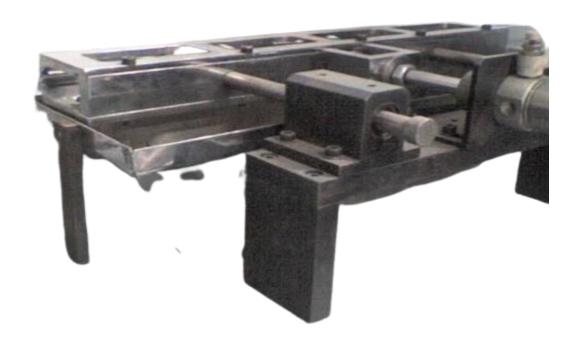


### **Capacitor Inspection System**

#### **About-**

DEKI Electronics, NOIDA is a leading manufacturer of Miller, Box Type & Metallic Capacitors. The inspection of the capacitors for various defects after the completion of the production process is done manually by naked eye inspection. DEKI wishes to automate this inspection process. For this purpose Neometrix engineers thoroughly studied the production line, various defects and their classifications to arrive at this SRS (System Requirement Study). The SRS is a first draft on the system required by DEKI, wherein the initial understanding of the specifications is presented along with a preliminary cost estimate & outline of the proposed solution.





## **Technical Specification-**

- Video formats: @ Frame rate 640 x 480 Y (Mono) @ 30, 15, 7.5, 3.75 fps
- Sensitivity: 0.5 lx at 1/30s, gain 20 dB
- Dynamic range : ADC: 10 bit, output: 8 bit
- SNR: ADC: 9 at 25 °C, gain 0 dB
- Interface (optical):
- Sensor specification: ICX098BL [321.55 KB, PDF]
- Type: progressive scan Format 1/4 "
- Resolution : H: 640, V: 480
- Pixel size : H: 5.6 μm, V: 5.6 μm
- Lens mount : C/CS-mount
- Shutter: 1/10000 to 30 s
- Gain: 0 to 36 dB
- Offset: 0 to 511
- Max. temperature (operation): -5 °C to 45 °C
- Max. temperature (storage): -20 °C to 60 °C
- Max. humidity (operation): 80 % non-condensing

# **Application-**

- INDTECH CAPACITORS (INDIA)
- UCon Capacitor (India)

# **Key Features-**

- Inspection Rate: 5 lac pcs/day inspection rate (approx ~17 strips perminute)
- The machine should have the ability to also remove the defective capacitors. All faulty capacitors will go to one bin only.
- Drop Rejection: Related to the shape of resin on the top of the capacitor. There will be a settable tolerance for this.
- Conveyor Mechanism for movement of the Bar type Capacitor Holders. Motor and Drives to facilitate variable timing of the belt.
- Mounting Fixtures for the Vision system
- Bending Mechanism for removal of the NG components
- Mechanism to remove the correct capacitors