

Persuasion Effects of Imagery Information Processing caused  
by Brand in Advertisement Design\*

광고디자인에 있어서 브랜드명에 의해 유발된  
심상정보처리의 설득효과에 관한 연구

Jin-Ryeol Lee\*\*\*† · Si-Cheon You\*\*

이진렬\*\*\* · 유시천

Division of Design, Chosun University\*\*

조선대학교 디자인학부

**Abstract** : This article examined how the amount of information presented in ad design affect consumer's evaluation on the ad. Existing researches have mainly considered external information presented in the ad from the resource principle perspective. This study investigated how internal information processing such as imagery information processing caused by brand names moderates persuasion effects according to the amount of external information through two experiments. The experiments leave us the conclusion that brand names presented in the ads stimulate imagery information processing when surplus cognitive resources do exist and they lead ad recipients' evaluation to positive direction in prestige brand condition and to the contrary to negative direction in non-prestige brand condition. The results contribute to the direction of ad design in that ad needs not contain as much product-related information as needed in order to increase persuasion effects in prestige brand condition. Rather, it's necessary to leave the room for internal information processing such as imagery information processing by well structured brand equity. On the contrary, non-prestige brand needs to contain explicit product-relevant information to exert a potent influence on ad persuasion. We hope this study result is helpful for design direction of advertisement in order to heighten persuasion effects toward ad recipients.

**Key words** · Advertising design evaluation, Imagery information processing, Resource matching perspective

**요약** . 본 연구는 광고디자인에 있어서 광고에 포함되어 있는 정보의 양의 광고수용자의 광고평가에 어떠한 영향을 미치는지를 검증하였다. 기존 연구는 주로 자원-부합이론(Resource-matching theory)의 관점에서 광고에 포함되어 있는 외부정보의 효과만을 주로 검증하였다. 그러나 본 연구에서는 이와는 달리 광고에 제시된 브랜드명

\* This study was supported by research funds from Chosun University, 2004

† Corresponding Author Jin-Ryeol Lee(Division of Design, Chosun University)

E-mail bayhunt@chosun.ac.kr

TEL 062-230-7706

FAX 062-232-5756

의해 유발된 심상정보처리와 같은 내부정보의 정보량이 어떻게 광고수용자의 광고평가효과를 조절하는지를 두 가지의 실험을 통하여 검증하였다. 실험결과에 따르면 광고에서 제시된 브랜드명은 광고수용자가 인지적 잉여자원이 있는 경우 심상정보처리를 유발시키고 이러한 심상정보처리과정이 명성브랜드일 경우에는 광고에 대한 평가를 긍정적으로 유도하는 반면 비명성브랜드의 경우에는 부정적으로 유발하는 것으로 나타났다. 이러한 연구의 결과는 광고디자인프로세스에서 명성브랜드라면 광고효과를 증대시키기 위해 제품관련정보를 많이 내포해야 할 필요는 없다는 점을 시사하고 있다. 오히려, 이미 소비자의 인식속에 구축되어 있는 브랜드자산을 통해 심상정보처리와 같은 내부정보탐색을 할 수 있는 여지를 마련하도록 광고디자인을 설계하는 것이 바람직하다고 할 수 있다. 반대로 비명성브랜드의 경우에는 광고효과를 극대화하기 위하여 제품관련정보를 다양화해야 할 필요가 있다. 이러한 결과가 향후 광고디자이너들이 광고디자인을 수행하는 프로세스상에서 광고수용자들에게 광고효과를 극대화하기 위해 어떻게 광고디자인을 수행해야 할 것인지에 도움을 되기를 바란다.

**주제어** 광고디자인평가, 심상정보처리, 자원-부합이론관점

## 1. Introduction

Ad designers attempt to heighten persuasion by employing different ad design approaches. One critical issue of this matter is about adjusting the amount of information presented in the Ad. There have been contradictory suggestions on the degree of information amount in the Ad represented by text information, graphic information etc. For example, some advertisers argue, the more information the ad includes, the more positive response the Ad recipients experience because each of information has positive value on the object being advertised. Some other researchers however insists that the amount of information should be restricted because much information may cause ad recipients' cognitive overload then it affect the persuasion of Ad negatively.

