

United States District Court,
S.D. California.

QUALCOMM INCORPORATED,
Plaintiff.

v.

CONEXANT SYSTEMS,
INC.

and

Skyworks Solutions, Inc,
Defendants.

No. 02CV2002-B(JFS)

Dec. 2, 2004.

James R. Batchelder, Day Casebeer Madrid and Batchelder, Cupertino, CA, for Plaintiff.

James L. Quarles, III, Kyle M. Deyoung, Nina S. Tallon, Amy K. Wigmore, Gregory S. Discher, Leon B. Greenfield, Wilmer Cutler Pickering Hale and Dorr, Washington, DC, Donald R. Steinberg, Michael A. Diener, Merriann M. Panarella, William F. Lee, Wilmer Cutler Pickering Hale and Dorr, Boston, MA, Kerry A. Malloy, S. Calvin Walden, Hale and Dorr, New York, NY, Maria Kathleen Vento, Wilmer Cutler Pickering Hale and Dorr LLP, Palo Alto, CA, Robert S. Brewer, Jr., McKenna Long and Aldridge, San Diego, CA, for Defendants.

ORDER CONSTRUING CLAIMS FOR UNITED STATES PATENT NUMBER 5,872,481

RUDI M. BREWSTER, Senior District Judge.

Plaintiff, Qualcomm, Inc. has brought suit against Defendants, Conexant Systems, Inc. and Skyworks Solutions, Inc., for infringement of United States Patent number 5,872,481 (the "481 Patent"). Pursuant to Markman v. Westview Instruments, 52 F.3d 967 (Fed.Cir.1995), the Court conducted a hearing on October 14 and November 9, 2004 to construe the disputed claim terms of the '481 Patent. FN1 At the hearing, Qualcomm was represented by the law firm of Day, Casebeer, Madrid & Batchelder, and Conexant and Skyworks were represented by the firm of Wilmer, Cutler, Pickering and Dorr.

FN1. The disputed claims of the '481 Patent are claims 1-8.

The Court, with the assistance of the parties, interpreted the pertinent terms for all claim terms at issue in the '481 Patent. Additionally, a "Glossar" was prepared for terms found in the '481 Patent, that were considered

to be technical in nature and which a jury of laypersons might not understand without a specific definition, As the case advances, the parties may request additional terms to be added to the glossary as may seem helpful to the jury.

After careful consideration of the parties' arguments and the applicable law, the Court **HEREBY CONSTRUES** all disputed claim terms in the '481 Patent, attached as Exhibit A. Further, the Court **HEREBY DEFINES** all pertinent technical terms as written in Exhibit B, attached hereto.

IT IS SO ORDERED

EXHIBIT A-UNITED STATES PATENT NUMBER 5,872,481-CLAIM CHART

VERBATIM CLAIM LANGUAGE	COURT'S CLAIM CONSTRUCTION
Claim 1	Claim 1
An amplifier circuit for providing an amplified signal in response to a radio frequency (RF) input signal having successive portions separated by signal boundaries, said amplifier circuit comprising:	An amplifier [a device capable of increasing the power of a signal] circuit [a network of electronic components] for providing an amplified signal [information that can be transmitted or received within a circuit] in response to a radio frequency (RF) [frequency useful for radio communication] input signal [signal input to an electronic component] having successive portions [discrete parts that follow each other in order] separated by signal boundaries [border or transition between the digital words or symbols in a signal], said amplifier circuit comprising:
a timing information input line receiving timing information representative of the boundaries between the portions of the RF input signal;	a timing information input line receiving timing information representative of the boundaries between the portions of the RF input signal [an electrical line that receives information that represents the periods during which there are boundaries in the RF input signal];
a plurality of amplifier stages for amplifying said RF signal, each of said plurality of amplifier stages having an amplifier stage input for receiving said RF input signal and an amplifier stage output for providing an amplified RF signal, each of said amplifier stages operative to amplify the RF input signal only while a direct current (DC) bias is applied to the respective amplifier stage input thereof:	a plurality [two or more] of amplifier stages for amplifying said RF signal, each of said plurality of amplifier stages having an amplifier stage [a set of one or more amplifiers within an amplifier circuit containing at least two such sets] input [part of a device capable of receiving a signal] for receiving said RF input signal and an amplifier stage output for providing an amplified RF signal, each of said amplifier stages operative to amplify the RF input signal only while a direct current (DC) [an electric current, constant over some time period] bias [a signal delivered to an amplifier for establishing the amplifier's operating point] is applied to the respective amplifier stage input thereof [the bias is applied to the same input that receives the RF input signal]:
a control circuit, coupled to each amplifier stage input of said plurality of amplifier stages and to the timing information input line, for selecting particular amplifier stages to be activated and for providing a DC bias to the amplifier input stages of each	a control circuit [a circuit for providing control], coupled to [associated in such a way that power or signal information may be transferred from one to another] each amplifier stage input of said plurality of amplifier stages and to the timing information input line, for selecting particular amplifier stages [selecting more than one amplifier stage] to be activated and for providing a DC bias to the amplifier input stages of each of the selected amplifier stages

