

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT4731280

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
PIERO ANGELETTI	11/15/2017
FRANCESC COROMINA	11/15/2017
PIERO GABELLINI	10/26/2017
NICOLA GATTI	10/26/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	EUROPEAN SPACE AGENCY (ESA)
<b>Street Address:</b>	8-10 RUE MARIO NIKIS
<b>City:</b>	PARIS CEDEX 15
<b>State/Country:</b>	FRANCE
<b>Postal Code:</b>	75738
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15559064
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Email:</b>	uspractice@nlo.eu
<b>Correspondent Name:</b>	NLO
<b>Address Line 1:</b>	ANNA VAN BUERENPLEIN 21A
<b>Address Line 2:</b>	NEW BABYLON CITY OFFICES
<b>Address Line 4:</b>	THE HAGUE, NETHERLANDS 2595 DA
<b>ATTORNEY DOCKET NUMBER:</b>	P6053516PCT/US
<b>NAME OF SUBMITTER:</b>	CATHERINE A. SHULTZ
<b>SIGNATURE:</b>	/Catherine A. Shultz/
<b>DATE SIGNED:</b>	12/13/2017
<b>Total Attachments: 7</b>	
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File No: P6053516PCT/US

ASSIGNMENT BETWEEN:

ANGELETTI, Piero

COROMINA, Francesc

GABELLINI, Piero

GATTI, Nicola

("the Assignor(s)")

and:

European Space Agency (ESA)  
8-10 rue Mario Nikis  
75738 Paris Cedex 15  
France

("the Assignee(s)")

WHEREAS:-

(A) The Assignor(s) is/are the inventor(s) of the Invention(s) known as "**Reconfigurable RF front end circuit for a multi-beam array fed reflector antenna system**" for which patent protection has been applied for in the form of the patent application(s) listed in the schedule below.

(B) The Assignor(s) has/have agreed to assign to the Assignee(s), its successors and assigns, all right, title and interest in the Invention(s) and in any and all applications filed thereon, throughout the world and in particular in the United States of America (as defined in 35 U.S.C. § 100) and any territories indicated in the schedule below, including the right to apply for the grant of patents together with the right to apply for the grant of any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) arising from the Invention(s) and improvements and modifications thereof, the right to claim convention priority, the right to be granted patents along with extensions and renewals thereof and the right to enforce any patent(s) granted for the Invention(s) to the full end of the term(s) for which such patent(s) issue, including all claims, if any, that may have arisen for infringement prior to the date of this assignment, such entire right, title and interest to be held and enjoyed by the Assignee to the same extent as they would have been held and enjoyed by the Assignor(s) had this assignment and sale not been made.

(C) The Assignor has further agreed to assign any copyright, design right, know how, or other intellectual properties associated with the Invention(s) to the Assignee(s).

**NOW THEREFORE**, in consideration of the good and valuable sum of EURO 1.00 and other good and valuable consideration paid by the Assignee(s) to the Assignor(s), the receipt of which is hereby acknowledged, the Assignor(s) hereby assigns/assign to the Assignee(s) all of the rights set out under (B) and (C) above.

The Assignor(s) agrees/agree to promptly take any action, including the execution of any papers and the provision of any evidence, required by the Assignee(s) or its/their agent(s) to further the grant of any patent application(s) associated with the Invention(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, re-examination or corresponding application(s) filed therefrom, and the subsequent maintenance and enforcement of any patent(s) granted on such application(s), to execute separate

- 1 -

Initials Assignor(s) P.A., F.C., P.G., D.G.

Initial Assignees(s) ESA, ESA

**File No: P6053516PCT/US**

assignment(s) in connection with such application(s) as the Assignee(s) may deem necessary or expedient, and to communicate to Assignee(s), its successors and assigns, or their representative or agents, all facts and information known or available to Assignor(s) respecting the Invention, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings, whenever requested by Assignee(s).

