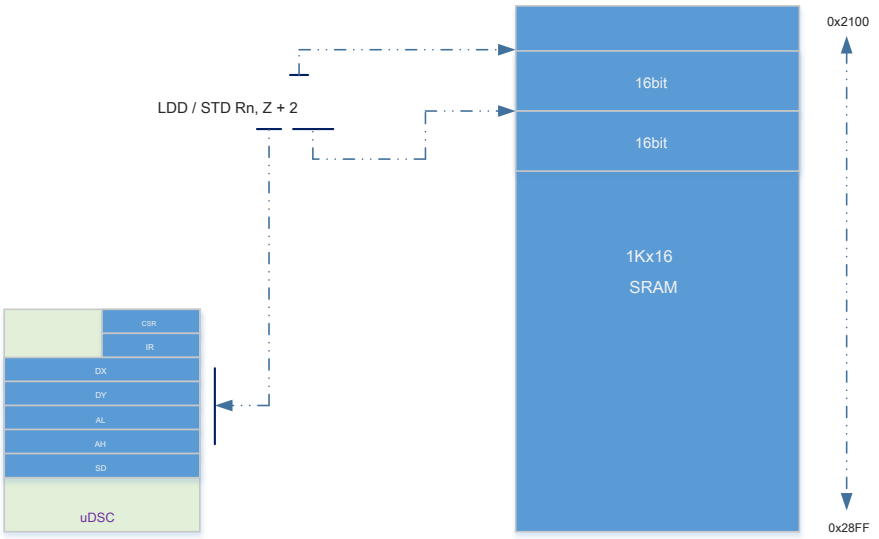

Variable address 16 The mapping between the address bit pattern

LGT8XM for 8 Bit processor, Data access in bytes. LGT8F328P Internal 2K Bytes of data space. This space is mapped to 0x0100 ~ 0x08FF the address of. C / C ++ The compiler automatically assigned to variables 0x0100 ~ 0x08FF between. If we C / C ++ A defined 16 It requires the use of an array of bits uDSC Calculates, on the need to map the address of the variable to 16 Place LD / ST Address area access (0x2100 ~ 0x28FF). The method is very simple, just to address the increase in variable 0x2000 It can be offset.

uDSC Operation instruction defines

Software uDSC of IR Register specifies the operation to be achieved. uDSC All arithmetic operations are DX / DY / DA Conducted between. Users can use 16 Place LD / ST Channels DX / DY / DA as well as SRAM Fast exchange data directly.

classification	IR [7: 0]								Functional Description
ADD / SUB	0	0	S1	0	0	1	0	1	DA = DX + DY
	0	0	S1	0	0	0	0	1	DA = DX - DY
	0	0	0	1	1	1	0	1	DA = DY
	0	0	S1	1	1	0	0	1	DA = -DY
	0	0	S1	1	0	1	1	1	DA = DA + DY
	0	0	S1	1	0	0	1	1	DA = DA - DY
MAC / MSC	0	1	S12	S02	0	1	0	0	DA = DX * DY
	0	1	S12	S02	0	0	0	0	DA = -DX * DY
	0	1	S12	S02	1	1	0	0	DA = (DX * DY) >> 1
	0	1	S12	S02	1	0	0	0	DA = (-DX * DY) >> 1
	0	1	S12	S02	0	1	1	S	DA = DA + DX * DY
	0	1	S12	S02	1	1	1	S	DA = (DA + DX * DY) >> 1
	0	1	S12	S02	0	0	1	S	DA = DA - DX * DY
	0	1	S12	S02	1	0	1	S	DA = (DA - DX * DY) >> 1
MISC	1	0	0	0	0	0	0	0	DA = 0