

光电工程

稳瞄炮长镜加装CCD摄像机技术分析

吴鸣镝

总装备部装甲兵军事代表局 驻西安地区军事代表室, 西安710043

收稿日期 修回日期 网络版发布日期 2007-7-13 接受日期

摘要 分析在炮长镜现有位置基础上加装CCD摄像机的可行性, 提出加装CCD摄像机的原则和方案。通过选择恰当的CCD摄像机安装位置和结构布局, 满足了炮长镜潜望高度保持不变, 炮长瞄准镜的内部结构改动量较少, 加装成本整体降低的要求。借助有关理论, 讨论了CCD摄像机选型、光路计算、激光发射光路镀膜的变化等问题。最后指出, 炮长瞄准镜在加装CCD摄像机后, 若再配备具有数据处理功能的自动跟踪组件, 还可实现视频自动跟踪, 而其原有的可见光观瞄功能仍然保持不变。

关键词 [炮长镜](#) [稳定瞄准](#) [CCD摄像机](#)

分类号

Technology analysis of adding CCD camera to gunner's periscopic sight

WU Ming-di

Armored forces military representative office at Xi'an, Xi'an 710043, China

Abstract Feasibility of adding a CCD camera to the gunner's periscopic sight is analyzed. The principle and scheme of adding the CCD camera are brought forward in this paper. The requirement for keeping the periscopic height at the original point, changing the internal structure of the gunner's periscopic sight as little as possible and reducing the cost of the whole project was met by selection of suitable mounting position and structure distribution of the CCD camera. The selection of CCD camera, the calculation of the beam path and the variation of laser emission path film are discussed by aid of relative theories. It is pointed out that the automatic video tracking can be realized if an automatic tracking assembly with the function of data processing is mounted on the system after the CCD camera is added to the gunner periscope, and the original observation aiming function in visible light is still retained. The whole research has significant value for improving fire control system function and tactics technique function of whole tanks.

Key words [gunner's periscopic sight](#) [stable aiming](#) [CCD camera](#)

DOI:

通讯作者 吴鸣镝 Wmdzjb@163.com

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [PDF\(204KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [复制索引](#)
- ▶ [Email Alert](#)
- ▶ [文章反馈](#)
- ▶ [浏览反馈信息](#)

相关信息

- ▶ [本刊中 包含“炮长镜”的相关文章](#)
- ▶ [本文作者相关文章](#)

· [吴鸣镝](#)