of the selected amplifier stages, said control circuit operative to vary the selection of particular amplifier stages only during a boundary between portions of the RF input signal; and

means, coupled to each of said amplifier stage inputs, for isolating said DC bias from the amplifier input stages of other ones of said plurality of amplifier stages.

[multiple stages that are selected], said control circuit operative to vary the selection of particular amplifier stages only during a boundary between portions of the RF input signal; and

means, coupled to each of said amplifier stage inputs, for isolating said DC bias from the amplifier input stages of other ones of said plurality of amplifier stages.

This is a means plus function claim.

The function of the means is: **isolating said DC bias from the amplifier input stages of other ones of said plurality of amplifier stages [electrically separating the DC bias provided to the selected stages from the inputs of non-selected stages]**

	The structure(s) identified to perform this function is: Fig. 11, capacitors 1112, 1114, 1116, and 1118; 2:60-62; 9:60-10:5
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Claim 2

The amplifier circuit of claim 1 further comprising an input network, having an input coupled to said input signal and a plurality of outputs, each output coupled to one of said amplifier stage inputs, said input network for providing said input signal to each of said plurality of amplifier stages; and

an output network, coupled to each of said amplifier stage outputs, for providing said amplified signal from a selected at least one of said plurality of amplifier stages at an output node.

Claim 2

The amplifier circuit of claim 1 further comprising an **input network [group of electronic components associated with the input of a device]**, having an input coupled to [associated in such a way that power or signal information may be transferred from one to another] said input signal and a plurality of outputs, each output coupled to one of said amplifier stage inputs, said input network for providing said input signal to each of said plurality of amplifier stages; and

an **output network [group of electronic components associated with the output of a device]**, coupled to each of said amplifier stage outputs, for providing said amplified signal from a selected at least one of said plurality of amplifier stages at an **output node [a node (location where one or more signals is input and one or more signals is output) whose output is the output of the referenced circuit]**.

Claim 3

The amplifier circuit of claim 2 wherein said means for isolating comprises a plurality of capacitors, each capacitor having an input signal, and an output coupled to a respective one of said amplifier stage inputs.

Claim 3

The amplifier circuit of claim 2 wherein said means for isolating comprises a plurality of **capacitors [devices capable of storing energy in the form of an electric field or charge. A capacitor is capable of blocking the flow of direct current and passing or partially conducted the flow of a time-varying current]**, each capacitor having an input signal, and an output coupled to a respective one of said amplifier stage inputs.

Claim 4

The amplifier circuit of

The amplifier circuit of claim 3 wherein at least one of said plurality of amplifier

claim 3 wherein at least one of said plurality of amplifier stages is a field-effect transistor device.	stages is a field-effect transistor [a transistor having at least three nodes (called the gate source, and drain) in which the amount of current flowing from the source node to the drain node is controlled by an electric field caused by a voltage applied to the gate node] device.
Claim 5	Claim 5
The amplifier circuit of claim 3 wherein at least one of said plurality of amplifier stages is a bipolar junction transistor device.	The amplifier circuit of claim 3 wherein at least one of said plurality of amplifier stages is a bipolar junction transistor [a transistor having at least three nodes (called the base, collector, and emitter) in which the amount of current flowing from the collector node to the emitter node is controlled by the voltage across the junction between the base node and the emitter node] device.
Claim 6	Claim 6
A method for providing an amplified signal in response to a radio frequency (RF) input signal having successive portions separated by boundaries in an amplifier circuit comprising a plurality of amplifier stages each operative to amplify a signal only while simultaneously receiving a direct current (DC) bias signal, said method comprising the steps of:	A method for providing an amplified signal [information that can be transmitted or received within a circuit] in response to a radio frequency (RF) [frequency useful for radio communication] input signal [signal input to an electronic component] having successive portions [limited parts that follow each other in order] separated by boundaries [border or transition between the digital words or symbols] in an amplifier [a device capable of increasing the power of a signal] circuit [a network of electronic components] comprising a plurality [two or more] of amplifier stages [a set of one or more amplifiers within an amplifier circuit containing at least two such sets] each operative to amplify a signal only while simultaneously receiving a direct current (DC) [an electric current, constant over some period of time] bias [a signal delivered to an amplifier for establishing the amplifier's operating point] signal, said method comprising the steps of:
receiving timing information representative of the boundaries between the portions of the RF input signal;	receiving timing information representative of the boundaries between the portions of the RF input signal [information that represents the periods during which there are boundaries in the RF input signal];
applying said input signal to each of said plurality of amplifier stages;	applying said input signal to each of said plurality of amplifier stages;
selecting an amplifier stage for use in amplifying the signal;	selecting an amplifier stage for use in amplifying the signal;
applying a DC bias signal to the selected amplifier stage, with said DC bias signal being initiated during a boundary between portions of the RF input signal;	applying a DC bias signal to the selected amplifier stage, with said DC bias signal being initiated during a boundary between portions of the RF input signal [border or transition between the digital words or symbols];

