

**3M** Science.  
Applied to Life.™



**Clear  
benefits.**

**3M Display Materials & Systems Division**  
Optically Clear Adhesive (OCA) and  
Contrast Enhancement Film (CEF)

# Why 3M?

**3M provides a full suite of high performance optically clear adhesives and contrast enhancement films. Several of these are brand new to the industry.**

We're known for our adhesives technologies for a good reason: we invented many of them. With decades of experience, an extensive global support network and a well-earned reputation for quality and reliability, we can bring solutions to make your products more appealing to your customers.



## 3M Display Enhancement Films

### Improve visual quality.

Light transmission >99% when corrected for reflection losses

Non-birefringent when removed from carrier film

High temperature, humidity and UV resistance

### Enhance robustness.

Long term durability without yellowing, delaminating or degradation

High cohesive and peel strength for reliably bonding most transparent substrates

### Reduce thickness.

Designed to enhance the effectiveness and efficacy of the device without adding to the depth

### Enhance your touch sensor design.



Thickness Reduction



Productivity



Enhanced Visual Quality



Robustness

# New technologies to meet changing needs.

## **3M™ Optically Clear Adhesive (OCA) serves as an industry standard.**

3M OCA comes in a variety of thicknesses to suit your needs. Choose 3M OCAs for touch screens, and when you're bonding film and glass.

It's ideal for transparent graphic overlays, projection screens and other applications where an optically clear adhesive is necessary.

Avionics and military displays often carry the 3M OCAs for reliability, quality and durability of design.

LCD clarity, color neutrality and reliability is improved with 3M OCAs.



## **3M™ Contrast Enhancement Films (CEF) are ideal for direct display bonding.**

3M CEF is recommended for applications that require direct LCM bonding, ITO compatibility and high adhesion.

3M CEF comes with dual liners with differential release force for ease of processing, and protection from contamination.

Soft versions are suitable for situations that require filling moderately thick ink step (decorative border).

Product Description	X=Thickness (mils)	Key Features
<b>3M™ Optically Clear Adhesives</b>		
3M OCA 8146-X	1-5	<ul style="list-style-type: none"> <li>• General Purpose</li> <li>• Sensor to lens, sensor to sensor, TDM</li> <li>• Good ITO compatability.</li> <li>• 15% ink step coverage</li> </ul>
3M OCA 8148-X	1-5	<ul style="list-style-type: none"> <li>• TDM bonding or cover lens to sensor</li> <li>• UV curing required.</li> <li>• High adhesion and off-gassing resistant.</li> <li>• 30% ink step coverage</li> </ul>

### 3M™ Contrast Enhancement Films

3M CEF05XX	5-10	<ul style="list-style-type: none"> <li>• General Purpose</li> <li>• Sensor to lens, sensor to sensor, TDM</li> <li>• Good ITO compatability.</li> <li>• 15% ink step coverage</li> </ul>
3M CEF19XX	5-10	<ul style="list-style-type: none"> <li>• TDM bonding with superior noise suppression</li> <li>• Low dielectric constant (2.89)</li> <li>• UV curing required.</li> <li>• 35% ink step coverage</li> </ul>
3M CEF28XX	4-10	<ul style="list-style-type: none"> <li>• TDM bonding or cover lens to sensor</li> <li>• UV curing required.</li> <li>• High adhesion and off-gassing resistant.</li> <li>• 30% ink step coverage</li> </ul>



#### 3M Display Materials & Systems Division

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