



Optical Voice and Data Communications

LightSpeed™ B22

The eye-safe IR LED allows non-visible communication between units at distances up to 2.5km. Provides full-duplex voice communication and measures distances between LightSpeed™ devices with very high accuracy to provide distance, velocity and acceleration. Functions as a network link to a remote computing device or to another system via USB network connection.



LightSpeed™ F10

A non-RF free space optic video and control link, the F10 system provides an invisible infrared Ethernet link between ground station and UAS.



LightSpeed™ R27

The low cost analog LightSpeed™ technology provides audio communications with R26. LightSpeed™ R27 extends analog video transmission up to 200 meters range offering connection to a security camera from just about any location.



LightSpeed™ R36

The LightSpeed™ R36 unit is the latest generation of the Optical Communication system providing IP based Ethernet network and voice connection between vehicles. Each communication node utilizes an array of IR LEDs and an omnidirectional receiver capable of providing a 360° communication link.



LightSpeed™ R50

The eye-safe IR LED allows non-visible communication between units at distance up to 6km. Provides full-duplex voice communication and functions as an Ethernet link to a remote computing device or to another system via a standard Ethernet connection.



LightSpeed™ AN/PAQ-6

This LightSpeed™ technology replaces a legacy Phone and Distance Line (PDL) system during Underway Replenishment (UNREP). The system is capable of passing any information (including tactical) in any format (open source) from ship (any size) to shore to mobile. There is Non-RF silent communication during approach. The UNREP-6-PAQ transceiver units' use eye safe IR LEDs.



Optical Voice and Data Communications (con't.)

LightSpeed™ L20

Small, portable, simple to use LED based Light Gun for signaling. Operates on Harris and Brentronics standard batteries or external power. Lightweight - <1kg, fits into a pocket! Can be used to transmit Morse code or color light signals. 12 hours of continuous ON operation/illumination on one charge.



LightSpeed™ L30

In addition to all L20 functionality, LightSpeed optical communications provide clear voice link between L30 units at distances over 1km.



LightSpeed™ OceanLink™ U10, U15

Provides a 2-way, non-RF communication system from submarines to surface, airborne or underwater platforms with a wide angle of view. Avoids conspicuous operation and detection by creating a 1-10Mbps optical channel between a submarine underway and below water surface at distances exceeding 10km. The single reinforced fiber handles both Transmit and Receive.

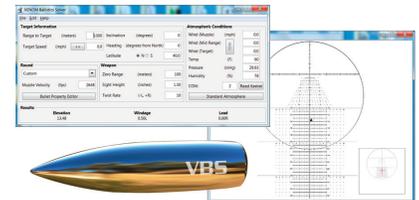
The eye-safe blue light LED used by U10 allows communications between units at distances up to 300 meters. The units function as an Ethernet link to a remote computing device or to another system via a standard Ethernet connection.



VENOM and Wind Sensing

VENOM Ballistics Solver (VBS)

The VENOM Ballistics Solver (VBS) is the first small arms ballistics solver properly computing the wind's influence on a bullet. VBS contains all standard drag curves and can support designer rounds. VBS is available as a stand-alone program under Windows or Android OS.



VENOM

VENOM stands for Velocity Extracted from scintillation via Optical Measurement. A weapon-mounted wind measurement device contains all the functions of a laser rangefinder, ballistic computer and other sensors, including inclinometer, thermometer, barometer, etc. VENOM connects to external devices such as Kestrel or PDAs. Range capability is 1800-2000m with accuracy of measurement better than +/-0.5mph.



xWinds

The revolutionary xWinds ("Crosswinds") system provides a first-of-its-kind training aid for the hardest skill a sniper has to master – Wind Estimation and Visualization. Providing a real-time view of crosswinds throughout the entire range using network of wireless sensors.



Optical Detection

Sentinel S45™

A waterproof, 24-hour surveillance system that provides security and protection for borders, VIP's, and important locations. Fast scanning enables the detection of snipers, video, photography, cameras, and scopes. Advanced features include geo-locating targets, compass, inclinometer, and GPS positioning. The Sentinel can be mounted to a vehicle, pole, or building to provide monitoring and automatic alerts.



Beam 85™

An all-weather, 24-hour surveillance systems that provides security and protection for borders, VIP's and important locations. Fast scanning enables the detection of snipers, video, photography, cameras, and scopes. Beam 85™ can be mounted to a vehicle, pole, or building to provide monitoring and automatic alerts.



