IEEE 802.15.4 channel	Center frequency (MHz)	FREQUENCY setting
Channel 11	2405	5
Channel 12	2410	10
Channel 13	2415	15
Channel 14	2420	20
Channel 15	2425	25
Channel 16	2430	30
Channel 17	2435	35
Channel 18	2440	40
Channel 19	2445	45
Channel 20	2450	50
Channel 21	2455	55
Channel 22	2460	60
Channel 23	2465	65
Channel 24	2470	70
Channel 25	2475	75
Channel 26	2480	80

Table 56: IEEE 802.15.4 center frequency definition

8.17.12.3 Energy detection (ED)

In order to determine the presence of activity, IEEE 802.15.4 requires that the received signal power within the channel bandwidth can be sampled.

To prevent the channel signal from being decoded, the shortcut between the READY event and the START task should be disabled before putting RADIO in RX mode. The energy detection (ED) measurement time, where RSSI samples are averaged, is 8 symbol periods, corresponding to 128 µs. The standard further specifies the measurement to be a number between 0 and 255, where 0 indicates received power less than 10 dB above the selected receiver sensitivity. The power range of the ED values must be at least a 40 dB linear mapping with accuracy of ±6 dB. See section *6.9.7 Receiver ED* in IEEE 802.15.4 for further details.

The following example shows how to perform a single energy detection measurement and convert to IEEE 802.15.4 scale.

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