APPLICATION NOTE

Storing Assembled Image Sensors

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Short-Term Storage

Assembled devices, in their first-level packing container, should be stored indoors, in a dust free, enclosed environment with the following conditions:

Description	Condition
Time Limit	< 1 year
Temperature	20°C to 40°C
Relative Humidity	< 60%

Caution: Avoid storage locations with the following characteristics:

Description	Condition
Direct sunlight	Carriers (tubes, trays, or single unit carriers) may deform or color filter arrays may fade.
Corrosive gases	Leads/pins may oxidize or corrode.
Excessive Loads	Devices may be damaged if heavy objects are stacked on packing boxes.
Radiation	Imaging defects may be induced.
Electromagnetic fields	Imaging defects may be induced.
Static electricity	Device may suffer catastrophic damage. If devices are stored in open trays full ESD protection must be used to avoid damage when handling the devices.

Long Term Storage

Assembled devices stored for longer than 1 year are considered to be in long-term storage. When long-term storage is anticipated, the devices in carriers should be placed into moisture proof, vacuum-sealed, anti-static bags or in an electrostatically safe, moisture proof enclosure to prevent device degradation of the electrical characteristics and/or deterioration of the leads/pins. The moisture proof package/enclosure should be stored indoors, in a dust free, enclosed environment with the following conditions:

Description	Condition
Time Limit	1 to 5 years
Temperature	20°C to 40°C
Relative Humidity	< 60%

The storage avoidance characteristics noted above also apply to Long Term Storage.

Long-term storage, if done improperly, may cause the leads/pins to oxidize or corrode which may affect the lead/pin solderability. When devices are stored for time periods in excess of 1 year, the lead/pin solderability should be confirmed prior to use. Additionally, the electrical characteristics should be confirmed, as necessary, prior to use.

Notes:

1. Ideally an enclosure storage technique would include a dry nitrogen flow

2. Unsealed devices with taped cover glass should always be stored under the long-term conditions.