Resource-matching theory, which has been widely accepted as a converging perspective on this debates, proposed that persuasion should be heightened when the supply of cognitive resources ad recipients make available for ad processing matches, rather than either exceeds or

falls short of, those required to process the ad in a way that enables ad recipients to achieve their goals[2]. Actually, the perspective of resource-matching theory has been supported through many afterward researches[10,12]. For example, Meyers-Levy and Peracchio(1995) examined how the correspondence between available and required resources affects attitudes. They testified the impact of presenting full-color, black-and-white color, and color-highlighted ad photos under different processing resource conditions and suggests that when viewers engage in more effortful ad processing, attitudes are sensitive to the match between available and required resources

This research is also based on the perspective of resource principles on the issue of the degree of information amount used in ad. However, this study premises that ad recipient's evaluation on ad would not depend only on external amount of information presented in ad. Generally Consumer's information processing activities depends not only on external information but also on internal information evoked from memory set. Imagery

information processing may be one principle of the use of internal information. Imagery information processing is a processing mode in which multisensory information is represented in a gestalt form in working memory[9]. Many consumer researchers have suggested that imagery affects attitudes toward stimuli[7,8]. MacInnis and Price (1987) in their review of imagery information processing suggested that elaborated imagery plays a role in influencing (1) affective responses to stimuli, and (2) behavior[4,14].

Therefore, it is plausible to expect that consumer's use of internal information evoked from memory set such as imagery information processing may influence persuasion effects of the ad which contains external information. So we must consider the amount of internal information as well as external information in order to deal with the amount of information in ad. However, past researches based on resource principles have not examined how consumer's use of internal information moderates persuasion effects on ad. They just considered the amount of external information presented in ad.

In this study, we examined how the amount of internal information such as imagery information processing evoked from the memory moderates persuasion effects on ad using brand names. The idea is that brand name causes viewer's imagery information processing when they are exposed to ad and imagery information processing caused by brand name moderates persuasion effects of ad in resource-matching condition. Brand names contains plenty of qualitative cues such as associations, beliefs and experiences[1,6]. Brand names influence what comes to mind when a consumer responses to brand-related objects.

These kinds of evoked information from memory set are expected to play a role as imagery information processing. Then it is, if it influences affective responses to stimuli and behavior as suggested in past researches, anticipated to affect ad viewer's evaluation in resource-matching situation. Because resource-matching situation may block imagery information processing and resource-mismatching situation may cause more imagery information processing.

Therefore, the goal of this article is to examine how the amount of internal information processing such as imagery information processing caused by brand name moderates viewer's evaluation on ad in resource-demanding conditions and to suggest the appropriate information amount to be used in the design process of advertisement.

Two experiments were designed for the study. The first experiment focuses on reexamining resource principles in situation where brand names are not suggested. Also the first experiment produces appropriate experiment stimuli for second experiment. The second experiment extends the first by examining the impact of imagery information processing inferred by brand.

## 2. Experiment 1

### 2.1 Method

#### 2.1.1 Stimuli

The purpose of experiment 1 is to reexamine resource principles in situation where brand names are not suggested and to produce appropriate experiment stimuli for second experiment. For accomplishing experiment 1,

Print ads were created for Lap-top computer. In designing print ads for experiment stimuli, the degree of resource demands which means the amount of external information is manipulated by some ad design techniques such as copy style, image layout and text information.

