

## 9. Transmission Burst

### 9.1 Test purpose

To verify that transmission burst of EUT shall comply with the conformance requirements.

### 9.2 Conformance requirement

#### a. Transmitter attack time:

The time taken shall less than  $10\mu\text{s}$  for the transmitted power to increase from  $25\mu\text{W}$  to the time of bit  $p_0$  of physical packet.

#### b. Transmitter release time:

The time taken shall less than  $10\mu\text{s}$  from the end of the physical packet, for the transmitted power to decrease to  $25\mu\text{W}$ .

#### c. Minimum power:

From  $p_0$  to the end of the physical packet ( $p_0$  to the end of frame), the transmitted power as measured shall be greater than  $(\text{NTP}-1\text{dB})$

#### d. Maximum power:

From  $10\mu$  after  $p_0$  to  $10\mu\text{s}$  after the end of physical packet ( $p_0+10\mu\text{s}$  to end of frame+ $10\mu\text{s}$ ), the transmitted power as measured shall be less than  $(\text{NTP}+1\text{dB})$

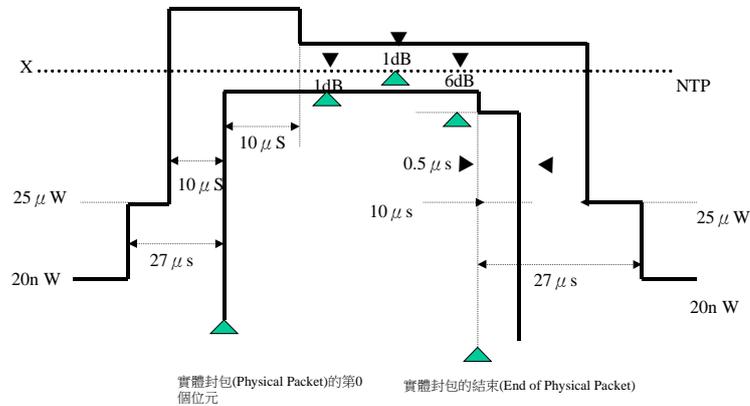
From  $10\mu\text{s}$  before  $p_0$  to  $10\mu\text{sec}$  after  $p_0$  ( $p_0-10\mu\text{s}$  to  $p_0+10\mu\text{s}$ ), the transmitted power as measured shall be less than  $(\text{NTP}+4\text{dB})$ , and shall be less than  $315\text{mW}$ .

#### e. Maintenance of transmission after packet end:

The transmitted power as measured shall be maintained greater than  $(\text{NTP}-6\text{dB})$  for  $0.5\mu\text{s}$  after the end of the physical packet.

#### f. Transmitter idle power output:

For the time period starting  $27\mu\text{s}$  after the end of the physical packet, and finishing  $27\mu\text{s}$  before the next transmission of data bit p0, the transmitter idle power output shall be less than  $20\text{nW}$ .



This requirement shall apply except when p0 of the next transmitted packet occurs less than  $54\mu\text{s}$  after the end of the transmitted physical packet. The power level of X shall be less than  $315\text{mW}$ , and also shall be less than  $\text{NTP} - 4\text{dB}$ .

### 9.3 Method of measurement

- The Lower Tester (LT) shall place the EUT in a mode whereby the EUT is positioned in a LT specified slot and RF channel  $c=5$ . If so equipped, the handover function in the EUT shall be disabled.
- Select system simulator for the transmission burst test mode described as in TBR 6.
- Using a sampling measurement method, capture a representation of the EUT's transmit burst's amplitude and modulation. The measurement bandwidth for RF power shall be  $1\text{MHz}$  for the measurement of transmitter idle power and  $\geq 3\text{MHz}$  for all other.
- For the array of samples the LT shall calculate the position of bit p0 and the end of the physical packet in each sample to an accuracy of  $0.1\mu\text{s}$ .

- e. Steps b. to c. are repeated 60 times with intervals of 1sec or longer.
- f. Display the results on the screen and print the measurement results.
- g. Steps b. to f. shall be repeated for RF channels c=2 and 9.

#### 9.4 Test requirement

The test conditions are given in Annex A. The measurement arrangement is given in Annex B. The test shall take place at a test site or in a test fixture. If the EUT has an antenna connector then it shall be used to connect the EUT to LT.