

Series Guidelines for CCTV Products Complying with Essential Requirements (ERs) under CRO

In accordance with the Essential Requirements (ERs) for CCTV products, as stated in the Gazette of India, the following guidelines must be followed for any CCTV products being developed, marketed, or distributed under this compliance framework. These guidelines provide criteria for the System-on-Chip (SoC), PCBA layout, and software/firmware versions to ensure uniformity and consistency within product series.

1. All products within a specific series must use the same System-on-Chip (SoC) to ensure consistent processing performance and functionality.
2. The PCBA layout for all products in a series must remain identical for security-related circuit elements. While the arrangement of critical components such as microcontrollers, sensors, memory, and power management units must remain the same, variations in features such as housing, lens, mounting, interface boards/pins and connectors are allowed.
3. Any wireless or wired communication protocols (e.g., Bluetooth, Wi-Fi, Ethernet) must be consistent across the series to maintain uniform communication functions. The product with the maximum functionality features must be tested, and models with reduced-feature products can be included under the same series if they meet all other requirements.
4. All products in the same series must use identical software/firmware versions with matching hash values (including Major, Minor and Build versions). If multiple software versions are used, each version must be tested separately as independent series.
5. The hardware bill of materials (BoM) must be identical across the series, although variations in passive components like Image Sensors, Lenses, Resistors, Capacitors, Power Driver ICs, ADCs & DACs and RAM are allowed as long as they do not affect the essential security requirements.
6. The software bill of materials (BoM) for each product in the series must include all firmware components, open-source libraries, operating system components, third-party software, network protocols, proprietary software, database components, security features as per ER and any other software components
7. The issued certificate must include key details such as a picture of the product or DUT (Design under Test), model number, chipset information

(including country of origin, make & model no.), firmware version, and hash value. Any deviations must be documented with a differential analysis report.