

# Espressif Adjacent Channel Rejection Test Report



Version 1.0



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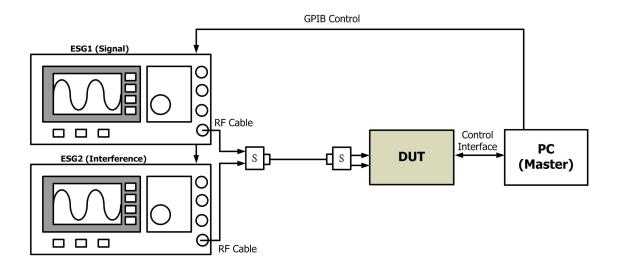


# **Revision History**

Revision Version	Date	Changes	Owner



## 1. Test Setup



### Notes:

- 1. Configure the instrument setup as the figure above shows.
- 2. Select the test Channel/BW/Path as tables in this report specified.
- 3. The adjacent channel rejection shall be measured using the following method. (Please refer to the IEEE Standard for the details of the technology).
- 4. For OFDM modulation, input an OFDM modulated signal at a level 3 dB greater than sensitivity specified in Table 1. In an adjacent channel (>=20 MHz for 11g/n20 or >=40MHz for 11n40 separation as defined by the channel numbering), input a signal modulated in a similar fashion, which adheres to the transmit mask, to a level x dB above the sensitivity specified in Table 1. The adjacent channel signal shall be derived from a separate signal source. It cannot be a frequency shifted version of the reference channel. Under these conditions, the FER shall be no worse than 10\*10–2.
- 5. For CCK modulation, input an 11 Mb/s CCK modulated signal at a level 6 dB greater than sensitivity specified in Table 1. In an adjacent channel (>=25 MHz separation as defined by the channel numbering), input a signal modulated in a similar fashion, which adheres to the transmit mask, to a level 41 dB above the sensitivity specified in Table 1. The adjacent channel signal shall be derived from a separate signal source. It cannot be a frequency shifted version of the reference channel. Under these conditions, the FER shall be no worse than 8\*10<sup>-2</sup>.



# 2. Test Specifications

Table 2-1

Modulation/Rate	Rate	ACPR (dB)	Sensitivity (dBm) BW=20M	Sensitivity (dBm) BW=40M
BPSK/6M/MCS0	1/2	16	-82	-79
BPSK/9M	3/4	15	-81	-78
QPSK/12M/MCS1	1/2	13	-79	-76
QPSK/18M/MCS2	3/4	11	-77	-74
16-QAM/24M/MCS3	1/2	8	-74	-71
16-QAM/36M/MCS4	3/4	4	-70	-67
64-QAM/48M/MCS5	2/3	0	-66	-63
64-QAM/54M/MCS6	3/4	-1	-65	-62
64-QAM/MCS7	5/6	-2	-64	-61
CCK 11M	X	35	-76	Х



# 3. Test Result

Table 3-1

Mode: 11b Bandwidth: 20 MHz				MHz
Pass/Fail	pass	pass	pass	Crt.
Channel signal/interfere	1/6	7/12	13/8	
CCK_11M	38	38	38	> =35
Note: Input Power at Antenna Connectors: 11M:-70dBm, 25M Frequency space for CCK.				

Table 3-2

Mode: 11b		Bandwidth: 20 MHz			
Pass/Fail	pass	pass	pass	Crt.	
Channel signal/interfere	1/6	7/12	13/8		
54M	13	14	14	>= -1	
48M	15	15	15	>= 0	
36M	19	19	19	>= 4	
24M	23	23	23	>= 8	
18M	26	26	26	>= 11	
12M	28	28	28	>= 13	
9M	29	29	30	>= 15	
6M	29	31	31	>= 16	

Note: Input Power at Antenna Connectors: 54M:-62dBm, 48M:-63dBm, 36M:-67dBm, 24M:-71dBm, 18M:-74dBm, 12M:-76dBm, 9M:-78dBm, 6M:-79dBm, 25M Frequency space For 11g



Table 3-3

Mode: HT-11n Bandwidth				n: 20 MHz
Pass/Fail	pass	pass	pass	Crt.
Channel signal/interfere	1/6	7/12	13/8	
MCS7	13	13	13	>= -2
MCS6	14	14	14	>=-1
MCS5	15	15	15	>= 0
MCS4	19	19	19	>= 4
MCS3	23	23	23	>=8
MCS2	26	25	26	>= 11
MCS1	27	27	28	>= 13
MCS0	30	30	31	>= 16

Note: Input Power at Antenna Connectors: MCS7:-61dBm, MCS6:-62dBm, MCS5:-63dBm, MCS4:-67dBm, MCS3:-71dBm, MCS2:-74dBm, MCS1:-76dBm, MCS0:-79dBm, 25M Frequency space For 11n-20





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