

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS,	)	
LLC,	)	
	)	
PETITIONER,	)	
	)	
vs.	)	Case No.
	)	IPR2024-00432
ENTROPIC COMMUNICATIONS, LLC,	)	IPR2024-00435
	)	IPR2024-00438
Patent owner.	)	
-----	)	

VOLUME II (Pages 192 - 245)
DEPOSITION OF DAVID LETT
VIA VIDEOCONFERENCE
TUESDAY, DECEMBER 16, 2025
9:00 A.M.

FILE NO. 1450226
REPORTED BY LEESA DURRANT, CSR NO. 11899, RPR

1 DEPOSITION OF DAVID LETT taken on
 2 behalf of Petitioner, at 9:00 a.m.,
 3 Tuesday, December 16, 2025, via
 4 videoconference before Leesa Durrant,
 5 Certified Shorthand Reporter No. 11899
 6 of the State of California, pursuant
 7 to Notice.

8 APPEARANCES OF COUNSEL:

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1 TUESDAY, DECEMBER 16, 2025

2 9:00 A.M.

3 * * *

4

5 DAVID LETT,

6 having been first duly sworn,

7 testified as follows:

8

9 THE REPORTER: Good morning. My name is Leesa
10 Durrant, Certified Shorthand Reporter, License No.
11 11899.

12

13 EXAMINATION

14 BY MR. HENDIFAR:

15 Q Mr. Lett, are you ready?

16 A Yes.

17 Q Good morning, Mr. Lett.

18 A Good morning.

19 Q Thank you for your time.

20 You understand that you're testifying under
21 oath today; correct?

22 A Hang on just a second. Let me get my volume.
23 Talk for just a minute, please.

24 Q Me?

25 A Yes.

1 Q Sure.

2 Do you understand that you're testifying under
3 oath today?

4 A Yes.

5 Q Is there any reason why you may not be able to
6 provide your best testimony today?

7 A Not that I'm aware of.

8 Q Throughout the deposition, if there are any
9 issues, whether it's technical, with the microphone or
10 whether it's you not quite understanding a question or
11 needing clarification, please let me know and I will be
12 happy to take a break, rephrase the question or take
13 other measures as may be necessary.

14 Is that fair?

15 A Yes.

16 Q But if you do understand -- I'm sorry.

17 But if you do respond to a question, I will
18 assume that you have understood my question.

19 Is that fair?

20 A Yes.

21 Q Your counsel may raise objections throughout
22 the deposition when I ask questions, but unless they
23 specifically instruct you not to answer, you're required
24 to answer my question.

25 Do you understand?

1 A Yes.

2 Q What did you do to prepare for today's
3 deposition?

4 A I reviewed some documents that have been used
5 in the case, for example, my last reply declaration, as
6 well as my first declaration and a few other documents
7 and the -- all of them in the materials-considered list.

8 Q Did you review any documents that were not
9 cited in either your opening or our reply declarations?

10 A I don't think so. Certainly I didn't review
11 any that were not in the material considered.

12 Q Did you conduct any online searches in
13 connection with your preparation for the deposition
14 today?

15 A No.

16 Q Do you have any documents available to you
17 as -- let me rephrase that.

18 Where are you located right now?

19 A I'm in Washington, DC.

20 Q Are you in the office of petitioner's counsel?

21 A I'm in the office of Banner Witcoff.

22 Q Is there any other person with you in the
23 room?

24 A Yeah, Craig Kronenthal is next to me. And the
25 reason we're doing that is because I'm using one

1 microphone for both of us.

2 Q Any other person?

3 A No.

4 Q Do you have any documents available to you
5 where you're located right now?

6 A I have the -- I guess you would call it the
7 record on a USB drive with all the electronic versions
8 of the documents. I also have a few printouts of some
9 of those same documents. I can go through those if
10 you'd like.

11 Q If you would, I would appreciate that.

12 A Okay. So I have a printout of Zhang -- excuse
13 me. I should give you exhibit numbers. I have a
14 printout of Exhibit 1013. I have a printout of
15 Exhibit 1001. I have a printout of Exhibit 1085. I
16 have a printout of Exhibit 1002. And I have a printout
17 separately of the claims-listing appendix from
18 Exhibit 1002.

19 Q Thank you.

20 Are there any markings in those documents or
21 are they clean copies?

22 A They're clean copies with no markings.

23 Q Throughout the deposition, I don't mind if you
24 need to consult any of your documents, whether hard
25 copies or electronically, to respond to the questions.

1 But I do request that you let me know if you are
2 reviewing a document and what you're reviewing.

3 Is that fair?

4 A Sure.

5 Q Thank you.

6 Going back to my earlier question, did you
7 meet anyone in connection with preparing for today's
8 deposition?

9 A Yes. In addition to independent study, I had
10 some preparation sessions with some of the attorneys.

11 Q Who did you meet?

12 A Craig Kronenthal, who's next to me, and Fred
13 Meeker sat in for portions of those preparation
14 sessions.

15 Q And how many hours would you estimate you met
16 with counsel in preparation for today's deposition?

17 A I'm guessing around maybe 12 hours.

18 Q And how many hours total did you spend in
19 preparing for today's deposition?

20 A I'm guessing about the same, maybe 12 hours.
21 You're talking about independently?

22 Q Sure. So a total of about 24 hours?

23 A I think that sounds close.

24 Q Okay. You also saw a reply declaration in
25 this matter, Exhibit 1085, that I believe you mentioned

1 you have a printed copy; is that correct?

2 A Yes.

3 Q Who drafted your reply declaration?

4 A Well, it was a collaborative effort between
5 myself and the attorneys.

6 Q Did you make the first draft of that
7 declaration?

8 A I don't think so. I edited it and -- and, you
9 know, agreed with things and it's my opinion. It's -- I
10 support it as my opinion.

11 Q Okay. And did you determine -- I'm going to
12 strike that.

13 Did you review Dr. Ross's declaration in
14 support of patent owner's response?

15 A Yes.

16 Q Did you determine which portions of Dr. Ross's
17 declaration you would respond to in your reply
18 declaration?

19 A Well, we talked about some of the -- some of
20 the things that were in Dr. Ross's declaration, and so
21 maybe I participated in helping decide which ones we
22 reply to -- at least some.

23 Q Okay. Did you -- in connection with preparing
24 your reply declaration, did you review the prosecution
25 history of the '275 patent?

