

Optical Module Anti-Electrostatic Tracking



Article Overview

Anti-electrostatic measures in optical tracking modules ensure reliable sensor performance by protecting sensitive electro-optical components from static discharge and environmental interference.

Overview of Electro-Optical Tracking Systems

Electro-optical tracking systems (EOTS) are designed for long-range detection, recognition, and tracking of targets under various conditions, including low light, darkness, or obscured environments. These systems typically integrate multiple sensors such as thermal imagers, high-resolution video cameras, SWIR/LWIR infrared cameras, and eyesafe laser rangefinders to generate precise three-dimensional position data for targets .

Anti-Electrostatic Considerations

Optical modules in these systems are highly sensitive to electrostatic discharge (ESD), which can degrade sensor performance or damage electronics. Anti-electrostatic tracking involves:

- Ruggedized and insulated housings to prevent static buildup on optical surfaces and electronic circuits .
- Grounding and shielding of internal components to safely dissipate static charges.
- Isolated platforms or vibration-damped mounts that filter high-frequency disturba...

Article Content

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4.3. Optical tracking — MPHY0026 documentation

4.3. Optical tracking 4.3.1. Introduction Optical tracking involve the use of cameras (usually in a fixed position) to localise markers

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Optical Tracking Technology | PS-tech

Optical tracking explained: learn how optical tracking systems use 3D localization and 6DoF tracking for precise real-time motion

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Empowering IoT-based electrostatic sensing network with

Moreover, future challenges of measurement technologies of electrostatic charges are also discussed. It is proposed to

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CN104356480A

The invention discloses an anti-tracking sheathing material for ADSS (all dielectric self-supporting) optical cables. The anti-tracking

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Our proposed localization and tracking method of the micro-conveyor is based on a remote optical system. The

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Optical Tracking

Optical tracking refers to a type of tracking that does not require any physical connection between the object being tracked and the

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Polaris Optical Tracking | Trackers & Markers | NDI

Paired with a Polaris Optical Tracker, these markers give OEMs flexibility to tailor performance, durability,

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iOET²

iOET² - Opto Electronic Target Tracking Systems Opto Electronic Target Tracking / Video Tracking System for all Classes of Accuracy

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Electro-Optical Tracking Systems

HEMERIA's fixed or mobile electro-optical tracking systems are intended for use in harsh environments and are designed and

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An Optical Tracking System with Defaced Marker Detection

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Optical Tracking Sensor Module

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Global Motion-Aware Robust Visual Object Tracking for Electro Optical ...

Although recently developed trackers have shown excellent performance even when tracking fast moving and shape

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Fiber Optic Control Solutions for FPV Drones | HS Air

Fiber Optical Control Solution HS Air Force can customize an fiber optic transmission control system for

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Small tracking error correction for moving targets of intelligent ...

A tracking controller delay prediction method for moving targets is proposed based on the Euler transformation model

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Designing markers for optical tracking

A tracking camera is always used inside a more complicated system composed of the camera itself, markers with

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Carrier backbone network active optical cable anti-electrostatic tracking

AITAF provides end-to-end optical communication solutions, structured cabling, ODN, optical modules, fiber testing instruments,

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New Standard Helps Optical Trackers Follow Moving Objects Precisely

Optical tracking systems work on a principle similar to the stereoscopic vision of a human. A person's two eyes work

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Optical module design resources | TI

View the TI Optical module block diagram, product recommendations, reference designs and start designing.

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iIPSC-MSG-40: Electro/Optical Target Tracker EOTS

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Closed loop controlled optical tracking module for free-space optical ...

In this paper, a closed loop controlled optical tracking module for free-space optical communication is presented. The motion of the

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