

**UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, DC**

In the Matter of

**CERTAIN RADIO FREQUENCY
INTEGRATED CIRCUITS AND
DEVICES CONTAINING SAME**

Investigation No. 337-TA-_____

**VERIFIED COMPLAINT UNDER SECTION 337
OF THE TARIFF ACT OF 1930, AS AMENDED**

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1	Copy of US Patent No. 7,910,993
2	Copy of Assignment of US Patent No. 7,910,993
3	Copy of US Patent No. 7,123,898
4	Copy of Assignment of US Patent No. 7,123,898
5	Copy of US Patent No. 7,460,852
6	Copy of Assignment of US Patent No. 7,460,852
7	Copy of US Patent No. 7,796,969
8	Copy of Assignment of US Patent No. 7,796,969
9	Copy of US Patent No. 7,860,499
10	Copy of Assignment of US Patent No. 7,860,499
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16	Purchase records of sale within the United States of the Accused Motorola Handset DROID BIONIC (XT875)
17	Images showing the Accused Motorola Handset DROID RAZR (XT912) containing the Accused RF Switch Device RF1603, as well as images obtained of the Accused Dies M1D1604 contained therein
18	Images showing the Accused Motorola Handset DROID BIONIC (XT875) containing the Accused RF Switch Device RF1603, as well as images obtained of the Accused Dies M1D1604 contained therein
19	Manufacturing data sheet published by RFMD for the Accused RF Switch Device RF1603, including chart identifying the markings "F8" on switch device packages
20	Confidential claim chart showing infringement of US Patent No. 7,910,993 by M1D1604
21	Intentionally omitted
22	Confidential claim chart showing infringement of US Patent No. 7,123,898 by M1D1604
23	Intentionally omitted
24	Confidential claim chart showing infringement of US Patent No. 7,460,852 by M1D1604
25	Intentionally omitted
26	Confidential claim chart showing infringement of US Patent No. 7,796,969 by M1D1604
27	Intentionally omitted
28	Confidential claim chart showing infringement of US Patent No. 7,860,499 by M1D1604
29	Intentionally omitted

#	Exhibit Description
30	Confidential claim chart showing domestic industry products for US Patent No. 7,910,993
31	Confidential claim chart showing domestic industry products for US Patent No. 7,123,898
32	Confidential claim chart showing domestic industry products for US Patent No. 7,460,852
33	Confidential claim chart showing domestic industry products for US Patent No. 7,796,969
34	Confidential claim chart showing domestic industry products for US Patent No. 7,860,499
35	Manufacturing data sheet published by RFMD for the Accused RF Switch Device RF1604, including chart identifying the markings "F9" on switch device packages

Table of Appendices

#	Appendix Description
A	U.S. Patent and Trademark Office prosecution history for U.S. Patent No. 7,910,993.
B	Copies of each patent and applicable pages of each technical reference mentioned in the prosecution history of U.S. Patent No. 7,910,993.
C	U.S. Patent and Trademark Office prosecution history for U.S. Patent No. 7,123,898.
D	Copies of each patent and applicable pages of each technical reference mentioned in the prosecution history of U.S. Patent No. 7,123,898.
E	U.S. Patent and Trademark Office prosecution history for U.S. Patent No. 7,460,852.
F	Copies of each patent and applicable pages of each technical reference mentioned in the prosecution history of U.S. Patent No. 7,460,852.
G	U.S. Patent and Trademark Office prosecution history for U.S. Patent No. 7,796,969.
H	Copies of each patent and applicable pages of each technical reference mentioned in the prosecution history of U.S. Patent No. 7,796,969.
I	U.S. Patent and Trademark Office prosecution history for U.S. Patent No. 7,860,499.
J	Copies of each patent and applicable pages of each technical reference mentioned in the prosecution history of U.S. Patent No. 7,860,499.

I. INTRODUCTION

1. This Complaint is filed by Peregrine Semiconductor Corporation (“Peregrine” or “Complainant”) pursuant to Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337 (“Section 337”).

2. Peregrine brings this action to remedy violations of Section 337 arising from the unlawful and unauthorized importation into the United States, the sale for importation, and/or the sale within the United States after importation of certain radio frequency integrated circuits, including radio frequency switches, and devices containing same (“Accused Products”) that directly infringe, contributorily infringe, and/or induce the infringement of one or more claims of each of United States Patent Nos. 7,910,993; 7,123,898; 7,460,852; 7,796,969; and 7,860,499 (collectively the “Asserted Patents”).

3. The Asserted Patents are assigned to Peregrine.

4. Peregrine is a leading fabless provider of radio frequency integrated circuits (RFICs). Peregrine’s solutions leverage its proprietary UltraCMOS™ technology, which enables the design, manufacture, and integration of multiple radio frequency (“RF”), mixed-signal, and digital functions on a single chip. Peregrine products deliver an industry leading combination of performance and monolithic integration, and target a broad range of applications in the aerospace and defense, broadband, industrial, mobile wireless device, test and measurement equipment, and wireless infrastructure markets. Peregrine’s UltraCMOS technology combines the ability to achieve the high levels of performance of traditional specialty semiconductor processes with the fundamental benefits of standard CMOS, the most widely used semiconductor process technology. Peregrine’s UltraCMOS technology utilizes an insulating substrate that provides low parasitic capacitance and enables both high signal isolation and excellent broadband linearity. These attributes result in RF devices with excellent high-frequency

performance and power handling performance, reduced crosstalk between frequencies, and enhanced network efficiency. Some of Peregrine's products include the patented HaRPTM technology which is related to the Asserted Patents and which helps to improve significantly the harmonic and linearity performance in RF switch products.

