Espressif Adjacent Channel Rejection Test Report

Version 1.0

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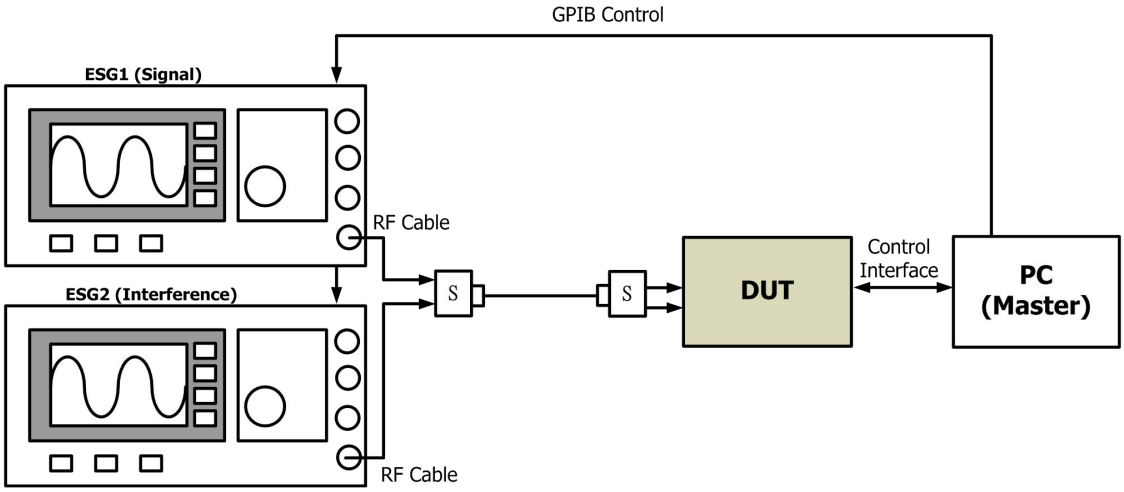
Revision History

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 $8*10^{-2}$.

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	X

3. Test Result

Table 3-1

Mode: 11b			**Bandwidth: 20 MHz**	
Pass/Fail	pass	pass	pass	Crt.
Channel signal/interfere	1/6	7/12	13/8	
CCK_11M	37	37	36	>= 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	11	13	12	>= -1
48M	14	14	14	>= 0
36M	19	18	17	>= 4
24M	19	19	19	>= 8
18M	23	23	22	>= 11
12M	24	24	23	>= 13
9M	25	25	25	>= 15
6M	27	27	27	>= 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: 20 MHz	
Pass/Fail	pass	pass	pass	Crt.
Channel signal/interfere	1/6	7/12	13/8	
MCS7	12	12	11	>= -2
MCS6	13	13	13	>= -1
MCS5	13	14	13	>= 0
MCS4	18	17	17	>= 4
MCS3	19	19	18	>= 8
MCS2	20	22	21	>= 11
MCS1	25	24	24	>= 13
MCS0	26	27	26	>= 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				

Table 3-4

Mode: HT-11n			Bandwidth: 40 MHz	
Pass/Fail	pass	pass	pass	Crt.
Channel signal/interfere	3/11	9/1	11/3	
MCS7	4	7	7	>= -2
MCS6	8	8	8	>= -1
MCS5	10	9	9	>= 0
MCS4	13	11	11	>= 4
MCS3	15	10	11	>= 8
MCS2	15	15	13	>=11
MCS1	15	14	14	>=13
MCS0	18	17	17	>=16
Note: Input Power at Antenna Connectors: MCS7:-58dBm, MCS6:-59dBm, MCS5:-60dBm, MCS4:-64dBm, MCS3:-68dBm, MCS2:-71dBm, MCS1:-73dBm, MCS0:-76dBm, 40M Frequency space For 11n-40				

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