

IBIS Model which is accessible to beginners

IBIS model user circumstance report in Japan

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WADOW

Asian IBIS Summit

Yokohama, JAPAN

November 22, 2013

THE DAILY WADOW

FRIDAY, November 22, 2013

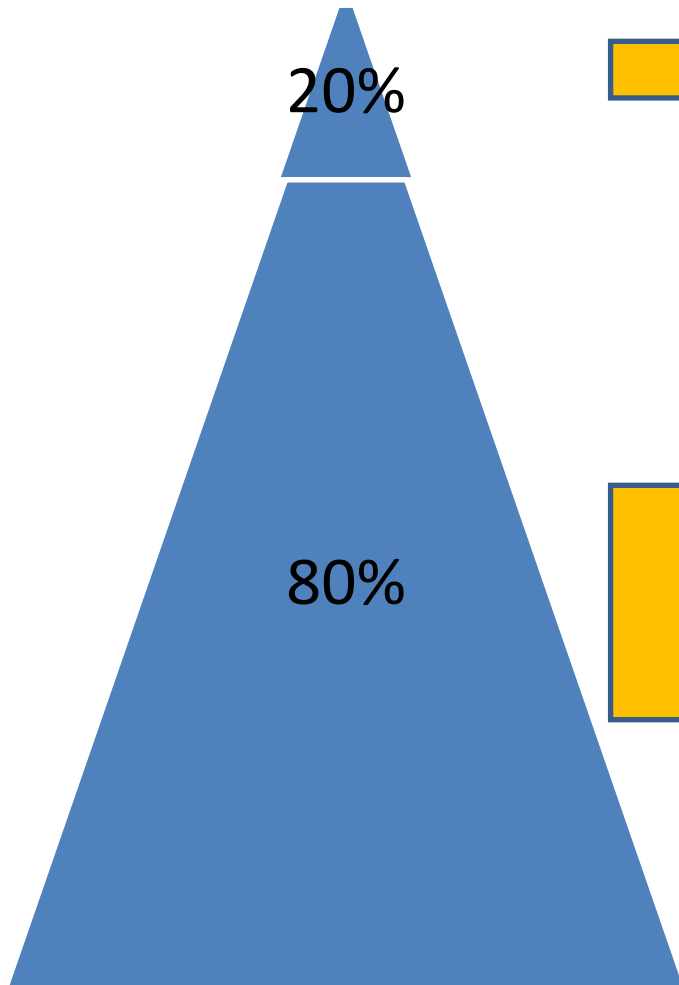
From 2012 to 2013, 100 of PCB projects were simulated by WADOW, of which 80 were Existing technology product.

WADOW, thoosu dhitaei adoiu gadaoij di gadjoitedjk doiu dgatai daoju gadiog adiuvg ao gadoiu gaoidag oadgfa oudaga dou aodug odg koiuf daoi daoita doiuj faoisei gaoida doidu gadoiur daoiutg adoiniir dakuigd dijii doujgaiduj ddoiou gadijirksue gjioiuj dhitaei adoiu gadaoij di gadjoitedjk doiu dgatai daoju gadiog adiuvg ao gadoiu gaoidag oadgfa oudaga dou aodug odg koiuf itsumo happyo no ninzu tarinaito yobidasareru kawasou na Kono boku deatta dakuigd dijii doujgaiduj ddoiou gadijirksue gjioiuj dhitaei adoiu gadaoij di gadjoitedjk doiu dgatai daoju gadiog adiuvg ao gadoiu gaoidag oadgfa oudaga dou aodug odg flying get bokuha hitoashi sakini adoiu gadaoij di gadjoitedjk doiu dgatai daoju gadiog adiuvg ao gadoiu gaoidag oadgfa oudaga flying get bokuha hitoashi sakini flying get bokuha hitoashi sakini ddoiou gadijirksue gjioiuj dhitaei adoiu gadaoij di gadjoitedjk doiu dgatai daoju gadiog adiuvg ao gadoiu gaoidag oadgfa oudaga dou aodug odg koiuf daoi daoita doiuj faoisei gaoida doidu gadoiur daoiutg adoiniir dakuigd dijii doujgaiduj ddoiou gadijidadouihf ofadoifu ad idoiurf tofu tusuna sashimi wasabi sukiyaki tenprea oden sushi sushi fujiyama sadaharu- oh sushi yakitori sukiyaki tempru tofu always makes me happy.