1 A Yes. I definitely reviewed the prosecution
2 history, you know, even from my first declaration, and I
3 went back and looked at some things for the second
4 declaration.

5 Q Thank you.

6 If I missed it, please point me to it, but am
7 I correct that you do not address anything about the
8 '275's prosecution history in your reply declaration?

9 A Can you tell me the exhibit number of the
10 prosecution history?

11 Q The prosecution history, let's see --

12 A Or I can maybe find it.

13 Q So petitioner has filed Exhibit 1004 in three
14 parts.

15 A Okay.

16 Q My understanding is that that's the entirety
17 of the prosecution history, but I'd leave that to
18 counsel if that representation is not correct.

19 A Yeah, I don't see where I referred to
20 Exhibit 1004 in the reply declaration.

21 Q Okay. Are you aware that the -- do you have
22 any patents issued to your name?

23 A Yes.

24 Q Are you familiar with the process of applying
25 for a patent and obtaining a patent in the US?

1 A Yeah, generally from an inventor's point of
2 view.

3 Q Are you familiar with what an information
4 disclosure statement is?

5 A I don't know exactly what it is. I mean, it
6 sounds like -- I mean, I don't know. It sounds like
7 it's some kind of disclosure. I know that -- that
8 there's something about that in the prosecution history.

9 Q Are you aware that during the prosecution of
10 the '275 patent the applicant identified Zhang as a
11 prior art reference for the examiner's consideration?

12 A I remember that this IDS disclosed the
13 patent -- the Zhang patent, not our Zhang Exhibit 1013
14 US publication, as part of the prosecution history --
15 excuse me -- as part of the consideration.

16 Q Patent owner has filed the Zhang patent that
17 you referred to; that is Patent Number 6704372 as
18 Exhibit 2023.

19 Do you have that in your USB file?

20 A I do.

21 Q Have you reviewed the Zhang patent which is a
22 372 patent, Exhibit 2023?

23 A I don't think I have.

24 Q Do you dispute that the disclosure of the
25 Zhang patent is identical to the disclosure of Exhibit

1 1013?

2 A I am not sure. I don't know the answer
3 because I don't remember looking at Exhibit 2023.

4 Q Okay. Are you aware that the applicant
5 identified the Zhang patent during prosecution of the
6 '275 patent?

7 Let me -- let me withdraw that and rephrase
8 the question more properly.

9 Are you aware that during the prosecution of
10 the '275 patent, the applicant identified the Zhang
11 patent as a prior art to be considered by the examiner?

12 MR. KRONENTHAL: Objection. Form.

13 THE WITNESS: I'm not aware that Zhang,
14 Exhibit 1013, was considered by the examiner. And the
15 examiner never really specifically discussed the Zhang
16 patent in the second notice of allowance. And it was
17 cited in the NDS. The Zhang patent was -- excuse me --
18 the IDS.

19 BY MR. HENDIFAR:

20 Q Sir, I saw you're reading from somewhere.
21 What are you reading?

22 A I'm looking at my first declaration,
23 Exhibit 1002.

24 Q Which paragraph?

25 A I'm sorry. I didn't understand what you said.

1 Q Which paragraph?

2 A I'm sorry. I still don't understand what
3 you're saying.

4 Q Which paragraph of Exhibit 1002 were you
5 reading from?

6 A Okay. Paragraph 46.

7 Q Okay. So going back to my question, which I
8 don't believe you answered, are you aware that during
9 the prosecution of the '275 patent the applicant
10 identified the Zhang patent as a prior art to be
11 considered by the examiner?

12 A So it's more -- I don't understand the legal
13 part of this, but I am aware that the Zhang patent was
14 issued or included in the IDS.

15 Is that part of the prosecution history, I
16 don't know. Maybe it is.

17 Q Got it. Okay.

18 Now, may I please -- do you have access to
19 Exhibit 2024 in your electronic documents?

20 A Okay. I do, yes.

21 Q Great. Okay.

22 Could you please open Exhibit 2024?

23 A Okay. I have it.

24 Q And then do you see on the left-hand side the
25 title of the document says, "Information disclosure

1 statement by applicant"?

2 A Yes.

3 Q On that same first page under "U.S. Patents,"
4 do you see that first reference identified is U.S.
5 Patent 6704372, name issued to Zhang?

6 A Yes.

7 Q And then do you see at the bottom of the page,
8 page one, there's a stamp that says, "All references
9 considered except where lined through"?

10 A I'm sorry. Maybe you can point me to exactly
11 what you're referring to.

12 Q Sure.

13 On the first page of Exhibit 2024 --

14 A Okay.

15 Q -- at the very, very end of the page in the
16 margins, do you see a stamped entry that says, "All
17 references considered except where lined through"?

18 A I see that, yes. Thank you.

19 Q Okay. Then going to the second page of
20 Exhibit 2024, under "Examiner's signature," do you see
21 that there is a signature by Blaine Jackson and the date
22 considered August 22nd, 2023?

23 A Yes, I see that.

24 Q Okay. So let me ask the question again.

25 Are you aware that during the prosecution of

1 the '275 patent the examiner considered the Zhang patent
2 in issuing the '275 patent?

3 MR. KRONENTHAL: Objection. Foundation.

4 THE WITNESS: Well, there's another statement
5 that says the disclosure was from -- was from the
6 applicant's other patents. So in other words, it seemed
7 like he dismissed the Zhang patent.

8 BY MR. HENDIFAR:

9 Q Sir, where are you reading from?

10 A Again, my -- my first declaration,
11 Exhibit 1002, paragraph 46.

12 Q What is your answer to my question?

13 A The examiner seemed to dismiss the prior art
14 that was cited in the IDS, the Zhang patent, because the
15 examiner indicated the prior art comprising information
16 disclosure statements filed 16 August '23 and 18 August
17 '23 was from the applicant's other patents, and it
18 states 8223775.

19 Q So is it your contention that the examiner did
20 not review the Zhang patent and did not consider the
21 Zhang patent in issuing the '275 patent?

22 MR. KRONENTHAL: Objection. Form.
23 Foundation. Scope.

24 THE WITNESS: All I can do is I can see what
25 it says, and he said that it was from the applicant's

1 other patent. And when he's talking about the reasons
2 for allowance, he talks about some other patent,
3 Claxton, and he's saying, I think, Claxton doesn't
4 have -- doesn't teach some of the elements of claim one.

