10. Adjacent Channel Power

10.1Test purpose

To verify that the adjacent power channel shall comply with the required power level.

10.2Conformance requirement

Carrier center frequency±600KHz: $\leq 2 \mu W$ Carrier center frequency±900KHz: $\leq 0.625 \mu W$ (Refer to ANSI J-STD-021-1996 §3.4.1.3 Minimum Standards)

10.3 Method of measurement

Measurement system diagram



- a. The SU shall be modulated with pseudo-random data in the FC (Fast Channel).
- b. Measurement of upper frequency power (P_u):
 - (a) Set the center frequency of the spectrum analyzer to the frequency $f_c+\Delta f$ KHz, where $\Delta f{=}600 \text{KHz}$
 - (b) Determine the power sum of all samples in $f_c+\Delta f\pm96KHz,$ and record total power(P_u)
 - (c) Set the center frequency of the spectrum analyzer to the frequency $f_c + \Delta f$ KHz, where Δf =900KHz, and repeat (b)
- c. Measurement of lower frequency power (P₁):
 - (a) Set the center frequency of the spectrum analyzer to the frequency $f_c \Delta f$ KHz, where $\Delta f{=}600 \text{KHz}$

- (b) . Determine the power sum of all samples in $f_c \Delta f \pm 96 \text{KHz},$ and record total power (P_I)
- (c) Set the center frequency of the spectrum analyzer to the frequency $f_c \Delta f$ KHz, where Δf =900KHz, and repeat (b).

10.4Test requirements

- a. The test conditions are given as Annex A.
- b. Spectrum analyzer setting:

Central frequency:	Specified as in 10.3 Method of
	measurement
Sweep frequency width: ±96KHz	
Resolution bandwidth:	1KHz
Video bandwidth:	3KHz
Y axis scale:	10 dB/Div
Input level:	Near maximum of linear range of internal
	mixer of spectrum analyzer (For example:
	-10 to -30dBm
Number of Samples:	\geq 400 points (For example:1,001 points)
Sweep time:	One burst per sample (For example: 5 sec)
Sweep mode:	Single sweep
Detection mode:	Positive peak