

Optical Voice and Data Communications



LightSpeed™ and B10

LightSpeed™ technology is based upon IR LED free-space optics (FSO) concepts. The eye-safe IR LED allows simultaneous data/voice communication and visual contact. Attaching B10 adapter to any binocular will turn the unit into full fledged communication system.



LightSpeed™ B20 and B22

The eye-safe IR LED allows non-visible communications between units at distances up to 2.5km. B20 provides full-duplex voice communication. The unit also functions as a network link to a remote computing device or to another system via USB network connection. B22 unit measures distances between LightSpeed™ devices with very high accuracy to provide distance, velocity and acceleration.



LightSpeed™ R10

The eye-safe IR LED allows non-visible communications between units at distances up to 3km. R10 provides full-duplex voice communication. The unit also functions as an Ethernet link to a remote computing device or to another system via a standard Ethernet connection.



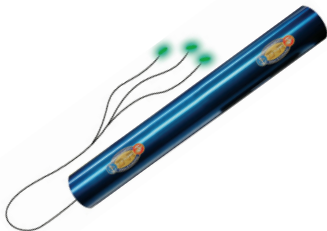
LightSpeed™ G10

G10 is built to attach to any observation scope/gun scope platform. The eye-safe IR LED (no laser) allows non-visible communications between units at distances up to 3+km. G10 provides full-duplex voice communication. The unit also functions as a network link to a remote computing device or to another system via Ethernet or USB network connection.



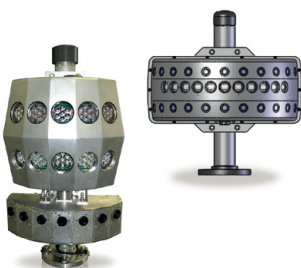
LightSpeed™ V10

An electro-optical communications system is used as an extension to a vehicular intercom system to provide 2-way voice and data communications throughout a convoy. The system may be used to maintain networked communications throughout the convoy while operating under radio silent or RF (Radio Frequency) denied (jammed) environments.



OceanLink™

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. Single reinforced fiber handles both Transmit and Receive.



LightSpeed™ AN/PAQ-6

- NAVY Operational Logistics Integration (OPLOG) Program
- Replacement of legacy Phone and Distance Line (PDL) system during Underway Replenishment (UNREP) with LightSpeed™ technology
- Non-RF silent communication during approach and UNREP– 6-PAQ transceiver units use eye-safe IR LEDs
- System capable of passing any information (including tactical) in any format (open source) from ship (any size) to shore to mobile



Optical Systems Detection

Mirage 1200™, Beam 50™ and Beam 1000™

- All weather 24-hour surveillance
- Video & photography detection
- Detection of cameras & scopes
- Monitoring & automatic alerts
- Fast scanning capability
- Vehicle or pole/building mounted
- Security of important locations
- Sniper detection
- Border protection
- VIP security

Thermal Imaging Products



TPIR-45™

TPIR-45™, operating in long IR (7-14μ) range, are shock and water-resistant and will withstand the environment when used as a weaponscope. Detachable mounts allow the unit to be interchanged with other optical equipment. The electronic reticle allows precise targeting, changes color to provide maximum contrast against its background and optionally will estimate the temperature of the target in crosshairs.



Afocal 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-345xx / 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.

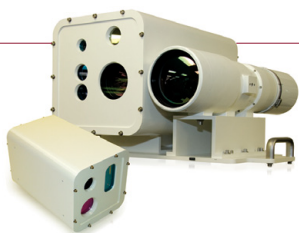


Image Processing

Custom Hardware Solutions

Torrey Pines Logic 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 of 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 be built into a mosaic automatically without operator control.

Detection Systems



D10

D10 is a portable device designed for selective screening in crowded places, for protection of sensitive sites and government offices. It can detect items on the human body hidden under clothing, tightly packed dielectric objects, including explosives with sizes down to 60 × 60 × 10mm. D10 can be used stand-alone or in conjunction with other inspection systems.