5 But I guess it's beside the point, because
6 Zhang clearly -- clearly discloses claim one.

7 BY MR. HENDIFAR:

8 Q Do you have any opinion as to why the examiner
9 did not believe that Zhang discloses claim one of the
10 '275 patent?

11 MR. KRONENTHAL: Objection. Form.
12 Foundation. Scope.

13 THE WITNESS: I can't really speculate. All I
14 can do is notice that it said -- that he said -- which
15 is I think the only reason given in the record -- it's
16 from the -- from the applicant's other patents. And in
17 the allowance statement he does not mention Zhang, he
18 mentions Claxton.

19 He doesn't mention our Zhang reference at all.
20 He -- just to be clear. When he mentions the Zhang
21 patent, that was issued later as the result of the US
22 publication that we're calling "Zhang."

23 And furthermore, you know, as I stated in
24 paragraph 47, if the examiner had seriously considered
25 Zhang, he would have seen it clearly described -- Zhang

1 clearly describes claim one.

2 BY MR. HENDIFAR:

3 Q Are you aware that the Zhang patent was -- let
4 me strike that.

5 Do you know what -- I'm sorry.

6 Do you know what an ex parte reexamination is?

7 A I've heard the term. I'm not -- I'm not sure
8 that I remember what that means exactly.

9 Q It is a process where the patent office
10 reviews a patent again after it has been issued. It's
11 one of the ways the patent office reviews the patent
12 after it has been issued.

13 Are you --

14 A Okay.

15 Q Sure.

16 So you were Entropic's expert in three other
17 patents that issued from the same specification as the
18 '275 patent; correct?

19 A No, I was not Entropic's expert.

20 Q I apologize. You were Comcast's expert in
21 connection with the IPRs of three other patents that had
22 issued from the same specification as the '275 patent;
23 correct?

24 A I can't -- I don't -- I can't remember if they
25 were issued from this -- I -- I think you're correct

1 that they were -- they had the same specification, I
2 think. But I don't -- I haven't checked that in a long
3 time, so I don't remember if that's true without a
4 shadow of a doubt.

5 Q And one of those patents was U.S. Patent
6 Number 9210362 which I will refer to as the '362 patent.

7 Do you recall that patent?

8 A Yes.

9 Q Are you aware that recently the '362 patent
10 was the subject of an ex parte reexamination by the U.S.
11 Patent Office?

12 A I'm not aware of that.

13 Q Are you aware that during an ex parte
14 reexamination of the '362 patent, the applicant again
15 identified --

16 A Hang on. Hang on. I'm sorry. I misspoke. I
17 hate to interrupt you.

18 I think -- I think maybe the ex parte
19 reexamination, the same reasons were cited for allowance
20 that had been previously cited, meaning that -- it's
21 been a while since I've looked at this.

22 So Claxton was cited, and it said that it
23 was -- that Claxton did not disclose the claim one
24 elements. And I think he repeated that same reason for
25 allowance.

1 Q Where are you reading?

2 A I wasn't really reading anywhere. I was just
3 doing that from memory.

4 Q Can you tell me on your computer screen what
5 applications exactly are open currently?

6 A I have Adobe and I have Zoom and I have the
7 file explorer, I guess it's called, that just shows the
8 director of the USB drive.

9 Q So my question is, so are you or are you not
10 aware that the '362 patent was recently the subject of
11 an ex parte reexamination?

12 A I'm not aware. I'm sorry. I was talking
13 about the second notice of allowance when I was talking
14 about he recited the same reasons as before.

15 I'm sorry. So I got confused a little bit.

16 Q Sure.

17 Are you aware that during the recent ex parte
18 reexamination of the '362 patent the applicant again
19 cited the Zhang patent for the examiner's consideration?

20 MR. KRONENTHAL: Objection. Scope.

21 THE WITNESS: I'm not aware of anything about
22 the '362 ex parte -- what's it called? Ex parte
23 something.

24 BY MR. HENDIFAR:

25 Q Reexamination.

1 A Okay. Thank you.

2 Q So you don't have any opinion as to why the
3 examiner in the ex parte reexamination of the '362
4 patent rejected the Zhang patent as a prior art that
5 discloses the claims of the '362 patent?

6 MR. KRONENTHAL: Objection. Scope.

7 THE WITNESS: Could you read that back,
8 please?

9 BY MR. HENDIFAR:

10 Q Sure.

11 So you don't have any opinion as to why the
12 examiner in the ex parte reexamination of the '362
13 patent rejected Zhang as disclosing the claims of the
14 '362 patent?

15 MR. KRONENTHAL: Objection. Scope.

16 THE WITNESS: I'm not aware. I don't have any
17 opinion. I have not looked at it.

18 BY MR. HENDIFAR:

19 Q What is a channelizer?

20 A I don't know.

21 I have not looked at Claxton. I just see the
22 statement about Claxton where it uses the word
23 "channelizer." I mean, it's besides the point because
24 Zhang clearly discloses claim one of '275.

25 Q Is Zhang's demultiplexer 230 a channelizer?

1 A Again, I'm not sure what's meant by a
2 channelizer. I have not looked at Claxton.

3 Q What is a set-top box?

4 A Well, I guess you could say it in the most
5 general terms a television receiver.

6 Q Okay. Now, are there -- let me strike that.

7 I am going to present to you a hypothetical
8 and then a question about it. If you need additional
9 information for the hypothetical, you can ask me and
10 I'll be happy to provide that.

11 Fair enough?

12 A I'll give it a try.

13 Q Let us assume a set-top box that receives an
14 input signal with 20 RF channels, and let us further
15 assume that there is parental control capabilities on
16 that set-top box where the parent can limit the
17 available channels for children to ten of those 20
18 channels.

19 When a child is selecting one of those ten
20 channels, is the child selecting from the input 20
21 channels or is the child selecting from the reduced set
22 of ten channels?

23 MR. KRONENTHAL: Objection. Scope.

24 THE WITNESS: There's a selection made from
25 the 20 channels by the set-top box.

1 BY MR. HENDIFAR:

2 Q In your view, even with parental control, the
3 child is still selecting from the input 20 channels in
4 the set-top box?

