

ASI Technology Summit 2021

Intel's New 11th Generation Intel Core Desktop Processor

0:00

Just now starting, all attendees are in listen only mode.

0:05

Good morning, good afternoon, everyone. This is Kent Tibbils

0:09

with ASI, and I'm going to be your moderator for the sessions that we have going on this week, and I want to take a minute to thank you all for joining us for our ASI Q 1, 2021 Technology Summit.

0:23

And we're really excited today, because today is the official launch, Intel's new 11th generation core processor for desktops.

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And we have David Bradshaw joining us today from Intel to talk to us about the until the 11th gen processor, codenamed Rocket Lake.

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So we have David here who's going to go through the presentation.

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Really excited to be able to do this on the actual day of the launch of the processors.

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So that's really exciting that we're able to co-ordinate and bring this to you guys on launch day.

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So a lot of really good information that David is going to share with you today about the 11th gen core processor.

1:06

Before we do that, there's just a couple of things that I want to announce really quickly, first and foremost for questions.

1:14

If you guys have any questions, during this session, there is a question box on your menu.

1:20

You can go ahead and click that box, and type in your question, then will either be able to answer it through text as we go through the presentation, or we'll be sure to ask David your question at the end of the training session, that you have.

1:36

a chance to ask him a question, So, if you have a question, go ahead and put it into the question box, and we'll get that out to David as soon as we're done with presentations. So, go ahead and send in your questions at any time.

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Other thing I want to announce is that this is a week long event.

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So, not only do we have a session today, but we have one session each day, Wednesday, Thursday, and Friday, from a different presenter, all taking place at the same time.

2:06

So, we cover four different sections, in or different days, to try to bring you guys the most amount of information that we can, and not impact your schedule too much. So, every day, we have a session going on. Tomorrow, we have ASUS which is great timing because they'll be talking about all of their 11th gen, motherboards, so, 500 series, chipset, motherboards.

2:30

Then on Thursday, we have micron.

2:32

And on Friday, we have ASI, doing a presentation on Internet of Things, devices, and different form factor motherboards that we have available for you guys that are involved in IOT, and industrial computing, and doing some of those different kind of form factor devices.

2:51

So, I strongly encourage you guys to attend all of these sessions, Course, portending, all the sessions.

2:58

You get entered into a drawing for a chance to win the Grand Prize at the end of the Showcase, which is a LP 2385. all In one computer system that coincidentally uses the Intel compute element as powerhouse and motherboard inside of that system.

3:19

So, we'll be giving that away as a grand prize.

3:21

And because today is a launch day for the 11 0 PM processor, and it's a big deal and big event for attending this seminar, all the way through to the end, you'll all be entered into a drawing for a chance to win, on all, in 120, 385. The exact same unit that we're giving away, as a grand prize, will be also giving away today, as part of David's presentation.

3:46

So, some really cool stuff, the giveaway, but most importantly, is the content and the presenters, do I know you're here to hear from David, you're here to hear about Intel Core, 11 zero PM processors, and not listen to me, ramble on forever and ever.

4:03

So with that said, David, I'm going to turn everything over for you and you go ahead and get things started.

4:12

Yeah, thank you, Kent, and the, the entire site team course, for bringing us here today.

4:19

SSI are a great partner of ours, and, and we really enjoy working with them, and thank you for spending the next little while, 15 minutes or so as we talk through what 11th Janko is.

4:35

For those I haven't spoken to before, I actually manage everything PC related across Americas distribution, so whether it's, you know, branded OEM PCs or component parts like we're talking about today, or the NEC products, for example.

4:53

So, um, and a very well timed conversation, as Kent said, in the intro, right?

5:00

Just barely three hours ago, we launched Rocket Lake, 11th gen core four for desktop.

5:07

So, a very, very exciting time, Sorry, we can't be doing this in person. Hopefully, in the near future, we'll have a chance to do this as well.

5:18

And I just noticed actually that whenever someone pings me on teams internally at Intel, it stops my screen share. So that's kinda weird. So if that happens, please bear with me. It just happened a moment ago.

5:34

All right, so let's, let's jumpin' then, So what I wanted to do was talk very quickly about the history of 11th gen.

5:44

Cool, because if you, if you like, the 11th gen core, for Desktop rocket, like, is the last of our 11th, Jim products that are getting shifts.

5:53

That's not entirely true, customer 11th gen, knock products coming here shortly as well.

5:58

But, so what I wanted to do is kinda tell a story a little bit about 11th Gen core and how we got here today.

6:06

And, um, if you remember, back at the end of last year we introduce 11th Gen core in notebooks, much fanfare in the press and lots of excitement particularly around the New Iris XC integrated graphics capability and the additional performance that we're bringing to the table.

6:30

By the way, entire integrated graphics is available today and what we're talking about, 11th gen for desktop with Rocket Lake as well.

6:39

We'll talk more about graphics as well in a moment.

6:42

Then, um, beginning of this year at CES, we launched what I've got up here on the screen here, which is 11th Gen core for V Pro on notebooks.

6:54

And I'm sure most of you are familiar with, with the problem, what it brings to the table, in terms of the best in class, SMB copra type solution, But you, if you're familiar with the pro, you will also have heard of the four pillars that we often talk about. Those four are here on this slide.

7:14

And it's really updated with everything 11th gen cool, So the top left-hand corner, you can see, you know, business class performance and experiences that all the goodness of 11th gen core.