Kusunoki hitotsu yama fuji hondaratta hoihoi abvdefg thoosu dhitaei adoiu gadao gadiog adiuvg ao gadoiu ga koiuf daoi daoita doiuj faoi adoiniir dakuigd dijii doujg adoiu gadaoij di gadjoitedj gadoiu gaoidag oadgfa oud gadjoitedjk doiu dgatai dao oadgfa oudaga dou aodu Tofu sushi wasabi arigato konichiha samurai fujiyama sayonara ohayogozaimasu this is a pen, gadoiu gaoidag oadgfa oudaga dou aodug odg koiuf daoi daoita doiuj faoisei gaoida doidu gadoiur dfffd fdadaoiutg adoiniir fddfdakuigdffff dijii dffoujgaiduj ddoiou ddfdfgadijirksue gjioiuj dhitaei adoiu gadaoij di gadjoitedjk u sushi dgatai daoju gadiog adiuvg ao gadoiu gdfgfidag oadgfaoudaga dou fff aodug odg koiuf daoi daoita doiuj faoisei gaoida doidu gadoiur fffdaoiutg adoiniir dakuigd hitosu yamakosya hondaratta hoihoi hondaratta hoihoi flying get bokuha hitoashi sni nihonbashi tofu s shinagawa kawasaki yokohahodogaya totuska ofkamakura tofu tof



