

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

WSOU INVESTMENTS, LLC d/b/a	§	
BRAZOS LICENSING AND	§	
DEVELOPMENT,	§	CIVIL ACTION NO. 6:20-cv-209
	§	
Plaintiff,	§	<b>JURY TRIAL DEMANDED</b>
	§	
v.	§	
	§	
HUAWEI INVESTMENT & HOLDING	§	
CO., LTD., HUAWEI TECHNOLOGIES	§	
CO., LTD., HUAWEI TECHNOLOGIES	§	
USA INC., HUAWEI DEVICE CO. LTD.	§	
(f/k/a HUAWEI DEVICE (DONGGUAN)	§	
CO.), HUAWEI DEVICE (SHENZHEN)	§	
CO., LTD. (f/k/a HUAWEI DEVICE CO.,	§	
LTD.), HUAWEI DEVICE USA, INC.	§	
	§	
Defendants.	§	

**ORIGINAL COMPLAINT FOR PATENT  
INFRINGEMENT**

Plaintiff WSOU Investments, LLC d/b/a Brazos Licensing and Development (“Brazos” or “Plaintiff”), by and through its attorneys, files this Complaint for Patent Infringement against Defendants Huawei Investment & Holding Co., Ltd., Huawei Technologies Co., Ltd., Huawei Technologies USA Inc., Huawei Device Co. Ltd. (f/k/a Huawei Device (Dongguan) Co.), Huawei Device (Shenzhen) Co., Ltd. (f/k/a Huawei Device Co., Ltd.), and Huawei Device USA, Inc. (collectively “Huawei” or “Defendants”) and alleges:

**NATURE OF THE ACTION**

1. This is a civil action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. §§ 1, et seq., including §§ 271, 281, 284, and 285.

**THE PARTIES**

2. Brazos is a limited liability corporation organized and existing under the laws of Delaware, with its principal place of business at 605 Austin Ave, Ste 6, Waco, TX 76701.

3. On information and belief, Defendant Huawei Investment & Holding Co., Ltd. is a Chinese corporation that does business in Texas, directly or through intermediaries, with a principal place of business at Bantian, Longgang District, Shenzhen, 518129, People's Republic of China.

4. On information and belief, Defendant Huawei Technologies Co., Ltd. is a Chinese corporation that does business in Texas, directly or through intermediaries, with a principal place of business at Bantian, Longgang District, Shenzhen 518129, People's Republic of China.

5. Upon information and belief, Defendant Huawei Technologies USA Inc. is a corporation organized and existing under the laws of Texas that maintains an established place of business at 2391 NE Interstate 410 Loop, San Antonio, TX 78217. Huawei Technologies USA, Inc. is authorized to do business in Texas and may be served via its registered agent, CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas 75201-3136.

6. Upon information and belief, Defendant Huawei Device Co. Ltd. (formerly known as Huawei Device (Dongguan) Co.) is a Chinese corporation that does business in Texas, directly or through intermediaries, and maintains a principal place of business in No.2 of Xincheng Road, Songshan Lake Zone, Dongguan, Guangdong 523808, People's Republic of China.

7. Upon information and belief, Huawei Device (Shenzhen) Co., Ltd. (formerly known as Huawei Device Co., Ltd.) is a wholly-owned subsidiary of Defendant Huawei

Device Co. Ltd. is a Chinese corporation that does business in Texas, directly or through intermediaries, and maintains a principal place of business in Bantian, Longgang District, Shenzhen 518129, People's Republic of China.

8. On information and belief, Defendant Huawei Device USA, Inc., is a Texas corporation with a principal place of business located at 5700 Tennyson Parkway, Suite 600, Plano, Texas 75024. Huawei Device USA, Inc. is authorized to do business in Texas and may be served via its registered agent, CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas 75201-3136.

9. All of the Defendants operate under and identify with the trade name "Huawei." Each of the Defendants may be referred to individually as a "Huawei Defendant" and, collectively, Defendants may be referred to below as "Huawei" or as the "Huawei Defendants." Upon information and belief, Defendant Huawei Investment & Holding Co., Ltd. provides consolidated financial reporting for Huawei entities, including all Huawei Defendants.

**JURISDICTION AND VENUE**

10. This is an action for patent infringement which arises under the Patent Laws of the United States, in particular, 35 U.S.C. §§271, 281, 284, and 285.