5. On information and belief, the proposed Respondents currently import into the United States, sell for importation into the United States, and/or sell in the United States after importation certain integrated circuits, components thereof, and/or devices using same that incorporate, without license, the inventions developed by Peregrine and protected by one or more Asserted Claims of the Asserted Patents owned by Peregrine.

6. Peregrine asserts that the Accused Products practice at least the following Claims (the "Asserted Claims") of the Asserted Patents:

Patent	Asserted Claims
7,910,993	14, 15, 16, 23, 24, 25
7,123,898	1, 2, 3, 5, 6, 7, 15
7,460,852	1, 2, 3, 4, 7, 13, 14, 20, 22, 24, 25
7,796,969	6, 7, 8, 29, 30
7,860,499	1, 3, 5, 6

7. Peregrine seeks a general exclusion order under 19 U.S.C. § 1337(d), excluding from entry into the United States all integrated circuits, and devices and components thereof, that infringe one or more Asserted Claims of the Asserted Patents.

8. In the alternative, Peregrine seeks a permanent limited exclusion order under 19 U.S.C. § 1337(d), excluding from entry into the United States all integrated circuits, and devices and components thereof, that are manufactured, imported, or sold by or on behalf of the proposed Respondents, their affiliates, subsidiaries, successors, or assigns, that infringe one or more Asserted Claims of the Asserted Patents.

9. Peregrine further seeks a permanent cease and desist order prohibiting the proposed Respondents from marketing, distributing, selling, offering for sale, warehousing inventory for distribution, or otherwise transferring or bringing into the United States infringing integrated circuits, or devices or components thereof.

II. THE PARTIES

A. Peregrine

10. Peregrine is a Delaware corporation with corporate offices located at 9380 Carroll Park Drive, San Diego California, 92121. (Confidential Declaration of Philip Chapman, attached as Confidential Exhibit 11 (“Chapman Decl.”) at ¶ 3.)

11. Peregrine owns by assignment all, right, title, and interest in each Asserted Patent.

12. Peregrine designs and manufactures high performance RF integrated circuit products that it distributes in the United States and worldwide into many markets. Peregrine partners with contract fabrication partners to assist in the manufacture of the devices that use Peregrine’s patented technologies protected by the Asserted Patents.

B. The Proposed Respondents

13. Peregrine alleges the following on information and belief:

14. Proposed Respondent RF Micro Devices (“RFMD”) is a North Carolina corporation with corporate offices located at 7628 Thorndike Road, Greensboro, NC, 27409. Proposed Respondent RFMD imports RF switch devices that are manufactured in part in the United States, assembled and packaged outside of the United States, subsequently imported into the United States and sold by RFMD after importation. Additionally, proposed Respondent RFMD sells radio frequency switch devices for the purpose of importation into the United States.

15. Proposed Respondent Motorola Mobility, Inc. is a Delaware Corporation with corporate offices located at 600 N. US Hwy. 45, Libertyville, IL, 60048. Proposed Respondent Motorola Mobility, Inc. imports mobile wireless devices, such as cellular handsets (*i.e.*, mobile phones), into the United States, either by itself or through its agent(s).

III. THE ASSERTED '993 PATENT

A. Ownership and Asserted Claims of the '993 Patent

16. The '993 Patent is entitled "Method and Apparatus for Use in Improving Linearity of MOSFET's Using an Accumulated Charge Sink" and issued on March 22, 2011. The '993 Patent names inventors Christopher N. Brindle, Michael A. Stuber, Dylan J. Kelly, Clint L. Kemerling, George P. Imthurn, Robert B. Welstand, and Mark L. Burgener. The '993 Patent issued from United States Patent Application No. 11/484,370, filed on July 10, 2006, and claims priority to both United States Provisional Patent Application Nos. 60/698,523 filed on July 11, 2005 and 60/718,260 filed on September 15, 2005.

17. Peregrine owns all rights, title, and interest to the '993 Patent. As required by Commission Rules 210.12(a)(9)(i)-(ii), certified copies of the '993 Patent and its assignment record are attached as Exhibits 1 and 2.

18. In accordance with Commission Rules 210.12(c)(1)-(2), Appendix A to this Complaint includes an uncertified copy and three additional copies of the United States Patent and Trademark Office prosecution history for the '993 Patent. A certified copy of the prosecution history of the '993 Patent has been ordered and will be submitted upon receipt from the United States Patent and Trademark Office. Appendix B includes four copies of each patent and applicable pages of each technical reference mentioned in the prosecution history of the '993 Patent currently in Peregrine's possession. Peregrine has ordered each of the technical

references mentioned in the prosecution history of the '993 Patent and will supplement the Complaint upon receipt.

19. Peregrine asserts that certain of the Accused Products infringe at least claims 14, 15, 16, 23, 24, and 25 of the '993 Patent.