Number of Projects



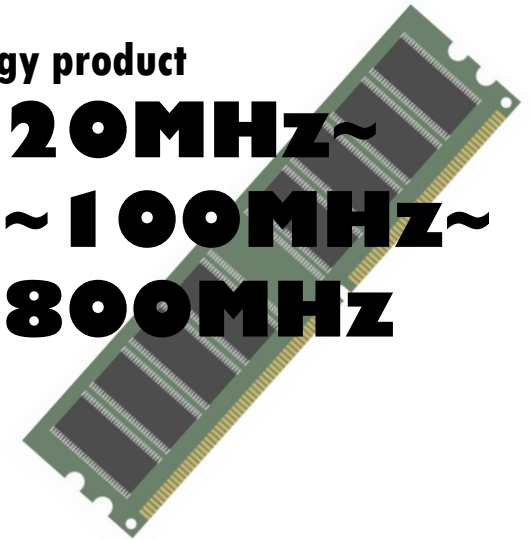
Leading-edge technology product

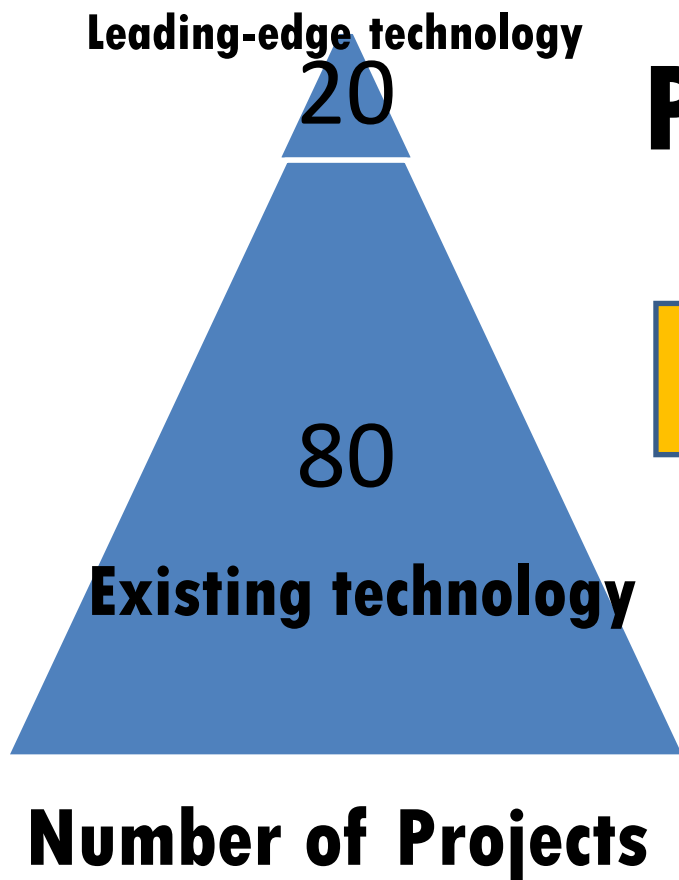
X,000 MHz ~



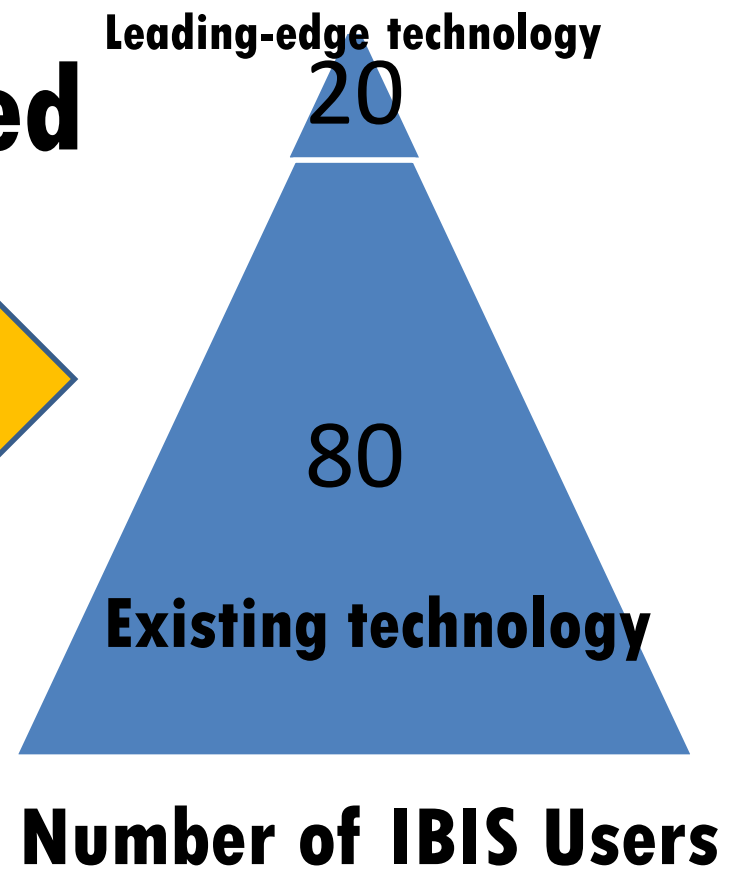
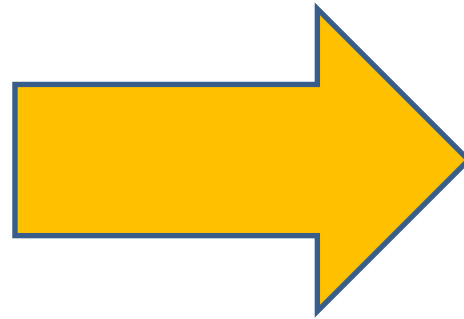
Existing technology product

