

## SUPERTEX LED DRIVER PRODUCT MATRIX

Product	Power Supply Topology	V <sub>IN</sub> (V)				Output Current - For Parts with Integrated Switches Only (mA)	Switch Control Features				CMC Features		Dimming Features			Protection/Safety Features				Output (or Chip) Enable	Package	
		DC		Rectified AC			Constant Fre- quency Mode (KHz)	Constant Off-time Mode (µs)	Hysteretic Comparator	External Synchronization	ccm/dcm	Slope Compensation	PWM Dimming	Linear Dimming	Phase Dimming	Over-temperature Protection	Output Short Circuit Protection	Output Open Cir- cuit Protection [2]	Soft Start		Pins	Description
		Min	Max	Min	Max																	
HV9903	Boost	1.8	12.5	-	-	5 - 40	1200	-	-	-	dcm	-	✓	✓	-	-	-	✓	✓	✓	6	DFN
HV9910	Buck, Buck-boost (Flyback)	8	450	85	265	-	25 - 300	✓	-	-	ccm	-	✓	✓	-	-	-	✓	[5]	✓	8, 16	SOIC
HV9911	Boost, Buck[3], Flyback, SEPIC	9	250[4]	85	135[4]	-	25 - 350	✓	-	✓	any	✓	✓	✓	-	-	✓	✓	✓	✓	16	SOIC
HV9921	Buck	20	400	85	264	20	-	10	-	-	ccm	-	-	-	-	-	-	✓	-	-	3	TO-92, SOT-89
HV9922	Buck	20	400	85	264	50	-	10	-	-	ccm	-	-	-	-	-	-	✓	-	-	3	TO-92, SOT-89
HV9923	Buck	20	400	85	264	30	-	10	-	-	ccm	-	-	-	-	-	-	✓	-	-	3	TO-92, SOT-89
HV9925	Buck	20	400	85	264	20 - 50	-	10	-	-	ccm	-	✓	-	-	✓	-	✓	-	✓	8	SOIC
HV9930	Cuk	8	200	-	-	-	-	-	✓	-	ccm	-	✓	-	-	-	✓	[5]	-	✓	8	DIP, SOIC
AT9933	Cuk, [6]	8	100	-	-	-	-	-	✓	-	ccm	-	✓	-	-	-	✓	[5]	-	✓	8	SOIC
HV9931	Buck-boost Buck	8	450	85	264	-	✓	✓	-	-	[1]	-	✓	-	✓	-	✓	[5]	-	✓	8	DIP, SOIC

Notes: [1] 1st stage operates in dcm (discontinuous conduction mode), 2nd stage in ccm (continuous conduction mode)

[2] The open-circuit protection provided by buck converters is that which is inherent from their architecture

[3] Buck topology enabled by HV7800 (high-side current sense 1:1 amplifier)

[4] The input voltage may be extended higher by adding a 200V Zener diode at V<sub>IN</sub>

[5] See datasheet for implementing this feature with minimum external components

[6] -40 to +125°C ambient, AEC-Q100-Compliant

## SUPERTEX LED DRIVER DEMO BOARDS

Product	DB #	Description	V <sub>IN</sub>	LED Current
HV9903	DB1	White LED Driver	1.8 - 9VDC	15mA
HV9910	DB1	Off-line high brightness LED driver	90 - 135VAC, 60Hz	350mA - 1500mA
HV9910	DB2 v.2	Universal voltage off-line high brightness LED driver	90 - 265VAC, 50/60Hz	35mA - 350mA
HV9910	DB3 v.3	Low-voltage high-brightness LED driver (constant off-time mode; Vo < Vin)	8 - 30VDC	< 900mA
HV9911	DB1	High-brightness boost LED driver with excellent current regulation	21 - 27VDC	350mA +/- 5%
HV9911	DB2	Boost LED driver with excellent current regulation	9 - 16VDC	100mA +/- 5%
HV9921	DB1	Universal off-line LED driver	80 - 265VAC	20mA +/- 15%
HV9922	DB1	Universal off-line LED driver	80 - 265VAC	50mA +/- 15%
HV9923	DB1	Universal off-line LED driver	80 - 265VAC	30mA +/- 15%
HV9925	DB1	Programmable-current universal off-line LED driver with PWM dimming	80 - 265VAC	20mA-50mA
HV9930	DB1	High-brightness LED driver IC meeting automotive requirements	9 - 16VDC (42V load dump)	350mA +/- 5%
HV9930	DB2	Boost-buck high brightness LED driver	9 - 25VDC	750mA +/- 5%
AT9933	DB1	High-brightness LED driver IC meeting automotive requirements	9 - 16VDC (42V load dump)	350mA +/- 5%
HV9931	DB1	Single-stage PFC 700mA high-brightness LED driver	90 - 260VAC	700mA +/- 10%
HV9931	DB5	Universal-input single high-brightness LED driver	90 - 265VAC, 50/60Hz	350mA +/- 10%