5 A The child doesn't do the selecting. The box
6 does the selecting. The -- the set-top box is selecting
7 one of the 20 channels or ten of the 20 channels or
8 whatever.

9 Q I'm not sure I understand. Would you be kind
10 enough to elaborate on your response?

11 MR. KRONENTHAL: Objection. Form.

12 THE WITNESS: Would you mind saying what part
13 of it you don't understand?

14 BY MR. HENDIFAR:

15 Q Sure.

16 You said the child is not selecting, and it's
17 a bit confusing to me because if I have a remote or if
18 the child has a remote, the child will select one of the
19 ten or 20, whatever the number of channels, no?

20 MR. KRONENTHAL: Objection. Form.

21 THE WITNESS: The box is doing the selecting
22 because the box is selecting one of the allowed
23 channels.

24 BY MR. HENDIFAR:

25 Q When you say "the allowed channels," those are

1 the ten channels after parental control?

2 A It's a hypothetical situation. You know, what
3 I did is I mapped Zhang to the patent claims, and Zhang
4 does selecting of channels just like the '275 patent.

5 Q But I didn't ask -- did my question mention
6 Zhang? I really asked a different question, didn't I?

7 A Well, you asked a hypothetical, and I was
8 trying to bring it home to more down to earth.

9 Q Right. But I would appreciate if you would
10 actually answer my hypothetical.

11 A I think I did.

12 Q Okay. So, in your opinion, if a set-top box
13 receives an input signal with 20 channels and if
14 parental control limits the options for a child to ten
15 of those 20 channels, if a child selects one of those
16 ten channels, the child has selected from the input 20
17 channels; is that your opinion?

18 A I think that this is a new opinion. I haven't
19 rendered an -- an opinion on the hypothetical scenario
20 that you're describing. I would need more time to think
21 about it and understand the implications of all of the
22 considerations to answer your question.

23 I attempted to answer it and you didn't seem
24 to understand it, so I'm -- I'm not really -- feel like
25 I'm prepared to -- to answer any more questions about a

1 hypothetical situation.

2 Q Do you have Exhibit 2026 in your digital
3 files?

4 A I do.

5 Q Could you please open Exhibit 2026?

6 A Okay.

7 Q Do you know what the document in Exhibit 2026
8 is?

9 A A petitioner's reply to patent owner's
10 response.

11 Q And it's in the IPR challenging the '362
12 patent; correct?

13 A Yes.

14 Q May I please refer you to page 24 of
15 Exhibit 2026?

16 A You said page 24?

17 Q No. I'm actually double-checking that. One
18 second.

19 A Or paragraph 24? No. Hang on. I see page
20 numbers now. Okay.

21 Q Let me clarify that.

22 So do you see that Exhibit 2026 has stamped
23 page numbers on the right-hand side at the bottom of the
24 page?

25 A Yes.

1 Q So I stand corrected. Could you go to the
2 page stamp number 32? That's the exhibit page number 32
3 of Exhibit 2026.

4 A Okay.

5 Q The last paragraph on that page reads -- that
6 starts with, "The board should instead apply the plain
7 and ordinary meaning of select set plurality of desired
8 television channels."

9 Do you see that sentence?

10 A I do.

11 Q Do you see that it follows by saying,
12 "Selection is simply extracting a channel from the
13 plurality of frequencies in the digitized RF signal."

14 Do you see that sentence as well?

15 A Yes.

16 Q Do you see at the end of that paragraph it
17 cites Exhibit 1078, which was your reply declaration in
18 that matter?

19 A I see that. I see 1078.

20 Q And you can check on page eight of this
21 exhibit, that Exhibit 1078, is titled "Second expert
22 declaration of David E. Lett." And you're more than
23 welcome to verify that.

24 A I don't -- I don't think I have a copy of
25 that. So I -- I don't know if I can verify that.

1 Q Okay. Now, the question is going back to
2 page 32, you agree that under its plain and ordinary
3 meaning of select set plurality of desired television
4 channels, selection is simply extracting a channel from
5 the plurality of frequencies in the digitized RF signal.

6 Do you agree with that statement?

7 MR. KRONENTHAL: Objection. Form. Scope.

8 THE WITNESS: I need to -- I need to be able
9 to see Exhibit 1078.

10 BY MR. HENDIFAR:

11 Q I can put it in the chat box. Give me one
12 minute.

13 MR. KRONENTHAL: Objection. Form and scope.
14 Exhibit 1078 is not currently of record in this case;
15 correct?

16 THE WITNESS: Exhibit 1078, Dong.

17 MR. HENDIFAR: Actually, you're right. It's
18 not of record.

19 MR. KRONENTHAL: There's another opportunity
20 to admit it.

21 MR. HENDIFAR: That's fine. That's fine.

22 Let me -- Mr. Lett, I'll ask you the question
23 again. If you do not have an opinion, you can say you
24 do not have an opinion.

25 ///

1 BY MR. HENDIFAR:

2 Q Do you agree with Comcast's statement as
3 stated on page 32 of Exhibit 2026 that under the plain
4 and ordinary meaning of, "Select set plurality of
5 desired television channels," selection is simply
6 extracting a channel from the plurality of frequencies
7 in the digitized RF signal?

8 Do you agree with that statement by Comcast?

9 A I don't have any way to verify this is the
10 statement from Comcast that I'm aware of. I don't have
11 Exhibit 1078.

12 Q That was also not the question. I'll ask the
13 question again.

14 I represent to you that Exhibit 2026 is
15 verified declaration filed by Comcast.

16 Do you agree -- the question is, do you agree
17 with the statement on page 32 of Exhibit 2026 by Comcast
18 that the plain and ordinary meaning of "Select set
19 plurality of desired television channels" is simply
20 extracting a channel from the plurality of frequencies
21 in the digitized RF signal?

22 Do you agree with that statement?

23 MR. KRONENTHAL: Objection. Form.

24 THE WITNESS: I don't have an opinion because
25 I do not have the '362 documents in front of me to

1 verify and understand what the context of this.

2 What I did was I mapped Zhang to the claim
3 elements of '275. And Zhang selects -- coupled to the
4 ADC, the plurality of desired channels from the
5 digitized signals.

6 Please don't interrupt me.

7 BY MR. HENDIFAR:

8 Q Well, if you answer my question, I will not
9 interrupt you. Because you played that game last time.
10 I understand you have a set of sentences memorized about
11 Zhang that you provide in response to any question, even
12 if the question has nothing to do with Zhang.

