Quality Test Report

ORIGINAL

Applicant: ASUSTeK COMPUTER INC.
No.115, Li-De Rd., Beitou Dist., Taipei 112, Taiwan

January 24, 2022

BOKEN QUALITY EVALUATION INSTITUTE
BOKEN
Taiwan Testing Center
SGS Taiwan Ltd.
31, Wu Chyuan Road, New Taipei Industrial Park,
Wu Ku Dist., New Taipei City 24886, Taiwan
TEL.+886-2-2299-3279/FAX.+886-2-2299-9630

Test results to submitted sample are as follows.

Reception Date : January 7, 2022

Item Name : ASUS BacGuard-PT-01-03-08

Number of Item : 2

Test Item : The test of the antibacterial efficacy

Test Method : ISO 22196 : 2011

Test Bacteria : *Staphylococcus aureus* NBRC 12732

Test Result :

Untreated specimens		Common logarithm of the number of viable bacteria
BLANK SAMPLE	Immediately after inoculation [U_0]	4.08
	After 24h [U_t]	3.58

Test sample	Common logarithm of the number of viable bacteria after 24h [A_t]	Value of antibacterial activity [R]
ASUS BacGuard-PT-01-03-08	< -0.20	3.7

* The volume of test inoculum used : 0.4 ml The size of the cover film : 16 cm^2
* This sample was tested on client specified side.
* Value of antibacterial activity [R] = $U_t - A_t$
* Surface of the test piece was cleaned by ethanol.
* Tested by Boken Osaka laboratory.

TW-2210224

Quality Test Report

ORIGINAL

Applicant: ASUSTeK COMPUTER INC.
No.115, Li-De Rd., Beitou Dist., Taipei 112, Taiwan

January 24, 2022

BOKEN QUALITY EVALUATION INSTITUTE
BOKEN
Taiwan Testing Center
SGS Taiwan Ltd.
31, Wu Chyuan Road, New Taipei Industrial Park,
Wu Ku Dist., New Taipei City 24886, Taiwan
TEL.+886-2-2299-3279/FAX.+886-2-2299-9630

Test results to submitted sample are as follows.

Reception Date : January 7, 2022

Item Name : ASUS BacGuard-PT-01-03-08

Number of Item : 2

Test Item : The test of the antibacterial efficacy

Test Method : ISO 22196 : 2011

Test Bacteria : *Escherichia coli* NBRC 3972

Test Result :

Untreated specimens		Common logarithm of the number of viable bacteria
BLANK SAMPLE	Immediately after inoculation [U_o]	4.09
	After 24h [U_t]	3.56

Test sample	Common logarithm of the number of viable bacteria after 24h [A_t]	Value of antibacterial activity [R]
ASUS BacGuard-PT-01-03-08	< -0.20	3.7

* The volume of test inoculum used : 0.4 ml The size of the cover film : 16 cm^2
* This sample was tested on client specified side.
* Value of antibacterial activity [R] = $U_t - A_t$
* Surface of the test piece was cleaned by ethanol.
* Tested by Boken Osaka laboratory.

TW-2210224

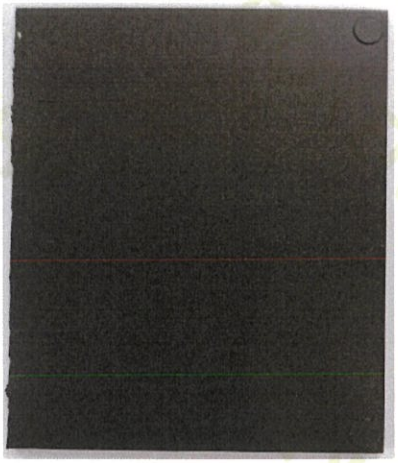
Quality Test Report

ORIGINAL

[Submitted Sample]