According to Milton(1974), factual ad copy presents assertions about a product's features and benefits in a clear, direct, logical and to-the-point expository style, while narrative ads, 'the copywriter cloaks the selling message in a story-like sequence' characterized by more encumbered episodic prose[11]. For ad recipients, ad processing should be more resource demanding if the ad copy conveys the key product assertions in a narrative rather than a factual manner[13]. A second ad execution characteristic that also may influence the resource demands imposed is the physical layout of the ad. Ad layout that physically separates the ad copy from the ad picture imposes a clear boundary between such materials. This would seem likely to impede and motivate ad recipients from cross-referencing the two types of materials, thereby undermining identification of relevant ad picture elements that might substantiate the product assertions. On the other hand, an ad layout that integrates such materials by superimposing the ad copy on the ad picture should facilitate both such cross-referencing and product assertion substantiation because the picture should appear in the consumer's field of vision as the ad copy is processed. Thus, an ad layout that separates rather than integrates the ad copy with the ad picture should impose higher resource demands as ad recipients attempt to substantiate the ad copy.

We considered one more factor for stimuli, text

difficulty. Text difficult seems to be related to demand of cognitive resources to comprehend. Inhoff and Fleming(1989) reported that reading difficult text is slower and requires more cognitive capacity than reading easy text, a conclusion they reached because subjects reacted more quickly when performing a secondary task while reading easy text than while reading difficult text[5]. Thus, experiment 1 employed a 2(factual/narrative ad copy)×2(separated ad copy/integrated ad copy)×2(easy text/difficult text) factorial design for manipulating stimuli.

Twelve ad copy lists are collected from reviewing real ad copies expressed in newspaper ads, magazine ads and broadcasting ads etc. Then each copy is modified into two versions of ad copy(factual vs narrative). Then 30 subjects assessed both the extent to which the key product assertions contained in the ad copy were expressed and the extent to which each pair of copy has same information value with 7point scaling. On a computer monitor subjects read in paragraph from one of the two versions of the ad copy for laptop computer. No ad picture was presented. The amount of time subjects spent reading the two ad copy versions was recorded unobtrusively and automatically by the computer. Results indicated that, as anticipated, subjects spent less time processing the ad copy that relayed the product assertions in a factual manner than ad copy that related the product assertions in a narrative manner for the laptop computer( $p < .05$ ). Finally 5 pairs of ad copy are chosen for the experiment 1(all  $p$ 's  $< .05$  for factual manner vs. narrative manner of 5 pairs of copy lists and all  $p$ 's  $> .05$  for information value of 5 pairs of ad copy lists). Both ad copy

versions were equal in length and contained a common set of 5 product assertions.

In case of text, passages were drawn from computer magazine and modified into two versions, easy and difficult text. In the easy passages, common words were used and technical terms are translated into easy terms. The difficult passages included many rare words and technical terms are used as the original pattern. Both texts were equal in length and contained information that has same value. Text difficulty was examined with the same method mentioned above and indicated that two types of texts are well manipulated.

By scanning the ad pictures into a computer and using software(Adobe illustrator 10.0) that allowed the ad copy and pictures to be manipulated, two layouts for the laptop computer were designed. In one version, the ad copy was integrated physically with the ad picture by superimposing it over the picture. In the second ad layout version, the ad copy placed beside the ad picture and was separated physically from it. In this manner four ads for the laptop computer were created that contained the key product assertions expressed via factual or narrative ad copy, and the ads were arranged in either an integrated or separated ad layout.

Finally 8 print ads were created by adding 2 types of text (easy text and difficult text) into 4 types of print ads mentioned above (factual/narrative ad copy vs. separated ad copy/integrated ad copy).

### 2.1.2 Procedure

Two hundred and two students in design classes participated in the study, which was administered on a computer. Every twenty voluntary students

took part in one of the 8 experiments and they were randomly allocated to the task. Subjects in each experiment are told that they would view an ad for the laptop computer that might be introduced and that their judgments of them were sought. And they were given a randomly chosen ad of 8 ads then asked to answer some questions. 8 ads were created by mixture of text(easy text/difficult text), ad copy(factual copy/narrative copy), physical layout(separated layout/integrated layout) as Table 1 shows. Their cognitive resource demands were expected from low then moderate to high.