13 A I would appreciate, just like when you talk, I
14 do not interrupt you.

15 Q But you are --

16 A Let me finish my answer.

17 Q But you are obligated to provide an answer to
18 my question, not to repeat a memorized, unrelated
19 response. Okay. That is your obligation.

20 So if I ask you a question that does not even
21 mention Zhang, it is a breach of your obligation to just
22 repeat a memorized sentence about Zhang that has nothing
23 to do with my question.

24 MR. KRONENTHAL: Okay. Why don't you reask
25 your question, Counsel?

1 MR. HENDIFAR: Counsel, you're not allowed to
2 interrupt like that. If you have an objection, you can
3 say your two-word objection, nonspeaking.

4 BY MR. HENDIFAR:

5 Q So, Mr. Lett, I'll ask the question again.

6 I lost my train of thought. I'm sorry. One
7 moment.

8 So do you have access to Exhibit 2026 in its
9 entirety?

10 A I don't know. Let me look.

11 Q Sure.

12 A I have Exhibit 2026, yes.

13 Q Okay. What is the title of that exhibit?

14 A "Petitioner's reply to patent owner's response
15 under 37 CFR at 4223."

16 Q And the case number is IPR 2024-00432;
17 correct?

18 A That's right.

19 Q Okay. And petitioner is Comcast Cable
20 Communications; correct?

21 A Yes.

22 Q Okay. And you are more than welcome to read
23 any portion or all of Exhibit 2026, which is the
24 entirety of the document, for any context, but I want to
25 make sure I have an answer to my question.

1 So are you testifying that you do not have an
2 opinion on the statement that the plain and ordinary
3 meaning of "Select set plurality of desired television
4 channels" is simply extracting a channel from the
5 plurality of frequencies in the digitized RF signal?

6 Are you testifying that sitting here now you
7 do not have an opinion as to whether that statement is
8 correct?

9 MR. KRONENTHAL: Objection. Form.

10 THE WITNESS: This case is about patent '275.
11 I do not have an opinion about the statements with
12 regard to '362 that you read out because that's
13 different than the case with '275.

14 BY MR. HENDIFAR:

15 Q Are you testifying that the claim term
16 "selecting" has a different meaning in the '275 patent
17 than the '362 patent?

18 A I'm not sure of the answer to that question,
19 but one thing is for sure. The '362 case is different
20 than the '275 case. They're two different cases.

21 Q You applied the plain and ordinary meaning of
22 the word "selecting" in the '275 patent; correct?

23 A I'm going to my reply declaration,
24 Exhibit 1085.

25 Q Thank you for letting me know.

1 A I'm reading the selector 240 of Zhang, of
2 course, does selecting under the plain and normal
3 meaning of the term by picking out channels.

4 Q Okay. So the question is did you apply the
5 plain and ordinary meaning of selecting in your analysis
6 of the '275 patent?

7 A I don't remember.

8 Q Okay. Do you know what it means for a phrase
9 to be a term of art?

10 A Maybe.

11 Q Okay. What is your understanding?

12 A I mean, I think it might be something like
13 words that are commonly used by engineers to describe
14 something.

15 Q Is that your understanding of "term of art,"
16 words that are commonly used by engineers to describe
17 something?

18 A I mean, I'm not really here to define terms.
19 Perhaps maybe you can give an example of something and
20 ask me if it's a -- if it's a term of art.

21 Q But for you to answer that I need to know what
22 you mean by "term of art"; correct?

23 A Well, it can mean a lot of things, right. So
24 I think it's -- kind of depends on the specific term
25 we're talking about. Right.

1 So, you know, like a computer would be
2 understood, you know, but I don't know about the term
3 you're thinking about, whether it is or not.

4 Q So in order for you to provide an opinion as
5 to whether something is a term of art, you first need to
6 know what it means for a term to be a term of art; isn't
7 that correct?

8 A I think you need to think about how common
9 that term is as to whether it's really a term of art or
10 not. So sometimes it's clear. Sometimes it's not. So
11 it kind of depends whether it's in the box of a term of
12 art or not in the box of a term of art. Right.

13 And also what art are we talking about and
14 what specialty are we talking about? I mean, I don't --
15 it's hard to -- it's hard to answer the question without
16 a little more specific information about what term we're
17 talking about.

18 Maybe there's a term in the patent you want to
19 refer to and let me comment on it. I'd be happy to do
20 that.

21 Q Is "set-top box" a term of art?

22 A Yes, I think so.

23 Q Okay. So when you opine that a set-top box is
24 a term of art, what does it mean to be a term of art?

25 A Someone -- I mean, people in the industry

1 would understand what is meant by a set-top box.

2 Q May I now please refer you to paragraph 17 of
3 your reply declaration, and that's Exhibit 1085.

4 Please let me know when you have it.

5 A Okay. I'm there.

6 Q In the latter part of paragraph 17, do you see
7 the sentence that says, "Such flexibility is needed when
8 building a television receiver to work in different
9 environments. Example, in different geographical areas
10 with different television programming and, therefore,
11 different RF channels."

12 Do you see that sentence?

13 A Yes.

14 Q Could you elaborate on why you think there is
15 a flexibility required for different geographic areas?

16 A All this is talking about is the NCO that's
17 part of the multiplier, low-pass filter NCO chain, one
18 of the C elements, let's call it, of Zhang needs to be
19 able to tune to different frequencies. And so you may
20 have different television programming frequencies --
21 different desired, you know, television channels in one
22 geographic area versus another.

23 Q Are the television channels different in
24 different geographic areas?

25 A So in general, yes. So if we're talking about

1 cable, for example, a -- you know, a multisystem
2 operator like Comcast, like Time Warner, whatever, have
3 lots of head-ins that broadcast signals.

4 Some of the head-ins, you know, at this time
5 had larger -- larger bandwidth, larger -- like they may
6 go to one gigahertz is the highest frequency of
7 broadcast. Whereas some head-ins, you know, may be at
8 860 or 750 megahertz.

9 So the geographic area -- with this example,
10 the geographic area for, you know, one head-in that's,
11 let's say, 750 megahertz would have different
12 frequencies than a one gigahertz head-in.

13 Q Did I understand it correctly that basically
14 providers in different geographic areas may modulate
15 their channels on different frequency bandwidths?

