

# TEA - Tiny Encryption Algorithm

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## 1 algorithm

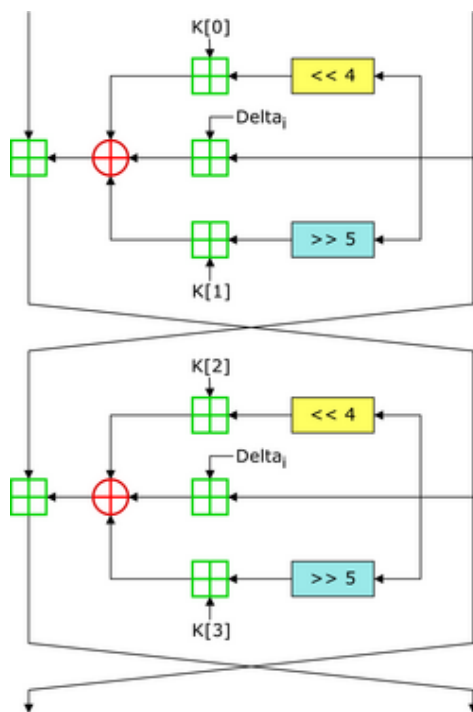


Figure 1: TEA one-round (image from wikipedia)

## 2 design

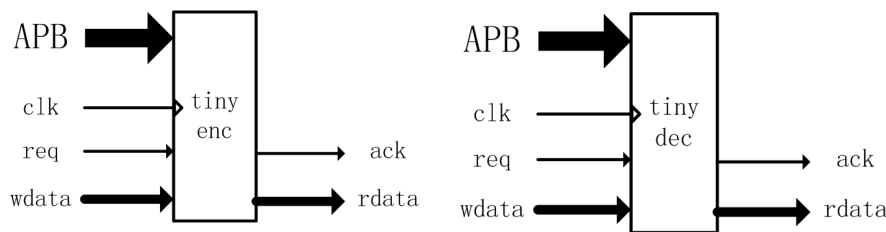


Figure 2: Design

### 2.1 registers

reg	offset	description
key10	0x0	key[31:00]
key32	0x4	key[63:32]
delta	0x8	delta

Table 1: registers

signal	offset	type	description
key0	[15:00]	RW	key[15:00]
key1	[31:16]	RW	key[31:16]

Table 2: reg: key10

signal	offset	type	description
key2	[15:00]	RW	key[47:32]
key3	[31:16]	RW	key[63:48]

Table 3: reg: key32

signal	offset	type	description
delta	[16:00]	RW	delta

Table 4: reg: delta