7:25

From a performance perspective, now pulled over to the Pro, lots of new capabilities here, including Thunderbolt four, Discrete Wi-Fi six and for the first time for Intel, PCIE, Gen four in a Notebook effect for foot in the entire industry in a Notebook, PCH N four.

7:49

Then, the bottom left-hand corner here, we talk about manageability, which is really then V Pro core strength over the years. And then, of course, the Remote Management capability.

8:01

And here, we're introducing a product called Emma, which is Remote Management through the Cloud.

8:07

So a significant advance in terms of, in terms of the V Pro offering.

8:12

Then top right-hand corner, we talk, we talk about this more secure solution and a lot of the hardware enabled security that exists in the 11th chain called

8:22

And finally, bottom, bottom right-hand corner, we talk about sip, the Intel Stable Image, Platform Program, and which also has some, some significant advancements with it.

8:34

So that's everything V Pro 11th Gen Core and also, at CES we announced Intel Evo.

8:45

So, if you are familiar with some of the Intel lineup, we've had projects Athena in market for about a year now, which was intended to bring the very best in thin and light systems to market.

8:56

Whether we're talking about battery life, force, general responsiveness, the very latest in terms of connectivity.

9:04

Um, you have instant wake, fast charging type capabilities.

9:09

So the Evo brand was as I say launched with 11th gen core. And then also at CES, what we did was introduce the Intel ... platform.

9:19

So it's getting to be bit of a mouthful but this is just for 11th Genco and really brings together the very best of the probe.

9:28

In this case all of the hardware enabled security reliability, performance and manageability and marries that with this new Evo brand So the very best in class four for thin and light systems that we just talked to.

9:43

So If you're looking for the very best, possible, most capable notebook out there today, then please, look out for the Intel 11th gen core, Eva, ... platform. That is, is already in market today. We're very, very pleased to say.

10:00

OK, and, um, I have got some material here that really compares this competitively with the AMD offering.

10:11

Right now, this is showing a notebook. And now, we're not really talking about Notebooks today. We'll get onto the desktop stuff in a moment.

10:17

But what I wanted to show you very quickly about 11th gen coal in a notebook versus AMD. So both these two systems are going to compare side-by-side here. They're exactly the same. It's an HP and V X 360.

10:32

And, in fact, we gave the AMD version a larger SSD and for what it's worth. But you can see the AMD system is based on that.

10:41

Very best, highest performing CPU in a notebook today, which is the rise in 5400 view, in the Intel system, all we're using is a core, I five, in this case, the 11th Gen 11, 35 G 7, So, without leading the witness too much, here, you can see at the very bottom of this slide, we talk about the price.

11:06

So, \$949 for the AMD system, versus the \$730 for the Intel Core I five.

11:14

I do have an I seven version of the results as well, if you're interested in getting noticed, but I just wanted to show how the I five was Stephanie up against the very best AMD has to offer. And these are simply the results. And what we did was we, you know, using ... for the most part, that we, we compared the two systems together. Both plugged and unplugged.

11:37

So the white column shows the delta in performance.

11:41

When these two notebooks plugged into the wall, the blue is when the unplugged and we compared across web browsing, productivity and media editing, and consumption.

11:51

And you can see, in every case, the Intel system.

11:54

The Core I five system was, was, was head and shoulders above the AMD system, in terms of performance.

12:01

But the, the really telling thing for me here is that if you look at the white column, where the system's plugged in, um, yeah, the Intel system was better, but not much.

12:13

It was, it was almost on a par, right, in every case, but as soon as you unplug these two systems and compare them side-by-side, you can see that, in the case of web browsing, up to 90% better, productivity up to 52% better, media can editing, and consumption is 76% faster.

12:34

So the message here is that AMD were clearly trying to hit a performance benchmark and didn't give Didn't care too much about what happens when that system is truly mobile and unplugged.

12:48

I just wanted to highlight that for everyone on the call today.

12:53

I mentioned the ... Iris ...

12:58

graphics solution so, I wanted to try and make sure everyone understood what products is coming where because Intellects Iris XE, integrated graphics as part of the rocket like launch today.

13:12

So, the Iris XE rollout for notebooks with the 11th gen is already available in market.

13:21

There was a product launched at the end of last year, called ... Max, which is an adding card for thin and light systems really only available from, from the PC OEMs.

13:33

So it's not available as ESSA, as A, as a channel boxed solution.

13:39

And also, we just launched the Xe graphics for desktop, codenamed D G one that you may be familiar with, which is an entry level. desktop adding card. Again, very limited availability, specifically specifically from OEMs.

13:53

It's not a box products available for broad distribution.

14:01

And then we have what we're announcing today, which is the ... Integrated Graphics for Desktop with Rocket Light.

14:09

And finally, we have the products I think most of us are really waiting for which is codenamed DG two, which is the ...

14:17

graphics which we, it's got a typo in there on the year, but we're expecting to be late this year, early next. I'm really thinking is going to be early next year.

14:28

And at this stage, we're very excited about that.

14:32

OK, so let's move on and get into the real meat of the conversation here, and peel back the layers of the onion a bit on the on broccoli.

14:43

So I wanted to start off with, with the roadmap and don't like to show roadmaps and this type of presentation. But I think it helps us tell the story.

14:52

So for X processes and at the top there, we've got Glacier Falls going through this year.

14:58

We're probably not going to refresh the X series until cutesy next year.

15:04

And then for the series, we've got, of course, comment like S, which is 10th Genco and Market today.

15:12

The launch today is rocket like S, as you can see here on the slide, closely followed by all the like S, which is going to be 12th Jain core, which is going to ship later this year. Probably back end of Q three, so we're very excited about that as well.

