

## LIST OF TABLES

Table No.	Table Details	Page No.
3.1	Embedded systems performance comparison.....	037
3.2	IDEA VLSI area requirement.....	040
3.3	Hardware packet classifier area requirement .....	045
3.4	Input buffer area requirement.....	049
3.5	Instruction Look-Up Table area requirement.....	050
3.6	Parameter Look-Up Table area requirement.....	050
3.7	Control Look-Up Table area requirement.....	051
3.8	Compare unit area requirement.....	052
3.9	Counter unit area requirement.....	053
3.10	Payload Memory area requirement.....	055
3.11	IP Length Counter area requirement.....	055
3.12	Internet Checksum area requirement.....	057
3.13	Possible Types of Jump.....	060
3.14	Comparison Table.....	066
4.1	General simulation setting.....	081
4.2	Numbers of blocks required for NxN Knockout switch...	099
4.3	Block requirement for 8x8 Knockout switch.....	099
4.4	VLSI area requirement for 8x8 Knockout switch .....	099
4.5	VLSI area requirement for 8x8 Banyan/Batcher-Banyan/Batcher-Banyan-Trap switches.....	106
4.6	Comparison of 8x8 Batcher-Banyan-Trap and Knockout switches.....	107
5.1	The Look-up table Detail of the switch.....	143
5.2	RRM VLSI area requirement for 4x4 ATM switch.....	152
5.3	RRM VLSI area requirement for 8x8 ATM switch.....	152
5.4	iSlip VLSI area requirement for 4x4 ATM switch.....	153
5.5	iSlip VLSI area requirement for 8x8 ATM switch.....	153
5.6	RPA VLSI area requirement for 4x4 ATM switch.....	153
5.7	RPA VLSI area requirement for 8x8 ATM switch.....	153
5.8	DPA VLSI area requirement for 4x4 ATM switch.....	154
5.9	DPA VLSI area requirement for 8x8 ATM switch.....	154
6.1	Values of K.....	157
6.2	Mapping of ATM Packet in Buffer.....	186
6.3	DPA/ m-DPA area requirement for 4x4 ATM switch.....	192
6.4	DPA/ m DPA area requirement for 8x8 ATM switch.....	192
7.1	MATLAB simulation result comparison for 4x4 switch.....	200
7.2	VLSI implementation result comparison for 4x4 switch.....	200
7.3	MATLAB simulation result comparison for 8x8 switch.....	201
7.4	VLSI implementation result comparison for 8x8 switch.....	202
7.5	MATLAB simulation result comparison for 16x16 switch.....	203
7.6	MATLAB simulation result comparison for 32x32 switch.....	203
8.1	Values of K.....	206