



## HYBRID EYESAFE LASER RANGEFINDER RECEIVER

- HIGH SENSITIVITY – 33nW
- HERMETIC LOW PROFILE TO-8 PACKAGE, 0.1 CU. IN.
- FAST RECOVERY – LOW MINIMUM RANGE
- InGaAs PIN DETECTOR
- SINGLE +5V SUPPLY AT 25mA
- SECOND GENERATION PROVEN PERFORMANCE



### DESCRIPTION:

The **Model 759A** is a next generation hybrid eyesafe laser rangefinder receiver. The compact construction (modified TO-8 header) and PCB mounting capability make the **Model 759A** ideal for miniature applications. Fast recovery from overload allows ranging to near objects and to multiple closely-spaced targets. The high sensitivity provides excellent long-range performance with small apertures. Total power consumption of 125mW allows operation from batteries.

### SPECIFICATIONS:

<b>Detector</b>	1.54 $\mu$ m, InGaAs PIN, 300 $\mu$ m +60/-30 $\mu$ m $\varnothing$	<b>Outputs</b>	TTL or HCT CMOS compatible, negative logic. Start/Stop on common line. $\geq$ 18ns pulses. Maximum source/sink current 2mA.
<b>Sensitivity</b>	33nW typical, 45nW maximum at 1.54 $\mu$ m, 20ns pulse, 50% detection, 0.1% FAR, 25°C, degrades with narrower pulses and higher temperatures.	<b>Alignment</b>	Analog test point for alignment
<b>T<sub>o</sub> Pulse Optical</b>	>5 $\mu$ W	<b>Power</b>	+5 $\pm$ 0.25VDC at 25mA typical
<b>Time Programmed Gain (TPG)</b>	1/R <sup>2</sup> law operates from minimum range of ~20m to 1km with separate Tx/Rx optics. Minimum range of 30m with 50mW T <sub>o</sub> pulse. Open circuit on Pin 11 holds high gain. 0V or GND on Pin 11 holds low gain (-24dB voltage typical).	<b>Temperature</b>	Operating -40° to +85°C Storage -55° to +85°C
<b>Adjustments</b>	Trigger level is adjustable to optimize pulse detection characteristics.	<b>Connections</b>	PCB mount pins For optional test PCB (Add -PCB to part number.)
		<b>Size</b>	0.616" $\varnothing$ x 0.415" <sub>max</sub>
		<b>Weight</b>	0.145 oz (4.1 grams) typical

Specifications subject to change without notice.



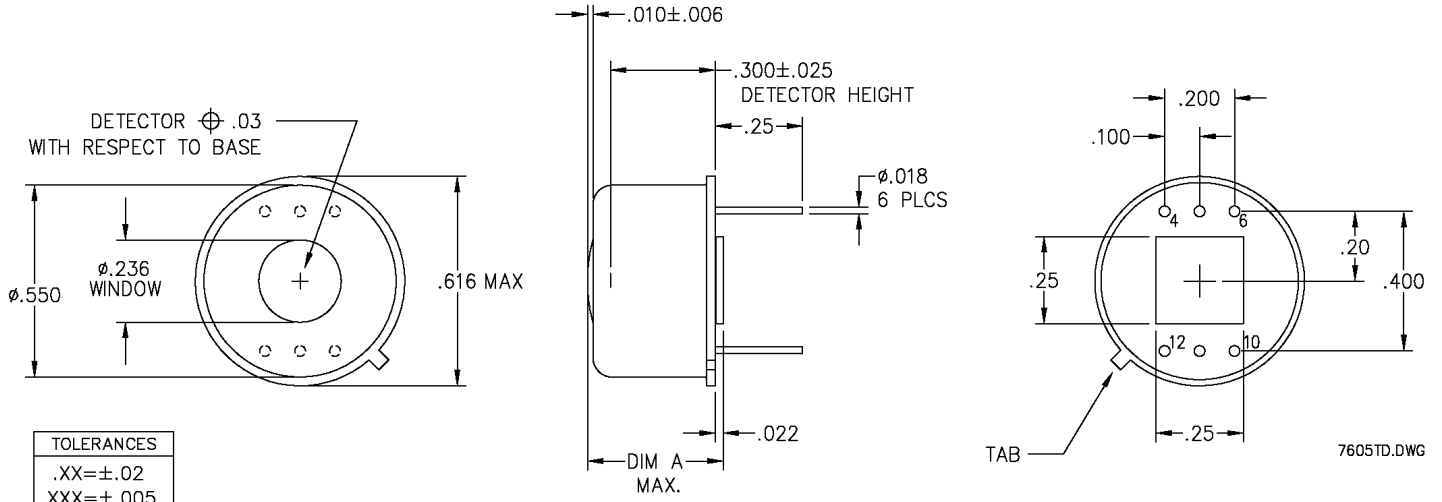
### APPLICATIONS:

*Man-Pack, Weapon-Mount, Vehicle-Mount, UAV, Airborne Laser Ranging*

"In the event this commodity will be transferred to a "foreign person" as defined in 22 CFR 120.16, either outside or within the United States, a validated US State Department license is required."

CONNECTIONS	759A, PCB mount PINS	759A
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Typical Part Number: **759A-PCB =** Connections: PCB mount PINS with optional test PCB



TOLERANCES
.XX= $\pm$ .02
.XXX= $\pm$ .005

MODEL	DIM A
759A	.415

WINDOW: .035 $\pm$ .006" THK.  
 RI = 1.469 @ 1550nm; 1.476 @ 1064nm.