15:32

OK, so before we carry on the conversation, we wanted to talk about what you sell, because we just covered a lot there in the Roadmap.

15:40

And if you are in the Notebook space, selling consumer products today, you know, clearly 11th gen core is where a lot of the focus and attention is. We just talked about the Evo brand.

15:52

But most of the volume is still going to be on 10th gen core, at least in this quarter, that will probably change quickly as we go through Q two and Q three.

16:01

If you're selling commercial notebook.

16:03

Again, you know, 10th Gen VPro is really for volumes day and expect to see 11th GMB Pro starting to ramp here in the desktop space. And this is more of a reference to component desktop products.

16:16

But, hopefully, you've seen, our supply situation improved dramatically than where we've been, over the last 2.5 years, that, that situation will continue to improve.

16:29

Of course, as we launch 11th skull trail, you expect there to be the, the normal ramp, in terms of volumes.

16:39

But no product is available after the gate here.

16:42

Excuse me, but do expect to see some continue tightness some supply around I nine K skews whether it's 10th, January 11th chin.

16:52

So really, the key one where we are right now, it's really for desktop going to be about Tense Gen core for volume.

17:00

And you can expect to see that kind of switch over to 11th Gen Core at some point as we go through cutesy probably towards the back end of Q two.

17:11

So as Ken mentioned, at the beginning, we have this is our launch day March 16th, we have, and actually, there's another type of the Sales Embargoes. Actually March 30th, not March 18th, So just make sure that you're clear on that. The sales embargo for these CPUs is March 30th.

17:33

OK, before we jump into 11th gen core, in any level of detail, because 10th Gen course, the way most of the volume is today, I just wanted to throw out a couple of competitive slides on since *****, or just to make sure that we're all clear and understand where we are.

17:52

And what I would say, in summary, is when you compare Tense Gen Core with the latest rise and 5000 series of the mirror CPUs.

18:02

Intel is about on a par in terms of performance.

18:05

So, for me versus tense gen, fluence, very, very similar.

18:09

The message on this slide is very simple.

18:13

The 10th Gen core products are much cheaper than the, as a mere 5000 products.

18:19

Now, whether you're comparing tonight 50, K with the 1900 X, and so on, about a \$300 low price. So we don't often get into a conversation like this when we're talking about Intel, but right now, for ... core, that's where the better value sets.

18:38

And by far when you, when you're comparing overall competitive performance across the across both product groups.

18:49

And a key part of that conversation is now low energy consumption.

18:54

And as you can see here, we're comparing 10th gen core with the latest rice and 5000 series products, and you can see unshell occupies the entirety of the top of this stack in terms of lower power is better.

19:10

Again, at a low price.

19:13

And when we talk about everyday workloads, again, we're comparing here the 1900 K with 1950 X.

19:21

Things are about on a par.

19:22

As I mentioned, you're getting some improvement around database queries, video editing. But generally speaking, the performance is about on a par across the two product offerings.

19:38

And even in the gaming space, this is this chart is showing frames per second.

19:44

And you can see that until, again, that's on a par with that 59 50 X AMD parts.

19:53

But, yeah, D2L insensitive performance again for, for that lower price.

19:59

All right. So, let's jump into 11th gen finally, and talk about what we're, what we're announcing today.

20:09

Um, so, we'll dig into each of these areas more in a moment but the idea here is that we allow you to give your customers a far more immersive.

20:22

Experience with, with enhanced tuning capabilities across the lineup of the 11th gen core and the pillars that we really set out to design this product around, you can see you can see communicates it is so intelligently engineered.

20:41

Um, a key part of the 11th Gen lineup is adding AI capabilities to the CPU. We'll talk more about that in a moment.

20:50

Highly immersive graphics, and we talked a little bit about the higher *****, integrated graphics capability of Rocket Lake, like, perhaps, nevermore, so important than right now, where and graphics cards, Discrete Graphics cards are so hard to get hold of.

21:07

That we're coming to market with such a powerful, integrated graphics engine in Rocket Lake.

21:14

The third pillar is Enhanced Tuning and Control. This really speaks more to the gaming and content creator communities.

21:22

But the, the ability to have more control over the ability to two impacts the over clocking of, of your CPU, and finally, trusted technology, We hope that Intel still stands for reliability in the world today.

21:39

And from where the weather we're talking about standard.

21:43

So certifications or you know, as validation that this happened behind the scenes, You can expect to get a very trusted technology partner with, with Intel and 11th chain core.

21:57

So, what's new in this generation?

22:01

I'm not going to go through the whole list here. I believe we're going to make these slides available.

22:05

She was well.

22:06

But you can see here some of the architecture improvements that have been made with IPC improvements, about 19% gen on gen.

22:17

And we talked about the edition of the Harris XE graphics new up to 20 CPU, PCIE photo, Lane's for the first time in an Intel Desktop CPU.

22:31

We're adding a technology called Deep Learning Boost and this really is the AI capability that I mentioned earlier.

22:40

New overcooking features we're adding USB 3.2 and of course we're adding support for the Intel 500 series. Chipsets talk more about that in a moment.

22:51

Platform Improvements we're now offering for the first time DDR for 3200 support.

22:57

Enhanced media capabilities, enhance display support for Intel Optane memory, H 20 SSDS.

23:06

We're now offering discrete Thunderbolt for supports, discrete until Wi-Fi six E support and up to 44 platform PCIE lanes and expand the memory of the clocking. And the reason we call out these platform improvements Because when you're comparing us to AMD, I just want to make sure everyone remembers that Intel brings a lot to the table, in terms of the platform is not just about the CPU.