B. Licenses Relating to the '993 Patent

20. Peregrine has not licensed the '993 Patent.

C. Foreign Counterparts to the '993 Patent

21. In accordance with Commission Rule 210.12(a)(9)(v), Peregrine identifies the foreign counterparts to the '993 Patent as listed in the table below. There are no other foreign counterparts of the '993 Patent:

STATE	TITLE	APPLICATION NO./PATENT NO.	FILED /ISSUED	CONTINUITY DATA	STATUS
PCT	Method and Apparatus for use in Improving Linearity of MOSFETs Using an Accumulated Charge Sink	PCT/US06/26965	Filed 07/11/06	Claims priority to provisional application no. 60/698,523, filed 7/11/05	Closed PCT
PCT	Method and Apparatus for use in Improving Linearity of MOSFETs Using an Accumulated Charge Sink – Harmonic Wrinkle Reduction	PCT/US11/056942	Filed 10/19/11	Claims priority to provisional application no. 61/405,165, filed 10/20/10 and is a CIP of application no. 13/053,211, filed 3/22/11, which is a div of application no. 11/484,370, filed 7/10/06	Pending PCT
EP	Method and Apparatus for use in Improving Linearity of MOSFETs Using an Accumulated Charge Sink	06786943.8	Filed 01/08/08	Based on PCT application no. PCT/US06/26965 filed 7/11/06, which claims priority to application no. 60/698,523, filed	Pending EPO

				7/11/05 and application no. 11/484,370, filed 07/10/06	
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IV. THE ASSERTED '898 PATENT

A. Ownership and Asserted Claims of the '898 Patent

22. The '898 Patent is entitled "Switch Circuit and Method of Switching Radio Frequency Signals" and issued on October 17, 2006. The '898 Patent names inventors Mark L. Burgener and James S. Cable. The '898 Patent issued from United States Patent Application No. 10/922,135 filed on August 18, 2004, which is a continuation of United States Patent Application No. 10,267,531, filed on October 8, 2002 and now United States Patent 6,804,502, which claims priority to United States Provisional Patent Application No. 60/328,353 filed on October 10, 2001.

23. Peregrine owns all rights, title, and interest to the '898 Patent. As required by Commission Rules 210.12(a)(9)(i)-(ii), copies of the '898 Patent and its assignment record are attached as Exhibits 3 and 4.

24. In accordance with Commission Rules 210.12(c)(1)-(2), Appendix C to this Complaint includes one certified and three additional copies of the United States Patent and Trademark Office prosecution history for the '898 Patent. Appendix D includes four copies of each patent and applicable pages of each technical reference mentioned in the prosecution history of the '898 Patent.

25. Peregrine asserts that certain of the Accused Products infringe at least Claims 1, 2, 3, 5, 6, 7, and 15 of the '898 Patent.

B. Licenses Relating to the '898 Patent

26. Peregrine has not licensed the '898 Patent.

C. Foreign Counterparts to the '898 Patent

In accordance with Commission Rule 210.12(a)(9)(v), Peregrine identifies the foreign counterparts to the '898 Patent, as listed in the table below. There are no other foreign counterparts of the '898 Patent.

STATE	TITLE	APPLICATION NO./PATENT NO.	FILED /ISSUED	CONTINUITY DATA	STATUS
PCT	Switch Circuit and Method of Switching Radio Frequency Signals	PCT/US02/32266	Filed 10/10/02	Claims priority to U.S. Prov. Appl. No. 60/328,353	Closed PCT
AT	Switch Circuit and Method of Switching Radio Frequency Signals	497642	Issued 2/15/11	National Stage of PCT/US02/32266	Issued
EP	Switch Circuit and Method of Switching Radio Frequency Signals	1451890	Issued 02/02/11	Claims priority to U.S. Prov. Appl. No. 60/328,353	Issued
EP	Switch Circuit and Method of Switching Radio Frequency Signals	2387094	Issued 11/16/11	Division of EP1451890	Issued
JP	Switch Circuit and Method of Switching Radio Frequency Signals	JP20030535287T	Filed 10/10/02	Nat'l Stage of PCT/US02/32266	Abandoned March 2007

V. THE ASSERTED '852 PATENT

A. Ownership and Asserted Claims of the '852 Patent

27. The '852 Patent is entitled "Switch Circuit and Method of Switching Radio Frequency Signals" and issued on December 2, 2008. The '852 Patent names inventors Mark L. Burgener and James S. Cable. The '852 Patent issued from United States Patent Application No. 11/582,206 filed on October 16, 2006, which is a continuation of United States Patent Application No. 10/922,135 filed on August 18, 2004 and now the '898 Patent, which is a continuation of United States Patent Application No. 10,267,531, filed on October 8, 2002 and

now United States Patent 6,804,502, which claims priority to United States Provisional Patent Application No. 60/328,353 filed on October 10, 2001.

28. Peregrine owns all rights, title, and interest to the '852 Patent. As required by Commission Rules 210.12(a)(9)(i)-(ii), copies of the '852 Patent and its assignment record are attached as Exhibits 5 and 6.

