NorDig-Unified_Test_Plan_ver_2.6.0 – DVB-T/DVB-T2 PART

1   Introduction

This document summarizes Silicon Labs understanding of current test plan and the needs of further clarification or update from NorDig when comparing latest test plan requirements with related NorDig unified requirements.

2   DVB-T

2.1   Task 3:10 Tuning/Scanning Procedures: Automatic channel search for the same service bouquet

Per annex D of NorDig Unified requirements (ver2.6 or 3.0), flow chart numbers 3, 7, 2 and 6 requires delta SSI to be greater than 0, otherwise (delta SSI=0), 1 is tested instead of 2 or 3, 5 is tested instead of 6 or 7.
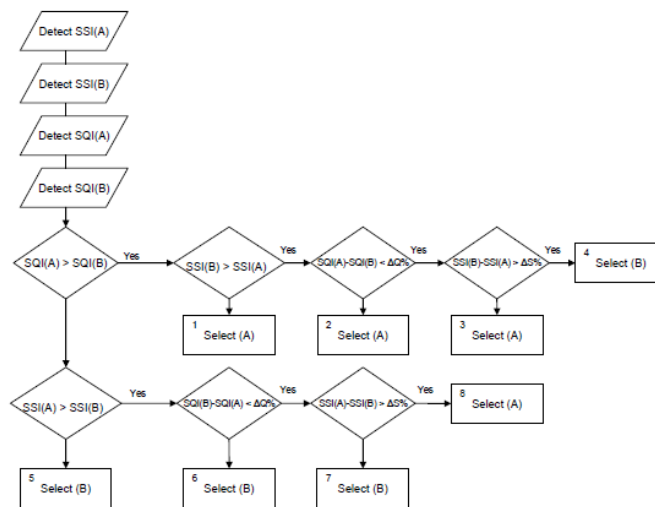

Figure 1 A flowchart for best service selection algorithm in case when two transmitters A and B transmit equal service and both of them are able to be received. ΔS and ΔQ refer to difference in SSI and SQI values and are defined as ΔS=10% and ΔQ=20%.

Considering that SSI slope of 4/dB for 64QAM 2/3 input power level <=-60dBm and SSI slope of 0.67/dB for input power level >=-60dBm, Silicon Labs recommends to update NorDig default levels from -60dBm to -58dBm to reduce probability that delta SSI=0 while keeping delta SSI<=10 as shown in SiLabs tuner/demodulator test reports.

Task 3:10 test point	Channel A (474MHz) Signal level [dBm]	CNR [dB]	BER settings		Channel B (690MHz) Signal level [dBm]	CNR [dB]	BER settings		Delta SSI Spec.	Result	Delta SQI Spec.	Result	flowchart number (Figure 1 of Annex D)	Spec.	Result	Comments
1	-60	none	none	none	-60	none	none	none	<=10	1	<=10	0	1, 2, 3, 5, 6, 7	CHA or CHB	CHA	
2	-50	none	none	none	-65	none	none	none	>10	24	<20	0	1, 8	CHA	CHA	
3	-65	none	none	none	-50	none	none	none	>10	19	<20	0	4, 5	CHB	CHA	
4	-61	15,9	none	none	-58	15,4	none	none	<=10 / >0	2 / 2	<20 / >0	6 / 5	3	CHA	CHA	To validate flowchart numbers 3, 7, 2 and 6, delta SSI shall be greater than 0. This requires modifications of NorDig default levels applied.
5	-58	15,4	none	none	-61	15,9	none	none	<=10 / >0	2 / 2	<20 / >0	6 / 5	7	CHB	CHB	
6	-58	none	none	none	-61	15,9	none	none	<=10 / >0	2 / 2	>=20	89 / 2	2	CHA	CHA	
7	-61	15,9	none	none	-58	none	none	none	<=10 / >0	2 / 2	>=20	89 / 2	6	CHB	CHB	
8	-50	none	none	none	-65	15,9	none	none	>10	24	>=20	90	1	CHA	CHA	
9	-65	15,9	none	none	-60	none	none	none	>10	12	>=20	89	5	CHB	CHB	
Disabled carriers [start, stop]																
10a	-50	none	3408	4548	-65	none	3408	4458	>10	27	<20 / >0	10 / 8	8	CHA	CHA	
11a	-65	none	3408	4458	-50	none	3408	4548	>10	22	<20 / >0	6 / 4	4	CHB	CHB	
Modulator impairment [Quadrature error]																
10b	-50	none	10		-65	none	none		>10	24	<20 / >0	10 / 10	8	CHA	CHA	
11b	-65	none	none		-50	none	10		>10	19	<20 / >0	11 / 10	4	CHB	CHB	
Disabled carriers [start, stop]																
12	-60	none	none	none	-60	none	3408	4458	<10	0	>=20	58	1, 2	CHA	CHA	
13	-60	none	3408	4458	-60	none	none	none	<10	0	>=20	58	5, 6	CHB	CHB	