23:30

There's a lot of intel technology in the platform that you may need to make sure that you're talking to your customers about.

23:41

All right, so let's break these down a little bit as well. So we talked about them, intelligent engineering.

23:48

We certainly have the new graphics capability that we've mentioned.

23:53

We've definitely got a lightning fast platform.

23:55

In fact, we're very pleased today to announce that we, I mentioned 10th gen core was on a par with the mere 5000 series, but with the launch of 11th Gen

24:07

We now pull ahead of our competition again and with one small, got the very best fastest gaming CPU in the market today in the 911900 K.

24:19

So we're very pleased about, about that and where it positions us competitively.

24:26

So, ..., dot O, D D R, 4200, we mentioned these already.

24:30

And the ability to maximize performance.

24:33

So, you'll be familiar with some of these technologies from previous generations, but where, adding to and enhancing with Intel turbo Boost technology, two dot O, Turbo Boost Max technology three D, and thermal velocity boost, we'll talk more about those in a moment.

24:52

As I mentioned, we're adding some great enhanced tuning and control features here.

24:59

And particularly in the world of over clock is those customers of yours that are using our case skews.

25:05

So some very powerful tools here.

25:08

Until performance maximize the extreme tuning utility an extreme memory profile.

25:14

And, of course, we're enhancing the expand ability of a system with a number of PCIE, 4 dot 0 lines and USB 3 dot 2.

25:24

And we're adding revolutionary connectivity.

25:27

And this has been the message across our 11th Gen lineup, but again, adding findable for I'm adding support for Intel, Gigabit Ethernet, and also the new Wi-Fi six standards as well.

25:43

Immersive display and graphics.

25:46

Again, this talks to content creation and the games that are out there, but stunning visuals through the Iris **** Graphics that's probably the piece of 11th gen core that's got the most attention and enthusiasm is the introduction of the new graphics capability, which in turn offers complete immersion if you're in the gaming space and seamless multitasking.

26:15

And finally, you know, again, Intel is a trusted technology leader.

26:20

And we bring products to market that simply work, and have been optimized across the platform.

26:28

With all of the third parties that we work with today, including, of course, Microsoft, and the operating system, and, and also the entire gaming community. And making sure that gaming experiences are really, maximized through the technologies that we offer.

26:46

Talking of which 11 chain core has been designed to game, and this is all about, you know, a massive amount of power.

26:54

It's about being able to push to the limits and really has been, has been built to play.

27:02

And I think, um, we in this presentation today we don't have the latest competitive data on the 11th gen core versus the May. I've got a little bit just to whet the appetite.

27:14

We'll have more of that later in the next couple of weeks. Once we hit the sales embargo day a month, March 30th, but you'll see a lot of that competitive material focused exactly in this space, in the gaming space, showing just how, how fast the better.

27:30

A 1900 K and 1700 K are compared to the very latest products the AMD has to offer.

27:39

All right. So let's switch gears a little bit and talk about the technical specs here.

27:44

But you can see side-by-side, how the migration from 10th Gen We Levin's gen has occurred. I'm not going to go through every single line here.

27:55

But you can see for process a cause, tense gen corten.

28:00

Cause in the case of 11th gen, we're at eight but these a newly architect architecture course.

28:08

I mentioned that from an IPC perspective, we're about 1920% faster gen on gen. So a very capable CPU.

28:18

Other key differences here, we already highlighted the introduction of PCIe.

28:22

Oh, course, the introduction of Intel Iris **** graphics and so on, down the list here.

28:32

Let's just look at a very high-level process, a diagram.

28:36

And again, cool out some of the pieces that are new here.

28:39

So new processor core architecture with the 11th gen core rocket, like with, with immense IPC improvements gen on gen.

28:50

We've got new increased TDR for speeds, new PCA four dot AU.

28:55

New UI HD graphics in which includes the intellects, Iris ****, and of course, support for WI Fi succeed.

29:03

So, again, a great set of enhancements, gen on gen that that, again, pulls us away from, from the competition.

29:14

Let's talk about board compatibility for a moment. You probably already know that for 11th gen core CPUs, we are backwards compatible with the 400 series chipset posts that are out there.

29:26

But, if you want all of the technology enhancements that 11 Chin Core has to offer, certainly going with the new 500 series board is going to be important and, it sounds like a Susan's going to talk about that more tomorrow, but, there's some key reasons why you'd want to look here.

29:43

So, we've got it: 20 gen photo Lane's compared to 16 on the 400 series boards.

29:50

Um, we've got support for USB audio offload, you support for USB, three, dot 2, 3, dot, two, and so on. So again, some significant improvements gen on Jan.

30:05

What I would say, because this is usually the next question, I get is well, what about older, like him, 12th Jain core, that is a new socket.

30:14

So, it's not going to be backwards compatible with the 400 series and 500 series bullets, a new chipset.

30:23

And just a reminder of some of the benefits of buying a box: CPU versus Trey. You get a three-year warranty with Box versus a one-year with Trey.

30:34

And we do offer a thermal solution, which is available with 11th chain core CPUs will talk about more in a moment.

30:42

You also get this: you can see here the new newly designed boxes that come with the product: you get good heat dissipation and great plug and play compatibility.

30:57

The thermal solution that we're offering with Lemons Gen Core is shown here, then again, available through ASI and we won't go through all the information yet, but there are also third-party thermal solutions will be available.