The Assignor(s) agrees/agree to execute all papers necessary in connection with any interference proceedings that may be declared in the United States of America concerning any patent application(s), patent(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or re-examination application associated therewith, and to cooperate with the Assignee(s) in every way possible in obtaining evidence and going forward with such interference.

The Assignor(s) agrees/agree to promptly take any action, including the execution of any papers, required by the Assignee(s) or its/their agent(s) in order to record this assignment document in any national/regional/international intellectual property register throughout the world.

The Assignor(s) hereby represents/represent that he/she/they has/have the full right to convey the entire right, title and interest herein assigned, and that the undersigned has not executed, and will not execute, any agreement in conflict therewith.

It is hereby agreed that the terms of this assignment shall be interpreted under the laws of **The Netherlands** and disputes arising under this agreement shall be adjudicated before the courts in **The Hague**

The undersigned hereby grants to the patent attorneys and lawyers of Nederlandsch Octrooibureau power to insert in this Assignment any further identification that may be necessary or desirable in order to comply with the rules for recordation of this document.

**SCHEDULE**

Country	Application No.	Filing Date
PCT	PCT/EP2015/055807	19 March 2015
United States of America	15/559,064	18 September 2017

Initials Assignor(s) PA, FC, PG, NG

Initial Assignees(s) ESA

File No: P6053516PCT/US

IN WITNESS WHEREOF, executed by the undersigned on the date(s) opposite their name(s).

SIGNATURE OF INVENTOR/ASSIGNOR:  
(dd.mm.yyyy)



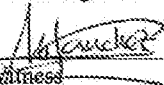
Date: 15/11/2017

ANGELETTI, Piero

STATEMENT OF FIRST WITNESS:

Signed at Dordrecht (city) The Netherlands (country)  
on 15 (day) Nov (month) 2017 (year)

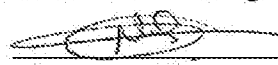
I, Mercedes Sanchez Alvarez whose full residence address is  
van Boerestroom 172-2, 1021 BH Amsterdam was  
personally present and did see the person named above, Piero Angeletti,  
execute the above assignment on 15 (day) Nov (month) 2017 (year), and  
such assignor is personally known to me to be the person described in this assignment.

  
Signature of Witness

STATEMENT OF SECOND WITNESS:

Signed at Dordrecht (city) The Netherlands (country)  
on 15 (day) November (month) 2017 (year)

I, Wim Hendrick Aljouw whose full residence address is  
Department 12 Liden, was  
personally present and did see the person named above, Piero Angeletti,  
execute the above assignment on 15 (day) Nov (month) 2017 (year), and  
such assignor is personally known to me to be the person described in this assignment.

  
Signature of Witness

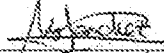
File No: P6053516PCT/US

SIGNATURE OF ASSIGNOR:  Date: 15-11-2017 (dd.mm.yyyy)  
COROMINA, Francese

STATEMENT OF FIRST WITNESS:

Signed at Noordwijk (city) The Netherlands (country)  
on 15 (day) Nov (month) 2017 (year)


I, Mercedes Sanchez Alvarez whose full residence address is  
van Paerlestraat 172-2, Amsterdam was  
personally present and did see the person named above, Francese Coromina,  
execute the above assignment on 15 (day) Nov (month) 2017 (year), and  
such assignor is personally known to me to be the person described in this assignment.

  
Signature of Witness

STATEMENT OF SECOND WITNESS:

Signed at Noordwijk (city) the Netherlands (country)  
on 15 (day) Nov (month) 2017 (year)

I, Dea H. H. H. H. whose full residence address is  
Christaart 12, Leiden was  
personally present and did see the person named above, Francese Coromina,  
execute the above assignment on 15 (day) Nov (month) 2017 (year), and  
such assignor is personally known to me to be the person described in this assignment.