29. In accordance with Commission Rules 210.12(c)(1)-(2), Appendix E to this Complaint includes one certified and three additional copies of the United States Patent and Trademark Office prosecution history for the '852 Patent. Appendix F includes four copies of each patent and applicable pages of each technical reference mentioned in the prosecution history of the '852 Patent.

30. Peregrine asserts that certain of the Accused Products infringe at least Claims 1, 2, 3, 4, 7, 13, 14, 20, 22, 24, and 25 of the '852 Patent.

B. Licenses Relating to the '852 Patent

31. Peregrine has not licensed the '852 Patent.

C. Foreign Counterparts to the '852 Patent

32. In accordance with Commission Rule 210.12(a)(9)(v), Peregrine states that it is aware of the same foreign counterparts as noted above with respect to the '898 Patent.

VI. THE ASSERTED '969 PATENT

A. Ownership and Asserted Claims of the '969 Patent

33. The '969 Patent is entitled "Symmetrically and Asymmetrically Stacked Transistor Group RF Switch" and issued on September 14, 2010. The '969 Patent names inventors Dylan J. Kelly and Mark L. Burgener. The '969 Patent issued from United States Patent Application No. 11/347,014 filed on February 3, 2006, which claims priority to United States Provisional Patent Application No. 60/650,033 filed on February 3, 2005 and which is a

continuation-in-part of United States Patent Application No. 10/922,135 filed on August 18, 2004 and now the '898 Patent, which is a continuation of United States Patent Application No. 10,267,531, filed on October 8, 2002 and now United States Patent 6,804,502, which claims priority to United States Provisional Patent Application No. 60/328,353 filed on October 10, 2001.

34. Peregrine owns all rights, title, and interest to the '969 Patent. As required by Commission Rules 210.12(a)(9)(i)-(ii), certified copies of the '969 Patent and its assignment record are attached as Exhibits 7 and 8.

35. In accordance with Commission Rules 210.12(c)(1)-(2), Appendix G to this Complaint includes an uncertified copy and three additional copies of the United States Patent and Trademark Office prosecution history for the '969 Patent. A certified copy of the prosecution history of the '969 Patent has been ordered and will be submitted upon receipt from the United States Patent and Trademark Office. Appendix H includes four copies of each patent and applicable pages of each technical reference mentioned in the prosecution history of the '969 Patent currently in Peregrine's possession. Peregrine has ordered each of the technical references mentioned in the prosecution history of the '969 Patent and will supplement the Complaint upon receipt.

36. Peregrine asserts that certain of the Accused Products infringe at least Claims 6, 7, 8, 29, and 30 of the '969 Patent.

B. Licenses Relating to the '969 Patent

37. Peregrine has not licensed the '969 Patent.

C. Foreign Counterparts to the '969 Patent

38. In accordance with Commission Rule 210.12(a)(9)(v), Peregrine states that it is aware of the same foreign counterparts as noted above with respect to the '898 Patent.

VII. THE ASSERTED '499 PATENT

A. Ownership and Asserted Claims of the '499 Patent

39. The '499 Patent is entitled "Switch Circuit and Method of Switching Radio Frequency Signals" and issued on December 28, 2010. The '499 Patent names inventors Mark L. Burgener and James S. Cable. The '499 Patent issued from United States Patent Application No. 12/315,395 filed on December 1, 2008, which is a continuation of United States Patent Application No. 11/582,206 filed on October 16, 2006 and now the '852 Patent, which is a continuation of United States Patent Application No. 10/922,135 filed on August 18, 2004 and now the '898 Patent, which is a continuation of United States Patent Application No. 10,267,531, filed on October 8, 2002 and now United States Patent 6,804,502, which claims priority to United States Provisional Patent Application No. 60/328,353 filed on October 10, 2001.

40. Peregrine owns all rights, title, and interest to the '499 Patent. As required by Commission Rules 210.12(a)(9)(i)-(ii), copies of the '499 Patent and its assignment record are attached as Exhibits 9 and 10.

41. In accordance with Commission Rules 210.12(c)(1)-(2), Appendix I to this Complaint includes an uncertified copy and three additional copies of the United States Patent and Trademark Office prosecution history for the '499 Patent. A certified copy of the prosecution history of the '499 Patent has been ordered and will be submitted upon receipt from the United States Patent and Trademark Office. Appendix J includes four copies of each patent and applicable pages of each technical reference mentioned in the prosecution history of the '499 Patent currently in Peregrine's possession. Peregrine has ordered each of the technical references mentioned in the prosecution history of the '499 Patent and will supplement the Complaint upon receipt.

42. Peregrine asserts that certain of the Accused Products infringe at least Claims 1, 3, 5, and 6 of the '499 Patent.

B. Licenses Relating to the '499 Patent

43. Peregrine has not licensed the '499 Patent.

C. Foreign Counterparts to the '499 Patent

44. In accordance with Commission Rule 210.12(a)(9)(v), Peregrine states that it is aware of the same foreign counterparts as noted above with respect to the '898 Patent.

