Figure 21: Regulator configuration

The main supply voltage is connected to the **VDD** pin.

5.7.1 VREGMAIN — Main regulator

VREGMAIN is the main regulator of the system.

The device can only be operated in DC/DC mode, but the regulator also has an LDO mode that is used to start up the device.

After reset and device start up, VREGMAIN is enabled and uses LDO. Once the device starts, the DC/DC regulator must be enabled using register VREGMAIN.DCDCEN on page 100. When enabling the DC/DC regulator, the device checks if an inductor is connected to the **DCC** pin. If an inductor is not detected, the device remains in LDO mode. While in LDO mode, register VREGMAIN.INDUCTORDET on page 100 reports the inductor detection status and is used to detect inductor failure. An inductor failure means the DC/DC mode was not able to start.

VREGMAIN only supports DC/DC mode, which needs external components. For details, see Reference circuitry on page 889.

5.7.2 Registers

Instances

Instance	Domain	Base address	TrustZone			Split	Description
			Map	Att	DMA	access	
REGULATORS : S	GLOBAL	0x50120000	US	S	NA	No	Regulator control
REGULATORS : NS		0x40120000					