Note that SFU maximum quadrature error is 10 degrees and does not allow to test Delta SQI >=20 required for test points 12 and 13.

Task	Level	CNR	Impairment		SSI	SSI max	SQI	SQI
			Channel A (474MHz) measurements					
1	-60	none	none	none	90	91	100	100
2	-50	none	none	none	98	98	100	100
3	-65	none	none	none	74	78	100	100
4	-61	15,9	none	none	90	90	10	11
5	-58	15,4	none	none	92	92	5	5
6	-58	none	none	none	92	92	100	100
7	-61	15,9	none	none	90	90	10	11
8	-50	none	none	none	98	98	100	100
9	-65	15,9	none	none	78	78	10	11
10a	-50	none	3408	4548	97	97	33	34
11a	-65	none	3408	4458	74	74	42	42
10b	-50	none	10		98	98	90	90
11b	-65	none	none		74	78	100	100
12	-60	none	none	none	90	91	100	100
13	-60	none	3408	4458	90	90	42	42

Task	Level	CNR	Impairment		SSI	SSI max	SQI	SQI
			Channel B (690MHz) measurements					
1	-60	none	none	none	90	90	100	100
2	-65	none	none	none	74	74	100	100
3	-50	none	none	none	97	97	100	100
4	-58	15,4	none	none	92	92	5	5
5	-61	15,9	none	none	90	90	10	11
6	-61	15,9	none	none	90	90	10	11
7	-58	none	none	none	92	92	100	100
8	-65	15,9	none	none	74	74	10	10
9	-60	none	none	none	90	90	100	100
10a	-65	none	3408	4458	70	70	42	43
11a	-50	none	3408	4548	96	96	36	38
10b	-65	none	none		74	74	100	100
11b	-50	none	10		97	97	89	90
12	-60	none	3408	4458	90	90	42	42
13	-60	none	none	none	90	90	100	100

2.2 Task 3:29 Synchronization for varying echo power level in SFN

Expected results refer to table 3.18 of NorDig Unified requirements ver2.6.

> **Expected result:**
> The IRD shall maintain the SFN synchronisation when the amplitude of the echo signal varies in a function of time. The required C/N shall not exceed the specified value in table 3.18.

This is a typo as
- DVB-T maximum required C/N for QEF with dynamically varying echo power levels using DVB-T is in table 3.19 (page 59 of NorDig 2.6 Unified requirements)

Note that this corresponds to table 3.18 of NorDig Unified ver3.0 (page 63).
Silicon Labs recommends to update table number and mention that table belongs to NorDig Unified ver2.6.

2.3 Task 3:32 C/(N+I) Performance in SFN outside the guard interval

Expected results refer to tables 3.22 and table 3.23 of NorDig Unified requirements ver2.6.

Test Case	Task 3:32 Performance: C/(N+I) Performance in SFN outside the guard interval
Section	NorDig Unified 3.4.10.11
Requirement	For echoes outside the guard interval, for 8MHz DVB-T signal, QEF reception shall be possible with echo levels up the values defined in Table 3.22
	For echoes outside the guard interval, for 7MHz DVB-T signal, QEF reception shall be possible with echo levels up the values defined in Table 3.23

This is a typo as
- QEF reception for echoes outside the guard interval, for 8MHz DVB-T signal is in table 3.21 (page 61 of NorDig 2.6 Unified requirements)
- QEF reception for echoes outside the guard interval, for 7MHz DVB-T signal is in table 3.22 (page 61 of NorDig 2.6 Unified requirements)

Note that expected results shall also be updated:

> **Expected result:**
> All the echo attenuation values shall be equal or lower compared to NorDig Unified values in tables 3.20 and 3.21.

