Function	B operand	A operand	Operation	Result Sign	Zone Code
ADD	+	+	B + A	+	3
	+	–	B – A	+	3
	–	+	B – A	–	5
	–	–	B + A	–	5
SUBTRACT	+	+	B – A	+	3
	+	–	B + A	+	3
	–	+	B + A	–	5
	–	–	B – A	–	5

If the value of A is greater than the value of B, and the operation is B – A, then the sum is complemented and the sign of the result is inverted.

If the A operand is shorter than the B operand, it is effectively extended with zeros on the left during the operation.

If the A operand is longer than the B operand, it is truncated from the left and the truncated part is ignored.

3.3.3 Multiplication: Multiplication is performed by a sequence of additions of the A operand, extended with a zero digit, to the extended B field. The number of additions is determined by the value of the digits of the B operand.

The zone of the least significant byte of the extended B-field is set according to the signs of the A and B operands. Zone codes 0-3 and 8-11 are treated as positive signs.

Operand Signs		Result	
A	B	Sign	Zone Code
+	+	+	3
+	–	–	5
–	+	–	5
–	–	+	3

The result of using overlapped operands is undefined.

3.3.4 Division: Division is performed by a sequence of subtractions of the A operand (divisor), extended with a zero digit, from the extended B field which contains the B operand (dividend).

The result (quotient) is stored in the B field and the remainder is stored in the extension to the B field.

The Zone code of the least significant byte of the B field is set according to the signs of the A and B operands.

Operand Signs		Quotient	
A	B	Sign	Zone Code
+	+	+	3
+	–	–	5
	+	–	5
	–	+	3

The sign of the B operand is not changed and becomes the sign of the remainder.

The result of using overlapped operands is not defined.

3.4 Address format

The addresses on System 25 are represented as decimal numbers in the range 00000 to 79999, the first digit being a page number in the range 0 to 7. The whole address is stored in part of a 4-byte address word, together with a marker C which takes the value 0 if the address is relative to a partition base and 1 if it is relative to the Common base.

The format is as follows:

The decimal digits d3, d2, d1, d0 giving the address within the page with d3 the most significant (thousands) and d0 the least significant (units), are binary-coded in bits 4 to 1 of the four bytes. Bit 4 is the most significant, bit 1 the least.

The page number p is stored in inverse form in bit 5 of each of bytes 1, 2, 3 with most significant bit in byte 3.

The marker C is stored in bit 7 of byte 4 and its inverse in bit 6.

The remaining bits — that is, bits 6 to 8 of bytes 1 to 3 and bit 5 of byte 4 — are not used by address computation.

The layout is shown in the diagram below.

Byte Bit	0	1	2	3
8	*	*	*	0
7	*	*	*	C
6	*	*	*	C̄
5	P̄0	P̄1	P̄2	*
4				
3	D3	D3	D1	D0
2				
1				

*not used