

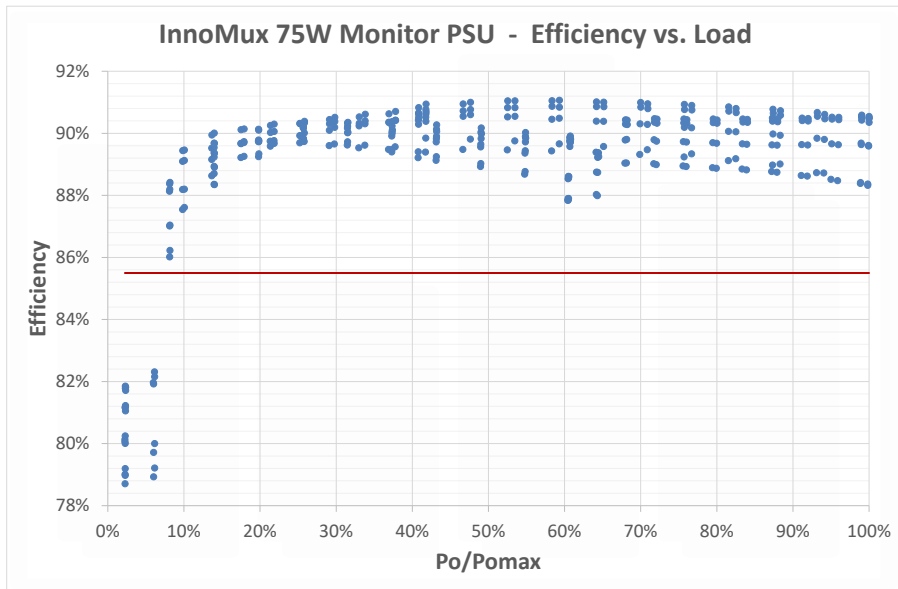


Multiplexed Power Architecture to Improve Display Efficiency

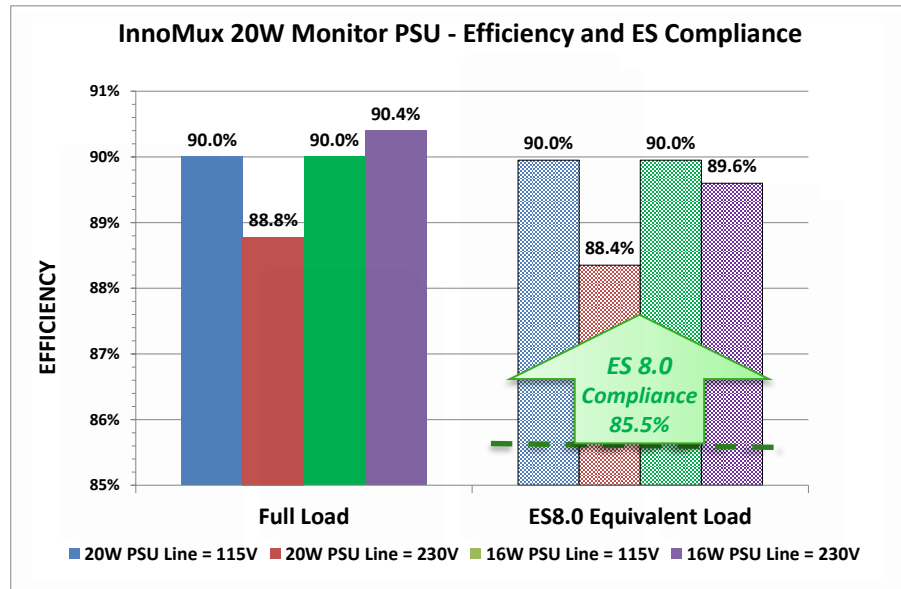
DOE Solid-State Lighting Workshop, Innovations in Display Architecture
February 2, 2022

