

LIMIT

§15.519(a)(1) A UWB device operating under the provisions of this section shall transmit only when it is sending information to an associated receiver. The UWB intentional radiator shall cease transmission within 10 seconds unless it receives an acknowledgement from the associated receiver that its transmission is being received. An acknowledgment of reception must continue to be received by the UWB intentional radiator at least every 10 seconds or the UWB device must cease transmitting.

TEST PROCEDURES

Transmissions are monitored for two cases:

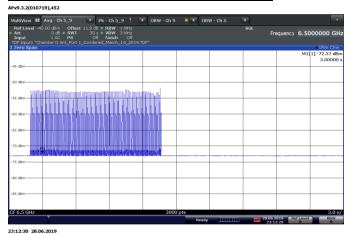
- 1. The smart phone ends the UWB link.
- 2. The EUT ends the UWB link.

RESULTS

Signal Levels on all Plots

- EUT is High Amplitude
- Smart Phone is Low Amplitude

Case 1: Smart Phone ends the UWB link



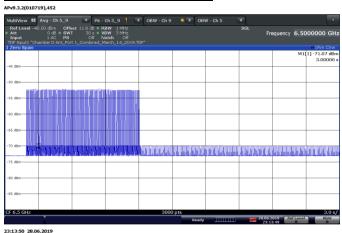
RESULT

• All devices, including the EUT, cease transmissions

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MODELS: A2161, A2219, A2220

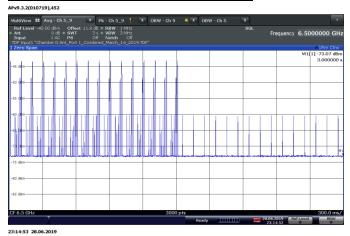
Case 2: EUT ends the UWB link



RESULT

- EUT ends the link, Smart Phone stops Acknowledgements but continues Polling
 - EUT ceases transmissions, does not respond to Polling Signals

Zoom-in Plot during On-Off Transition



RESULT

- Shows Link Traffic, Acknowledgements and Polling Signals while Link is established
- Shows Polling Signals after Link has ended

AVERAGE EMISSIONS 8.4.

LIMIT

§15.519 (3)(c) The radiated emissions at or below 960 MHz from a device operating under the provisions of this section shall not exceed the emission levels in §15.209. The radiated emissions above 960 MHz from a device operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of 1 MHz:

15.209 (a)

| Frequency (MHz) | Field strength (microvolts/meter) | Measurement distance (meters) |
|-----------------|-----------------------------------|-------------------------------|
| 0.009-0.490 | 2400/F(kHz) | 300 |
| 0.490-1.705 | 24000/F(kHz) | 30 |
| 1.705-30.0 | 30 | 30 |
| 30-88 | 100** | 3 |
| 88-216 | 150** | 3 |
| 216-960 | 200** | 3 |
| Above 960 | 500 | 3 |

15.519 (3)(c)

| Frequency in MHz | EIRP in dBm |
|------------------|-------------|
| 960-1610 | -75.3 |
| 1610-1990 | -63.3 |
| 1990-3100 | -61.3 |
| 3100-10600 | -41.3 |
| Above 10600 | -61.3 |

§15.519 (3)(d) In addition to the radiated emission limits specified in the table in paragraph (c) of this section, UWB transmitters operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of no less than 1 kHz:

| Frequency in MHz | EIRP in dBm |
|------------------|-------------|
| 1164-1240 | -85.3 |
| 1559-1610 | -85.3 |

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