On the first screen, subjects are exposed to instructions for the experiment. They then viewed, on the computer monitor, full color ads for the laptop computer for a maximum of two minutes in each experiment, though they could spend less time. Pretests indicated that this time was sufficient for subjects to examine the ad and read the lengthy copy. Subjects were told to click the next button after viewing the ad, then evaluated the featured product. Evaluations were obtained on a seven-point, five-item scale labeled "extremely low/high quality", "poor/excellent value," not "a/aworthwhile purchase," "unappealing/appealing product," and "extremely poorly/well made"[3].

## 2.2 Results

Resource demands of the ads were expected from low(EFI) to high(DNS). Resource demands of other types of the ads should fall between these two extremes. From the premise that resource principle is correct, persuasion effects of the ads should be low in these two extremes and

Table 1. Experimental Stimuli of 8 Ads

Type	Format	Expectation for resource demands
EFI	easy text/factual copy/integrated layout	<div style="display: flex; align-items: center; justify-content: center;"> <div style="border-left: 1px solid black; border-right: 1px solid black; height: 100px; margin-right: 10px;"></div> <div style="text-align: center;"> <p>Low</p> <p>Moderate</p> <p>High</p> </div> </div>
EFS	easy text/factual copy/separated layout	
ENI	easy text/narrative copy/integrated layout	
ENS	easy text/narrative copy/separated layout	
DFI	difficult text/factual copy/integrated layout	
DFS	difficult text/factual copy/separated layout	
DNI	difficult text/narrative copy/integrated layout	
DNS	difficult text/narrative copy/separated layout	

high in one of the rest which is in condition that the supply of cognitive resources ad recipients make available for ad processing matches those required to process the ad.

Analysis of subjects' response times indicated that the ads are varied in demanding ad recipient's cognitive resources to be processed ( $F(7,94)=4.623, p<.01$ ). And times spent for processing the ad was lengthened as difficulty of the ad increased. Subjects' evaluations were more favorable than that of any other types of the ads when the product assertions were conveyed using easy text, narrative copy and integrated layout (ENI). Subjects' evaluations on easier types of the ads (EFI, EFS) and on more difficult types of the ads(ENS, DFI, DFS, DNI, DNS) were lower than those of ENI. According to resource principles, most favorable evaluations on ENI means that it is in condition that the supply of cognitive resources subjects make available for ENI processing matches those required to process it. EFI and EFS can be regarded as the ads in condition that the supply of cognitive resources subjects make available for them exceeds those required to process them and ENS, DFI, DFS, DNI, DNS vice versa. Times

spent supports this inference expressing that subjects in the moderate resource demands condition(ENI) exhibited longer time for processing the ad than did those in the low resource demands condition( $p<.01$ ), but time spent in the moderate resource demands condition were shorter than those observed in the high resource demands condition( $p<.01$ ).

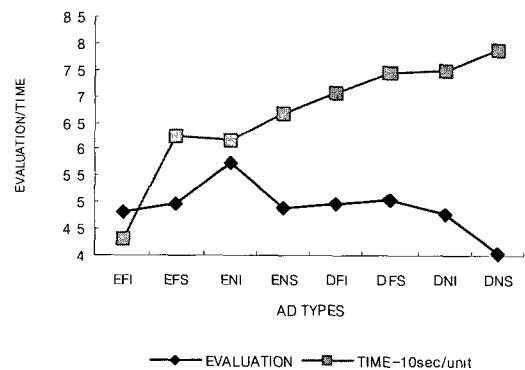


Figure 1. Evaluation and Time Spent for 8 AD Types

### 2.3 Discussion

The result of experiment 1 is consistent with the suggestions of resource principles. That is, persuasion should be heightened when the supply of cognitive resources ad recipients make available for ad processing matches, rather than

exceeds or falls short of, those required to process the ad in a way that enables ad recipients to achieve their goals.

