

**16 Place LD / ST Mode, the instruction "LDD Rn, Z + q" It is represented by the [ Z ] Address 16 Bit data is loaded into uDSC Data register, then Z Adding an offset value "Q". Here Rn Meaning mapping mode CSR [MM] The relationship is as follows:**

LDD Rn, Z / Y + q			
CSR [MM]	[Z + q]	Opcode	Operations
0	0x2100 ~ 0x28FF	LDD R0, Z + q	DX = [Z]; Z = Z + q; R0 kept unchanged
		LDD R1, Z + q	DY = [Z]; Z = Z + q; R1 kept unchanged
		LDD R2, Z + q	AL = [Z]; Z = Z + q; R2 kept unchanged
		LDD R3, Z + q	AH = [Z]; Z = Z + q; R3 kept unchanged
1	0x2100 ~ 0x28FF	LDD Rn, Z + q	{Rn} address for DX / DY / AL / AH in I / O region [DX / DY / AL / AY] = [Z]; Z = Z + q Rn keep unchanged
STD Rn, Z / Y + q			
0	0x2100 ~ 0x28FF	STD Z + q, R0	[Z] = DX; Z = Z + q; R0 kept unchanged
		STD Z + q, R1	[Z] = DY; Z = Z + q; R1 kept unchanged
		STD Z + q, R2	[Z] = AL; Z = Z + q; R2 kept unchanged
		STD Z + q, R3	[Z] = AH; Z = Z + q; R3 kept unchanged
		STD Z + q, R4	[Z] = SD; Z = Z + q; R4 kept unchanged
1	0x2100 ~ 0x28FF	STD Z + q, Rn	{Rn} address for DX / DY / AL / AH / SD in I / O region [Z] = [DX / DY / AL / AH / SD] addressed by {Rn} Rn keep unchanged

**LGT8XM Instruction set LD / ST, LDS / STS Have access to 0x2100 ~ 0x28FF Area, but LDD / STD of Y / Z + q Addressing more effective. LDD / STD Addressing based on a base address, we can Y / Z Set as RAM The base address of the data, by using LDD / STD Instructions Y / Z + q Addressing mode, access data and instructions can be executed in a single cycle, and the address pointer is automatically moved to the next target address.**

**LGT8XM Kernel Standard LDD / STD Instructions Y / Z + q Offset addressing mode, instruction execution [ Y / Z + q] As a 8 After the address bits of data, execute complete Y / Z The value does not increase. When LDD / STD Addressing 0x2100 ~ 0x28FF When the address range, LDD / STD The command behavior changed: the instruction is executed, use [ Y / Z] As a 16 Addressing address bit data after the execution, Y / Z The value increase "Q" Specified offset. This feature can improve our efficiency continuously addressed by the "Q = 2" You can achieve a continuous 16 Addressing data bits.**