

Hardware Unit Test Report

Power consumption Test and wake up time

Hardware version	FW version	Sample No.	eMMC Flash P/N
V015	1. r16 BFX-AT100	S/N: 215201215-01S1	KLM8G1GETF-B041

1. Test Setup

Equipment:

1. Eagle DVT board V015.
2. AC POWER: APG-1005N: 220Vac @60Hz
3. AC Adapter: SGN-0502 5V/2A, Editech TYPE2541 5V/2A
4. 4K TV: ENVISION P2271WHL
5. Power meter with accumulator: Yokogawa WT210
6. Current probe: TCPA300
7. AP D-Link 10/100Mbps or NETGEAR R7000 1Gbps

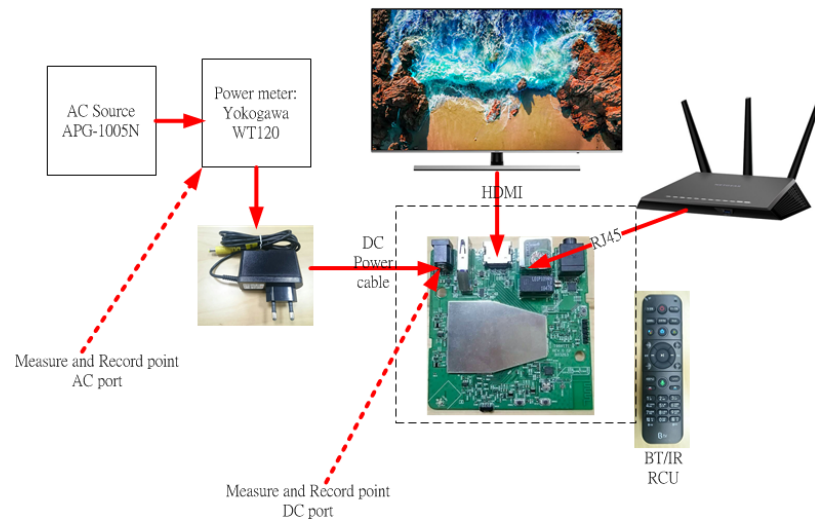
Test Environment:

1. Test place: FXN CNSBG Building 1F office
2. Test DUT name: Eagle DVT V015 borad
3. Test environment condition: temperature: 25 deg-C, humidity: 65
4. Test date: 2019/5/14
5. Test result: See section 3 for test results.
6. Test setup picture (block diagram and real test environment picture)

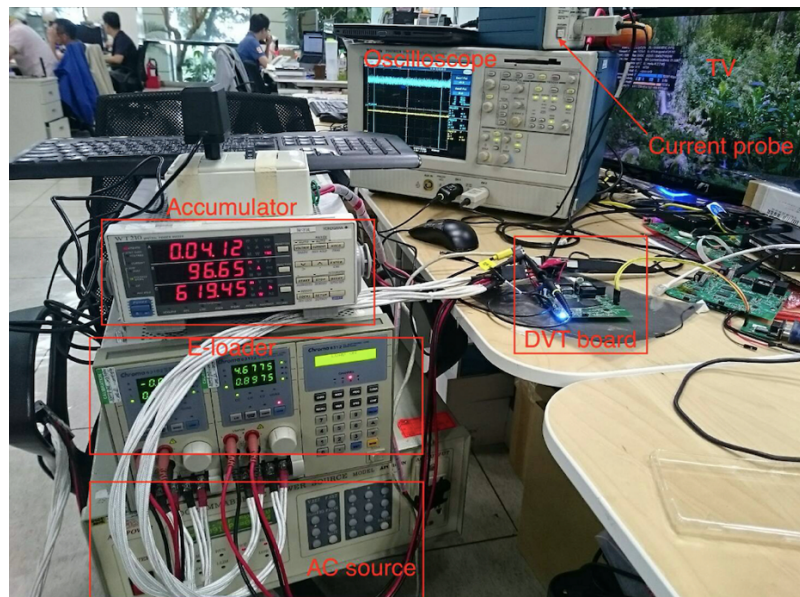
Criteria:

Normal state power consumption should be **under 3.0W** (with adapter), and active standby **under 1.5W** (with adapter)

Block Diagram:



Test setup picture:



2. Test Items and Condition

1. normal state: AC port / DC port

1. DUT power on
2. Switch to TV mode and enter YouTube to play 4Kp60 video.
3. Accumulating for 1 hour and record the power consumption result.