BLANK SAMPLE

TEST SAMPLE



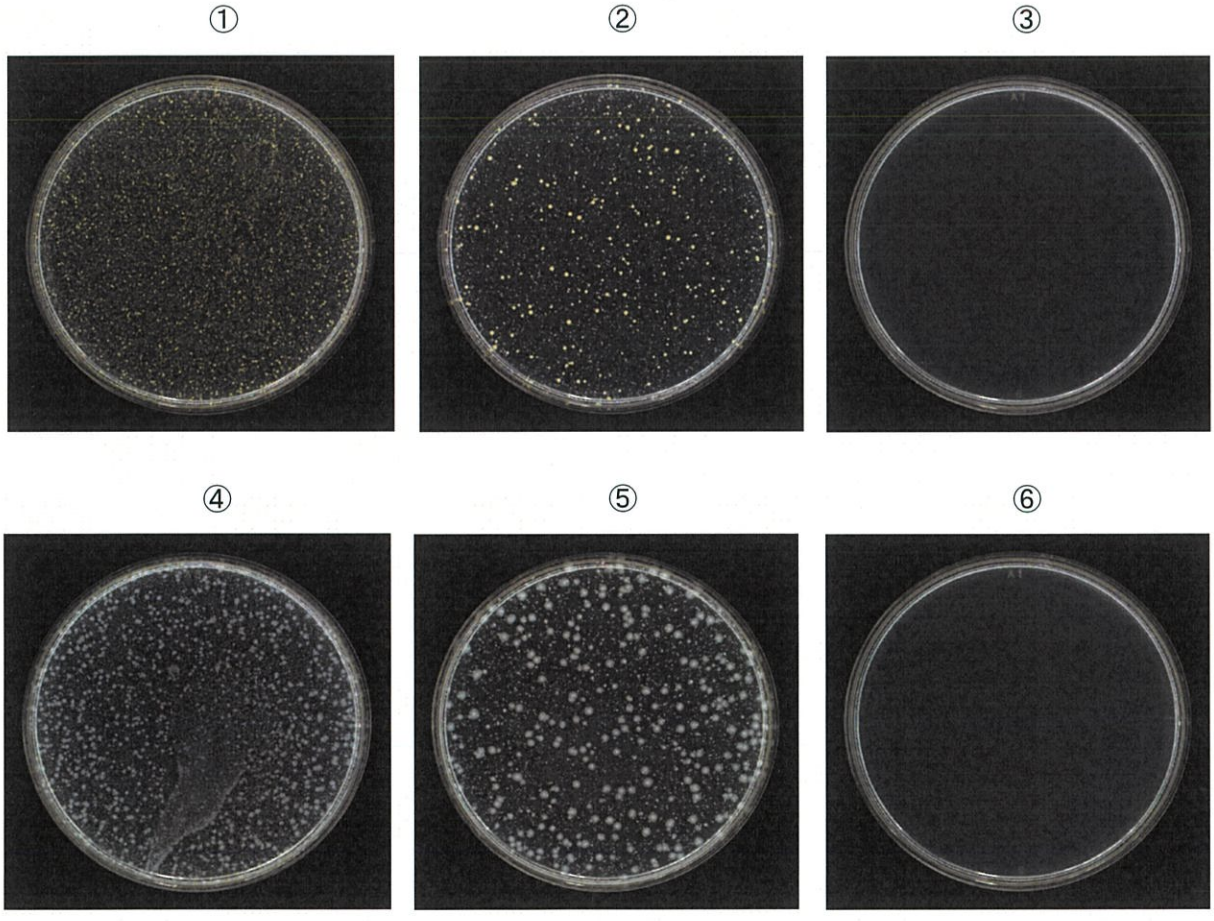
BOKEN QUALITY EVALUATION INSTITUTE
Taiwan Testing Center

Supervised by H. Yamamoto

Notice - This test result is applied to the submitted sample, not to the lot.
Unauthorized reproduction, in whole or in part, is strictly prohibited.