However, from the perspective that consumer's information processing activities do not only depends on external information but also internal information evoked from memory set, the result of experiment 1 is limited in that it's consideration focuses on external information and internal information is not considered. For this reason, we conducted a second study in which we sought to extend our findings by examining how the amount of internal information processing such as imagery information processing caused by brand names moderate ad persuasion effects of external information amount in resource matching/mismatching condition of the ad. For experiment 2, three ads are selected, EFI for low resource demands condition, ENI for moderate resource demands condition and DNI for high resource demands condition.

### 3. Experiment 2

#### 3.1 Method

Two real brands were selected for experiment 2 through pretest with 7 point Likert-scaling for brand prestige level on 6 computer manufacturing brands, one for prestige brand(SAMSUNG 5.89) and the other for non-prestige brand(JUHYUN. 3.88)

Nine print ads were created by 3(prestige brand/non-prestige brand/no brand) × 3(EFI, ENI, DNI) factorial design. Study participants consisted of 180 students enrolled in design classes. Every twenty voluntary students took randomly part in

one of the 9 experiments one time. All materials and tasks were administered or obtained in paper and pencil questionnaire form, and imagery information processing was measured. Subjects' ad viewing time was limited to no more than two minutes because the results of experiment 1 revealed that two minutes is enough for processing the ad.

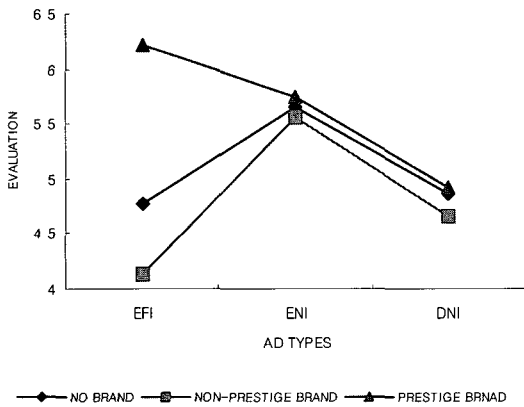
Measurement for imagery information processing was performed by some scales modified from those suggested by Bone and Ellen(1991)[3]. Bone and Ellen(1991) categorized measures into four categories, quantity, ease, vividness and links. Our study used three of them(quantity, ease and vividness). Each category includes two questions and they were all evaluated on a seven-point scale.

#### 3.2 Results

Analysis of subjects' ad evaluations revealed that they evaluated ENI more favorable than the other two types of the ads in both no brand condition and non-prestige brand condition(for no brand,  $F(2,57)=6.01$ ,  $p<.01$ , for non-prestige brand,  $F(2,57)=14.2$ ,  $p<.01$ ) As anticipated in our premise, the result revealed in both no brand condition and non-prestige brand condition that recipients' response on the ad is heightened when the supply of cognitive resources ad recipients make available for ad processing matches rather than either exceeds or falls short of, those required to process the ad as resource principles suggested. However it's interesting that subjects' evaluation on EFI is lower in non-prestige brand condition than that of no brand condition( $\bar{X}=4.13$  vs.  $\bar{X}=4.77$ ,  $F(1,38)=4.77$ ,

**Table 2.** Treatment Means and Standard Deviations for Evaluation, Quantity or Imagery, Easiness of Imagery and Vividness of Imagery – Experiment 2

	no brand			non-prestige brand			prestige brand		
	EFI	ENI	DNI	EFI	ENI	DNI	EFI	ENI	DNI
Evaluations	4.77 (.92)	5.65 (.98)	4.86 (1.24)	4.13 (.93)	5.56 (.93)	4.65 (.69)	6.22 (.58)	5.75 (.70)	4.93 (1.10)
Quantity of imagery	3.35 (1.37)	2.65 (.84)	2.73 (1.27)	4.18 (.99)	2.75 (.97)	2.65 (1.06)	4.27 (1.24)	2.40 (.99)	2.10 (.55)
Ease of Imagery	3.73 (1.32)	2.45 (.63)	2.18 (.41)	4.63 (1.34)	2.63 (.60)	2.10 (.66)	4.45 (1.37)	2.47 (1.01)	2.25 (.68)
Vividness of Imagery	3.13 (.90)	2.33 (.59)	2.35 (.56)	4.08 (.83)	2.40 (.77)	2.45 (.48)	4.48 (1.35)	2.10 (.68)	2.30 (.61)