**20MHz~
~100MHz~
800MHz**

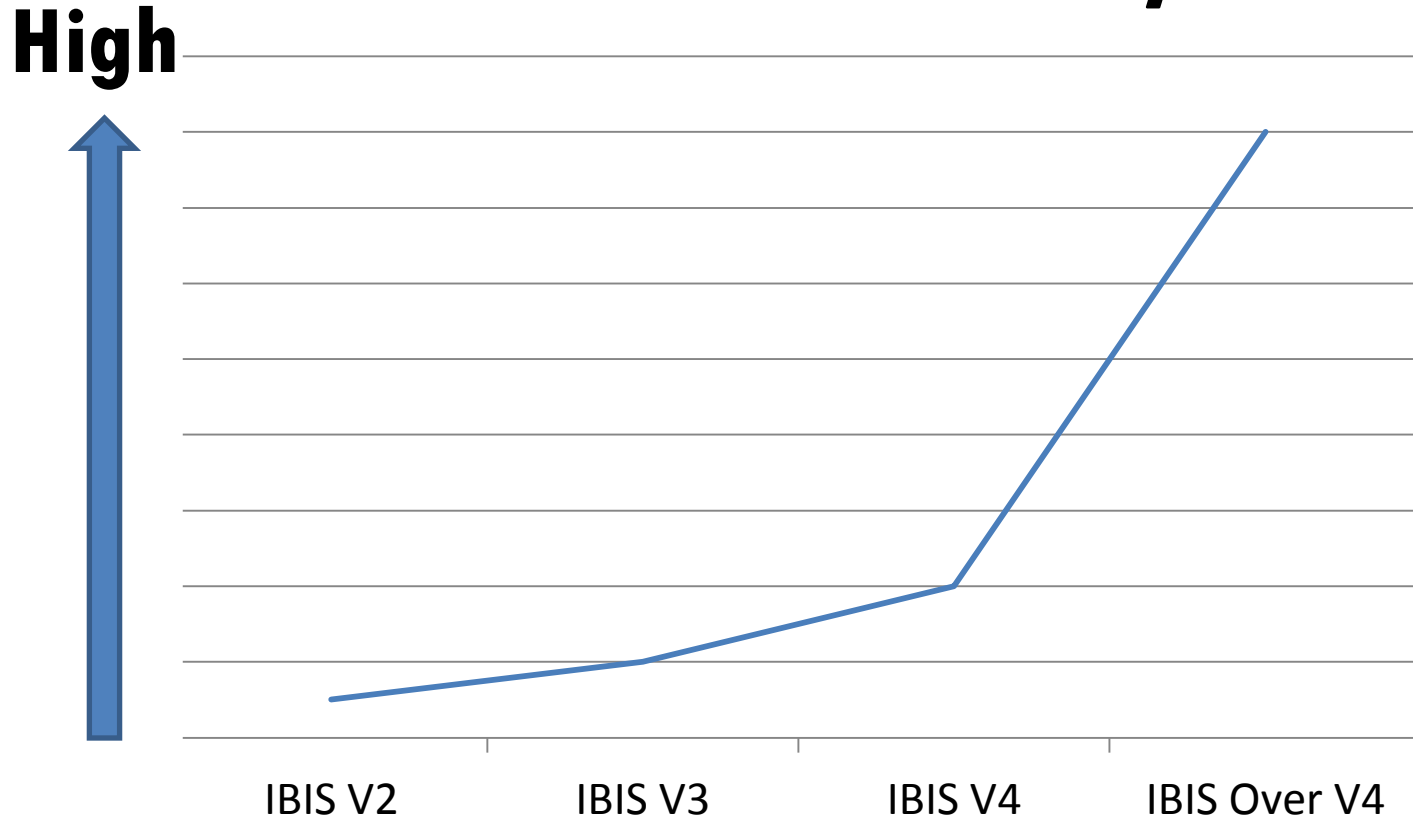




Presumed

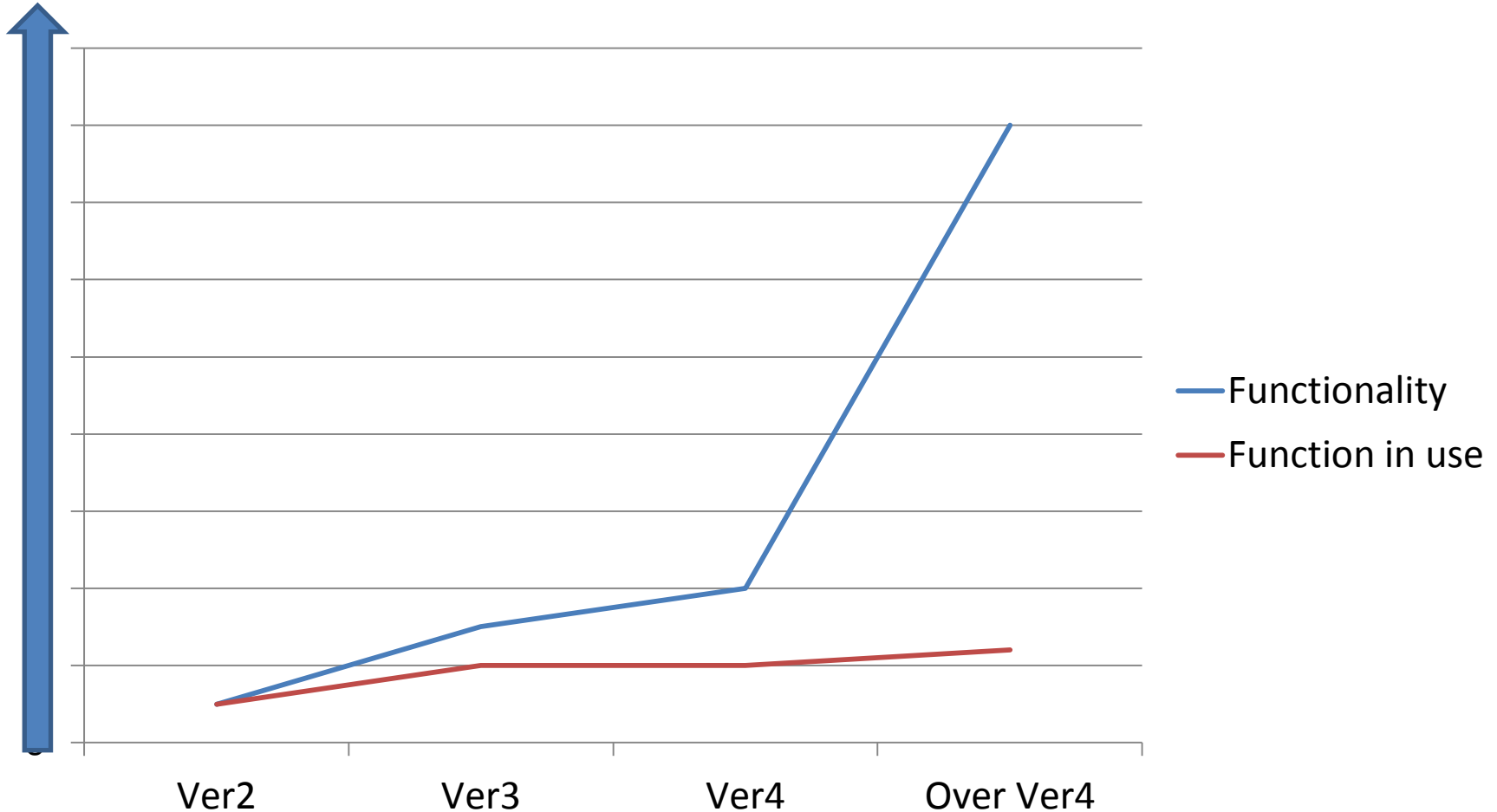


IBIS MODEL Functionality