David Chen, Director of Applications Engineering

Monitor PSUs - Efficiency and ES8.0 Compliance



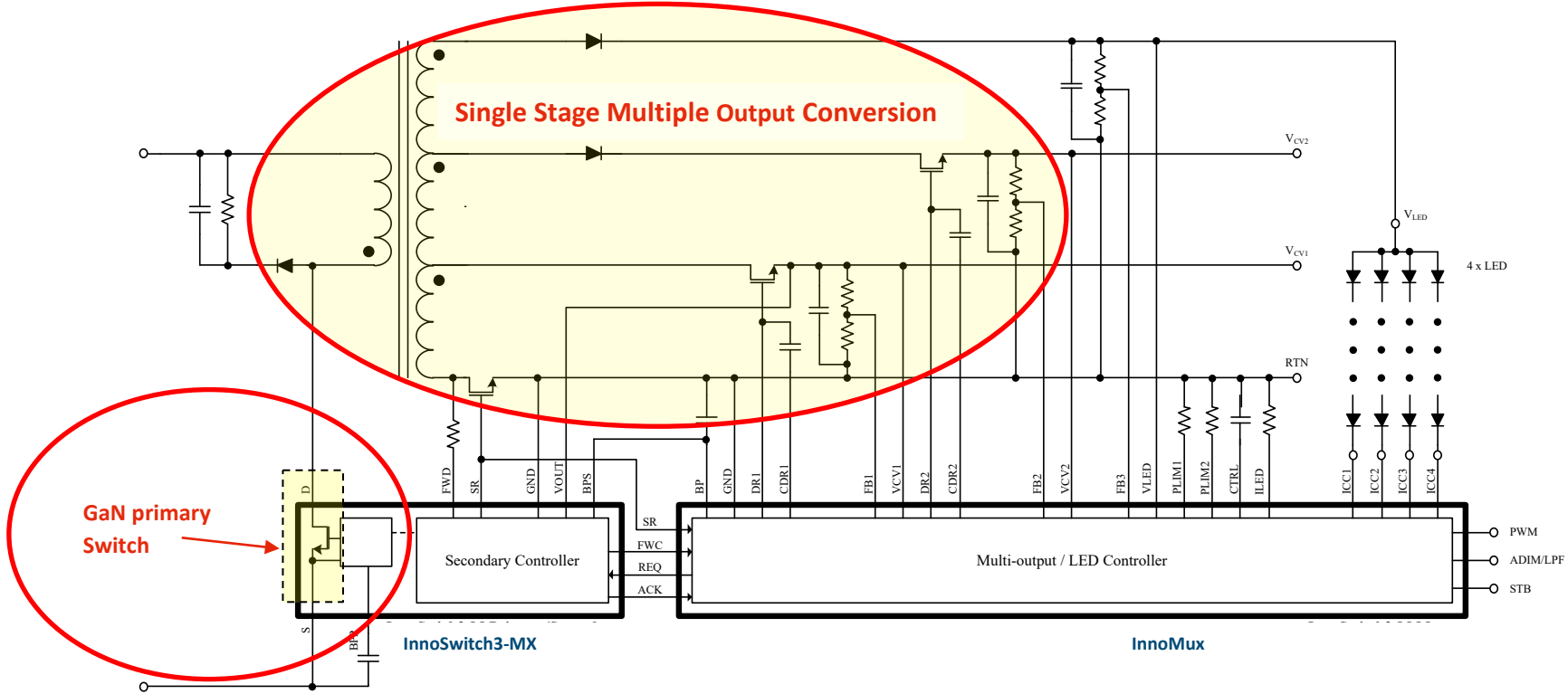
InnoMux enables design of highly efficient single-stage, multi-output PSUs with flat efficiency vs. load characteristic



Easy compliance to ENERGY STAR Displays v.8 for wide range of monitors



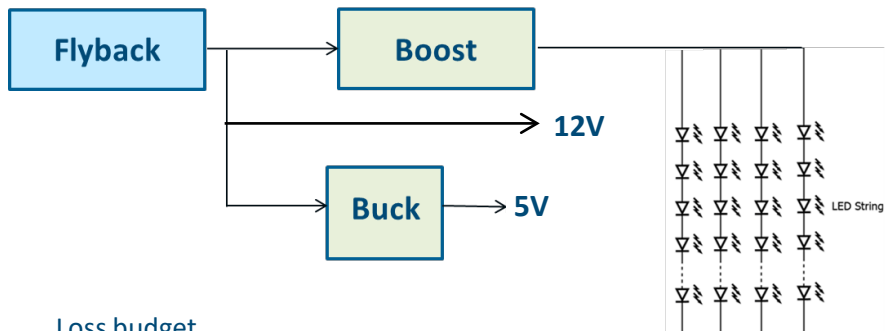
How Is It Achieved?



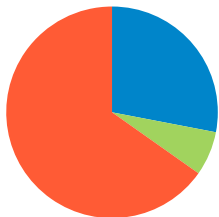
Dramatic Monitor System Efficiency Benefits

Existing Monitor Systems

Efficiency of 77%



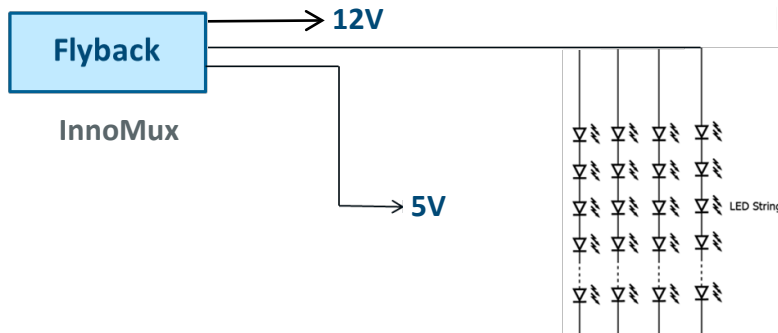
Loss budget
pie-chart



- Boost
- Buck
- Flyback

Monitor Systems with InnoMux

Efficiency of 90%



- Flyback

About 50% reduction in losses

ES 8.0 Compliance Improvements

Using InnoMux PSUs in Commercially Available Products

24" Monitor	Panel	Margin to ES 8.0 Compliance		Modification
		Line [Vac]		
		115	230	
Customer "D" Model "S"	Performance Panel	7.7%	5.1%	None
		16.7%	16.3%	Factory PSU replaced with PI PSU
Customer "D" Model "E"	Performance Panel	16.7%	16.2%	Factory fitted with PI PSU
	Value Panel	6.6%	5.8%	Factory fitted with PI PSU
Customer "L" Model "T"	Value Panel	-5.6%	-9.5%	None
		2.2%	1.1%	Factory PSU replaced with PI PSU

power
integrations™