**Figure 2.** AD Evaluations Under No Brand, Non-Prestige Brand and Prestige Brand Condition

$p < .05$ ). It's plausible to expect that negative inferences of non-prestige brand were evoked from ad recipients' memory set then they influenced overall evaluation on the ad. The results of imagery information processing support this inference. Ad recipients' responses revealed that they evoked more quantity of imagery, felt more ease of imagery and vividness of imagery in non-prestige brand condition than in no brand condition. Therefore it can be inferred that surplus cognitive resources cause negative imagery information processing(e.g., "in my experience, JUHYUN computers are not as good as the ad

insists" etc.).

On the contrary in prestige brand, subjects' product evaluations revealed that they evaluated EFI highest ( $F(2,57)=1245, p < .01$ ). The result is not consistent with the perspective of resource principles. Like in both no brand and non-prestige brand conditions, surplus cognitive resources may stimulate internal information processing such as imagery information processing in a positive direction(e.g., "Originally, SAMSUNG computers are in good quality" etc.). The fact can be supported by the amount of imagery information processing. Ad recipients' responses revealed more imagery information processing in quantity and higher ease and in prestige brand condition than in no brand condition. From the results that all types of imagery information processing are more in EFI(surplus cognitive resources do exist) than ENI and DNI for all brand types, it can be inferred that surplus cognitive resources of ad recipients stimulate additive inferences on the product which are presented in the ad. Moreover, prestige brand leads the surplus cognitive resources to cause positive internal information processing in the ad.



#### 4. General Discussion

The findings from this research suggest that in general, amount of information presented in the ad affects ad persuasion. The basic rule, as resource principle suggests, is that persuasion should be heightened when the supply of cognitive resources ad recipients make available for ad processing matches, rather than either exceeds or falls short of, those required to process the ad. However, consumers' information processing doesn't only depend on external information processing. It's the mixture of external and internal information processing. In the study, we examined how results from consumers' external information processing in matching or mismatching conditions are moderated by internal information processing

The study results revealed that the brand name works as a cue for internal information processing when ad recipients' cognitive resources available exceeds those required to process the ad. Brand names presented in the ads stimulate imagery information processing when surplus cognitive resources do exist and they lead ad recipients' evaluation to positive direction in prestige brand condition and to the contrary to negative direction in non-prestige brand condition. However, brand names don't work as cues for information processing when the supply of ad recipients' cognitive resources available matches or falls short of those required to process the ad.

The results we report in this article contribute to the direction of ad design in that ad needs not contain as much product-related information as needed in order to increase persuasion effects in prestige brand condition. Rather, it's necessary to

leave the room for internal information processing such as imagery information processing by well structured brand equity. On the contrary, non-prestige brand needs to contain explicit product-relevant information to exert a potent influence on ad persuasion. We hope this study result is helpful for design direction of advertisement in order to heighten persuasion effects toward ad recipients.

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Appendix

**WAIO** 모토로라 TV 에이오 M408. 국내 최대의 매출액 보유

**WORLD WIDE waio!**  
와이오만의 와이드한 기술을 소개합니다

최근 새롭게 등장한 나노미터의 신기술을 사용하여 미세한 제조 공법으로 생산된 집적회로 칩셋을 탑재하였습니다. 또한 CPU에 사용되는 표연사이드의 크기를 줄이고 새로운 실리콘 기술을 도입함으로써 칩셋의 크기를 1.2배로 축소하여 1.2배의 성능을 확보할 수 있습니다. 또한, 칩셋의 크기를 줄임으로써 칩셋의 발열을 낮추고 전력 소모를 줄여줍니다. 또한, 칩셋의 크기를 줄임으로써 칩셋의 발열을 낮추고 전력 소모를 줄여줍니다. 또한, 칩셋의 크기를 줄임으로써 칩셋의 발열을 낮추고 전력 소모를 줄여줍니다.