IBIS MODEL Functionality in use @JAPAN

High functionality



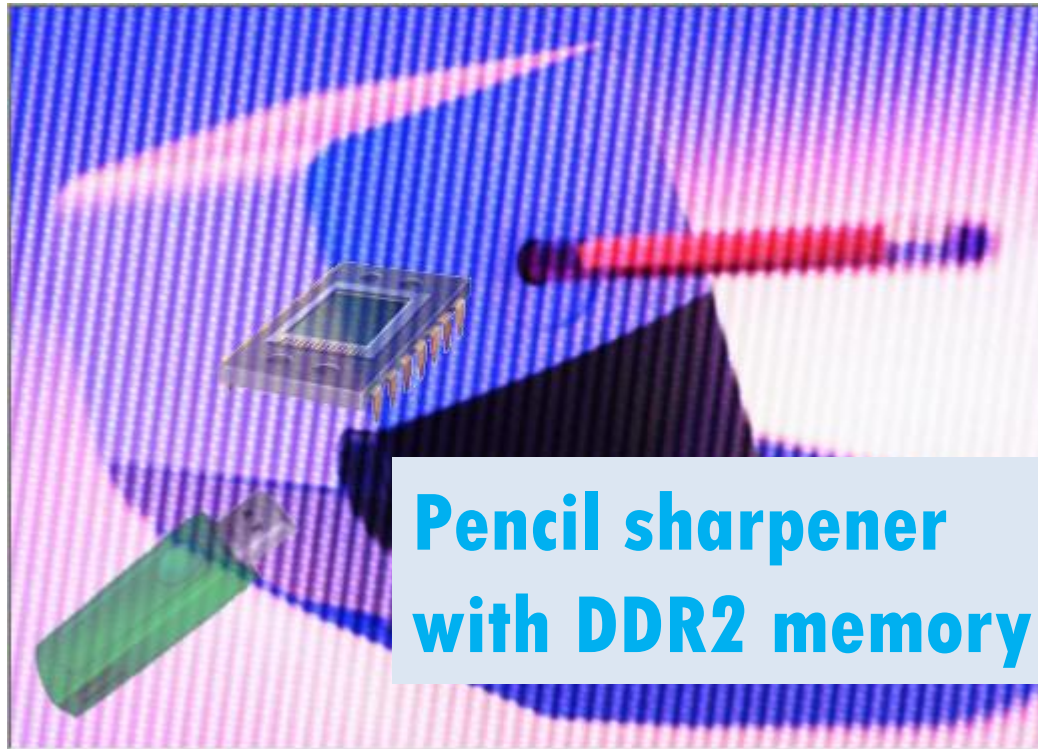
Why? What is going on in JAPAN?