TW-2210224

No.	sample name	The details	
①	BLANK SAMPLE	Immediately after inoculation [U_o]	Staphylococcus aureus
②	BLANK SAMPLE	After 24h [U_t]	Staphylococcus aureus
③	Test sample: ASUS BacGuard-PT-01-03-08	After 24h [A_t]	Staphylococcus aureus
④	BLANK SAMPLE	Immediately after inoculation [U_o]	Escherichia coli
⑤	BLANK SAMPLE	After 24h [U_t]	Escherichia coli
⑥	Test sample: ASUS BacGuard-PT-01-03-08	After 24h [A_t]	Escherichia coli



Test memo

Applicant: ASUSTeK COMPUTER INC. January 24, 2022

Test Report No. TW-2210224

Percentage of antimicrobial efficacy tested based on ISO22196

Staphylococcus aureus NBRC 12732

Sample name	Viable bacterial count/cm^2 <Average>	Percentage of antimicrobial efficacy (%)
Untreated specimen After 24 h.	3.9×10^3	———
Test sample: ASUS BacGuard-PT-01-03-08	<0.63	99.98%

Escherichia coli NBRC 3972

Sample name	Viable bacterial count/cm^2 <Average>	Percentage of antimicrobial efficacy (%)
Untreated specimen After 24 h.	4.3×10^3	———
Test sample: ASUS BacGuard-PT-01-03-08	<0.63	99.98%

(Note$_1$) Calculation method of percentage of antimicrobial efficacy is as follows.

・Percentage of antimicrobial efficacy (%) =
(Average value of the viable bacterial count / 1 cm^2 of the untreated sample after 24 h) −
(Average value of the viable bacterial count / 1 cm^2 of the treated sample after 24 h) /
(Average value of the viable bacterial count / 1 cm^2 of the untreated sample after 24 h) × 100

・Percentage of antimicrobial efficacy was rounded the second decimal place down and the value was displayed with the second decimal place.

(Note$_2$) When the viable bacterial count/cm^2 <0.63, it was calculated considering as 0.63.

Quality Test Report

ORIGINAL

Test Report No. TW-22B0194 (Page 1 of 3)

Applicant: ASUSTeK COMPUTER INC.
No.115, Li-De Rd., Beitou Dist., Taipei 112, Taiwan

November 21, 2022

BOKEN QUALITY EVALUATION INSTITUTE
BOKEN
Taiwan Testing Center
SGS Taiwan Ltd.
31, Wu Chyuan Road, New Taipei Industrial Park,
Wu Ku Dist., New Taipei City 24886, Taiwan
TEL.+886-2-2299-3279/FAX.+886-2-2299-9630

Test results to submitted sample are as follows.

Reception Date : November 4, 2022

Item Name : ASUS BacGuard-EL-08-01

Number of Item : 2

Test Item : The test of the antibacterial efficacy

Test Method : ISO 22196 : 2011

Test Bacteria : *Staphylococcus aureus* NBRC 12732

Test Result :

Untreated specimens		Common logarithm of the number of viable bacteria
BLANK SAMPLE	Immediately after inoculation [U_0]	4.08
	After 24h [U_t]	4.19

Test sample	Common logarithm of the number of viable bacteria after 24h [A_t]	Value of antibacterial activity [R]
ASUS BacGuard-EL-08-01	< -0.20	4.3

* The volume of test inoculum used : 0.4 ml The size of the cover film : 16 cm^2
* This sample was tested on client specified side.
* Value of antibacterial activity [R] = $U_t - A_t$
* Surface of the test piece was cleaned by ethanol.
* Tested by Boken Osaka laboratory.

Quality Test Report

ORIGINAL

Applicant: ASUSTeK COMPUTER INC.
No.115, Li-De Rd., Beitou Dist., Taipei 112, Taiwan

November 21, 2022

BOKEN QUALITY EVALUATION INSTITUTE
BOKEN
Taiwan Testing Center
SGS Taiwan Ltd.
31, Wu Chyuan Road, New Taipei Industrial Park,
Wu Ku Dist., New Taipei City 24886, Taiwan
TEL.+886-2-2299-3279/FAX.+886-2-2299-9630

Test results to submitted sample are as follows.