VIII. NON-TECHNICAL DESCRIPTION OF THE PATENTED TECHNOLOGY

45. The Asserted Patents disclose advanced integrated circuit technologies for use in radio frequency (RF) circuits, including but not limited to RF switches. Some examples of devices that employ one or more of the claimed inventions may include, for example, RF switches used in mobile wireless devices utilizing cellular technologies, wireless local area network (WLAN) technologies, as well as devices that use diversity or multiple-input and multiple-output (MIMO) antennas, and antenna tuning circuits. Devices practicing the claimed inventions of the Asserted Patents may allow users to transmit and/or receive wireless signals more efficiently while consuming less power, due to additional techniques described in the Asserted Patents. Mobile wireless devices that use the technologies protected by the Asserted Patents may benefit from reduced physical device size due to additional techniques described in the Asserted Patents that allow the integration of functions that previously needed to be handled by separate components. Further, mobile wireless devices that use the technologies protected by the Asserted Patents may benefit from reduced manufacturing costs due to the ability to leverage the established global CMOS manufacturing infrastructure, rather than needing to rely on the more specialized manufacturing processes required by the devices that utilized previously available technologies and techniques.

A. The '993 Patent

46. The '993 Patent teaches an integrated circuit transistor apparatus and method of manufacturing of same that provides improved linearity of MOSFET transistors on an RF integrated circuit.

B. The '898 Patent

47. The '898 Patent teaches a radio frequency switch apparatus and method of manufacturing of same that provides improved characteristics of the switch, thus relaxing requirements for signals input to the switch and improving signals output from the switch.

C. The '852 Patent

48. The '852 Patent is a continuation of the '898 Patent. Like the '898 Patent, the '852 Patent teaches a radio frequency switch apparatus and method of manufacturing of same.

D. The '969 Patent

49. The '969 Patent is a "grandchild" of the '898 Patent. Like the '898 Patent, the '852 Patent teaches a radio frequency switch apparatus and method of manufacturing of same.

E. The '499 Patent

50. The '499 Patent is a "grandchild" of the '898 Patent. Like the '898 Patent, the '499 Patent teaches a radio frequency switch apparatus and method of manufacturing of same.

IX. UNFAIR ACTS OF PROPOSED RESPONDENTS -- PATENT INFRINGEMENT

51. On information and belief each of the proposed Respondents is engaged in the importation, the sale for importation, or the sale within the United States after importation of certain RF switch devices that infringe various claims of each of the Asserted Patents, as described in detail below. The accused RF switch devices of the Respondents include devices with the following integrated circuit die markings: M1D1604 and M1D1293 (the "Accused Dies"). On information and belief, these Accused Dies are marketed and sold by RFMD under

the RF switch device names RF1603, RF1604 and RF1293, as well as variants thereof (the “Accused RF Switch Devices”). On information and belief, the Accused RF Switch Devices RF1603 (with markings F8 + serial no.) and RF1604 (with markings F9 + serial no.) each contain the Accused Die marked M1D1604, with different connections made from the Accused Die to the outside of the respective packages of the Accused RF Switch Devices RF1603 and RF1604. On information and belief, the Accused RF Switch Device RF1293 (with markings F1293 + serial no.) contains the Accused Die marked M1D1293.

A. The Importation of the Accused Die M1D1604 by RFMD

52. Peregrine has identified the Accused Die M1D1604 within Accused RF Switch Devices for sale by RFMD within the United States after importation. Peregrine has obtained samples of the Accused RF Switch Devices RF1603 and RF1604 originating from sales by RFMD within the United States, and Peregrine has confirmed that these Accused RF Switch Devices contain the Accused Die M1D1604. See Exhibits 12 and 13 respectively showing purchase orders of the Accused RF Switch Devices RF1603 and RF1604.

53. On information and belief, the Accused Die M1D1604 contained within the Accused RF Switch Devices is manufactured for RFMD in the United States, after which the dies are exported to South Korea in order to be packaged into the Accused RF Switch Devices. As shown in Exhibit 12, page 2, and Exhibit 13, page 2, RFMD lists South Korea as the country of origin of the Accused RF Switch Devices RF1603 and RF1604. Finally the Accused RF Switch Devices containing the Accused Dies are imported back into the United States for sale by RFMD. See Exhibits 12 and 13 showing actual sales within the United States by RFMD of the Accused RF Switch Devices originating in South Korea.

B. The Importation of the Accused Die M1D1293 by RFMD

54. Peregrine has identified the Accused Die M1D1293 within Accused RF Switch Devices for sale by RFMD within the United States after importation. Peregrine has obtained samples of the Accused RF Switch Devices RF1293 originating from sales by RFMD within the United States, and Peregrine has confirmed that these Accused RF Switch Devices contain the Accused Die M1D1293. *See* Exhibit 14 showing purchase order of the Accused RF Switch Device RF1293.

55. On information and belief, the Accused Die M1D1293 contained within the Accused RF Switch Devices is manufactured for RFMD in the United States, after which the dies are exported to China in order to be packaged into the Accused RF Switch Devices. As shown in Exhibit 14, page 2, China is listed as the country of origin of the Accused RF Switch Devices RF1293. Finally the Accused RF Switch Devices containing the Accused Dies are imported back into the United States for sale by RFMD. *See* Exhibit 14 showing actual sales within the United States by RFMD of the Accused RF Switch Devices originating in China.

