| | | w = 1 | | | mod = 0 | | mod = 1 | | mod = 2 | | |
|-----|-------|-------|-----|-----|-------------|---------|-----------|-------------|-----------|--------------|---------|
| reg | w = 0 | 16b | 32b | r/m | 16b | 32b | 16b | 32b | 16b | 32b | mod = 3 |
| 0 | AL | АХ | EAX | 0 | addr=BX+SI | =EAX | same | same | same | same | same |
| 1 | CL | СХ | ECX | 1 | addr=BX+DI | =ECX | addr as | addr as | addr as | addr as | as |
| 2 | DL | DX | EDX | 2 | addr=BP+SI | =EDX | mod= 0 | mod=0 | mod=0 | mod=0 | reg |
| 3 | BL | ВХ | EBX | 3 | addr=BP+SI | =EBX | + disp 8 | + disp 8 | + disp1 6 | + disp3 2 | field |
| 4 | АН | SP | ESP | 4 | addr=SI | =(si)b | SI+disp16 | (sib)+disp8 | SI+disp8 | (sib)+disp32 | " |
| 5 | СН | ВР | EBP | 5 | addr=DI | =disp32 | DI+disp8 | EBP+disp8 | DI+disp16 | EBP+disp32 | " |
| 6 | DH | SI | ESI | 6 | addr=disp16 | =ESI | BP+disp8 | ESI+disp8 | BP+disp16 | ESI+disp32 | " |
| 7 | ВН | DI | EDI | 7 | addr=BX | =EDI | BX+disp8 | EDI+disp8 | BX+disp16 | EDI+disp32 | " |

FIGURE E.39 Based plus scaled index mode address specifier found in the 80386. This mode is indicated by the (sib) notation in Figure E.38. Note that this mode expands the list of registers to be used in other modes: Register indirect using ESP comes from Scale = 0, Index = 4, and Base = 4, and base displacement with EBP comes from Scale = 0, Index = 5, and mod = 0. The two-bit scale field is used in this formula of the effective zaddress: Base register + 2^{Scale} × Index register.

Copyright © 2021 Elsevier Inc. All rights reserved