Reception Date : November 4, 2022

Item Name : ASUS BacGuard-EL-08-01

Number of Item : 2

Test Item : The test of the antibacterial efficacy

Test Method : ISO 22196 : 2011

Test Bacteria : *Escherichia coli* NBRC 3972

Test Result :

Untreated specimens		Common logarithm of the number of viable bacteria
BLANK SAMPLE	Immediately after inoculation $[U_0]$	4.10
	After 24h $[U_t]$	5.71

Test sample	Common logarithm of the number of viable bacteria after 24h $[A_t]$	Value of antibacterial activity [R]
ASUS BacGuard-EL-08-01	0.90	4.8

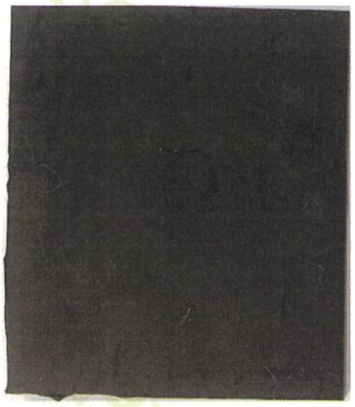
* The volume of test inoculum used : 0.4 ml The size of the cover film : 16 cm^2
* This sample was tested on client specified side.
* Value of antibacterial activity $[R] = U_t - A_t$
* Surface of the test piece was cleaned by ethanol.
* Tested by Boken Osaka laboratory.

Quality Test Report

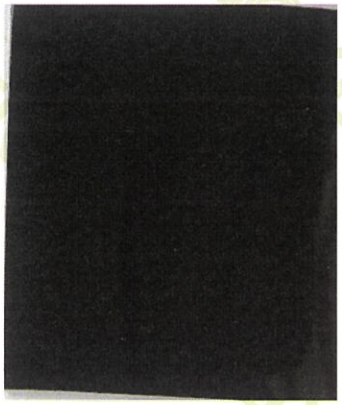
ORIGINAL

[Submitted Sample]