C. The Importation of the Accused Die M1D1604 by Motorola Mobility

56. Peregrine has identified the Accused Die M1D1604 within Accused RF Switch Devices contained within cellular handsets imported by Motorola Mobility into the United States. Peregrine has obtained samples of the Accused RF Switch Devices RF1603 within Motorola Mobility's DROID RAZR handset (Model No. XT912) and Motorola Mobility's DROID BIONIC handset (Model No. XT875) (the "Accused Motorola Handsets"). *See* Exhibits 15 and 16 documenting purchase of the Accused Motorola Handsets DROID RAZR and DROID BIONIC, respectively, in the United States. The Accused Motorola Handsets DROID RAZR and DROID BIONIC each originate from China.

57. Peregrine has confirmed that these Accused Motorola Handsets contain the Accused RF Switch Devices RF1603, which further contain the Accused Die M1D1604. See Exhibits 17 and 18 showing the Accused Motorola Handsets DROID RAZR and DROID BIONIC each containing the Accused RF Switch Device RF1603, as well as images obtained of the Accused Dies M1D1604 contained therein. See also, Exhibit 19 showing a manufacturing data sheet published by RFMD for the Accused RF Switch Device RF1603, including chart identifying the markings “F8” on the switch device packages.

D. Infringements of the Asserted Patents by the Accused Dies M1D1604 and M1D1293

58. On information and belief, proposed Respondents are engaged in the importation, the sale for importation, and the sale within the United States after importation of the Accused RF Switch Devices. As described above, Peregrine has obtained samples of the Accused RF Switch Devices identified as RF1603 and RF1604. Peregrine has had these devices examined using industry-recognized integrated circuit de-processing techniques that expose the elements and attributes of the integrated circuit dies contained therein, namely the Accused Dies marked as M1D1604. As described further herein, the Accused Dies infringe each of the Asserted Claims when the Accused Dies are manufactured and they continue to infringe while being exported and re-imported into the United States. Summaries of the results of these examinations are set forth below and in claim charts attached as Confidential Exhibits 20, 22, 24, 26 and 28. (These summaries are provided as examples to demonstrate infringement by some Accused Devices only and they are not intended to contain comprehensive and completed proof of infringement.) As shown therein, the Accused Dies, and therefore the Accused RF Switch Devices that contain the Accused Dies, infringe the Asserted Claims of each of the Asserted Patents.

59. As detailed in the table below, the Accused Dies contained within the Accused RF Switch Devices infringe at least the above-referenced claims of the Asserted Patents. Detailed charts and photographs may be found in the corresponding Exhibits. Claim charts are provided Pursuant to Commission Rule 210.12(a)(9)(viii), and photographs of the Accused Dies are provided pursuant to Commission Rule 210.12(a)(9)(x).

Asserted Patent	Asserted Claims (Independent claims <u>underlined</u>)	Accused Dies	Confidential Claim Chart Exhibit
7,910,993	<u>14</u> , 15, 16, 23, 24, 25	M1D1604	20
7,123,898	<u>1</u> , 2, 3, 5, 6, 7, 15	M1D1604	22
7,460,852	<u>1</u> , 2, 3, 4, 7, 13, 14, <u>20</u> , 22, <u>24</u> , 25	M1D1604	24
7,796,969	<u>6</u> , 7, 8, <u>29</u> , 30	M1D1604	26
7,860,499	<u>1</u> , 3, <u>5</u> , 6	M1D1604	28

X. HARMONIZED TARIFF SCHEDULE INFORMATION

60. The articles subject to this Complaint are classifiable under at least the following Harmonized Tariff Schedule (“HTS”) classifications: 8542.39.00.00 and 8541.50.00.40. These identifications are for illustrative purposes only and are not intended to restrict the scope of the investigation.

XI. RELATED LITIGATION

61. Currently, there are no other U.S. or foreign proceedings, lawsuits, or investigations that involve the Asserted Patents.

XII. DOMESTIC INDUSTRY RELATING TO THE ASSERTED PATENTS

62. A domestic industry as defined by 19 U.S.C. § 1337(a)(3) exists with respect to Peregrine's activity in the United States that exploits the '898, '852, '969, '499 and '993 patents, and that relate to products that employ the patented technology by reasons of Peregrine's significant investment in plant and equipment, significant employment of labor and capital, and substantial exploitation of the '898, '852, '969, '499 and '993 patents through engineering and research and development.

63. Since its formation, Peregrine's operations have focused on the research, development, and manufacture of semiconductor radio frequency ("RF") switches and radio frequency integrated circuits ("RFICs"). The founders of Peregrine, nearly all of whom remain as principal executives of Peregrine, were pioneers in the design, development and high-volume manufacturing of CMOS-based, high-powered and highly linear RF switches for use in the cellular wireless infrastructure and mobile wireless industries. (*See* Chapman Declaration at ¶ 4.) Over the past 10 years, Peregrine has developed leading-edge RF switches that have revolutionized the wireless RF switch industry and that have enabled greater integration of components previously thought to be incompatible in a single integrated circuit. (*See* Chapman Declaration at ¶ 4.) These innovations include the CMOS silicon-on-insulator ("SOI") high-performance PE42660 and PE42672 RF switches, which were released in October 2005 and were the first commercially-available CMOS SOI high-power RF switches capable of achieving the strict requirements for low insertion loss and low intermodulation distortion ("IMD") required for present cellular mobile wireless RF circuit designs. (*See id.*) Peregrine-branded

CMOS SOI RF switches have enjoyed tremendous success in the wireless communications industry and have won numerous industry accolades and awards including The Product of the Month Award from RF Design Magazine for the above listed PE42660 and PE42672 products. Peregrine-branded CMOS SOI RF switches have become the RF switch of choice for many of the leading wireless handset manufacturers including Apple, LG, Nokia, Samsung and Sony Ericsson.