isolating said DC bias signal from all but said selected one of said plurality of other amplifier stages;	isolating said DC bias signal from all but said selected one of said plurality of other amplifier stages [the applied DC bias is separated electrically from all amplifier stages except the selected one];
amplifying said input signal in said selected amplifier stage to generate said amplified signal; and	amplifying said input signal in said selected amplifier stage to generate said amplified signal; and
providing said amplified signal at an output node.	providing said amplified signal at an output node.

Claim 7	Claim 7
The amplifier circuit of claim 1 wherein said portions of the input RF signals are words.	The amplifier circuit of claim 1 wherein said portions of the input RF signals are words [a set number of data symbols or characters transmitted together as a group] .
Claim 8	Claim 8
The method of claim 6 wherein said portions of the input RF signals are words.	The method of claim 6 wherein said portions of the input RF signals are words [a set number of data symbols or characters transmitted together as a group] .

EXHIBIT B-GLOSSARY RE: UNITED STATES PATENT NUMBER 5,872,481

Term Definition	
Amplifier	A device capable of increasing the power of a signal
Amplifier Stage(s)	A set of one or more amplifiers within an amplifier circuit containing at least two such sets
Applied to the Respective Amplifier Stage Input Thereof	The bias is applied to the same input that receives the RF input signal
Bias	A signal delivered to an amplifier for establishing the amplifier's operating point
Bipolar Junction Transistor	A transistor having at least three nodes (called the base, collector, and emitter) in which the amount of current flowing from the collector node to the emitter node is controlled by the voltage across the junction between the base node and the emitter node
Boundaries	Border or transition between the digital words or symbols
Boundary Between Portions of the RF Input Signal	Border or transition between the digital words or symbols
Capacitors	Devices capable of storing energy in the form of an electric field or charge. A capacitor is capable of blocking the flow of direct current and passing or partially conducted the flow of a time-varying current
Control Circuit	A circuit for providing control
Coupled to	Associated in such a way that power or signal information may be transferred from one to another
Circuit	A network of electronic components

Direct Current (DC)	An electric current, constant over some period of time
Field-effect Transistor	A transistor having at least three nodes (called the gate source, and drain) in which the amount of current flowing from the source node to the drain node is controlled by an electric field caused by a voltage applied to the gate node
Input Line	Location on a device where the signal is input
Input Network	Group of electronic components associated with the input of a device
Input Signal	Signal input to an electronic component
Isolating Said DC Bias Signal From All But Said Selected One of Said Plurality of Other Amplifier Stages	The applied DC bias is separated electrically from all amplifier stages except the selected one
Node	Location where one or more signals is input and one or more signals is output
Output Network	Group of electronic components associated with the output of a device
Output Node	A node (location where one or more signals is input and one or more signals is output) whose output is the output of the referenced circuit
Plurality	Two or more
Radio Frequency (RF)	Frequency useful for radio communication
Selected Amplifier Stages	Multiple stages that are selected
Selecting Particular Amplifier Stages	Selecting more than one amplifier stage
Signal	Information that can be transmitted or received within a circuit
Signal Boundaries	Border or transition between the digital words or symbols in a signal
Successive Portions	Limited parts that follow each other in order
Timing Information Input Line Receiving Timing Information Representative of the Boundaries Between the Portions of the RF Input Signal	An electrical line that receives information that represents the periods during which there are boundaries in the RF input signal
Timing Information Representative of the Boundaries Between the Portions of the RF Input Signal	Information that represents the periods during which there are boundaries in the RF input signal
Words	A set number of data symbols or characters transmitted together as a group

S.D.Cal.,2004.

Qualcomm Inc. v. Conexant Systems, Inc.