Note that this corresponds to tables 3.20 and 3.21 of NorDig Unified ver3.0 (page 65).
Silicon Labs recommends to update table number and mention that table belongs to NorDig Unified ver2.6.

3 DVB-T2

3.1 Task 3:48 Tuning/Scanning Procedures: Automatic channel search for the same service bouquet

This is same recommendation as for DVB-T task 3:10, which is about SSI.

Per annex D of NorDig Unified requirements (ver2.6 or 3.0), flow chart numbers 3, 7, 2 and 6 requires delta SSI to be greater than 0, otherwise (delta SSI=0), 1 is tested instead of 2 or 3, 5 is tested instead of 6 or 7.
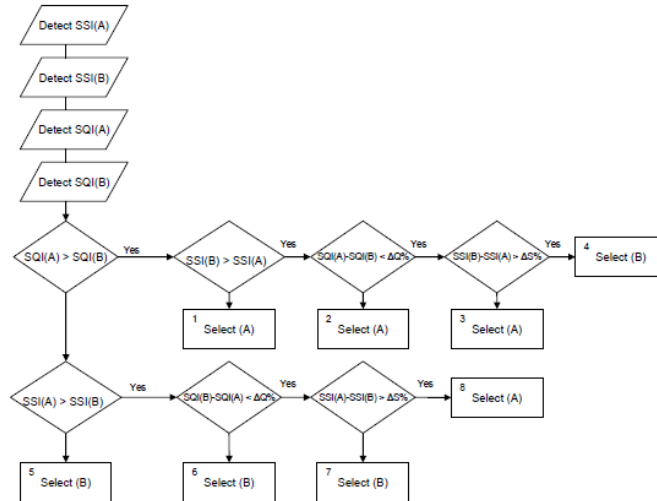

Figure 1 A flowchart for best service selection algorithm in case when two transmitters A and B transmit equal service and both of them are able to be received. ΔS and ΔQ refer to difference in SSI and SQI values and are defined as ΔS=10% and ΔQ=20%.

Considering that SSI slope of 4/dB for 64QAM 2/3 input power level <=-60dBm and SSI slope of 0.67/dB for input power level >=60dBm, Silicon Labs recommends to update NorDig default levels to at least -58dBm (instead of -60dBm) to reduce probability that delta SSI=0 while keeping delta SSI<=10 as shown in SiLabs tuner/demodulator test reports.

Task 3:48 test point	Test conditions								Test requirements and results							Comments
	Channel A (474MHz)				Channel B (690MHz)				Delta SSI		Delta SQI		flowchart number (Figure 1 of Annex D)	Spec.	Result	
	Signal level [dBm]	CNR [dB]	BER settings		Signal level [dBm]	CNR [dB]	BER settings		Spec.	Result	Spec.	Result				
1	-60	none	none	none	-60	none	none	none	<=10	0	<=10	0	1, 2, 3, 5, 6,	CHA or CHB	CHA	
2	-50	none	none	none	-65	none	none	none	>10	30	<20	0	1, 8	CHA	CHA	
3	-65	none	none	none	-50	none	none	none	>10	30	<20	0	4, 5	CHB	CHB	
4	-61	19,74	none	none	-58	19,18	none	none	<=10	8	<20	8	3	CHA	CHA	To validate flowchart numbers 3, 7, 2 and 6, delta SSI shall be greater than 0. This requires modifications of NorDig default levels applied.
									>0	8	>0	6				
5	-58	19,24	none	none	-61	19,68	none	none	<=10	8	<20	7	7	CHB	CHB	
									>0	8	>0	5				
6	-58	none	none	none	-61	19,68	none	none	<=10	8	>=20	69	2	CHA	CHA	
									>0	8						
7	-61	19,74	none	none	-58	none	none	none	<=10	8	>=20	69	6	CHB	CHB	
									>0	8						
8	-50	none	none	none	-65	19,68	none	none	>10	30	>=20	71	1	CHA	CHA	
9	-65	19,74	none	none	-50	none	none	none	>10	30	>=20	70	5	CHB	CHB	
Modulator impairment [Quadrature error]																
10	-50	none	6,6		-65	none	none		>10	30	<20	9	8	CHA	CHA	Tests 10 to 13 are not in NorDig test plan version 2.6
											>0	8				
11	-65	none	none		-50	none	6,6		>10	30	<20	10	4	CHB	CHB	
											>0	9				
12	-60	none	none		-60	none	7,3		<=10	0	>=20	43	1 or 2	CHA	CHA	
13	-60	none	7,3		-60	none	none		<=10	0	>=20	40	5 or 6	CHB	CHB	