  
Signature of Witness



Piero Gabellini  
2017.10.26  
18:27:49 +0200'

SIGNATURE OF ASSIGNOR: \_\_\_\_\_

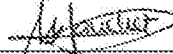
Date: 26 - 10 2017 (dd.mm.yyyy)

**GABELLINI, Piero**

**STATEMENT OF FIRST WITNESS:**

Signed at Amsterdam (city) The Netherlands (country)  
on 26 (day) October (month) 2017 (year)

I, Mercedes Sanchez Alvarez whose full residence address is  
Van Baerlestraat 172-2, Amsterdam was  
personally present and did see the person named above, Piero Gabellini,  
execute the above assignment on 26 (day) Oct (month) 2017 (year), and  
such assignor is personally known to me to be the person described in this assignment.

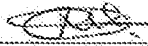


\_\_\_\_\_  
Signature of Witness

**STATEMENT OF SECOND WITNESS:**


Signed at Amsterdam (city) The Netherlands (country)  
on 26 (day) October (month) 2017 (year)

I, Nora Hernandez whose full residence address is  
Oliverstraat 12, Leiden was  
personally present and did see the person named above, Piero Gabellini,  
execute the above assignment on 26 (day) Oct (month) 2017 (year), and  
such assignor is personally known to me to be the person described in this assignment.



\_\_\_\_\_  
Signature of Witness

File No: P6053516PCT/US

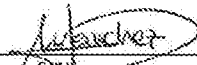
SIGNATURE OF ASSIGNOR:  Nicola Gatti  
2017.10.26  
18:36:55 +02'00' Date: \_\_\_\_\_ (dd.mm.yyyy)

GATTL, Nicola

STATEMENT OF FIRST WITNESS:

Signed at Nordwijk (city) The Netherlands (country)  
on 26 (day) Oct (month) 2017 (year)


I, Mercedes Sanchez Alvarez whose full residence address is  
Van Boerlestraat 172-2, Amsterdam was  
personally present and did see the person named above, Nicola Gatti,  
execute the above assignment on 26 (day) Oct (month) 2017 (year), and  
such assignor is personally known to me to be the person described in this assignment.

  
\_\_\_\_\_  
Signature of Witness

STATEMENT OF SECOND WITNESS:

Signed at Nordwijk (city) The Netherlands (country)  
on 26 (day) Oct (month) 2017 (year)

I, Dina Arendse whose full residence address is  
Chamberlant 12, Leiden was  
personally present and did see the person named above, Nicola Gatti,  
execute the above assignment on 26 (day) Oct (month) 2017 (year), and  
such assignor is personally known to me to be the person described in this assignment.

  
\_\_\_\_\_  
Signature of Witness



File No: P6053516PCT/US

Franco Ongaro  
Director of Technology, Engineering and Quality  
Head of ESA/ESTEC Establishment

SIGNATURE OF ASSIGNEE: \_\_\_\_\_

Date: 15/11/17 (dd.mm.yyyy)

European Space Agency (ESA)

STATEMENT OF FIRST WITNESS:

Signed at Nordwijk (city) The Netherlands (country)

on 15 (day) Nov (month) 2017 (year)

I, Mercedes Sanchez Alvarez whose full residence address is  
van Boreleststraat 172-2, Amsterdam was  
personally present and did see the person named above, Franco Ongaro,  
execute the above assignment on 15 (day) Nov (month) 2017 (year), and  
such assignor is personally known to me to be the person described in this assignment.

\_\_\_\_\_  
Signature of Witness

STATEMENT OF SECOND WITNESS:

Signed at Roosendaal (city) The Netherlands (country)

on 15 (day) Nov (month) 2017 (year)

I, Rosa Hendriks whose full residence address is  
Cherchez 12, Louvain-la-Neuve was  
personally present and did see the person named above, Franco Ongaro,  
execute the above assignment on 15 (day) Nov (month) 2017 (year), and  
such assignor is personally known to me to be the person described in this assignment.

\_\_\_\_\_  
Signature of Witness