BLANK SAMPLE



TEST SAMPLE

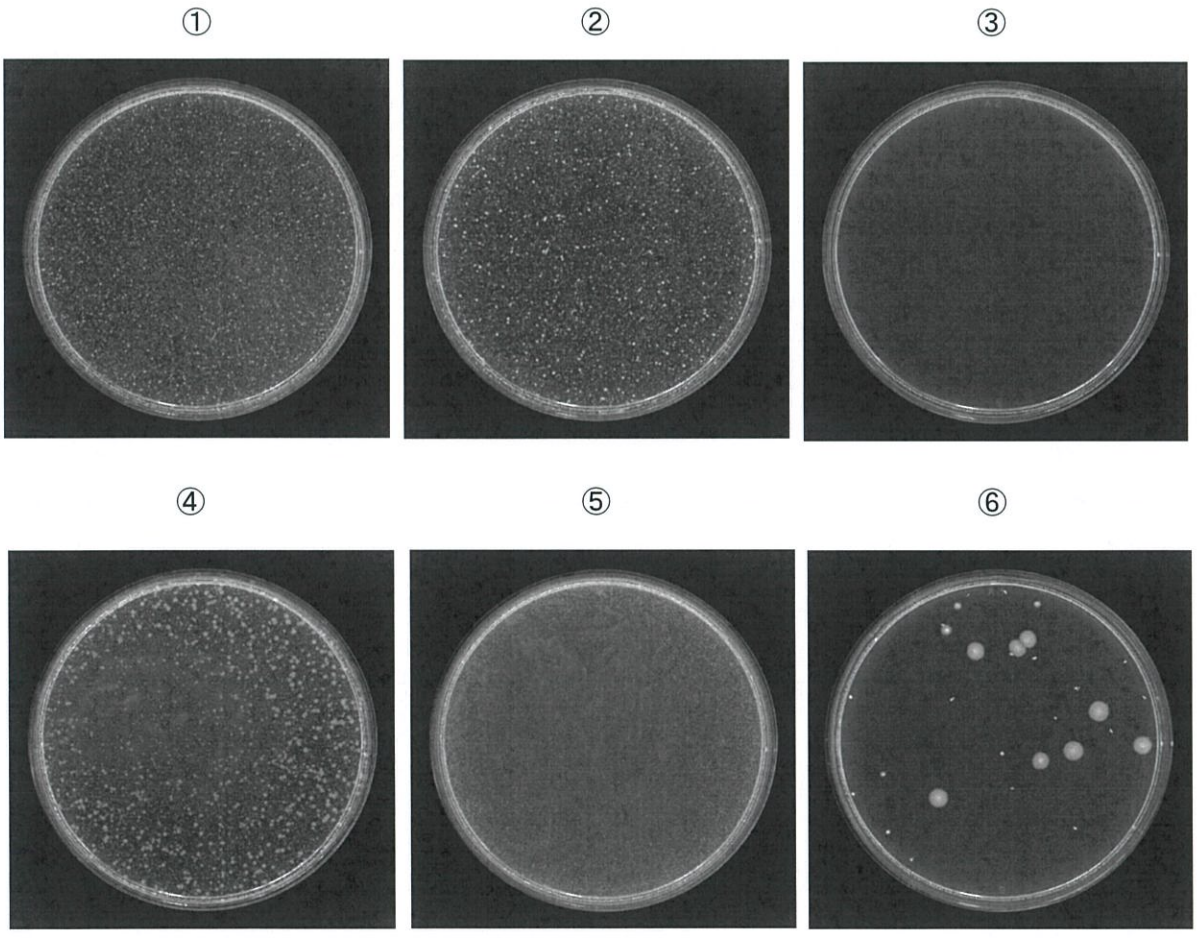


BOKEN QUALITY EVALUATION INSTITUTE
Taiwan Testing Center

Supervised by H. Yamamoto

Notice - This test result is applied to the submitted sample, not to the lot.

No.	sample name	The details	
①	BLANK SAMPLE	Immediately after inoculation [U_o]	Staphylococcus aureus
②	BLANK SAMPLE	After 24h [U_t]	Staphylococcus aureus
③	Test sample: ASUS BacGuard-EL-08-01	After 24h [A_t]	Staphylococcus aureus
④	BLANK SAMPLE	Immediately after inoculation [U_o]	Escherichia coli
⑤	BLANK SAMPLE	After 24h [U_t]	Escherichia coli
⑥	Test sample: ASUS BacGuard-EL-08-01	After 24h [A_t]	Escherichia coli



Test memo

Applicant: ASUSTeK COMPUTER INC. November 21, 2022

Test Report No. TW-22B0194

Percentage of antimicrobial efficacy tested based on ISO22196

Staphylococcus aureus NBRC 12732

Sample name	Viable bacterial count/cm^2 <Average>	Percentage of antimicrobial efficacy (%)
Untreated specimen After 24 h.	1.6×10^4	———
Test sample: ASUS BacGuard-EL-08-01	<0.63	99.99%

Escherichia coli NBRC 3972

Sample name	Viable bacterial count/cm^2 <Average>	Percentage of antimicrobial efficacy (%)
Untreated specimen After 24 h.	5.5×10^5	———
Test sample: ASUS BacGuard-EL-08-01	21	99.99%

(Note$_1$) Calculation method of percentage of antimicrobial efficacy is as follows.

・Percentage of antimicrobial efficacy (%) =
(Average value of the viable bacterial count / 1 cm^2 of the untreated sample after 24 h) −
(Average value of the viable bacterial count / 1 cm^2 of the treated sample after 24 h) /
(Average value of the viable bacterial count / 1 cm^2 of the untreated sample after 24 h) × 100

・Percentage of antimicrobial efficacy was rounded the second decimal place down and the value was displayed with the second decimal place.

(Note$_2$) When the viable bacterial count/cm^2 <0.63, it was calculated considering as 0.63.

Quality Test Report

ORIGINAL

Test Report No. TW-22C0125 (Page 1 of 3)

Applicant: ASUSTeK COMPUTER INC.
No.115, Li-De Rd., Beitou Dist., Taipei 112, Taiwan

December 12, 2022

BOKEN QUALITY EVALUATION INSTITUTE

BOKEN

Taiwan Testing Center
SGS Taiwan Ltd.

31, Wu Chyuan Road, New Taipei Industrial Park,
Wu Ku Dist., New Taipei City 24886, Taiwan
TEL.+886-2-2299-3279/FAX.+886-2-2299-9630

Test results to submitted sample are as follows.