16 A Yes, but some geographic areas do not have,
17 like in my example, the frequencies at all from 750 to
18 one gigahertz.

19 Q So what do they do?

20 A Who?

21 Q I'm sorry. But they would have some
22 frequency; right? You need some RF frequency to
23 transmit the channels?

24 MR. KRONENTHAL: Objection. Form.

25 THE WITNESS: I don't understand the question.

1 BY MR. HENDIFAR:

2 Q Okay.

3 When did digital cable television become
4 commercially popular in the United States, roughly?

5 A I don't remember. Perhaps it's in one of my
6 background sections. I don't remember off the top of my
7 head.

8 Q I -- I remember -- I moved to the United
9 States in 2000. I remember we didn't have digital cable
10 TV where I come from. I remember when I moved here
11 there were channels that were scrambled. There were
12 channels that were not scrambled.

13 Why would a provider scramble a channel in a
14 digital TV network?

15 MR. KRONENTHAL: Objection. Form.

16 THE WITNESS: Well, digital channels were -- I
17 think scrambling is more of an analog video term. I
18 think -- I think, you know, digital channels were
19 encrypted many times so that the subscriber that's not
20 authorized to receive that channel can't just tune to
21 it. He has to be authorized to decrypt that channel so
22 that he can view it.

23 So as I referred to in my dec, like somebody
24 that's not subscribed to HBO, for example, you know,
25 may -- may not have decryption enabled to -- to view

1 that channel, nor would the box even select that channel
2 because it wouldn't be -- there would be no need to do
3 so.

4 BY MR. HENDIFAR:

5 Q So if a channel like HBO would not be selected
6 by the box because of subscription issues, why would the
7 channel also be encrypted?

8 A Well, encryption was generally used to protect
9 a channel to keep -- let's call it pirates for -- from
10 receiving channels for free. Whether it's -- you know,
11 was some homemade box that they made to -- to tune that
12 frequency and so on, or -- or not. It's just an extra
13 layer of protection because the content is valuable and
14 it requires a subscription generally, a fee paid by a
15 subscriber.

16 Q Do you know what a video guard is?

17 A Maybe. Do you want to try to explain to me
18 what you mean by that?

19 Q Sure.

20 Is Video Guard an encryption system card used
21 by DirecTV?

22 A It sounds familiar, and I'm not -- you may be
23 right, but I -- I can't say for sure, so, therefore, I
24 probably should say I'm not sure.

25 Q Okay. Now, you worked at Scientific Atlanta

1 at some point. Do I recall that correctly?

2 A That's right.

3 Q Are you familiar with a system called PowerVu?

4 A I remember that. I don't remember exactly
5 what it is. I remember the term for sure.

6 Q If I tell you that PowerVu -- and for the
7 Madam Court Reporter, that's one word Power and then
8 V-U.

9 If I represent to you, Mr. Lett, that PowerVu
10 was a popular digital encryption technology for digital
11 cable developed by Scientific Atlanta, do you have any
12 reason to dispute that?

13 A PowerVu is not developed by Scientific
14 Atlanta.

15 Q PowerVu is not?

16 A No.

17 Q So I can tell you Wikipedia has it all wrong.
18 You might want to have it corrected.

19 A Definitely it's wrong.

20 Q Who developed PowerVu?

21 MR. KRONENTHAL: Objection. Scope.

22 THE WITNESS: I don't remember. I've heard
23 that but I'm not sure what that is.

24 Just to be clear, Scientific Atlanta developed
25 PowerKey.

1 BY MR. HENDIFAR:

2 Q Okay. What is PowerKey?

3 A It was an encryption system; it's a
4 conditional access system.

5 Q Would you be kind enough to explain how the
6 encryption access system worked, the one that was
7 developed by Scientific Atlanta, PowerKey?

8 MR. KRONENTHAL: Objection. Scope.

9 THE WITNESS: How many days do you have?

10 BY MR. HENDIFAR:

11 Q I have a lot of days but I will settle for a
12 brief, two-minute layman explanation.

13 A You know, at the highest level any conditional
14 access system is -- is kind of what I described earlier.
15 It's a way to allow the people -- the subscribers,
16 the -- whoever paid for the service to be able to view
17 that service. And, I mean, that's in, you know, any
18 conditional access system in general in this -- in this
19 industry.

20 Q And how does -- how does encryption come into
21 play for the conditional access aspect of the system?

22 MR. KRONENTHAL: Objection. Scope.

23 THE WITNESS: Well, I think I answered that
24 before.

25 ///

1 BY MR. HENDIFAR:

2 Q So did I understand it correctly that a system
3 like PowerKey developed by Scientific Atlanta where you
4 would control user access to channels based on
5 subscription by using encryption methods?

6 MR. KRONENTHAL: Objection. Scope.

7 THE WITNESS: So the control of who was
8 authorized was generally done by the -- the multiple
9 system operator, using the conditional access system to
10 implement that to -- to accomplish that functionality.

11 BY MR. HENDIFAR:

12 Q And the way the system would accomplish access
13 control was through encryption; correct?

14 A At least one of the ways, yes.

15 MR. KRONENTHAL: Counsel, we've been going for
16 a little over an hour. Do you think now is a good time
17 for a break?

18 MR. HENDIFAR: Sure. How long of a break
19 would you like?

20 MR. KRONENTHAL: Five minutes.

21 MR. HENDIFAR: Sure.

22 THE WITNESS: Yeah. That's good. Thank you.

23 MR. HENDIFAR: Ten minutes past the hour?

24 MR. KRONENTHAL: Do you want a ten-minute
25 break?

1 MR. HENDIFAR: Yeah, ten minutes past the hour
2 gives you the six minutes.

3 MR. KRONENTHAL: Yeah, yeah, that works.

4 (Brief recess taken.)

5 MR. HENDIFAR: Let's go back on the record.

6 THE WITNESS: If you don't mind, I would like
7 to have a chance to restate something or -- or correct
8 something that I said, because I was thinking about it,
9 if that's okay.

