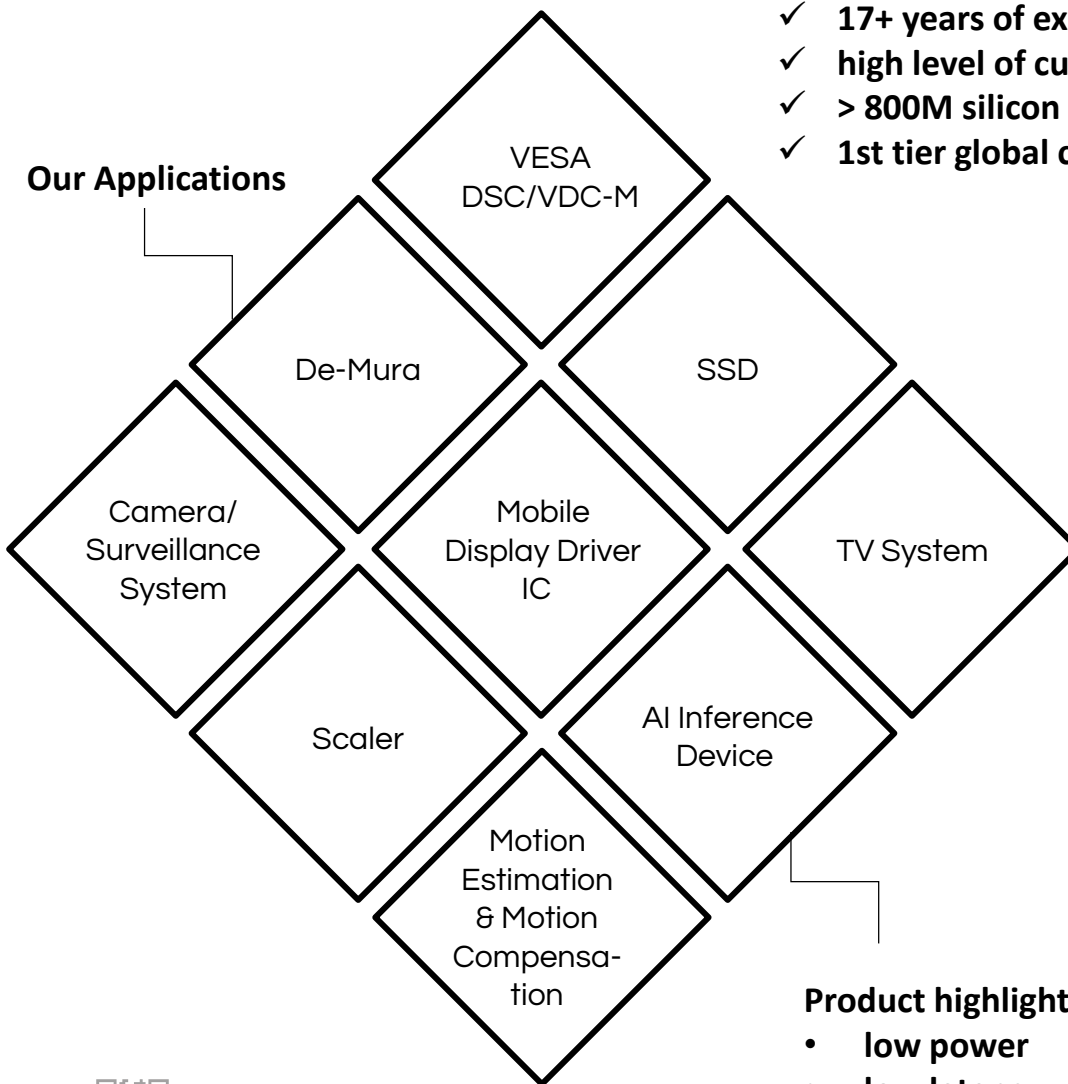


TITC

Image Compression IP specialist

- ✓ 17+ years of experience
- ✓ high level of customization
- ✓ > 800M silicon mass produced
- ✓ 1st tier global customers

Our Applications



Product highlight features:

- low power
- low latency
- small area



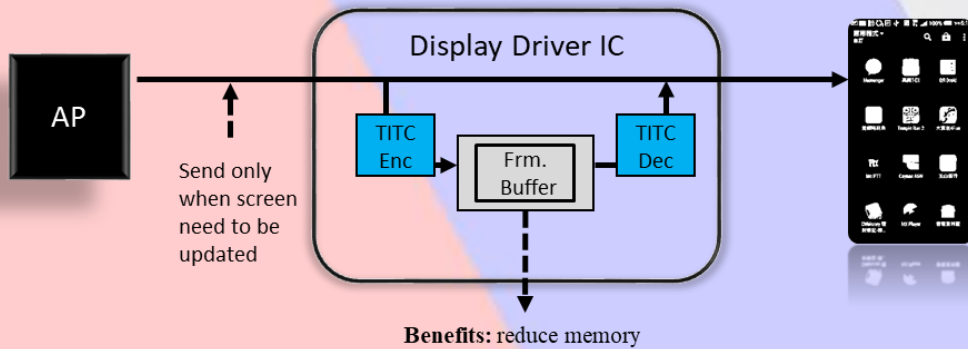
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TITC Mobile Display Driver IP

TITC's Compression IPs are used in more than 800M Mobile Display Driver ICs (DDIC) . Their real-time, low latency, fixed compression ratio, low cost, low power characteristics benefit chip designs a lot. There many configurable block sizes (or compression unit) which range from 2V2H (2 vertical pixels by 2 horizontal pixels), 2V4H, 2V8H, 2V16H, to 4V4H, compression ratios which range from 1/2 to 1/4, and bit depths which range from 8 to 12, for users to choose from. TITC also has special Pentile type (RGBG) compression for AMOLED Display Driver ICs.

Each block is compressed independently without referencing any neighboring blocks. This can easily satisfy the requirement of partial update, random access. Furthermore, multiple instantiations can make higher throughput possible. TITC can provide professional recommendation and customized service to balance IP area and the performance.



➤ TITC Display Driver IP

IP Name	DDI-RGB2V2H-2X DDI-RGB1V4H-2X	DDI-RGB2V8H-3X DDI-RGB1V8H-3X	DDI-Ptype1V8H-2X	DDI-RGB4V4H-4X
Status	MP>300M	MP>300M	MP>60M	Ready
Throughput	4 pixel/clock	8 pixel/clock	8 component/clock	8 pixel/clock
Function Support	partial update random access	partial update random access	partial update random access	partial update random access
Compression Unit	2V2H or 1V4H	2V8H or 1V8H	1V8H	4V4H
Source Format	RGB	RGB	Pentile (RG ₁ BG ₂)	RGB
Bit Depth	8 bit	8 bit	8 bit	8 bit
Compression Ratio	2X	3X	2X *	4X
Latency	ENC: 2 clk DEC: 1 clk	ENC : 10 clk DEC : 5 clk	ENC : 7 clk DEC : 7 clk	ENC : 30 clk DEC : 5 clk
Gate Count	<50K	<400K	<400K	<550K
Power	<5mW	<10mW	<8mW	<25mW

*Compressed data size is the same as RGB 3x