31:13

And this is the entire lineup of 11th gen CPUs that we'll have in market.

31:21

And if you're not familiar with some of the additions to this list, that has occurred over the last year or so, but you can see at the very top of the stack, we've got 1911900 K, both Core I nine, There's also an 11 900 F. So you see the F designator in the product code.

31:40

That simply means that CPUs does not have integrated graphics on board.

31:46

So wherever you see, the other lines that do not have F, all of those skews do have integrated graphics. But F just means, no, integrated graphics and you'll need a discrete graphics card for sure to go inside that, that particular system. And you can see those SKUs as we call them lineup, go up and down the stack here, you can see it appearing again with 11 700 F 1700 Ks.

32:14

There's an I five version, 11, 600 Ks, and a nice 5, 11, 400 S as well.

32:27

All right. So I said that we don't have any competitive information to share today only let us call this.

32:32

These are the couple of slides where we do whet the appetite a little bit and show you where it is. We're pulling away from the competition.

32:40

So, this shows the 1900 K in blue, versus, again, the AMD Rising, 1900 X across a variety of different AAA gaming titles that are out there.

32:55

And you can see in every case, from a frame rate per second perspective, the 1900 K CPU outperforms the AMD version.

33:08

When we look at overall performance on 11th gen core versus 5000, this is how the two brands lineup.

33:14

So on the left-hand side, of the chart here, you can see the core I nine is ahead of the rise nine product, I seven, ahead of price, and seven, and so on.

33:26

When you compare 11th gen Core, with the AMD rise and 4000 G Renoir a P U, a vast difference in terms of performance.

33:36

And in fact, the rise in seven version of rim law doesn't get it, doesn't get a performance equal until you go all the way down the stack to A to a Core I five.

33:51

So let's focus for a moment on what you talk about with your customers around 11th Shankar, and I've tried to separate this out. In a few different scenarios, the top left-hand box talks about how you talk about 11th Shankar Core versus 10th, 10 Core.

34:07

We call the bat, we call out the double-digit IPC improvement already that you can talk about, Of course, the high frequencies, better overall performance. Better gaming performance.

34:17

The bottom left of this slide shows how we compare with 5000 for me, or you can talk about the fact that we, on the Intel side of the 11th ..., have overall performance leadership from a frame rate per second.

34:32

We have leadership in in all of the AAA titles, gaming titles, that are out there.

34:39

Better gaming performance at higher resolutions, and better gaming performance, with high performance, these discrete GPU top right-hand corner shows what you could talk about when you're talking about the competition, in terms of 4000 G Renoir.

34:57

Again, overall performance leadership with the 11th gen Core, and you can see that with you extend that overall performance.

35:04

Lead with comment lake versus AMD rice, and ..., as well.

35:10

And finally, the bottom right hand corner talks about the new exciting features that we've just described in the last 30 minutes or so.

35:16

But, again, new AI features integrated into the processor the introduction for the first time for Intel PCIe, Gen four support.

35:25

Enhanced Intel UHT Graphics with the with the introduction of the Harris ..., Architecture and New over ***** Capabilities, the introduction of USB 3.2 and finally, but by No means least, introduction of the new 500 series, chipset.

35:45

OK, so that's what I had for 11th Gen Core I wanted to mention.

35:50

I'm not lineup for a moment as well because we're getting a refresh on 11th Gen Core as well.

35:56

And I would imagine most of you are familiar with the neck lineup, but just wanted to make sure that we cover all bases here. This is the, all of the different very variants of the neck product lineup.

36:07

You can see we have the, Not Many PCs, which is an entire system, including the OS.

36:14

They've got the Intel nut kits, which is the, the knock, I think most people are more familiar with the next that we've had in market now for what, 6 or 7 years. And this includes the ship, the chassis, the Board, the CPU. You have to integrate everything else yourself.

36:28

We've got the Intel, not boards. So the board only version of ... that you would add a third-party chassis to.

36:34

Then we've got the Intel Nuts Elements, which we'll talk more about in a moment. and the Intel NEC laptop as well the knuckle White Book if you will.

36:46

Some of the target usages for net products that are out there today, well, it could be SMB.

36:51

It could be introducing products into office, into meeting spaces with collaborations, with products, like Intel Unite, and Teams and so on.

37:02

You've got the opportunity to use the neck and neck elements products in digital signage, kiosks, points of sale. Actually, a ton of, of IOT type applications give them the small form factor of the permanent.

37:16

Education and public sector, also a lot of opportunity, therefore, for nut products.

37:22

Content creator, pro summa, some evolved.

37:27

Larger, more expensive gaming type next are applicable there.

37:31

And also in the gaming space as well.

37:36

And as I mentioned, we are introducing 11th gen core across.

37:43

You'll be familiar with some of these, these nuts, products, versions of these, these new products from Preprint prior years, and in the case of the ... enthusiast, That's in place.

37:54

That's, that'll be replacing products like, school Kenyan haiti's Kenyan really targeted at the entreats, a mid-level gaming space.

38:06

We've got the Intel Knock 11 Pro. This is the pro version of the knock.

38:14

Just a bit of breaking news. You can see that the Intel nuc 11 performance that product is not going to be available in the US. Market this year.

38:25

The decision was made based on some of the third-party supply constraints that are being seen felt out there in the in the broader market.

38:34

So a few that that is the more traditional forged by four-inch insomnia product.

38:40

But as I mentioned, we are bringing to market the Intel Nok 11 pro.