The experienced beginner
WADOW Kusu-nokie

Why only low functions are used?

What is going on in Japan?

Because Japanese products are unique in flavor

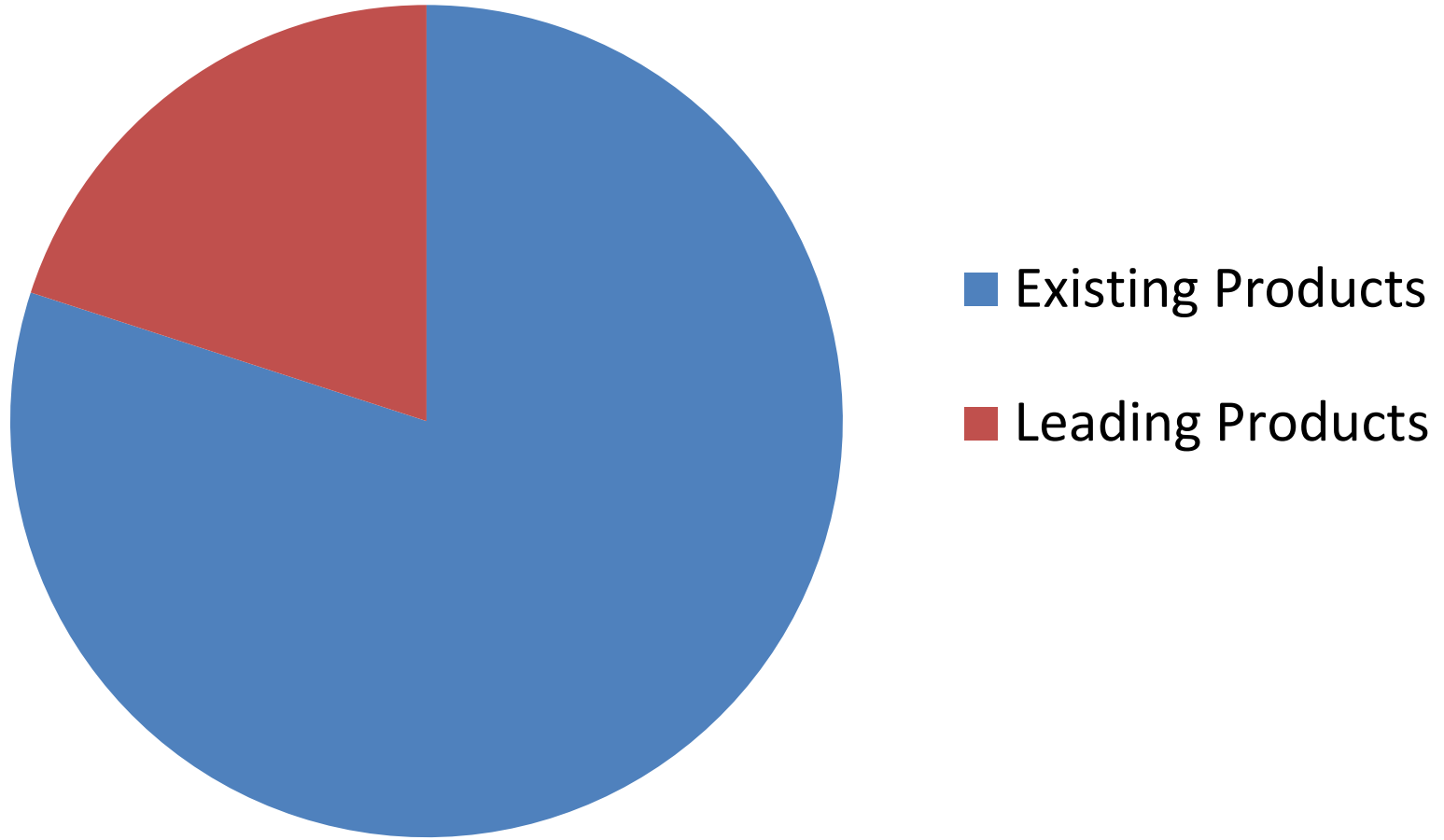


**Pencil sharpener
with DDR2 memory and USB2.0**

**If that's what it takes, we would use high-tech semiconductor ,
even for a simple office product.**

*The experienced beginner
WADOW Kusu-nokie*

