



TPL T12: The weapon mounted thermal imager you can afford

BY NICK COFFMAN 08.15.2016 [#GEAREMAIL](#) [SHARE](#) [TWEET](#)

Outside of the military, weapon-mounted thermal imagers have traditionally been a hunting or home defense luxury that few can afford. For home defense in particular, it doesn't make a lot of sense to spend \$2,000+ on an optic that will generally be sitting in an undisclosed location inside your house for extended periods, aside from regular range time that should occur at set intervals.

This is why I got excited when I found out about [Torrey Pines Logic's](#) (TPL) T12 thermal imager models that range between \$600 to \$900 (USD MSRP). They offer T12 N, V, M, and W models – with details on each further down. I had the opportunity to spend some time with the T12-W model, which is on the higher dollar end of the available models.

My first impression upon opening the box was just how compact the device is. It is incredibly lightweight and low profile, so there is no need to worry about overloading your weapons platform. Operation of the device is very straightforward with only two buttons, but even still, it comes with a great set of instructions to detail the options. It also came with a CR123 battery and hand held mount.

The [T12](#) has a quick-release Picatinny mount that can be utilized in a few different configurations for your preferred weapon system (my testing was done on a 5.56 AR-15). One recommended method is to mount the T12 at 45 degrees so that it is independent of your primary optic – the idea being that one does not interfere with the other depending on your preference for a primary sight.



Image courtesy of Jeremy Linares

Another method is to use the T12 in-line with a red dot sight – due to the quick release it can easily be taken out of the equation depending on preferences for factors such as distance or lighting conditions.



Image courtesy of The Firearm Blog

And the remaining option is to let the T12 stand on its own – it does offer different reticle selections that can be adjusted for accuracy.



Image courtesy of The Firearm Blog

Regarding the technology, TPL's four T12 [Models](#) are designed and manufactured in the US and utilize the FLIR Lepton sensor with custom software to provide the following capabilities:

- 80 x 60 FLIR Lepton Sensor
- 8 to 14 μm Spectral Response
- 4 Thermal Image Polarities – White Hot, Black Hot, Green, and Color
- Multiple Reticles – Chevron, Box, and custom available
- Non-reticle Camera Versions Available
- Non-Uniformity Correction Calibration
- Multi-language Support
- Adjustable Brightness
- 9 Hz and 30 Hz models
- Hand held or Picatinny Mount
- 4 Models – 4 Fields of View – 8.3 you 12.5 you, 25 deg, and 50 you FOV
- Metal Exterior – O-ring Sealed
- 8 hr Battery Life on 1 CR123 Battery
- Auto-Power Save Mode Extends Battery Life

In my experience using the imager (hand-held and standalone weapon-mounted), I really couldn't find anything wrong with it – particularly when factoring how much less it cost compared to others on the market. The display quality was excellent, and one of my favorite options on the thermal imager is the ability to switch between polarities. Overall, I found that my eyes adjusted better to the “green” option – indoors and outdoors. It performed well with being able to clearly identify heat signatures of different sizes (i.e. small animal vs person) at distances ranging between 5-100 yards. The reticles were easy to see – and as accurate as any red dot or reflex sight that I've used (side note: I was limited to 50 yards due to the particular range I had access to). Battery life easily reached the advertised 8 hours of operation, and for those who would worry about accidentally leaving it on, there are power saving settings available.

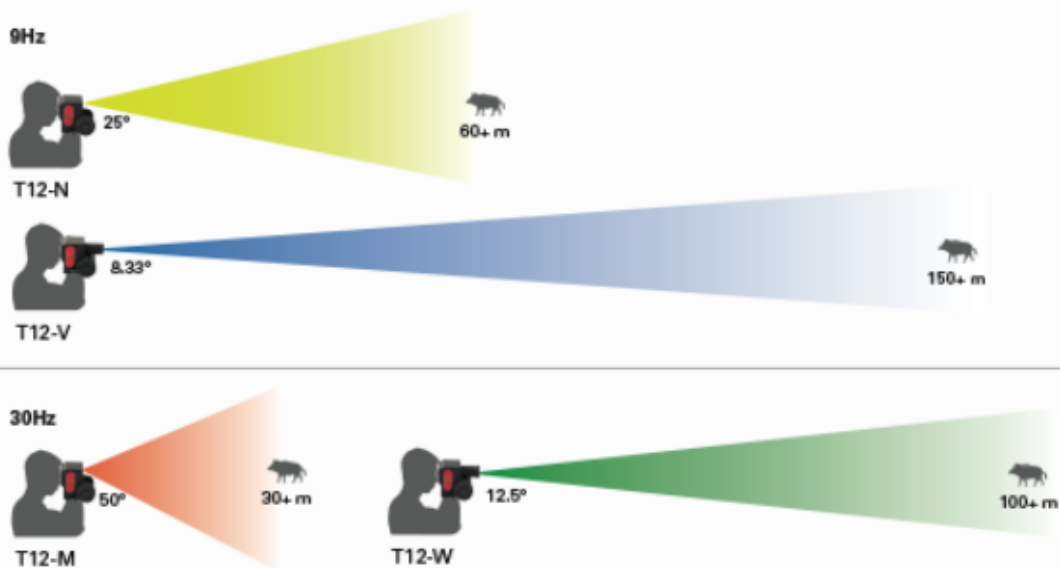
TORREY PINES LOGIC, INC.

If the price point isn't a deal breaker for you, then I would highly recommend picking one of these up for your home defense weapon, go-bag, hunting gear – or even if you work as a [first responder](#).

For specific information about each model, see the chart below.

	T12-V	T12-N	T12-W	T12-M
Size	2" x 1.8" x 1.5" (50 x 45 x 39mm)			
Weight (w/o battery)	63 g	50 g	64 g	50 g
Field-of-View	8.33°	25°	12.5°	50°
Minimum Focus Distance	2' (1m)	8" (.2m)	2' (1m)	4" (.1m)
Focus	Focus free			
Special Range	8-14 micron			
Mount	1/4-20 tripod mount			
Power	CR123, 3V – 8+ hours of operation			
Resolution	80 x 60 pixels FLIR Leptons			
Display	1" OLED			
Operating Temperature	-10° to +45° C			
Frame rate	9Hz		30Hz	
Shutter	No		Yes	
Accessories	Handle, Optional mounts			

T10 Range Performance



ABOUT THE AUTHOR



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Nick Coffman spent five years in the Marine Corps as a network operator, having served in Iraq with RCT-8 (8th Marine Regiment) and later with MARFORCOM. He left active duty in 2012 to pursue a career in IT project management, and in 2015 he completed his master's degree in that field. In his spare time he enjoys hunting, fishing, and following mixed martial arts.