Reception Date : November 25, 2022

Item Name : ASUS BacGuard-PL-14-01

Number of Item : 2

Test Item : The test of the antibacterial efficacy

Test Method : ISO 22196 : 2011

Test Bacteria : *Staphylococcus aureus* NBRC 12732

Test Result :

Untreated specimens		Common logarithm of the number of viable bacteria
BLANK SAMPLE	Immediately after inoculation $[U_o]$	4.11
	After 24h $[U_t]$	3.72

Test sample	Common logarithm of the number of viable bacteria after 24h $[A_t]$	Value of antibacterial activity [R]
ASUS BacGuard-PL-14-01	-0.20	3.9

* The volume of test inoculum used : 0.4 ml The size of the cover film : 16 cm^2
* This sample was tested on client specified side.
* Value of antibacterial activity [R] = $U_t - A_t$
* Surface of the test piece was cleaned by ethanol.
* Tested by Boken Osaka laboratory.

Notice – This test result is applied to the submitted sample, not to the lot.

Quality Test Report

ORIGINAL

Applicant: ASUSTeK COMPUTER INC.
No.115, Li-De Rd., Beitou Dist., Taipei 112, Taiwan

December 12, 2022

BOKEN QUALITY EVALUATION INSTITUTE
BOKEN
Taiwan Testing Center
SGS Taiwan Ltd.
31, Wu Chyuan Road, New Taipei Industrial Park,
Wu Ku Dist., New Taipei City 24886, Taiwan
TEL.+886-2-2299-3279/FAX.+886-2-2299-9630

Test results to submitted sample are as follows.

Reception Date : November 25, 2022

Item Name : ASUS BacGuard-PL-14-01

Number of Item : 2

Test Item : The test of the antibacterial efficacy

Test Method : ISO 22196 : 2011

Test Bacteria : *Escherichia coli* NBRC 3972

Test Result :

Untreated specimens		Common logarithm of the number of viable bacteria
BLANK SAMPLE	Immediately after inoculation $[U_o]$	4.10
	After 24h $[U_t]$	5.31

Test sample	Common logarithm of the number of viable bacteria after 24h $[A_t]$	Value of antibacterial activity [R]
ASUS BacGuard-PL-14-01	< -0.20	5.5

* The volume of test inoculum used : 0.4 ml The size of the cover film : 16 cm^2
* This sample was tested on client specified side.
* Value of antibacterial activity $[R] = U_t - A_t$
* Surface of the test piece was cleaned by ethanol.
* Tested by Boken Osaka laboratory.

TW-22C0125

Quality Test Report

ORIGINAL

[Submitted Sample]