Beam 220™

An all-weather, 24-hour surveillance systems that provides security and protection for borders, VIP's, and important locations. Fast scanning enables the detection of snipers, video, photography, cameras, and scopes. System features include pan/tilt capabilities, 360° panoramic camera at video rates, and geo-location of targets with GPS data. Beam 220™ can be mounted to a vehicle, pole, or building to provide monitoring and automatic alerts.



Campanile 212™

A direct extension to the Beam 210 system, Campanile 212™ has multiple electro-optic sensors allowing the operator to focus on targets found by the Beam and to make effective decisions quickly. Campanile can provide variety of EO/IR payloads.



Custom Solutions

Custom Imaging Solutions

TPL builds custom image solutions for industrial and governmental needs. A component toolkit includes gimbals, gyro-stabilized and software stabilized platforms, long range optics, color night vision imagers and variety of mid- and long-wave sensors.



TPSv4 Software - Temporal Processing System

Temporal Processing System (TPS) is a self-contained, real-time video processing and enhancement system with networking and connectivity features. It accepts all video input types and performs both day and nighttime video image enhancement. The image enhancement algorithms penetrate fog, haze and mirage artifacts. Its image stabilization algorithms suppress image jitter from camera vibrations.



Mosaic and Geo-registering Systems

Mosaic System

The TPL Mosaic System addresses the need to create mosaic images on-the-fly and geo-register them. Data derived from manned or unmanned platforms in high resolution can now automatically be built into a mosaic without operator control.



Internal Display™ (ID)

ID technology breaks new ground in handheld optical devices. Similar to “heads-up displays” used by military pilots, ID incorporates a transparent display into riflescopes, spotting scopes, and binoculars. ID provides a platform for accessories to display thermal and night vision video streams, ballistic information, and many other streams of data.



G1T2™ System

The G1T2 is the culmination of several years of engineering, bringing together the top feature set of both the G and T series: a state-of-the-art optical riflescope and a dual sensor device with thermal imaging and laser-range finding capabilities. The riflescope is of superior quality as it is manufactured with anti-reflective low-light performance coatings and has an adjustable illuminated second-focal-plane reticle. The sensor information is displayed on the ID. The thermal imager and laser range finder are ruggedized and have maximized long-range performance by implementing optical zoom to maintain image fidelity.



G1T3™ System

This system is based on the combination of the G1 riflescope platform to display our next generation of thermal imager’s images, the T3. The T3 is simply the thermal imaging side of the T2 without the range-finder. It has real-optical zoom from 2-4x and runs on a CR123 battery for up to 10 hours.



G1F1™ System

The G1F1 also uses the ID G1 riflescope but specifically to display the F1’s laser range finding data. This system is meant to be affordable and rugged and can handle ranging distances up to 1200 meters with pin-point accuracy.



scopeX2™

The scopeX2 will magnify 30 mm or 1” tube scope’s current range by exactly 2x. Any 2x scope can be doubled to 4x, 6x to 12x, or even 8x to 16x. When mounted in front of your scope the user can use the scopeX2’s built-in turrets to boresight without having to change a single setting on the original scope.



scopeX4™

The scopeX4 is our latest generation of afocal adapters and will magnify any tactical scope by exactly 4x: 2x to 8x, 4x to 16x, or even 8x to 32x. Because there is such a large change in magnification, a focus adjustment was included. Also, the scopeX4 is a two-part system whose mount can be permanently fixed to the scope and the optics can be removed at will. Finally, standard turrets and adjustments can be used to optimize and zero the scope to perfection.



Afocal FLIR Adapters

2x, 3x, 4x, and 2-4x adapters are specifically designed for hand held IR cameras. Using interchangeable connectors the adapters can connect to L-3 45xx/X200/X100 cameras or any 36xx/26xx cores. Focal length of the system simply increases by a factor of 2 or 4. No electrical or mechanical modifications to the core system. Shock and vibration tested.



EagleEye™ GS 10-100

The EagleEye gun scope attachment allows any user to record and transmit high-resolution photos and video using their own gun scope. The attachment is designed around the user friendly and well-known GoPro™ suite of Hero™ cameras. Record and show off your hunting or shooting session!