Channel A (474MHz) measurements								
Task 3:48 test point	Level [dBm]	CNR [dB]	IQ impairment: quadrature error		SSI min value [%]	SSI max value [%]	SQI min value [%]	SQI max value [%]
1	-60	none	none	none	86	86	100	100
2	-50	none	none	none	96	96	100	100
3	-65	none	none	none	66	66	100	100
4	-61	19,74	none	none	82	82	30	31
5	-58	19,24	none	none	90	90	24	25
6	-58	none	none	none	90	90	100	100
7	-61	19,74	none	none	82	82	30	31
8	-50	none	none	none	96	96	100	100
9	-65	19,74	none	none	66	66	28	30
10	-50	none	6,6		96	96	91	92
11	-65	none	none		66	66	100	100
12	-60	none	none		86	86	100	100
13	-60	none	7,3		86	86	59	60

Channel B (690MHz) measurements								
Task 3:48 test point	Level [dBm]	CNR [dB]	IQ impairment: quadrature error		SSI min value [%]	SSI max value [%]	SQI min value [%]	SQI max value [%]
1	-60	none	none	none	86	86	100	100
2	-65	none	none	none	66	66	100	100
3	-50	none	none	none	96	96	100	100
4	-58	19,18	none	none	90	90	23	24
5	-61	19,68	none	none	82	82	30	31
6	-61	19,68	none	none	82	82	30	31
7	-58	none	none	none	90	90	100	100
8	-65	19,68	none	none	66	66	28	29
9	-50	none	none	none	96	96	100	100
10	-65	none	none		66	66	100	100
11	-50	none	6,6		96	96	90	91
12	-60	none	7,3		86	86	56	57
13	-60	none	none		86	86	100	100

3.1 *Task 3:50 Verification of Signal Strength Indicator (SSI)*

Although using same Pref and same SSI formula, there are some discrepancies between SSImin/SSImax requirements of Task 3:50 compared to task 3:13 (DVB-T SSI).

8k 64QAM R2/3 G1/8 8MHz, $P_{reference}$=-80dBm, f=666MHz				
$P_{input\ level}$ [dBm]	SSI [%]	SSI_{min} [%]	SSI_{max} [%]	NOK or OK
-40		99	100	
-50		92	100	
-60		70	93	
-70		30	70	
-80		7	30	
-95		0	5	

32KE,256QAMR,PP4,R3/5,G19/256,8MHz, $P_{reference}$=-80dBm, f=666MHz				
$P_{input\ level}$ [dBm]	SSI [%]	SSI_{min} [%]	SSI_{max} [%]	NOK or OK
-40		99	100	
-50		92	100	
-60		70	93	
-70		30	70	
-80		5	38	
-95		0	5	

For -85dBm, SSI=2/3*10=6.66.
For -75dBm, SSI=4*5+10=30
Silicon Labs recommends to apply 64QAM 2/3 SSImin/SSImax requirements for DVB-T2 mode 32ke 256QAM rotated 3/5 19/256 PP4.

