



# CMD8X6D Microdisplay

No-Compromise Microdisplay System



The CMD Microdisplay Architecture delivers a total system solution to OEMs developing consumer, commercial, industrial and specialized electronic products. The breakthrough **CMD8X6D SVGA microdisplay** is the key Image Generation component of the CMD architecture and it delivers a host of new features never before seen in microdisplays. It has on-board digital-to-analog converters and look-up tables. It is the first analog display ever introduced with a fully digital interface, and it's the world's first microdisplay ever with a BGA-based package type!

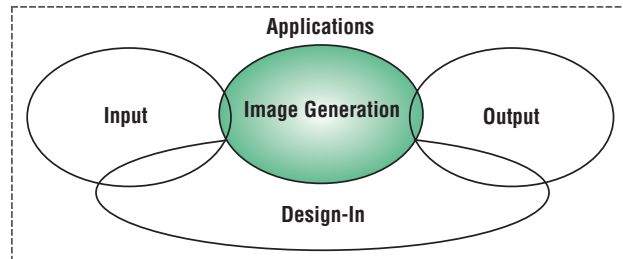
**CMD8X6D - SVGA Microdisplay**

**CMD8X6DDI - Display Interface ASIC**

**CMD3XL - Illumination Controller**

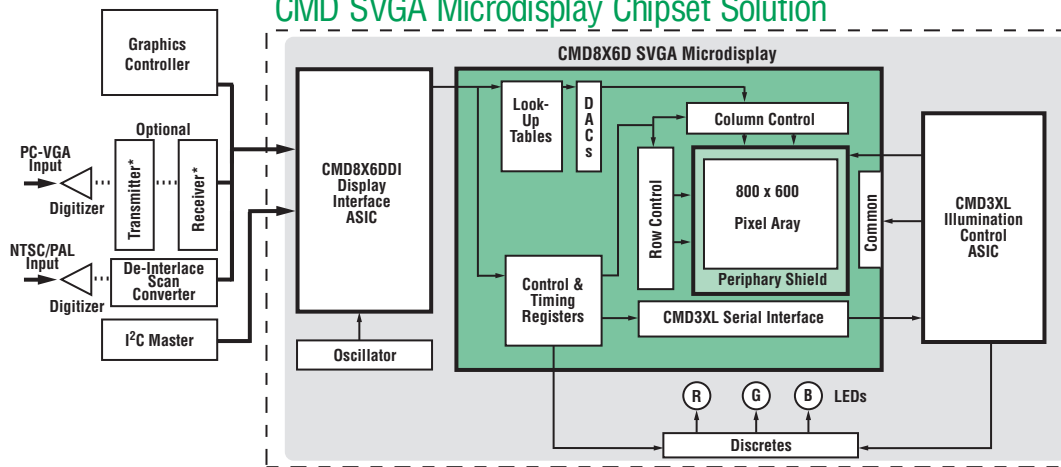
The CMD8X6D Dynamic Nematic Liquid Crystal on Silicon™ (DNLCOs) microdisplay is a high-performance, low power, field-sequential color microdisplay, that delivers SVGA resolution, rich color depth, and high optical efficiency. It has an image area that measures 9.6 mm x 7.2 mm with a fill factor of greater than 87%, which yields exceptionally high quality images of text, graphics, multimedia, and full-motion video content. What's more, its high refresh rate and crisp contrast ratio of >100:1 make it a solid design choice for computing, entertainment and industrial applications. Add to these features

the breakthrough Ball Grid Array (BGA) packaging, and the CMD8X6D microdisplay truly stands in a class of its own.



CMD Microdisplay Architecture

## CMD SVGA Microdisplay Chipset Solution



\*LVDS, TMDS or GVIF

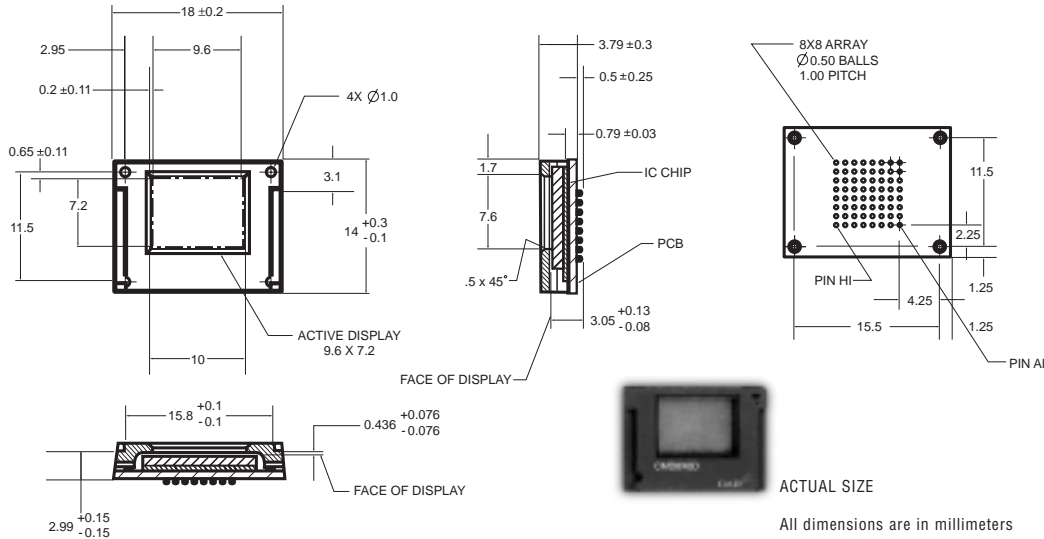


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## Key Features and Benefits

- Resolution to match market requirements for mobile computing, entertainment, imaging and communication devices
- High refresh rate to eliminate human factors issues
- High fill factor abrogates pixelization
- Low power requirements enables use in portable applications
- Rich color depth to support text to full-motion video
- Compact package to enable small form factor OEM products
- Package type that facilitates use in automated manufacturing processes
- Application in monocular, binocular and stereoscopic products



## Specifications - CMD8X6D Microdisplay

Feature	Specification
Technology	Dynamic Nematic Liquid Crystal on Silicon™
Color Method	Single panel, field sequential
Display Diagonal	12 mm/.47"
Display Image Size	9.6 mm x 7.2 mm
Resolution	SVGA 480,000 pixels (800 columns x 600 rows)
Pixel Pitch	12 µm x 12 µm
Fill Factor	>87%
Color Depth	24-bit (16.7 million colors) with Look-Up Tables
Color Palette	18-bit (262,144 colors)
Contrast Ratio	>100:1 typical
Refresh Rate	Field 255-360 Hz
Supply Voltage	5 V
Package Type	Ball Grid Array (BGA) - 64 pin
Package Size	18 mm H x 14 mm W x 4.5 mm D
Weight	1.54 grams
Operating Temperature	0° to 60° C
Storage Temperature	-20° to 80° C



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Specifications are targeted measurements, subject to change without notice.

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