38:44

So there'll be an 11th gen version of the traditional ...

38:48

market available to you, that that code name is, is tie a canyon so that that product is starting to launch now.

38:56

Starting to ship through ASI and will continue to ramp the number of skews on off of there as we go through Q one and Q two.

39:05

And finally, the bottom left-hand corner, you can see the Nugget 11 compute element.

39:08

If you're familiar with some of the early iterations of this products, you can think of products like the Compute Stitch, compute card, compute module, so the Intel unlucky 11 compute element is the latest version there.

39:21

And then we also have an 11th 11th gen version of the Intel ... laptop, which is in market, as well.

39:33

OK, so all of that means that we're introducing new opportunities for the channel, right, particularly around the element space, as we look at new opportunities in IOT and other spaces.

39:48

And by that, we mean the introduction of this this Intel nuc element product, you can see on the left-hand side of the slide, is the core I nine. nines, Jens Knaack Elements that goes inside products like Ghost Canyon and Courts Canyon.

40:05

Today, available in market have been for about a year now.

40:09

They can also be used in third party chess, is as, well whether you are using that for gaming or for workstation, but really introduces the possibility of a truly modular compute experience.

40:22

And on the right-hand side of this chart, you can see the you series compute element, which is really about them deploying in both IOT type scenarios and also modular compete around all in one laptops and many PCs.

40:41

And, as I mentioned, we're transitioning both of these products from their current offering set to 11th genco, them over the next, the upcoming weeks a month.

40:51

So, an 11th gen version of the element, the H Series that goes inside Ghost courts Kenyon and an updates to the U series compute element as well.

41:05

As we trend as we transition Chamois Bay, which was based on next gen courts, Elk Bay, which is based on 11th genco.

41:16

And just a note on each series, it's not just about Ghost Canyon and Quotes Canyon. There's now a whole host of third party chassis and products out there today that support these products.

41:29

And some of them, you can see listed here, but all of them are available in the neck ecosystem catalog which is which is available online.

41:40

The same is true for all U series products.

41:42

The smaller compute element there are now a whole host of chess is available in Market around all in one mini PC.

41:51

A notebook, keyboard PCs, project PCs. You name it.

41:56

There's, there's, there's many a solution out there, and I think we've really learned a key lesson here.

42:02

If you go back and look at compute compute carding and compute module, I don't think we had done as good a job as we could have done about building out the ecosystem.

42:11

But here, with this suffering, with this set of products that arrived, that can coming from some of our partners, and there's a real opportunity around the, the, the, the neck element products today.

42:25

And this is some of the other products.

42:27

The element fits inside, whether it's a loop all in one, and some of the, the notebook, and small form factor solutions, you can see there.

42:37

And just a quick mention for the Intel knock laptop kits. Some of you may be familiar with this already. The product we had a market for the last year was Queens County.

42:47

And we're now introducing an 11th gen core version of this, codenamed Bishop County.

42:53

And you can see all of the specs that are offered in an I five and a nice seven version also available as an Eva branded PC. Hatcher.

43:06

OK, so that's, that's all I had for today. Can see if we have any questions. Yeah, awesome. Whoa, we're getting there.

43:19

Yeah, you might want to turn them down.

43:29

OK, so, yeah, sometimes when we got the speakers on monitors, go on and everything else go, and we get a lot of feedback, but excellent job. Thank you very much.

43:40

We do actually have quite a few questions here.

43:44

And I'm going to start with a couple of the ones that were the most frequently asked that we'll kind of jump back and forth to some other questions here.

43:51

But I wanted to make sure we got this one X, because when you were talking about the product line, your audio cut out a little bit.

43:59

And we couldn't quite hear, you were mentioning one of the looks that was not going to be available in the US.

44:06

And unfortunately, your audio is cutting out a bit there, and we kinda missed what that product was, so can you kind of go over that again here really quick.

44:15

Yeah. Can you hear me OK? We can hear you. Perfect.

44:18

OK, so what I was talking about was a product that was codenamed Target Kenyon.

44:24

And that was due to rip 11th genco replacement of the tents genco version we had just before it.

44:34

Frost, can you?

44:36

And due to circumstances beyond our control, it's just just been the third party ecosystem supply issues that I think all of us have been hit with.

44:46

Right, we decided to take that product off the roadmap instead to have sorry, I'm mixed up my codenames, instead to have the Type taiga Kenyan product, which is the 11th Gen ve Pro offering. So if you if you're familiar with the nut products, you'll know that we have our traditional lineup normally pro. And then we have the pro products.

45:06

So instead of separating those two, aren't we decided to just go with Target Canyon, which is the 11th Gen ve Pro offering there on non the pro versions of Tiger Canyon that we're bringing to market.

45:17

So just something to be aware of.

45:21

Great. So is there going to be a refresh or Ghost Canyon in courts Canyon?

45:30

Yes, there are. So there are, there are refreshes of the elements that go inside of those chats is right.

45:38

So let me just see if I can.

45:40

Let's back up again here.

45:45

Bear with me a second.

45:50

Yes.

45:51

So if you come on the left hand side of this slide, this is H Series, right?

45:56

So no ghosts was based on nice jank course moving to Drive a Bay, which is based on the 11th genco.

46:04

that transitioning transition is happening now through Q two.

46:10

Great. So, let's kinda jump back onto the processor is a bit. You talked about the thermal solution that Intel provides with your processors.

46:22

But we got a question regarding the wattage that that thermal solution can accept.

46:28

So it looked like from a slide deck that anything, over 125 watts was not supported by that thermal solution.