2. active standby state: ac port / dc port

1. DUT power on
2. Press power key of RCU to enter standby state from normal state.
3. Accumulating for 1 hour and record the power consumption result.

3. passive standby state: AC port / DC port

NA

4. Full load (with USB 900mA): AC port / DC port

1. DUT power on

2. Enter YouTube and play 4Kp60 video
3. Add 900mA load from E-Loader
4. Accumulating for 1 hour and record the power consumption result.
5. active standby wake up time
 1. DUT power on
 2. Place display screen at UI display
 3. Press power key of RCU to enter standby state from normal state.
 4. Wait for server minutes and press power key of RCU to wake up DUT
 5. Measure the wake up time and repeat 10 times for average and record the test time results.
6. passive standby wake up time
NA

Note: accumulate at least 1 hour

3. Test Result

The test results are pass when using 100M Ethernet under active standby state.

DVT build power consumption:

3.1 [Adaptor: SGN-0502 5V/2A]

Test Results of power consumption: F/W version: r16 BTV-AT100 SKB TV version(LAN: 1000M bps)			
Item No.	AC port Eagle Board V015	DC port Eagle Board V015	Pass/Fail
1. Normal state	220Vac/34.8mA @60Hz, 2.9736Wh	5.119Vdc/432.8mA, 2.216W	Pass
2. active standby state	220Vac/23.5mA @60Hz, 1.7618Wh	5.119Vdc/243.5mA, 1.252W	Fail
3. Passive standby state	NA	NA	NA
4. Full load (with USB 900mA)	220Vac/96.5mA @60Hz, 8.8186Wh	4.970Vdc/1362mA, 6.77W	NA

Test Results of power consumption: F/W version: r16 BTV-AT100 SKB TV version(LAN: 100Mbps)			
Item No.	AC port Eagle Board V015	DC port Eagle Board V015	Pass/Fail
1. Normal state	220Vac/33.76mA @60Hz, 2.704Wh	5.039Vdc/393.2mA, 2.013W	Pass
2. active standby state	220Vac/19.78mA @60Hz, 1.454Wh	5.119Vdc/190.8mA, 0.977W	Pass
3. Passive standby state	NA	NA	NA
4. Full load (with USB 900mA)	220Vac/92.58mA @60Hz, 8.370Wh	4.977Vdc/1313mA, 6.535W	NA

3.2 [Adaptor: Editech TYPE2541 5V/2A]

Test Results of power consumption: F/W version: r16 BTV-AT100 SKB TV version(LAN: 1000M bps)			
Item No.	AC port Eagle Board V015	DC port Eagle Board V015	Pass/Fail
1. Normal state	220Vac/32.7mA @60Hz, 2.8858Wh	5.095Vdc/441.1mA, 2.247W	Pass
2. active standby state	220Vac/20.1mA @60Hz, 1.6523Wh	5.119Vdc/239.3mA, 1.225W	Fail
3. Passive standby state	220Vac/6.787mA @60Hz, 0.4525W	5.148Vdc/51.28mA, 0.2640W	Pass
4. Full load (with USB 900mA)	220Vac/86.4mA @60Hz, 8.6240Wh	4.945Vdc/1349mA, 6.667W	NA

Test Results of power consumption: F/W version: r16 BTV-AT100 SKB TV version(LAN: 100M bps)			
Item No.	AC port Eagle Board V015	DC port Eagle Board V015	Pass/Fail
1. Normal state	220Vac/31.9mA @60Hz, 2.6332Wh	5.099Vdc/393.8mA, 2.008W	Pass
2. active standby state	220Vac/17.6mA @60Hz, 1.4241Wh	5.119Vdc/203.0mA, 1.039W	Pass
3. Passive standby state	220Vac/6.515mA @60Hz, 0.4294W	5.157Vdc/47.29mA, 0.2439W	Pass
4. Full load (with USB 900mA)	220Vac/83.8mA @60Hz, 8.3312Wh	4.959Vdc/1309mA, 6.473W	NA

3.3 Booting time

Booting time of power consumption: F/W version: r16 BTV-AT100 SKB TV version		
Item describe	behavior	Eagle board V015
5. active state wake up time	normal state-->active standby	< 2 seconds
	active standby-->normal state	< 2 seconds
6. Passive state wake up time	normal state-->active standby	~5 second(TV on)
	active standby-->normal state	< 2 second(TV off)