1.2배 나노미터 이하의 미세한 제조 공법으로 생산된 집적회로 칩셋을 탑재하였습니다. 또한 CPU에 사용되는 표연사이드의 크기를 줄이고 새로운 실리콘 기술을 도입함으로써 칩셋의 크기를 1.2배로 축소하여 1.2배의 성능을 확보할 수 있습니다. 또한, 칩셋의 크기를 줄임으로써 칩셋의 발열을 낮추고 전력 소모를 줄여줍니다. 또한, 칩셋의 크기를 줄임으로써 칩셋의 발열을 낮추고 전력 소모를 줄여줍니다.

**WAIO** 모토로라 TV 에이오 M408로 국내 최대의 매출액 보유

**WORLD WIDE waio!**  
와이오만의 와이드한 기술을 소개합니다

최근 새롭게 등장한 나노미터의 신기술을 사용하여 미세한 제조 공법으로 생산된 집적회로 칩셋을 탑재하였습니다. 또한 CPU에 사용되는 표연사이드의 크기를 줄이고 새로운 실리콘 기술을 도입함으로써 칩셋의 크기를 1.2배로 축소하여 1.2배의 성능을 확보할 수 있습니다. 또한, 칩셋의 크기를 줄임으로써 칩셋의 발열을 낮추고 전력 소모를 줄여줍니다. 또한, 칩셋의 크기를 줄임으로써 칩셋의 발열을 낮추고 전력 소모를 줄여줍니다.

1.2배 나노미터 이하의 미세한 제조 공법으로 생산된 집적회로 칩셋을 탑재하였습니다. 또한 CPU에 사용되는 표연사이드의 크기를 줄이고 새로운 실리콘 기술을 도입함으로써 칩셋의 크기를 1.2배로 축소하여 1.2배의 성능을 확보할 수 있습니다. 또한, 칩셋의 크기를 줄임으로써 칩셋의 발열을 낮추고 전력 소모를 줄여줍니다. 또한, 칩셋의 크기를 줄임으로써 칩셋의 발열을 낮추고 전력 소모를 줄여줍니다.

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와이오만의 와이드한 기술을 소개합니다

1.20 나노미터 이하의 미세한 제조 공법으로 생산된 집적회로 칩셋을 탑재하였습니다. 또한 CPU에 사용되는 표연사이드의 크기를 줄이고 새로운 실리콘 기술을 도입함으로써 칩셋의 크기를 1.2배로 축소하여 1.2배의 성능을 확보할 수 있습니다. 또한, 칩셋의 크기를 줄임으로써 칩셋의 발열을 낮추고 전력 소모를 줄여줍니다. 또한, 칩셋의 크기를 줄임으로써 칩셋의 발열을 낮추고 전력 소모를 줄여줍니다.

1.20 나노미터 이하의 미세한 제조 공법으로 생산된 집적회로 칩셋을 탑재하였습니다. 또한 CPU에 사용되는 표연사이드의 크기를 줄이고 새로운 실리콘 기술을 도입함으로써 칩셋의 크기를 1.2배로 축소하여 1.2배의 성능을 확보할 수 있습니다. 또한, 칩셋의 크기를 줄임으로써 칩셋의 발열을 낮추고 전력 소모를 줄여줍니다. 또한, 칩셋의 크기를 줄임으로써 칩셋의 발열을 낮추고 전력 소모를 줄여줍니다.

Note – Top left, ad with low resource demands(EFI easy text/factual copy/integrated layout) in prestige brand condition/ Top right, ad with moderate resource demands (ENI easy text/narrative copy/integrated layout) in non-prestige condition/Bottom, ad with high resource demands(DNI difficult text/narrative copy/integrated layout) in no brand condition

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