11. This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a).

12. This Court has specific and general personal jurisdiction over each Huawei Defendant pursuant to due process and/or the Texas Long Arm Statute, because each Huawei Defendant has committed acts giving rise to this action within Texas and within this judicial district. The Court's exercise of jurisdiction over each Huawei Defendant would not offend traditional notions of fair play and substantial justice because Huawei has established

minimum contacts with the forum. For example, on information and belief, Huawei Defendants have committed acts of infringement in this judicial district, by among other things, selling and offering for sale products that infringe the asserted patent, directly or through intermediaries, as alleged herein.

13. Venue in the Western District of Texas is proper pursuant to 28 U.S.C. §§1391 and 1400(b) because Huawei Technologies USA Inc. and Huawei Device USA Inc. have committed acts of infringement in this judicial district and have a regular and established places of business in this judicial district and in Texas. As non-limiting examples, on information and belief, Huawei Technologies USA Inc. and Huawei Device USA Inc. have sold or offered to sell the Accused Products in this judicial district and have employees or agents that operate Huawei equipment in this judicial district, including at 189 CR 265, Georgetown, TX 78626, 1150 S Bell Blvd, Cedar Park, TX 78613, 1399 S A W Grimes Blvd, Round Rock, TX 78664, 12335 IH 35, Jarrell, TX 76537, 1050 Rabbit Hill Rd, Unit #E, Georgetown, TX 78626, 1602 A W Grimes Blvd, Round Rock, TX 78664, 4120 IH 35 N, Georgetown, TX 78626, 900 CR 272, Leander, TX 78641, 1950 Crystal Falls Pkwy, Leander, TX 78641, 1101 N Industrial Blvd, Round Rock, TX 78681, 506 McNeil Rd, Round Rock, TX 78681, 3210 Chisholm Trail Rd, Round Rock, TX 78681, 112 Roundville Ln, Round Rock, TX 78664, 202 Central Dr W, Georgetown, TX 78628, 3595 E Hwy 29, Georgetown, TX 78626, 1402 W Welch St, Taylor, TX 76574, 3801 Oak Ridge Dr, Round Rock, TX 78681, 1957 Red Bud Ln #B, Round Rock, TX 78664, 6603 S Lakewood Dr, Georgetown, TX 78633, 500 W Front, Hutto, TX 78634.

**COUNT ONE - INFRINGEMENT OF**

**U.S. PATENT NO. 8,249,446**

14. Brazos re-alleges and incorporates by reference the preceding paragraphs of this Complaint.

15. On August 21, 2012, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 8,249,446 (“the ’446 Patent”), entitled “METHOD AND APPARATUS FOR REGULATING ROGUE BEHAVIOR IN OPTICAL NETWORK TRANSMISSION DEVICES.” A true and correct copy of the ’446 Patent is attached as Exhibit A to this Complaint.

16. Brazos is the owner of all rights, title, and interest in and to the ’446 Patent, including the right to assert all causes of action arising under the ’446 Patent and the right to any remedies for the infringement of the ’446 Patent.

17. Huawei makes, uses, sells, offers for sale, imports, and/or distributes in the United States, including within this judicial district, products such as, but not limited to, Huawei multi-service access module which can be used as a large capacity GPON (collectively, the “Accused Products”).

18. The Accused Products include the Huawei SmartAX MA5600T.

19. Huawei provides access to network solutions to its customers. Huawei SmartAX MA5600T is a multi-service access module that can be used as a large capacity GPON.

### SmartAX MA5600T

Huawei SmartAX MA5600T multi-service access module which can be used as the large-capacity gpon olt, ip deslam and msan.  
[Expand](#) ▼

[Specifications](#) 

EOS: 2024-12-31 (Subject to EOX bulletins) EOM: 2019-12-31 (Subject to EOX bulletins)



<https://support.huawei.com/enterprise/en/access-network/smartax-ma5600t-pid-18133>

20. The accused product supports Gigabit Passive Optical Network (GPON).

GPON device supports high-bandwidth transmission and meets user bandwidth demand.

Gigabit passive optical network (GPON) is a PON technology that is standardized by the ITU-T Recommendations G.984.x. A GPON device supports high-bandwidth transmission. GPON effectively solves the bandwidth bottleneck problem in the twisted-pair access and meets users demands on high-bandwidth services.