BLANK SAMPLE

TEST SAMPLE

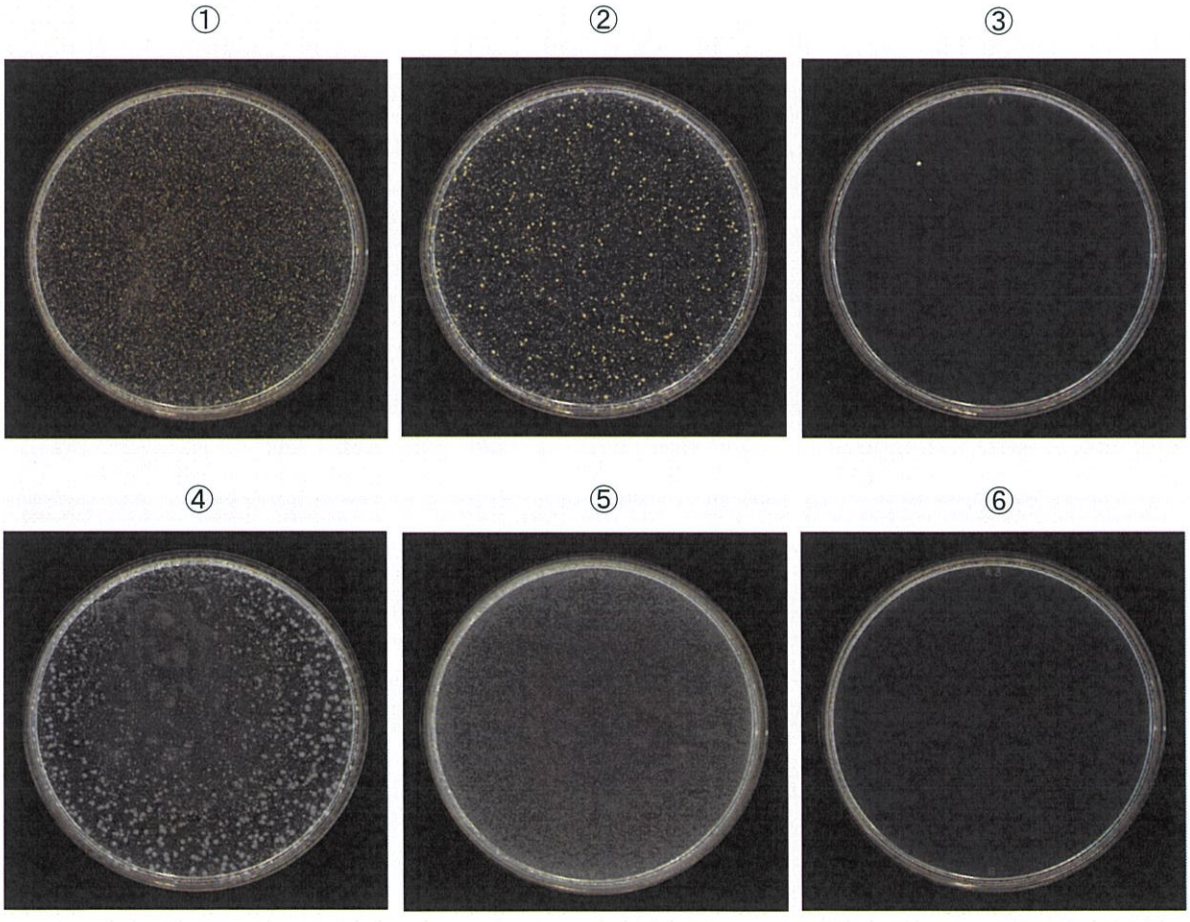
BOKEN QUALITY EVALUATION INSTITUTE
Taiwan Testing Center

Supervised by H. Yamamoto

Notice - This test result is applied to the submitted sample, not to the lot.

TW-22C0125

No.	sample name	The details	
①	BLANK SAMPLE	Immediately after inoculation [U_o]	Staphylococcus aureus
②	BLANK SAMPLE	After 24h [U_t]	Staphylococcus aureus
③	Test sample: ASUS BacGuard-PL-14-01	After 24h [A_t]	Staphylococcus aureus
④	BLANK SAMPLE	Immediately after inoculation [U_o]	Escherichia coli
⑤	BLANK SAMPLE	After 24h [U_t]	Escherichia coli
⑥	Test sample: ASUS BacGuard-PL-14-01	After 24h [A_t]	Escherichia coli



Test memo

Applicant: ASUSTeK COMPUTER INC. December 12, 2022

Test Report No. TW-22C0125

Percentage of antimicrobial efficacy tested based on ISO22196

Staphylococcus aureus NBRC 12732

Sample name	Viable bacterial count/cm^2 <Average>	Percentage of antimicrobial efficacy (%)
Untreated specimen After 24 h.	5.8×10^3	———
Test sample: ASUS BacGuard-PL-14-01	0.63	99.98%

Escherichia coli NBRC 3972

Sample name	Viable bacterial count/cm^2 <Average>	Percentage of antimicrobial efficacy (%)
Untreated specimen After 24 h.	2.1×10^5	———
Test sample: ASUS BacGuard-PL-14-01	<0.63	99.99%

(Note$_1$) Calculation method of percentage of antimicrobial efficacy is as follows.

・Percentage of antimicrobial efficacy (%) =
(Average value of the viable bacterial count / 1 cm^2 of the untreated sample after 24 h) −
(Average value of the viable bacterial count / 1 cm^2 of the treated sample after 24 h) /
(Average value of the viable bacterial count / 1 cm^2 of the untreated sample after 24 h) × 100

・Percentage of antimicrobial efficacy was rounded the second decimal place down and the value was displayed with the second decimal place.

(Note$_2$) When the viable bacterial count/cm^2 <0.63, it was calculated considering as 0.63.