SSImin/SSImax requirements for DVB-T2 mode with Pref=-76dBm are incorrect :

32KE,256QAMR,PP2,R3/4,G1/8,8MHz, $P_{reference}$=-76dBm, f=666MHz				
$P_{input\ level}$ [dBm]	SSI [%]	SSI_{min} [%]	SSI_{max} [%]	NOK or OK
-40		96	100	
-50		86	100	
-60		54	93	
-70		14	70	
-80		3	38	
-95		0	5	

	freq Mhz	
Level	SSI Min	SSI Max
-40	96	100
-50	86	99
-60	54	91
-70	14	54
-80	4	14
-95	0	2

For -43dBm (-50+7dB error), SSI=2/3*13+90=98.66. Note that for -57dBm (-50-7dB error), SSI is correct (86).
For -55dBm (-60+5dB error), SSI=2/3*1+90=90.66. Note that for -65dBm (-60-5dB error), SSI is correct (54).
For -65dBm (-70+5dB error), SSI= 4*11+10=54. Note that for -75dBm (-70-5dB error), SSI is correct (14).
For -75dBm (-80+5dB error), SSI= 4*1+10=14.
For -85dBm (-80-5dB error), SSI= 2/3*6=4.
For -88dBm (-95+7dB error), SSI=2/3*3=2
Silicon Labs recommends to update SSImin/SSImax requirements for DVB-T2 mode 32ke 256QAM rotated 3/4 1/8 PP2.

3.2   Task 3:54 Input/Output Data Formats

Purpose of this task is to check requirement to support TS bit rates <= 72Mbit/s.

Test Case	Task 3:54 DVB-T2: Input/Output Data Formats
Section	NorDig Unified 3.4.9
Requirement	The NorDig IRD-T2 shall be able to support TS bit rates ≤ 72 Mbit/s.

Expected results assume no NDP (Null Packet Deletion) which limits bit rate to 50.3Mbit/s and does not allow to test TS bit rates up to 72 Mbit/s.

Expected result:

DVB-T2 front end is able to deliver transport streams up to bit rate supported by the DVB-T2 mode (approx 50Mbit/s).

To test 72Mbit/s requirements, Silicon Labs recommends to enabled NPD and use 72Mbit/s MPEG TS stream.
Note that such DVB-T2 settings are already deployed in countries like South Africa.

3.3   Task 3:56 C/N Performance on Gaussian channel

Requirements refer to table 2.3 (PP2) and table 2.6(PP7).

Test Case	Task 3:56 DVB-T2: Performance: C/N performance on Gaussian channel
Section	NorDig Unified 3.4.10.3
Requirement	The NorDig IRD shall have at least the QEF performance for the C/N ratios given in, table 2.3 (PP2) and Table 2.6 (PP7). Maximum required C/N for profiles 1 and 2.

This is a typo as
- PP2 requirements are in table **2.4** (page 69 of NorDig 2.6 test plan)
- PP7 requirements are in table **2.7** (page 72 of NorDig 2.6 test plan).

Typo shall also be corrected in expected results:

Expected result:

The required C/N for quasi error free reception in Gaussian channel is less than specified in Table 2.6
If 1.7MHz signal BW is supported, the required C/N for quasi error free reception in Gaussian channel is less than specified in Table 2.3

3.4   Task 3:57 C/N Performance on 0dB echo channel

Requirements refer to table 2.3 (PP2) and table 2.4(PP4).

Test Case	Task 3:57 DVB-T2: Performance: C/N performance on 0dB echo channel
Section	NorDig Unified 3.4.10.3
Requirement	The NorDig IRD shall have at least the QEF performance for the C/N ratios given in, Table 2.3 (PP2) and Table 2.4 (PP4) Maximum required C/N for profiles 1 and 2.

This is a typo as
- PP2 requirements are in table **2.4** (page 69 of NorDig 2.6 test plan)
- PP4 requirements are in table **2.5** (page 70 of NorDig 2.6 test plan).

Typo shall also be corrected in expected results:

Expected result:
The required C/N for quasi error free reception in 0 dB echo channel is less than
specified in Table 2.3 and Table 2.4 except for DVB-T2 mode 32KE 256QAMR R3/4

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G1/32 8MHz PP6.
If 1.7MHz signal BW is supported, the required C/N for quasi error free reception in
Gaussian channel is less than specified in Table 2.3.

Note that DVB-T2 pilot pattern tested are PP2, PP4, PP6 and PP7. Therefore, Silicon Labs recommends to refer to C/N requirements given in table 2.4(PP2), table 2.5(PP4), table 2.6 (PP6) and table 2.7(PP7) of NorDig test plan.

3.5   Task 3:58 Minimum receiver signal input levels on Gaussian channel

Expected results refer to table 2.7 (PP2) and table 2.10(PP7).