[https://support.huawei.com/view/PdfRead/EDOC1000099514/SUPE\\_DOC/k001/document.pdf](https://support.huawei.com/view/PdfRead/EDOC1000099514/SUPE_DOC/k001/document.pdf)

21. Passive Optical Network (PON) uses time-division multiplexing. An Optical Network Terminal (ONT) sends a packet in the upstream direction according to the time stamp allocated by an Optical Line Terminal (OLT). When an ONT sends optical signal in a non-allocated time stamp, the optical signal conflict with ONT signals. Such an ONT is called a Rogue ONT.

PON uses time division multiplexing. Using this mechanism, an ONT sends packets to the upstream direction according to the time stamp allocated by an OLT. If an ONT sends optical signals when it is not allocated a time stamp, its optical signals conflict with optical signals sent by other ONTs. Such an ONT is called a rogue ONT.

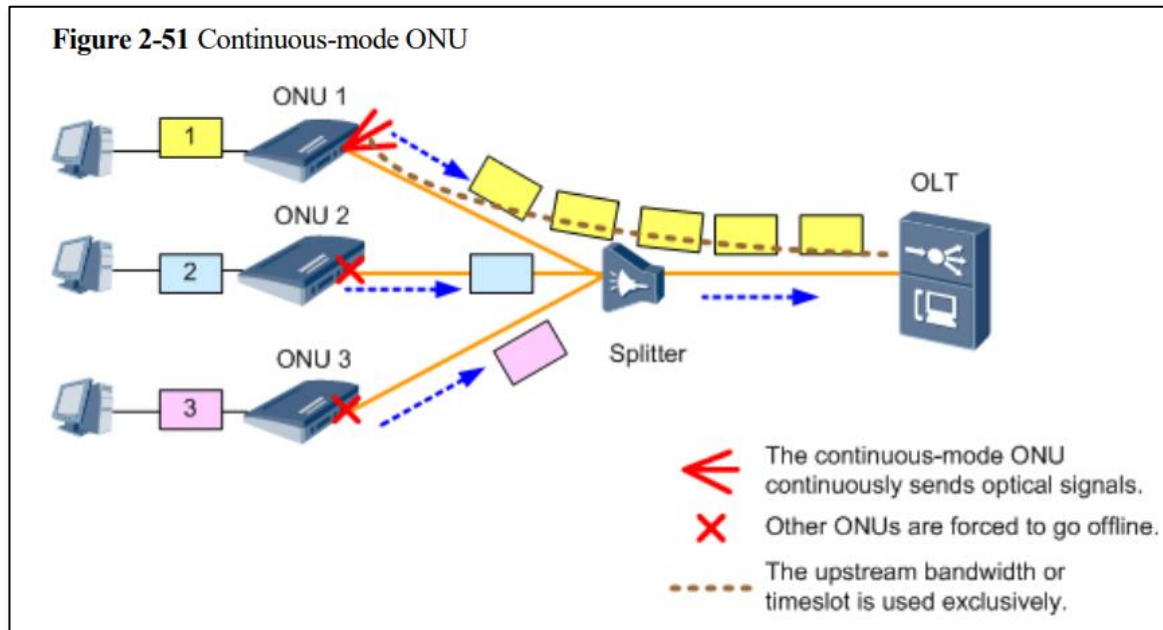
<https://support.huawei.com/enterprise/en/doc/EDOC1100047614/21e7629a/detecting-a-rogue-ont>

22. The accused product Huawei SmartAX MA5600T adopts a mechanism to detect rogue ONT.

port. Huawei MA5600T adopts a mechanism to detect rogue ONT and isolate it from other ONT in the same port.