A. Technical Prong

64. Peregrine designs, develops, manufactures, supports manufacturing and sells RF switch devices in the United States that practice at least one claim of each of the Asserted Patents.

65. The '993 Patent: RF CMOS switches that are designed, developed, manufactured in part and marketed by Peregrine in the United States practice the '993 Patent. For example, Peregrine's PE42641 SP4T RF switch product embodies at least the technology of claim 14 of the '993 Patent. A claim chart demonstrating how Peregrine's PE42641 device practices claim 14 of the '993 Patent is attached hereto as Confidential Exhibit 30. Peregrine's PE42440 SP4T RF switch product also practices the '993 Patent, embodying the technology of at least claim 14 of the '993 Patent. A claim chart demonstrating how Peregrine's PE42440 device practices claim 14 of the '993 Patent is attached hereto as Confidential Exhibit 30.

66. The '898 Patent: RF CMOS switches that are designed, developed, manufactured in part and marketed by Peregrine in the United States practice the '898 Patent. For example, Peregrine's PE42641 SP4T RF switch product embodies at least the technology of claim 1 of the '898 Patent. A claim chart demonstrating how Peregrine's PE42641 device practices claim 1 of the '898 Patent is attached hereto as Confidential Exhibit 31. Peregrine's PE42440 SP4T RF switch product also practices the '898 Patent, embodying at least the

technology of claim 1 of the '898 Patent. A claim chart demonstrating how Peregrine's PE42440 device practices claim 1 of the '898 Patent is attached hereto as Confidential Exhibit 31.

67. The '852 Patent: RF CMOS switches that are designed, developed, manufactured in part and marketed by Peregrine in the United States practice the '852 Patent. For example, Peregrine's PE42641 SP4T RF switch product embodies at least the technology of claim 1 of the '852 Patent. A claim chart demonstrating how Peregrine's PE42641 device practices claim 1 of the '852 Patent is attached hereto as Confidential Exhibit 32. Peregrine's PE42440 SP4T RF switch product also practices the '852 Patent, embodying at least the technology of claim 1 of the '852 Patent. A claim chart demonstrating how Peregrine's PE42440 device practices claim 1 of the '852 Patent is attached hereto as Confidential Exhibit 32.

68. The '969 Patent: RF CMOS switches that are designed, developed, manufactured in part and marketed by Peregrine in the United States practice the '969 Patent. For example, Peregrine's PE42641 SP4T RF switch product embodies at least the technology of claim 29 of the '969 Patent. A claim chart demonstrating how Peregrine's PE42641 device practices claim 29 of the '969 Patent is attached hereto as Confidential Exhibit 33. Peregrine's PE42440 SP4T RF switch product also practices the '969 Patent, embodying at least the technology of claim 29 of the '969 Patent. A claim chart demonstrating how Peregrine's PE42440 device practices claim 29 of the '969 Patent is attached hereto as Confidential Exhibit 33.

69. The '499 Patent: RF CMOS switches that are designed, developed, manufactured in part and marketed by Peregrine in the United States practice the '499 Patent. For example, Peregrine's PE42641 SP4T RF switch product embodies at the technology of least claim 1 of the '499 Patent. A claim chart demonstrating how Peregrine's PE42641 device

practices claim 1 of the '499 Patent is attached hereto as Confidential Exhibit 34. Peregrine's PE42440 SP4T RF switch product also practices the '499 Patent, embodying at least the technology of claim 1 of the '499 Patent. A claim chart demonstrating how Peregrine's PE42440 device practices claim 1 of the '499 Patent is attached hereto as Confidential Exhibit 34.

70. Pursuant to Commission Rule 210.12(a)(9)(ix), the below table identifies an exemplary claim for each of the Asserted Patents, the Peregrine product and/or integrated circuit design that practices the exemplary claim, and a claim chart demonstrating how the exemplary claim applies to Peregrine's product and/or integrated circuit design. Claim charts are provided Pursuant to Commission Rule 210.12(a)(9)(ix), and photographs are provided pursuant to Commission Rule 210.12(a)(9)(x).

Asserted Patent	Exemplary Claims	Peregrine Product or Integrated Circuit Design	Claim Chart of Domestic Industry Product Exhibit
7,910,993	14	PE42641, PE42440	30
7,123,898	1	PE42641, PE42440	31
7,460,852	1	PE42641, PE42440	32

Asserted Patent	Exemplary Claims	Peregrine Product or Integrated Circuit Design	Claim Chart of Domestic Industry Product Exhibit
7,796,969	29	PE42641, PE42440	33
7,860,499	1	PE42641, PE42440	34

B. Economic Prong

71. With respect to the Asserted Patents, a domestic industry in the United States exists, as defined under Section 337(a)(3)(B) by virtue of Peregrine's (1) significant investments in plant and equipment, (2) significant investment in labor and capital, and (3) substantial investments in engineering and research and development. Peregrine's activities in the United States are devoted to developing, manufacturing, and testing of RF switching devices that employ and exploit the technology covered by one or more of the claims of each of the '898, '852, '969, '499 and '993 patents, such as the PE42440 and PE42641 products. The Chapman Declaration describes the allocation of Peregrine's investments in and revenues from the sales of the company's RF switching products. (*See* Chapman Decl. at ¶¶ 8, 9.)