Expected result:
Sensitivity shall be equal or better for all measured frequencies (channels) and for all
DVB-T2 modes and signal bandwidths as specified in Table 2.10
If signal bandwidth 1.7MHz is supported, the sensitivity shall be equal or better for
measured frequency and for DVB-T2 mode as specified in Table 2.7.

This is a typo as
- PP2 sensitivity requirements are in table **2.8** (page 73 of NorDig 2.6 test plan)
- PP7 sensitivity requirements are in table **2.11** (page 76 of NorDig 2.6 test plan).

3.6   Task 3:59 Minimum IRD signal input levels on 0dB echo channel

Expected results refer to table 2.7 (PP2), table 2.8, table 2.9 and table 2.10(PP7) and table 2.6 for 1.7MHz (PP2).

Expected result:

Required minimum signal level shall be equal or lower in dBm than specified in Table
2.7,Table 2.8,Table 2.9 and Table 2.10 on measured frequencies, DVB-T2 modes and
signal bandwidths for all echo delays.
If signal bandwidth 1.7MHz is supported, the required minimum signal level shall be
equal or lower in dBm than specified in table 2.6 on measured frequency and for DVB-
T2 mode.

This is a typo as
- PP2 sensitivity requirements are in table **2.8** (page 73 of NorDig 2.6 test plan)
- PP4 sensitivity requirements are in table **2.9** (page 74 of NorDig 2.6 test plan)
- PP6 sensitivity requirements are in table **2.10** (page 75 of NorDig 2.6 test plan)
- PP7 sensitivity requirements are in table **2.11** (page 76 of NorDig 2.6 test plan).

3.7 Task 3:60 Receiver noise figure on gaussian channel

Test refers to NF table 3.12 and Gaussian tasks 3:59 and 3:57.

Requirement	The NorDig IRD shall have a noise figure (NF) for supported frequency ranges equal or better than the values specified in Table 3.12.
IRD Profile(s)	Basic, IRD, DVB-T2
Test procedure	**Purpose of test:** To calculate the noise figure of the receiver for gaussian channel. **Equipment:** No equipment needed. **Test procedure for evaluation of the receiver noise figure:** Determine the minimum carrier levels C_{min} for the gaussian channel measured in Task 3:59 (DVB-T2: Performance - Minimum IRD Signal Input Levels on Gaussian channel) Determine the required C/N_{min} for the gaussian channel measured in Task 3:57 (DVB-T2: Performance - C/N performance on Gaussian channel). Calculate the noise figure NF[dB] for the supported frequencies using the formulas For 8MHz extended DVB-T2 signal: $NF[dB] = N + 105.1dBm = C_{min} - C/N_{min} + 105.1dBm$ For 8MHz normal DVB-T2 signal: $NF[dB] = N + 105.2dBm = C_{min} - C/N_{min} + 105.2dBm$ For 7MHz normal DVB-T2 signal: $NF[dB] = N + 105.7dBm = C_{min} - C/N_{min} + 105.7dBm$ For 1.7MHz normal DVB-T2 signal: $NF[dB] = N + 112.1dBm = C_{min} - C/N_{min} + 105.7dBm$ **Expected result:** The noise figure is less than or equal to Table 3.12.

This is a typo as
- NF requirements are in table **3.13** (page 52 of NorDig Unified requirements 2.6)
- Gaussian C/N is task **3:56** (page 194 of NorDig 2.6 test plan)
- Gaussian sensitivity is task **3:58** (page 198 of NorDig 2.6 test plan)

3.8 Task 3:60 Receiver Noise figure on Gaussian channel

Expected results refer to table 2.7 (PP2), table 2.8, table 2.9 and table 2.10(PP7) and table 2.6 for 1.7MHz (PP2).

Expected result:

Required minimum signal level shall be equal or lower in dBm than specified in Table 2.7,Table 2.8,Table 2.9 and Table 2.10 on measured frequencies, DVB-T2 modes and signal bandwidths for all echo delays.
If signal bandwidth 1.7MHz is supported, the required minimum signal level shall be equal or lower in dBm than specified in table 2.6 on measured frequency and for DVB-T2 mode.