10 BY MR. HENDIFAR:

11 Q Sure.

12 A So you were asking me about PowerVu and --

13 Q PowerVu?

14 A Yeah, you were asking me about PowerVu.

15 Q Vu, V-U.

16 A Well, I just say it differently, but that's
17 what I'm talking about.

18 Q I'm sorry. I apologize. I was not trying to
19 be rude.

20 A It's my -- it's my southern accent. Right.

21 Q Better than a Middle Eastern accent, but okay.

22 A Well anyway, PowerVu, V-U. Anyway, it's
23 possible that Scientific Atlanta did invent PowerVu,
24 that I just may not be aware of it or remember it.
25 Because -- because I worked on the set-top box group and

1 we had PowerKey.

2 It's possible that perhaps another division or
3 group within Scientific Atlanta had PowerVu. I
4 definitely heard that, but I can't remember where I
5 heard PowerVu from.

6 That's my -- that's my statement.

7 Q Thank you for that correction.

8 Since we started the deposition today, have
9 you spoken or corresponded with anyone regarding the
10 substance of your deposition?

11 A No.

12 Q In digital TV, multiple television channels
13 are modulated on a single RF channel; correct?

14 A Can you restate that?

15 Q It's not intended to be a trick question, so
16 let me know if I need to revise it in any way.

17 In digital TV systems, multiple television
18 channels such as HBO are modulated on a single RF
19 channel; correct?

20 A Generally, if you're talking about like, say,
21 for example, 16 megahertz RF channel, you have more than
22 one program or content. And -- and so -- yeah. But
23 it -- what you do is you build a digital stream that
24 multiplexes, you know, many different channels or one or
25 whatever, and then you modulate that on the carrier.

1 Q So a single RF channel may, for instance,
2 contain channels HBO, National Geographic and Disney;
3 correct?

4 A Sure.

5 Q And if a user can -- or chooses to watch only
6 one of those channels, let's say HBO, that entire RF
7 channel would still have to be extracted from the input
8 signal; correct?

9 A So you have to demodulate that RF channel that
10 contains those three programs.

11 Q In order to be able to separate the three
12 channels?

13 A Well, that, plus be able to watch or record
14 any or all of those three channels -- three -- well, I
15 should say -- those three content channels, just to be
16 clear.

17 Q Do you see a distinction between the term
18 content channel and television channel?

19 A Well, I'm just trying to make it clear that
20 the six megahertz portion is the RF channel. And we
21 were talking about one of the three programs in your
22 example, so I was just trying to make it clear that I
23 was talking about one or more of the three programs
24 instead of the six megahertz RF channel.

25 Q Got it. Thank you.

1 Now, in a frequency spectrum, is every part of
2 a frequency spectrum necessarily an RF channel?

3 A There are certain ranges that are generally
4 called RF in a frequency spectrum. I can go back to my
5 declaration if you like and find a number if you prefer.

6 Q I can revise my question so that addresses
7 your concern. I appreciate that.

8 In the RF frequency spectrum, is every part of
9 that frequency spectrum necessarily an RF channel?

10 A I can't think of anywhere where it's not, so
11 probably it is, although there may be some corner case
12 that I can't recall at the time, just as a caveat.

13 Q Do you have in your electronic files the reply
14 that was filed in this matter by Comcast?

15 A I don't know. Can you give me an exhibit
16 number?

17 Q It's not an exhibit, but I'd be happy to put
18 it in the chat box. It's a -- it's a paper in this
19 matter, so I don't think that should be an issue.

20 A I mean, I have in my -- in my folder some
21 documents that are labeled one through --

22 MR. KRONENTHAL: Yeah, it should be 25 if I
23 can help.

24 MR. HENDIFAR: Yeah, please.

25 THE WITNESS: Okay. So I have petitioner's

1 reply to patent owner's response.

2 BY MR. HENDIFAR:

3 Q Yes.

4 A Okay.

5 Q Thank you.

6 A Do you want me to open that?

7 Q Yes, please.

8 A Okay.

9 Q If you would please go to the native page
10 number six in that document.

11 A I'm sorry. What page?

12 Q Six.

13 A Six. Okay.

14 Q Do you see subheading A that says "Zhang's
15 demultiplexer 230, in combination with all or part of
16 selector 240, discloses a digital front end."

17 Do you see that?

18 A Yes.

19 Q Which part of selector 240, in your opinion,
20 is a part of the digital front end?

21 A So if you look in my reply declaration on
22 page four, I'm at the digital front end to Zhang.

23 Q I'm sorry. What's the answer? I --

24 A Page four of Exhibit 1085, I'm at the digital
25 front end of the '275 to Zhang.

1 Q Can you explain in words which part of the
2 selector 240 Zhang is a part of the digital front end?

3 A Well, the digital front end, there's no
4 structure given in the patent claims. What it requires
5 is that it's coupled to the ADC. So it gets inputs from
6 the ADC. And it outputs to one -- at least one
7 demodulator as a digital data stream.

8 So what I've shown here is -- on page four of
9 my reply declaration is the input being the ADC and the
10 output going to one or more demodulators. And below I'm
11 showing the '275 example of a DFE that has ADC as the
12 input and data to a demodulator on the output.

13 Q I appreciate that explanation, but that
14 doesn't answer my question.

15 Can you explain in words which parts of
16 Zhang's selector 240 is a part of the digital front end?

17 A It seems to me it's all of it, just like I
18 showed on page four of my declaration in the red box.

19 Q So on your declaration that you just pointed
20 me to on page nine --

21 A No, page four.

22 Q Yeah. Yeah. But let's go to page nine of
23 that declaration.

24 A Okay.

25 Q You have a similar heading that says, "Zhang's

1 demultiplexer 230 in combination with all or part of
2 selector 240 are the claimed DFE."

3 I'm puzzled, because if your opinion is that
4 all of selector 240 is a part of the claimed DFE, why do
5 you say all or part of selector 240?

6 A So there's two different mappings that I did
7 in the -- in my declarations to the '275 claimed
8 elements. In one mapping, 230 is the claimed DFE. In
9 the other mapping, all or part of -- 230 and all or part
10 of 240 are the claimed DFE. So I did both.

11 Q So in the second mapping, when you say "all or
12 part of 240," that's -- I want clarification on exactly
13 which part of 240 do you mean when you say "part of
14 240"?

15 A Well, so the two -- the output is all
16 that's -- the input being the ADC's input and the output
17 being demodulator are required by the claim. The '275
18 patent shows the input and the output.