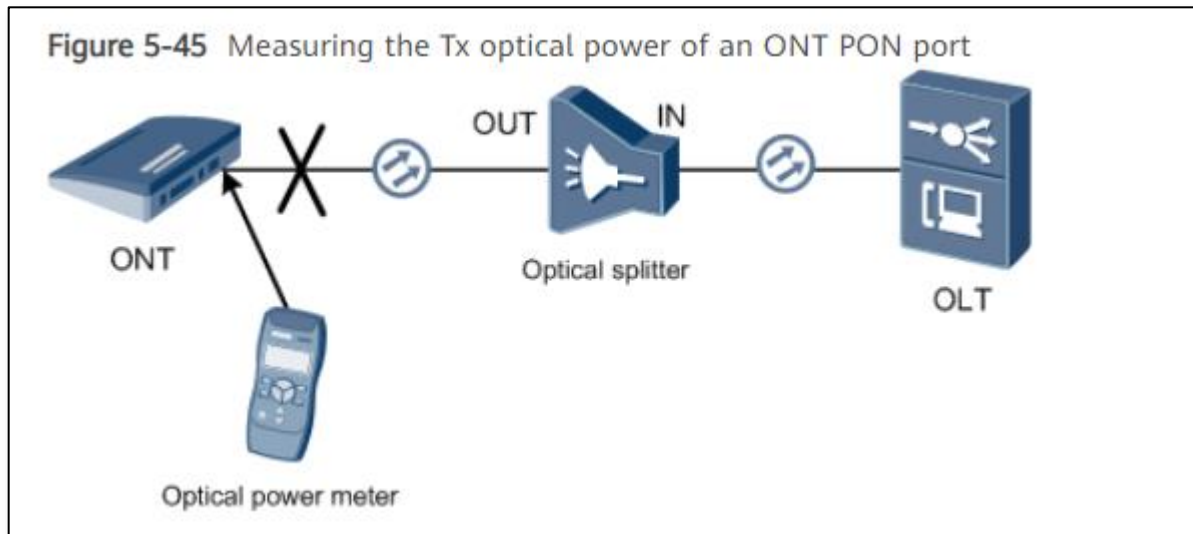
<https://support.huawei.com/enterprise/en/knowledge/KB0000549879>

23. The Optical Network Unit continuously sends optical signals. It uses upstream bandwidth or the timeslot exclusively.



[https://support.huawei.com/view/PdfRead/EDOC1000099514/SUPE\\_DOC/k001/document.pdf](https://support.huawei.com/view/PdfRead/EDOC1000099514/SUPE_DOC/k001/document.pdf)

24. Optical Network Terminals (ONT) in the optical network unit transmit the signals to the Optical Line Terminal (OLT).



<https://support.huawei.com/enterprise/en/doc/EDOC1100047614/21e7629a/detecting-a-rogue-ont>

25. Optical Network Unit (ONU) transmits signals with the use of the Optical Network Terminal (ONT). The signal is sent to the OLT. ONT alarm profile provides a series of alarm threshold parameters that are in use for monitoring of activated ONU lines.

The GPON ONT alarm profile provides a series of alarm threshold parameters that are used for performance measurement and monitoring of activated ONU lines. After a GPON alarm profile is bound to an ONU, the ONU sends alarms to the log host and the NMS if the performance statistics of the line exceed the threshold that is specified in the profile.

<https://support.huawei.com/enterprise/en/knowledge/KB0000549879>

26. The accused product Huawei SmartAX MA5600T adopts a mechanism to detect rogue ONT during a detection period (i.e., monitoring window) which is the amount of time for which rogue ONT detection is in process. The detection period is different in different products. For example, MA5600T Version V8R8C02 has a detection period of 5 minutes

port. Huawei MA5600T adopts a mechanism to detect rogue ONT and isolate it from other ONT in the same port.



For MA5600T V8R8C02 changed the detection period from 5 second to 5 minutes. It is to avoid false detection by any transient signal in ODN network.

<https://support.huawei.com/enterprise/en/knowledge/KB0000549879>

27. GPON ONT alarm profile is bound to an Optical Network Unit (ONU). The ONU sends alarms to the log host and the NMS if the performance statistics of the line exceed the threshold defined in the alarm profile.

The GPON ONT alarm profile provides a series of alarm threshold parameters that are used for performance measurement and monitoring of activated ONU lines. After a GPON alarm profile is bound to an ONU, the ONU sends alarms to the log host and the NMS if the performance statistics of the line exceed the threshold that is specified in the profile.

[https://support.huawei.com/view/PdfRead/EDOC1000099514/SUPE\\_DOC/k001/document.pdf](https://support.huawei.com/view/PdfRead/EDOC1000099514/SUPE_DOC/k001/document.pdf)

28. When the output goes beyond the threshold, OLT prompts out an alarm to notify rogue ONT. Once rogue ONT is detected, the OLT sets a flag for the rogue ONT detection.

OLT detects signal from ONT sending signal not in its own timeslot, it would prompt out alarm to notify rogue ONT exists in a specific PON port.

As ONT rogue detection switch is enabled and rogue ONT detected, OLT would label its flag (to identify it is the first rogue ONT detection) and reset the ONT. After ONT boots up, if there is still rogue detection, OLT would sign ONT to stop emit optical signal so as to isolate it, or else OLT would identify the first detection is false and clear the flag.

