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PART A

1. CASE I (Voltage Gain vs Duty Ratio)

DUTY RATIO	VOLTAGE GAIN
0.1	1.11
0.2	1.25
0.3	1.43
0.4	1.67
0.5	2.00
0.6	2.5
0.7	3.33
0.8	5.00
0.9	10.00

2. CASE II (Voltage Gain vs Duty Ratio)

DUTY RATIO	VOLTAGE GAIN
0.1	1.05
0.2	1.16
0.3	1.31
0.4	1.46
0.5	1.65
0.6	1.91
0.7	2.15
0.8	2.23
0.9	1.657

3. CASE I RMS Capacitor Current (D = 0.5)
   Observed RMS Current = 4.187 A
4. CASE II Inductance (CCM)
   L = 14 uH;

5. CASE I Load vs Efficiency (with Parasitic Resistance)

LOAD	EFFICIENCY
0.2	0.86
0.3	0.87
0.4	0.88
0.5	0.887
0.6	0.896
0.7	0.906
0.8	0.91
0.9	0.92
1	0.93

PART B

1. CASE I (Voltage Gain vs Duty Ratio)

DUTY RATIO	VOLTAGE GAIN
0.1	0.111
0.2	0.25
0.3	0.43
0.4	0.67
0.5	1.00
0.6	1.5
0.7	2.33
0.8	4.00
0.9	9.00

2. CASE II (Voltage Gain vs Duty Ratio)

DUTY RATIO	VOLTAGE GAIN
0.1	0.093
0.2	0.22
0.3	0.376
0.4	0.569
0.5	0.81

0.6	1.03
0.7	1.425
0.8	1.64
0.9	1.396

3. CASE I D=0.457 Fsw for which system in CCM and DCM
   Fsw = 7.55 KHz
4. CASE II D=0.457 Fsw for which system in CCM and DCM
   Fsw = 7.95 KHz

5. CASE I Steady State Input and Output Currents for D=0.1-0.9

DUTY RATIO	**INPUT CURRENT**	**OUTPUT CURRENT**
0.1	0.244	5.50
0.2	0.677	1.25
0.3	1.282	2.10
0.4	2.268	3.30
0.5	5.032	4.92
0.6	11.37	7.36
0.7	23.00	11.45
0.8	59.15	19.65
0.9	293.5	44.31