

TI DLP® Design Network



What's TI DLP ?

"DynaFlash" 1000fps 8-bit projector

DLP Design Network

Design & Development Center
(inrevium Development center)

Key Technologies

Design Service Example

TI DLP Products

What's TI DLP ?

Texas Instruments DLP® chipsets are the world's leading projection display technology, including digital cinema, business, education and home theater applications. While renowned for these applications, DLP technology is highly flexible and enables a diverse range of display and advanced light control applications spanning industrial, enterprise, automotive and consumer market segments.

DLP technology benefits:

Long-lasting precise color

Unparalleled switching speed allows built-in intelligence

Low power consumption

All DLP chips are based on the same proven technology used in award-winning DLP Cinema® technology



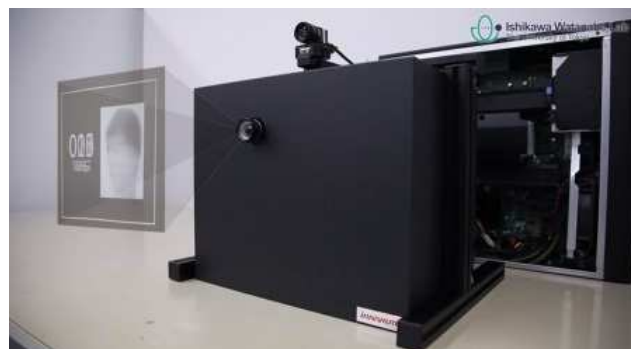
"DynaFlash" 1000fps 8-bit image projector

University of Tokyo and Tokyo Electron Device Limited (TED) have jointly developed High-speed projector system. High-speed 8-bit projector at 1000fps with 3ms delay called "DynaFlash" of prototyping is realized by Texas Instruments DLP DMD (Digital Micromirror Device) chip and controlling high luminance LED. TED developed high-speed control logic into FPGA for both DMD and LED to achieved high-speed frame rate with 8bit depth and to achieve 3ms ultra low latency we implemented high-speed transfer logics between PC.

[DynaFlash Product page](#)

(US) <https://us.teldevice.com/product/tb-6v-dynaflash/>

(Japan) <https://www.inrevium.com/product/tb-6v-dynaflash/>



TOKYO ELECTRON DEVICE

TI DLP ® Design Network

DLP Design Network

Tokyo Electron Device Limited is a Texas Instrument's Authorized DLP® Design House located in Japan. We provide value added solutions and services for the DLP® Discovery™4100 and DLP® Lightcrafter™ development kits, and for customized DLP products.

Tokyo Electron Device opened the Design & Development Center in 1985 and has developed and provided market-specific silicon devices, FPGA evaluation boards, ASIC prototyping boards, CPU boards, drivers, firmware and IP.

We leverage this wealth of customer experiences, and utilize our suppliers' leading-edge technology to provide Design Services based on customer requests.

Therefore, we can develop and provide DLP solutions and modules to meet your needs.

Design & Development Center (inrevium Development center)

Our Design & Development Center has designed and developed around 200 items every year in a wide range of consumer applications:

Audio/Video, broadcast video connectivity, high-speed communication, computer peripherals, medical, R&D and industrial automation markets.

Specifically, we are skilled in the following Key Technologies:

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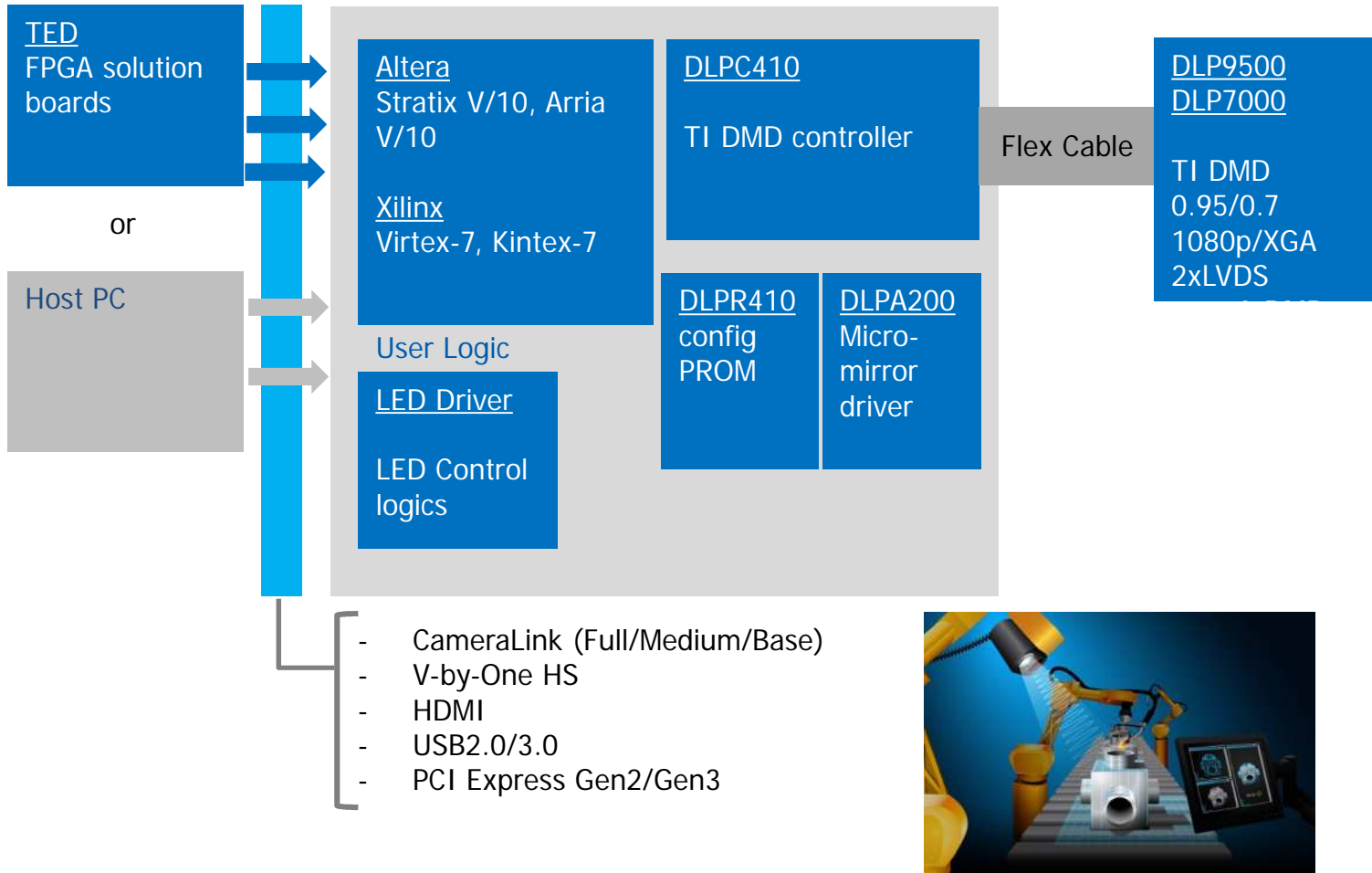
Specifically, we are skilled in the following Key Technologies:

Image Projection & Processing	High Speed Serial IO
DLP(TI) CameraLink (Full/Medium/Base) V-by-One-HS HDMI DVI 3G/HD/SD SDI	Serial Rapid IO 1G/10G Ethernet PCI Express Gen2/Gen3 x4,x8 EtherCAT Mechatrolink
Memory Controller	IO
DDR3 SDRAM DDR2 SDRAM SDHC	High speed ADC/DAC USB2.0/3.0 SATA SD/SDIO
Processor	
DSP, ARM (TI) MicroBlaze, ARM (Xilinx) Atom (Intel), i.MX (NXP)	

TOKYO ELECTRON DEVICE

TI DLP ® Design Network

Design Service Example



TI DLP Products

[DLP Advanced Light Control](#)

DLP NIRscan™ Nano
 DLP® NIRscan™
 DLPLCR4500EVM
 DLPLCR6500EVM
 DLPLCR9000EVM
 DLPLCR65NEVM
 DLPLCR70EVM
 DLPLCR95EVM
 DLPLCR70UVEVM
 DLPLCR95UVEVM
 DLPLCRC410EVM



DLP Discovery™ 4100
DLP7000 (XGA)



DLP Discovery™ 4100
DLP9500 (1080p)

The DLP Discovery4100 is a high performance and highly flexible Development kit for incorporating DLP technology into a wide variety light steering applications. The Discovery 4100 supports four DMDs in the visible or ultra-violet range, DLP7000, DLP7000UV, DLP9500 and DLP9500UV. Furthermore, the included DMD controller, DLPC410, offers designers maximum flexibility to format and sequence light patterns due its compatibility with various user-selected processors or FPGAs.

TI DLP ® Design Network

Features

The DLP® Discovery™ 4100 features include:

Key Features	DLP7000	DLP9500	DL7000UV	DLP9500UV
Wavelength Range	400-700 nm	400-700 nm	363-420 nm	363-420 nm
Micromirror Array Size	1024 x 768	1920 x 1080	1024 x 768	1920 x 1080
Display Resolution	XGA	1080p	XGA	1080p
Micromirror Array Diagonal(inch)	0.7	0.95	0.7	0.95
Micromirror Pixel Pitch(µm)	13.6	10.8	13.6	10.8
Maximum Binary Pattern/Second	32,552	23,148	32,552	23,148
Data Rate(GB/s)	25.6	48	25.6	48
Micromirror Tilt Angle(degrees)	+/-12			
Clock Rate (MHz)	Up to 400			
Fill Factor	>91%			

[DLP Video & Data Display](#)

DLPDLCR4710EVM

DLPDLCR3010EVM

DLPDLCR2010EVM

[DLP Automotive Display Solutions](#)

DLP Design Partner

-DLP Discovery module & Optics-

ViALUX GmbH

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<http://www.vialux.de/en/index.html>



[TI Design House](#)

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