<https://support.huawei.com/enterprise/en/knowledge/KB0000549879>

29. The accused product Huawei SmartAX MA5600T adopts a mechanism to detect rogue ONT during a detection period (i.e., monitoring window) which is the amount of time for which rogue ONT detection is in process. The detection period is different in different products. For example, MA5600T Version V8R8C02 has a detection period of 5 minutes.

port. Huawei MA5600T adopts a mechanism to detect rogue ONT and isolate it from other ONT in the same port.

For MA5600T V8R8C02 changed the detection period from 5 second to 5 minutes. It is to avoid false detection by any transient signal in ODN network.

<https://support.huawei.com/enterprise/en/knowledge/KB0000549879>

30. Once the rogue flag is set, the OLT resets the ONT. After ONT boots up, if there is no rogue detection, OLT would identify the earlier detection as false and clear the rogue flag.

As ONT rogue detection switch is enabled and rogue ONT detected, OLT would label its flag (to identify it is the first rogue ONT detection) and reset the ONT. After ONT boots up, if there is still rogue detection, OLT would sign ONT to stop emit optical signal so as to isolate it, or else OLT would identify the first detection is false and clear the flag.

<https://support.huawei.com/enterprise/en/knowledge/KB0000549879>

31. In view of preceding paragraphs, each and every element of at least claim 1 of the '446 Patent is found in the Accused Products.

32. Huawei has and continues to directly infringe at least one claim of the '446 Patent, literally or under the doctrine of equivalents, by making, using, selling, offering for sale, importing, and/or distributing the Accused Products in the United States, including within this judicial district, without the authority of Brazos.

33. Huawei has received notice and actual or constructive knowledge of the '446 Patent since at least the date of service of this Complaint.

34. Since at least the date of service of this Complaint, through its actions, Huawei has actively induced product makers, distributors, retailers, and/or end users of the Accused Products to infringe the '446 Patent throughout the United States, including within this judicial district, by, among other things, advertising and promoting the use of the Accused

Products in various websites, including providing and disseminating product descriptions, operating manuals, and other instructions on how to implement and configure the Accused Products. Examples of such advertising, promoting, and/or instructing include the documents at:

- <https://support.huawei.com/enterprise/en/access-network/smartax-ma5600t-pid-18133>
- [https://support.huawei.com/view/PdfRead/EDOC1000099514/SUPE\\_DOC/k001/document.pdf](https://support.huawei.com/view/PdfRead/EDOC1000099514/SUPE_DOC/k001/document.pdf)
- <https://support.huawei.com/enterprise/en/doc/EDOC1100047614/21e7629a/detecting-a-rogue-ont>
- <https://support.huawei.com/enterprise/en/knowledge/KB0000549879>

35. Since at least the date of service of this Complaint, through its actions, Huawei has contributed to the infringement of the '446 Patent by having others sell, offer for sale, or use the Accused Products throughout the United States, including within this judicial district, with knowledge that the Accused Products infringe the '446 Patent. The Accused Products are especially made or adapted for infringing the '446 Patent and have no substantial non-infringing use. For example, in view of the preceding paragraphs, the Accused Products contain functionality which is material to at least one claim of the '446 Patent.

#### **JURY DEMAND**

Brazos hereby demands a jury on all issues so triable.

#### **REQUEST FOR RELIEF**

WHEREFORE, Brazos respectfully requests that the Court:

(A) Enter judgment that Huawei infringes one or more claims of the '446 Patent literally and/or under the doctrine of equivalents;

(B) Enter judgment that Huawei has induced infringement and continues to induce infringement of one or more claims of the '446 Patent;

(C) Enter judgment that Huawei has contributed to and continues to contribute to the infringement of one or more claims of the '446 Patent;

(D) Award Brazos damages, to be paid by Huawei in an amount adequate to compensate Brazos for such damages, together with pre-judgment and post-judgment interest for the infringement by Huawei of the '446 Patent through the date such judgment is entered in accordance with 35 U.S.C. §284, and increase such award by up to three times the amount found or assessed in accordance with 35 U.S.C. §284;

(E) Declare this case exceptional pursuant to 35 U.S.C. §285; and

(F) Award Brazos its costs, disbursements, attorneys' fees, and such further and additional relief as is deemed appropriate by this Court.

Dated: March 22, 2020

Respectfully submitted,

/s/ James L. Etheridge

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***COUNSEL FOR PLAINTIFF***