

ALU Decoder

ALUOp	cmd	S	Type	ALUControl	FlagW	Shifit
1	1010	1	CMP	001	11	0
1	1000	1	TST	010	10	0
1	0001	0	EOR	100	00-11	0
1	1101	0	LSL	-	00	1
1	1101	0	MOV	-	00	1
			LDRB	-	00	0

Controls

Inst/controls	RegSrc	ImmSrc	ALUSrcA-ALUSrcB	MemtoReg	RegW	MemW-MemB	Branch	ALUOp	AluControl
DATA process lmedid	00	00	1-0	0	1	0-0	0	1	000/001/010/011
DATA process regist	00	00	0-0	0	1	0-0	0	1	000/001/010/011
TST (imm)	00	00	0-1	0	0	0-0	0	1	010
TST (Reg)	00	00	0-0	0	0	0-0	0	1	010
CMP (imm)	00	00	0-1	0	0	0-0	0	1	001
CMP (Reg)	00	00	0-0	0	0	0-0	0	1	001
EOR (imm)	00	00	1-0	0	1	0-0	0	1	100
EOR (reg)	00	00	0-0	0	1	0-0	0	1	100
LSL e MOV (imm)	00	00	1-1	0	1	0-0	0	0	-
LSL e MOV (Reg)	00	00	1-0	0	1	0-0	0	0	-
STR (Imm)	10	01	0-1	1	0	1-0	0	0	-
STR (Reg)	00	01	0-0	1	0	1-0	0	0	-
LDR (Imm)	00	01	0-1	1	1	0-0	0	0	-
LDR (Reg)	00	01	0-0	1	1	0-0	0	0	-
LDRB (Imm)	00	01	0-1	1	1	0-1	0	0	-
LDRB (Reg)	00	01	0-0	1	1	0-1	0	0	-
B	01	10	1-0	0	0	0	1	0	-

Instrução	ALUcontrol	flag
ADD	000	-
SUB	001	-
AND	010	-
ORR	011	-
EOR	100	-
TST	010	N,Z,C
CMP	001	N,Z