19 So what I'm doing here is -- is I'm showing
20 the -- the mapping of the DFE in Zhang using all or part
21 of 240. The reason I say that is there's some
22 functionality of 240 that -- let's call it is an extra
23 feature of the Zhang. And he -- he describes it; it's
24 for fast channel change. And so the output of the box
25 including 240 with or without -- I mean, the output of

1 that box in either case goes to demodulators.

2 So does that answer your question?

3 Q Sure. What is a time division Demux?

4 A So what Zhang is referring to as a time
5 division Demux is the block 240. And it's described --
6 it's shown on figure five of the -- of Zhang. Like, for
7 example, in figure five it shows that there's three
8 selected channels input 240 and three outputs to
9 demodulators. So in this case M is equal to N.

10 Q In your opinion, in figure five of Zhang, the
11 number of channels C is equal to the number of channels
12 D?

13 A Yes. Because there's no dot, dot, dots;
14 right. It goes, C1, C2 and and there's no dot, dot,
15 dots up to CM. So this is showing three inputs, three
16 data buses and three outputs.

17 Q In figure five of Zhang, what does time
18 division Demux do?

19 A So functionality as described with Zhang, it
20 has -- it has some -- it has quite a bit of flexibility,
21 let's say. So it can take -- if you have time division
22 multiplex data, for example, on data bus one, it can
23 separate those out into D1, D2, DM. Right. And it can
24 output all three of those from that data bus.

25 There also seems to be some serial parallel --

1 or excuse me -- serial and parallel interface
2 functionality built into the time division Demux.

3 It's -- the primary reason for this time
4 division Demux as disclosed by Zhang is to support fast
5 channel change. So what it can do is it can quickly
6 switch between the -- it can quickly switch between --
7 in this example, C1, C2, C -- let's call it C3. So if
8 someone wanted to quickly get to -- if they were
9 watching C1 and they wanted to switch to C2 and they
10 could do it really quickly without having the NCOs
11 settle and repinning the multiplier filter and NCO
12 elements of the 230 block.

13 Q So why does the 230 block prevent fast channel
14 changing? I'm sorry. I didn't quite understand.

15 A The 230 block is not the primary functionality
16 of fast channel change. Fast channel change is
17 accomplished by this -- let's call it a switch of the --
18 of the 240 block which is shown in figure five. Meaning
19 that you can quickly -- the demod outputs can quickly
20 switch to one of the other C -- the selected C desired
21 television channels without having the NCO and low-pass
22 filter in multiplier having to tune and settle to a
23 new -- to a different desired selected channel.

24 Q Got it.

25 So it's a fast channel change functionality in

1 Zhang because your channel's already extracted, and when
2 you switch channels you do not have to reset the
3 extraction pattern in Zhang's demultiplexer 230 to the
4 desired channel; did I understand that correctly?

5 MR. KRONENTHAL: Objection. Form.

6 THE WITNESS: No, I think you got a few words
7 wrong in that question.

8 BY MR. HENDIFAR:

9 Q Correct me.

10 A Yeah. So the fast channel change does not
11 require the elements like shown in figure three, the
12 NCOs, to have to switch to a different frequency -- a
13 different target frequency for the desired channel. As
14 long as the -- as long as you want to watch one of the
15 already tuned, let's call it, three channels, you can
16 switch quickly on the output to the demod without having
17 to change the -- the target frequency of an NCO.

18 So if you have, let's say, more than -- I
19 guess it's more than two C elements, meaning multiplier,
20 low-pass filter, NCO, if I have at least two of those,
21 then, you know, I can always -- using Zhang's fast
22 channel feature switch to the other of those two really
23 quickly.

24 If I wanted to switch to -- if I wanted to
25 watch or select or record or whatever a different

1 channel than one that's tuned to with -- currently with
2 C1, C2, the NCO has to be reprogrammed to tune to a
3 different frequency to watch that channel, and then you
4 do have to wait for the NCO to settle.

5 So the fast channel change occurs within the
6 group of selected channels using these multiplier
7 low-pass filter elements.

8 Q So if -- and when you say "selected," you mean
9 the fast channel happens within the group of channels C
10 that are extracted by Zhang's demultiplexer 230;
11 correct?

12 A The fast channel switching occurs within the
13 group of C elements that are -- the groups of desired
14 television channels that are already selected with C --
15 the C elements.

16 And by "C elements," I just want to make sure
17 you understand what I mean. I mean, instead of saying
18 multiplier low-pass filter NCO every time, I'm calling
19 that -- that chain a C element, if that's okay with you.

20 Q Sure. I would prefer we refer to them as the
21 output of the demultiplexer 230 so there is no ambiguity
22 about it because it's a bit difficult.

23 But just to make sure I understand it. The
24 fast channel change is actually by the selector in
25 switching between the channel C that are output from the

1 demultiplexer 230 basically; correct?

2 A Can you carefully read that back and let me
3 make sure that's 100 percent correct?

4 Q Of course.

5 So the fast channel change is achieved by
6 Zhang when flipping through the channels C that are
7 output from the demultiplexer 230; correct?

8 A Yes.

9 Q Now, at any time today did you speak or chat
10 or correspond with anybody regarding the substance of
11 the deposition?

12 A No.

13 Q Did you perform any online or search -- online
14 search -- strike that.

15 At any time since we started the deposition
16 today, did you perform any online search?

17 A No.

18 MR. HENDIFAR: We have no further questions.

19 MR. KRONENTHAL: Okay. Petitioner has no
20 questions.

21 REPORTER: Counsel, do you need a copy?

22 MR. KRONENTHAL: Just a standard delivery for
23 petitioner.

24

25 (Whereupon, at 10:34 a.m., the

1 deposition of DAVID LETT was
2 adjourned.)
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5

6 I, the undersigned, hereby certify under
7 penalty of perjury under the laws of the State of
8 California that the foregoing testimony is true and
9 correct.

10 Executed this _____ day of
11 _____, 20____ at _____,
12 California.

13

14

15

16

17 DAVID LETT

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3

6 That prior to being examined, the witness named
7 in the foregoing deposition was by me duly sworn to
8 testify to the truth, the whole truth, and nothing but
9 the truth;

15 That if the foregoing pertains to the original
16 transcript of a deposition in a Federal Case, before
17 completion of the proceedings, review of the transcript
18 () was () was not required.

21 Witness my hand this 16th day of December, 2025.

23

LEESA DURRANT, C.S.R. NO. 11899, RPR

25



Magna

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