This is a typo as
- PP2 sensitivity requirements are in table **2.8** (page 73 of NorDig 2.6 test plan)
- PP4 sensitivity requirements are in table **2.9** (page 74 of NorDig 2.6 test plan)
- PP6 sensitivity requirements are in table **2.10** (page 75 of NorDig 2.6 test plan)
- PP7 sensitivity requirements are in table **2.11** (page 76 of NorDig 2.6 test plan).

3.9 Task 3:66 Synchronization for varying echo power level in SFN

Expected results refer to table 3.19 of NorDig Unified requirements ver2.6.

Expected result:
The IRD shall maintain the SFN synchronisation when the amplitude of the echo signal varies in a function of time. The required C/N shall not exceed the specified value in table 3.19.

This is a typo as
- DVB-T2 maximum required C/N for QEF with dynamically varying ewcho power levels using DVB-T2 is in table 3.20 (page 59 of NorDig 2.6 Unified requirements)

Note that this corresponds to table 3.19 of NorDig Unified ver3.0 (page 63).
Silicon Labs recommends to update table number and mention that table belongs to NorDig Unified ver2.6.

3.10 Task 3:67 C/(N+I) Performance in SFN for more than one echo

Expected results refer to table 2.3 (PP2) and table 2.4(PP4):

Expected result:
The IRD shall synchronize in all combinations defined in measurement record and the required C/N value shall not exceed the required C/N defined for profile 2: 0dB echo in table 2.3 (PP2) and table 2.4 (PP4).

This is a typo as
- PP2 requirements are in table **2.4** (page 69 of NorDig 2.6 test plan)
- PP4 requirements are in table **2.5** (page 70 of NorDig 2.6 test plan).

3.11 Task 3:68 C/(N+I) Performance in SFN inside the guard interval

Expected results refer to table 2.3 (PP2) and table 2.4(PP4):

Expected result:
The IRD shall synchronize in all echo attenuation and delay combinations except the longest values according to below:

32K extended, 256QAM, PP4, R=2/3, Δ/T_U=1/16, 8MHz: -220µs and 220µs
32K extended, 256QAM, PP4, R=3/5, Δ/T_U =19/256, 8MHz: -266µs and 266µs
32K extended, 256QAM, PP2, R=3/4, Δ/T_U=1/8, 8MHz: -448µs and 448µs
32K normal, 256QAM, PP4, R=2/3, Δ/T_U =19/256, 7MHz: -304µs and +304µs
32K normal, 256QAM, PP2, R=3/4, Δ/T_U =1/8, 7MHz: -500µs and +500µs

The required C/N value for 0dB echo shall not be higher than defined in table 2.3 (PP2) and table 2.4 (PP4).

This is a typo as
- PP2 requirements are in table **2.4** (page 69 of NorDig 2.6 test plan)
- PP4 requirements are in table **2.5** (page 70 of NorDig 2.6 test plan).

3.12 Task 3:69 C/(N+I) Performance in SFN outside the guard interval

Expected results refer to tables 3.24 and table 3.25 of NorDig Unified requirements ver2.6.

Test Case	Task 3:69 DVB-T2: Performance: C/(N+I) Performance in SFN outside the guard interval
Section	NorDig Unified 3.4.10.11
Requirement	For echoes outside the guard interval, for 8 MHz DVB-T2 signal, QEF reception shall be possible with echo levels up to the values defined in Table 3.24. For echoes outside the guard interval, for 7 MHz DVB-T2 signal, QEF reception shall be possible with echo levels up to the values defined in Table 3.25.

This is a typo as
- QEF reception for echoes outside the guard interval, for 8MHz DVB-T2 signal is in table 3.23 (page 61 of NorDig 2.6 Unified requirements)
- QEF reception for echoes outside the guard interval, for 7MHz DVB-T2 signal is in table 3.24 (page 62 of NorDig 2.6 Unified requirements)

Note that expected results shall also be updated:

Expected result:
All the echo attenuation values shall be equal or lower compared to NorDig Unified values in tables 3.2 and 3.23.

Note that this corresponds to tables 3.22 and 3.23 of NorDig Unified ver3.0 (pages 65 and 66).
Silicon Labs recommends to update table number and mention that table belongs to NorDig Unified ver2.6.