR Reflectance Sensor Array		Item number: see table
Drawing date: 21 September 2018	Dev code: irs51a	 © 2018 Pololu Corporation
Units: mm [mil]	Material: mixed	



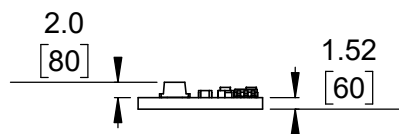
Item numbers*	P (pitch)	N (number of sensors)
4331, 4431, 4531, 4631	4.00 [157]	31
4356, 4456, 4556, 4656	8.00 [315]	16

*Some items available by special order only.

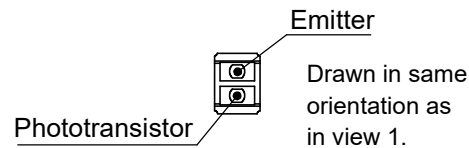
1 Board dimensions (top view)
 Scale 1:1



2 Connector callouts (bottom view)
 Scale 1:1



3 Profile
 Scale 1:1



4 QTRX/QTRXL sensor
 Scale 2:1



5 Isometric view
 Scale 1:1

1. Intended for #2 and M2 screws.
2. Grid lines indicate 2.54 mm [100 mil] spacing.
3. To get the specified scale, select 100% in print settings.
4. Drill location tolerance: ± 0.1 [± 5].
5. Board edge tolerance: ± 0.3 [± 10].

<https://www.pololu.com/category/123>

Name: QTRX/QTRXL Reflectance Sensor Array		Item number: see table
Drawing date: 21 September 2018	Dev code: irs51j	 © 2018 Pololu Corporation
Units: mm [mil]	Material: mixed	