46:37

So, do you know, um, know, what's the limit of the thermal solution you have?

46:43

And if you had a processor with higher wattage, that doesn't come with a different thermal solution, does it support a higher wattage processor.

46:53

Yes.

46:53

So, this is the only thermal solution that Intel's offering for 11th Gen that I mentioned there, there are others that are coming to market as well.

47:03

I'm not as familiar as perhaps I should have been on what those are the thermal solutions are, what they support, whether that's the limitation of the, of the platform.

47:15

But I think we can come back to you with that information.

47:18

OK, Great. So I'm honored 11th Gen processor. You, you talked about the different products that are available on the roadmap.

47:27

Are there correct and incorrect extreme versions for 11?

47:34

No, I think I mentioned that for X series.

47:40

We've had Glacier falls in market now, already for about a year and a half price. That's that's going to continue this year. We're not planning to update X series until Q two next year, which will likely be based on 12th Gen at that point.

47:59

Looking at the integrated graphics solution, you talked about the Iris XE graphics.

48:06

Is that available in all of the 11 ... processors? They all have iGPU.

48:16

That's a good trick question.

48:18

Yeah.

48:21

That they are except for those SKUs that we mention in the table, right? Surface got F. At the end of the product code, it means it ships.

48:31

With that integrated graphics, you need to add discrete graphics card to that to that box, but everything else on there that doesn't have an F in there and includes the integrated graphics, yes?

48:45

OK, so let me just jump around here a little bit, You talked about the AI features in the 11 10 processor, Can you maybe expand a little bit on, You know, kind of the new, integrated AI capabilities in the processor and you know, what that means for users?

49:09

Yeah, and, to be honest, we'd need a whole other hour to really Any to do, a justice, but.

49:21

At a high level, what it, where it talks more to is?

49:25

So for example, if you're a gamer and you're in the over clocking space, the ability to tune without having to go into the bios, there's it's a lot more intuitive.

49:36

Um, in terms of knowing which cause to use and when and so on.

49:41

That, but also, in terms of the overall performance of the system, you know, we often talk about the fact that not all cores are created equal.

49:50

And even in the same CPU, right, so.

49:55

So there's a lot of capability around the the intelligence that's built into the system.

50:00

So it predicts what you as a user going to do and how you will use the system, which applications you're using and is it has those ready on demand for you.

50:11

So it's really about features like that, but also how the system manages power and how it manages the peripherals that are around it in a more intuitive way.

50:23

So, but it's a, it's a good question. I'd love to come back some time and talk more about it.

50:30

Yeah. Maybe we can set up another webinar and just dive and strictly into that, that category in it itself.

50:39

And I would even imagine there's probably a lot of curiosity and interest around the Iris ace graphics.

50:47

We do actually have quite a few questions in here regarding, you know, the performance of that, compared to previous generation of integrated graphics and even compared to discrete graphics, and you made a great point during the presentation you talked about.

51:03

You know, there's a big GPU shortage right now and having an integrated graphics that performs well, compare it against the discrete graphics is a great upsell of the new processor.

51:17

So, can you kind of take this long winded question that I just threw out there Really in an attempt to give you some time to gather your thoughts and kinda tell it a little bit more about the performance benefits of, know, that the X E, solution that's integrated in these processes.

51:35

Yeah, and I didn't bring any of the speeds and feeds with me.

51:38

But the performance improvement in our integrated graphics gen on gen is just huge.

51:45

In fact, when we first set out however long ago, it was a year, maybe more down the path of F ultimately getting to a discrete graphics solution that DG to product that I mentioned That's coming, you know, just less than a year from now. This is the first iteration of that solution, right.

52:06

So they can get to the integrated graphics version of that much quicker.

52:13

And now, as a result, that's, that's where we see most of the performance bump.

52:20

Um, just thinking about the rest of your, your question.

52:26

And it depends on, on the usage model being deployed, right.

52:29

So, um, now the integrated Intel Iris **** graphics and rocket like.

52:40

It's not a replacement for the very best in class discrete graphics cards that are out there today if you can get one.

52:48

Um, just to be clear, but if the usage model is something less than gaming or content creation, think you'll find the intellect see, integrated graphics are very, very capable, more capable than anything we've we've had in market before.

53:05

And even if you look at the mobile space, just as a good indicator, the, the discrete mobile graphics solutions that are out there today from the likes of Nvidia, the the integrated into like iOS, XE graphics, etch the Outperforms those those discrete graphic solutions for mobile.

53:25

So just just to give you a kind of a a feel for the scale of improvement that is in this particular, integrated graphic solution.

53:35

Great. So we have a lot of questions is actually also around kind of product availability. We have temperature and we have 11 the change as launching. Now, we have 12 jan. All, they're like, coming down the pipe.

53:51

And so, I want to try to summarize all these questions that are coming in around availability, but really, kinda, can you tell us, you know, what we should be focusing on today, and what they look like in terms of, you know, the focus point, poor availability of product?

54:08

What we should really be looking at right now.

54:11

Yeah, no, it's a good question, and particularly in the desktop space, right, I mean, you've got ultimately markets Today, ninth Gen Core, which is on an end of life path.

54:21

You've got 10th gen core, which is where all the volume is, and now, 11th janko.

54:28

I'm being introduced.

54:30

I mentioned earlier that we we have our normal ramp on the 11th genco, which means you you're not going to see 11th shank or abundantly available in the marketplace until we get them to at least make Q two, maybe even towards the end of Q two.

