## 8.3.1 Shared resources

AAR shares the same AES module as the ECB and CCM peripherals. ECB will always have the lowest priority. If there is a sharing conflict during encryption, ECB operation will be aborted and an ERRORECB event will be generated by ECB.

Additionally, AAR shares registers and other resources with the peripherals that have the same ID as AAR. See Peripherals with shared ID on page 214 for more information.

## 8.3.2 Resolving a resolvable address

As per *Bluetooth* specification, a private resolvable address is composed of six bytes.



*Figure 38: Resolvable address*

To resolve an address, IN.PTR must point to a job list describing both the Hash and Prand parts of the private resolvable address (DEVICEADDR) field from the Bluetooth packet, as well as a number of Identity Resolving Keys (IRK). This is illustrated in the examples below. How many IRKs are used is determined by the number of IRKs in the job list. See EasyDMA on page 223 for an introduction to EasyDMA job lists.

The resolver is started by triggering the START task. A RESOLVED event is generated if AAR manages to resolve the address using one of the Identity Resolving Keys (IRK). AAR will generate a NOTRESOLVED event if it is not able to resolve the address using the specified list of IRKs. If there are no IRKs in the joblist, the NOTRESOLVED event is generated.
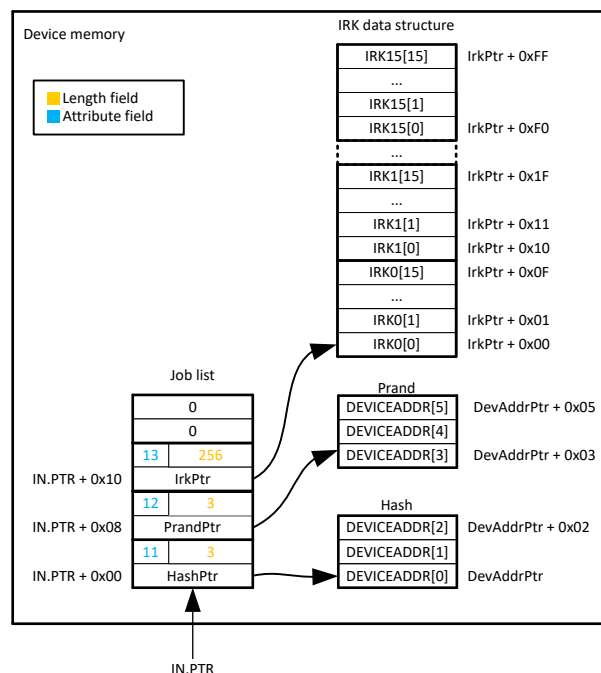


*Figure 39: Address resolution with 16 IRKs and DEVICEADDR preloaded into RAM*