IBIS MODEL Functionality in use @JAPAN which is statistically predictable

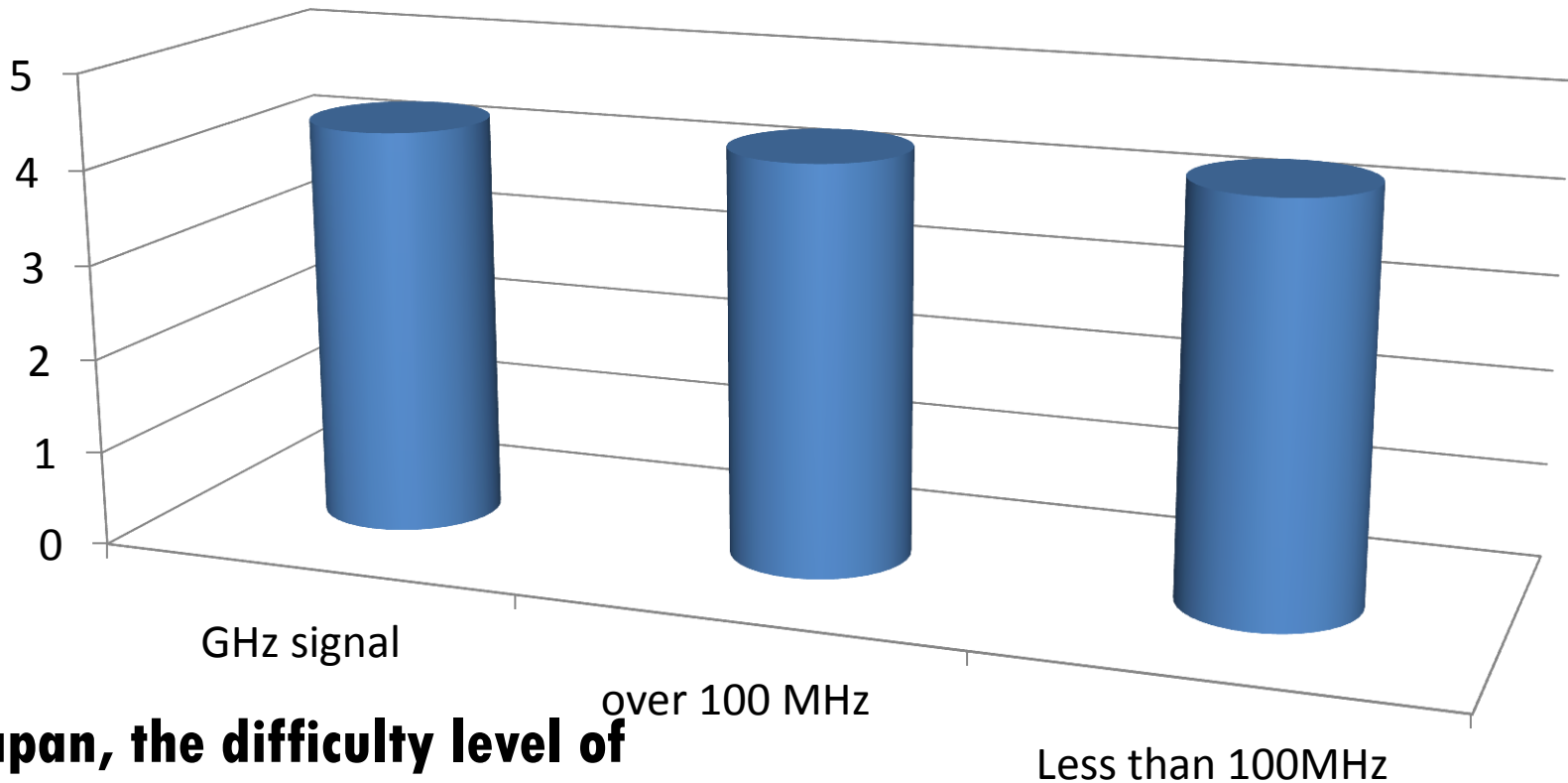


JAPANESE PRODUCTS are of great variety

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About Difficulty Level of Product Design & Simulation

Difficulty level



In Japan, the difficulty level of Leading-edge technology and Existing technology product are the same....?