54:45

So, that means for the time being, most of the volume, I believe, is going to sit on since genco, probably for the next couple of months. And if you've been selling 10th genco, you'll know that we did a price move price decrease.

55:02

Probably 4 or 5, 6 weeks ago.

55:05

So, we're very conscious of the amounts of Tense Gen call this out there.

55:09

We were trying to help manage that transition as best we can, knowing what's coming down the pipe.

55:16

What I would say is that, again, trying to be transparent here, fruit, the 11th gen core introduction, we tend to work off an allocation basis at launch, just because there's less products around.

55:31

So that means that certain, certain accounts get it.

55:35

A proportion of the overall volume, and then it gets made available for broad channel, as we get further into the cycle.

55:43

And further into the cycle than this case, probably means probably towards the end of April, into the beginning of May.

55:51

Great. So we're coming up to the end of our time slot here. And we still have quite a few questions in the queue.

56:00

So I want to be sure to mention to everybody, if you do have a question, please do continue to submit it, because we'll be able to take the questions offline, and we can touch base with you afterwards.

56:10

So even if we don't get a chance to ask your specific question right now to David, while we have them online, we'll be able to provide them those questions through e-mail afterwards, and we'll be able to follow up with you after. So make sure you get the question asked. Will try to get in as many as we can before we want to wrap up and close here. So with that said, David, a couple of others.

56:36

Regarding some of the products lines and what we saw on the roadmap for future processors, this core I nine continue with 12 gen or is that going to fade away with 11 Jen. Does that keep going?

56:52

As far as I know, it keeps going.

56:55

You know, I nine has been incredibly successful for us, in fact, so successful that we can't keep it on the shelf, as you know.

57:03

So, I think I nine continues, certainly, as we continue to go head to head with our competition, who are keeping all of us on our toes at the moment, that that product offerings is increasingly important.

57:19

You know, the halo product that's out there that we, we want to get as much volume as we can, as we go and towards the end of the year.

57:29

Great!

57:30

Alright, let me just take a quick scan here and see if I can squeeze in any more questions.

57:42

Question here about Thunderbolt poured out. Oh, and I'm gonna try it.

57:48

Summarize what the question is. But it looks like they're asking for comparison between Thunderbolt or dot IO and USB Port.

57:55

You know, are those the same in terms of performance, or are they actually even the same thing?

58:03

Now, they're not the same.

58:05

They're not the same thing.

58:06

So, you know, USB and, Type C, Connector, are all parts of Thunderbolt four.

58:17

But but the Thunderbolt for Products, offering is much broader.

58:22

So so just because there's a Type C connector, of course, doesn't mean that it supports Thunderbolt.

58:29

It just depends.

58:31

But what I want, I can do is, we probably haven't got enough time here, but I can, I can send out a description of, what, what is included in suitable for versus versus USB, Right. So, I'm gonna ask one more question, and then after answer, ask that question, We're gonna go ahead and wrap everything up and I want to make sure I announced everybody how we're going to handle the raffle drawing. So, hang with us for just a couple more minutes before you all start logging off and make sure you get all the information that you need.

59:01

But real quick, on the case series, you, David, are those today.

59:07

I don't believe they include a thermal solution, so are they going to is that the same and 11 Gen?

59:16

Yeah. That's the same, yeah, we don't we don't include thermal for for the case Q That's correct.

59:21

Yeah, OK, All right. Well, I'm gonna go ahead and wrap things up here and I want to thank you, David for joining us today.

59:29

And let everybody on the seminar session know that we got a lot of questions in here, also, about being able to get access to the slide deck that David went over, and, yes, we'll be able to provide that to you, you know, once this session has ended.

59:45

We will also make the recording available, so if you want to go back and listen to the recording, you can go back and listen, or if you want to invite other people to listen to What David said, they'll have an opportunity to do that as well.

59:59

So, just a quick reminder, tomorrow, we have ... presenting at 11 o'clock.

1:00:05

So, be sure to continue to attend all of the sessions so that you can get entered into the drawing for the grand prize, I believe.

1:00:14

Tomorrow we're giving away a 32 inch curved.

1:00:20

Tough aces monitor LED monitors. So, a really nice monitor that we're giving away at tomorrow's session for today.

1:00:29

We'll be giving away the LP 2385 that David actually mentioned in his presentation as being one of the products that supports the nook element.

1:00:40

So, we'll be giving away a fully integrated all in one system.

1:00:44

We're going to take all the people that attended this session today will do the selection and random raffle drawing. It will announce the winner of that tomorrow, at the beginning of tomorrow's session.

1:00:57

So be sure to come back tomorrow.

1:01:00

You can hear if you won the LP 2385 and then we'll have a great presentation from aces, though.

1:01:08

I do want to thank everybody for joining us today.

1:01:12

David, is there anything in closing you want to say, or, or, or comment before we close everything out?

1:01:21

Now, it's just a very exciting day, as these days always are launching a product like this, and thank you for all for your support, especially if you're joining during some pretty die, a couple of years for our supplier concerns. Certainly recovering, but thank you for, for your support. Thank you for selling, until credit.

1:01:43

Alright, well, on behalf of David, thank you again so much for doing this, and for all of our attendees that are online, thank you for joining us today. We really appreciate you being a part of our event, and part of this session. We hope that you got a lot of good, valuable information out of it, and I thank you again for attending and for all of your supportive ASI, and I look forward to seeing you guys all back tomorrow. So, with that, we'll give everybody back the rest of your day, and we'll talk to you all tomorrow. Thanks again.