This technical update provides a cautionary note regarding ALeRASE command operation.

1. Note

An emulator connection will be refused when OSIS bit [127] is set as 0 however the ALeRASE command will be accepted. When the ALeRASE command is executed, the User memory region and Option memory region are erased. The OSIS register value is also erased, so that the emulator can be connected again.

2. Countermeasures

When OSIS bit [127]=0, disabling acceptance of the ALeRASE command needs some additional settings as below.

User can select between two equivalent workarounds.

A) Setting SECMPUAC (when boot swap is set, the address of SECMPAC shifts by 2000h.)
   - Please set data as 0xFEFF at SECMPUAC
Figure 1. SECMPUAC register

- Please set 0xFFFF_FFFC at SECMPUPCS0 and set 0xFFFF_FFFF at SECMPUPCE0.

Or

B) Setting AWSC or AWS

For RA2A1, RA4M1 and RA4W1, please set AWSC bit [14] = 0.

For RA2L1, RA2E1, RA6M1, RA6M2, RA6M3 and RA6T1, please set AWS bit [15] = 0.

AWSC bit [14] or AWS bit [15] cannot be changed to 1 once it is set to 0. After clearing the AWSC or AWS bits, the access window and startup area selection options are permanently fixed and cannot be used again. In this case, the self-programming is prohibited because the startup area cannot be exchanged.