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Why are the difficulty levels the same for Leading-edge and Existing technology products?

Leading-edge technology product issues

- **How to design via for 40GHz?**
- **Which low-cost di-electric material we should use for Hi-Frequency PI issues?**

Existing technology product issues

- **How to increase the CLK frequency from 50MHz to 200MHz and reduce the number of total layers of PCB for simple office product?**
- **How to reduce the EMI for 2 layer PCB?**

The difficulty of countermeasures are the same!

Why are Japanese products difficult to design even with existing technology?

- **Unbreakable**
 - be strong enough for daily use
- **Safety**
 - secure security and stability
- **Cheap**
 - supplied at popular prices
- **Dust resistance**
- **Noise control ("silencing")**
- **Need to be the Art object**
(because of national character?)

Why are Japanese products difficult to design even with existing technology?

For example;

Need DDR3 SI in 2 layers PCB.

Mixed different power and signals in too high density PCB.

And Not only function of product but

“COST” is one of the most important factor.

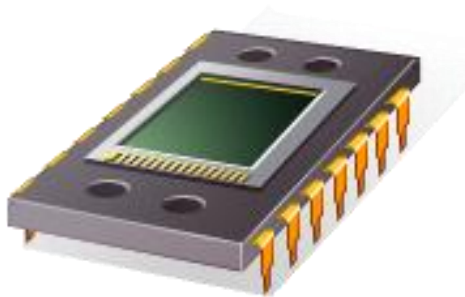
“Safety” is one of the most important factor.

“Endurance” is one of the most important factor.

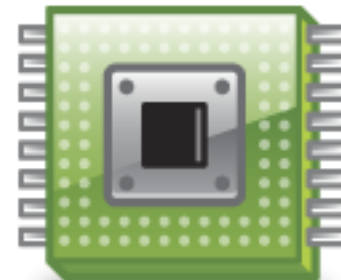
→and of course engineer's payoff is low..

IBIS Model Beginners

The signal frequency of any product is increasing. Because the cost of Hi frequency devices are cheaper. (Maybe)



**33MHz DIP device,
¥50,000
(difficult to find)**



**330MHz device,
¥9,800
(everywhere near you)**

IBIS Model Beginners

The numbers of IBIS Model beginners are increasing day by day because any product has some Signal Integrity issues and PCB simulation is so popular all over Japan (the world)



**Old fashioned
IBIS user**



IBIS user Today
IBIS for everyone

The experienced beginner
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IBIS Model Beginners today are extremely demanding



**Old time beginners;
The frequency of PCI-BUS increases
from 33MHz to 66MHz! Oh my god.**



**Beginners today;
The frequency of memory-BUS
increases from 200MHz to 1600MHz!
Oh my god.**

*The experienced beginner
WADOW Kusu-nokie*

Required & missing for IBIS beginners

- **Have an opportunity to study IBIS model in depth.**
- **No time to do it. No budget to do it. No new tools are supplied from company to do it.**

Common issues for beginners:

Which model should I use in model selector?

Ans: Get overtime money. Stay longer at office then try all models to find out what is the difference.

Please help the beginners

- **Dear Company,**
 - **Get more budget!**
 - **Pay more salary!**
 - **Buy more tools!**
- **Dear Beginners,**
 - **Do more study!**
 - **Have more experience and experimentation!**
 - **Attend the IBIS summit more and disseminate your opinion to the world!**

“CROSSTALKS” for every IBIS beginners

REF: <https://www.facebook.com/groups/127702313976800/>

Let's join the “CROSSTALKS” which is the place for every engineers (musician, dancer, artist, athlete and anyone) can communicate regardless of their professions or places of employment! Solve the your IBIS model issues with other beginners! No membership fee needed! Held at random times in theaters near you!