1. Significant Investment in Facilities, Plants, Equipment

72. With respect to the Asserted Patents, a domestic industry in the United States exists as defined under Section 337(a)(3) by virtue of Peregrine's significant investments in plants and equipment, significant employment of labor and capital, and substantial resources

devoted to developing, manufacturing, and testing of RF switching products that employ and exploit the technology covered by one or more of the claims of each of the '898, '852, '969, '499 and '993 patents.

73. Peregrine has operated in the United States primarily from facilities located in San Diego, California; Arlington Heights, Illinois; and Nashua, New Hampshire. These facilities have been used for the research and development, engineering, and manufacturing in part of RF switching products that exploit the technology protected by the '898, '852, '969, '499 and '993 patents. The Chapman Decl. at ¶ 11 sets forth further details regarding these facilities.

74. Peregrine has made significant and substantial investments in its facilities in San Diego, California; Arlington Heights, Illinois; and Nashua, New Hampshire that directly relates to the research, development, engineering, and manufacture of RF switching products that exploit the technology protected by the '898, '852, '969, '499 and '993 patents. The Chapman Decl. at ¶¶ 6, 8 and 11 sets forth further details regarding these investments.

2. Significant Employment of Labor

75. With respect to the Asserted Patents, a domestic industry in the United States exists as defined in Section 337(a)(3)(B) based upon Peregrine's significant employment of labor and capital in the United States. Peregrine's personnel expenses were significant in 2011 and are expected to be equally significant through the remainder of 2012. The Chapman Decl. at ¶¶ 12, 13, and 14 sets forth further details regarding Peregrine's personnel expenses.

76. Peregrine currently employs in the United States a significant number of people involved in the domestic development and production of RF switching products that exploit the technology protected by the '898, '852, '969, '499 and '993 patents. These employees include full-time equivalent (FTE) personnel dedicated to the manufacture of the

patented products, as well as engineers and engineering technicians either partially or fully dedicated to researching and developing RF switching products that exploit the technology protected by the '898, '852, '969, '499 and '993 patents. The Chapman Decl. at ¶¶ 12, 13, and 14 sets forth further details regarding these employees.

3. Substantial Investment in Exploiting of the Asserted Patents Through Engineering as well as Research and Development

77. With respect to the Asserted Patents, a domestic industry in the United States exists as defined under Section 337(a)(3)(C). Peregrine has made, and will continue to make, substantial investments in the United States in engineering and research and development related to existing and future RF switching products that exploit the technology protected by the '898, '852, '969, '499 and '993 patents. The Chapman Decl. at ¶¶ 6 through 16 sets forth further details regarding these expenditures.

XIII. GENERAL EXCLUSION ORDER

78. A general exclusion order is warranted under Section 337(d)(2)(B) because there is a pattern of violation of Section 337, and it is difficult to identify the sources of infringing products. A general exclusion order is also warranted under Section 337(d)(2)(A) because a general exclusion order is necessary to prevent circumvention of an exclusion order limited to products of named Respondents.

XIV. RELIEF

WHEREFORE, by reason of the foregoing, Peregrine respectfully requests that the United States International Trade Commission:

(A) Institute an investigation pursuant to Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, with respect to the Proposed Respondents' violations of Section 337 based on the importation into the United States, the sale for

importation into the United States, and the sale within the United States after importation of the certain RF integrated circuits that infringe the Asserted Patents;

(B) Schedule and conduct a hearing on the unlawful acts described herein pursuant to 19 U.S.C. § 1337(d) and (f) of the Tariff Act of 1930, as amended;

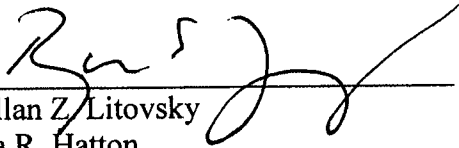
(C) Issue a permanent general exclusion pursuant to 19 U.S.C. § 1337(d)(2), excluding from entry into the United States all RF integrated circuits, RF switch devices and all devices containing the same that infringe the Asserted Patents;

(D) In the alternative, issue a permanent limited exclusion order pursuant to 19 U.S.C. § 1337(d)(1), excluding from entry into the United States the Accused Dies, the Accused RF Switch Devices, and the Accused Motorola Handsets;

(E) Issue permanent cease and desist orders pursuant to 19 U.S.C. § 1337(f), directing the Proposed Respondents to cease and desist from importing, selling for importation, and selling or otherwise commercially using after importation into the United States the Accused Dies, the Accused RF Switch Devices, and the Accused Motorola Handsets; and

(F) Grant such further relief as the Commission deems just and proper based on the facts determined in the investigation under the authority of the Commission.

Respectfully submitted,


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