504164860 01/05/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4211537

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
GHISLAIN TURGEON	12/16/2016
VIJAYA GALLAGHER	12/28/2016
LEAH WANG	12/15/2016

RECEIVING PARTY DATA

Name:	SPACE SYSTEMS/LORAL, LLC	
Street Address:	3825 FABIAN WAY	
City:	PALO ALTO	
State/Country:	CALIFORNIA	
Postal Code:	94303	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15394512

CORRESPONDENCE DATA

Fax Number: (415)489-4150

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.

Phone: 415-489-4100

Email: hkim@vierramagen.com
Correspondent Name: JEFFREY R. KURIN

Address Line 1: 575 MARKET STREET, SUITE 3750
Address Line 4: SAN FRANCISCO, CALIFORNIA 94105

ATTORNEY DOCKET NUMBER: SSLL-01025US1	
NAME OF SUBMITTER:	JEFFREY R. KURIN
SIGNATURE:	/Jeffrey R. Kurin/
DATE SIGNED:	01/05/2017

Total Attachments: 4

source=1025us1-assignment-signed#page1.tif source=1025us1-assignment-signed#page2.tif source=1025us1-assignment-signed#page3.tif source=1025us1-assignment-signed#page4.tif

PATENT 504164860 REEL: 040860 FRAME: 0191

JOINT TO CORPORATE ASSIGNMENT

•	9		
(1) Ghislain Turgeo	n_, a resident of	San Jose, California	<u>.</u>
(2) Vijaya Gallagher	r_, a resident of	Palo Alto, California	; and
(3) <u>Leah Wang</u>	, a resident of	Fremont, California	

have invented certain new and useful improvements in:

WHEREAS, the undersigned Inventors:

HIGH THROUGHPUT SATELLITE SYSTEM WITH OPTICAL FEEDER UPLINK BEAMS AND RF SERVICE DOWNLINK BEAMS

and have executed a declaration for an application for a United States Patent disclosing and identifying the invention, the declaration being executed on 12/16/2016, 12/28/2016, 12/15/216.

WHEREAS **Space Systems/Loral, LLC** (hereinafter termed "Assignee"), a corporation of the State of Delaware, having a place of business at 3825 Fabian Way, Palo Alto, California, 94303, wishes to acquire the entire right, title and interest in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered jointly or severally by said Inventors (all collectively hereinafter termed "said invention"), and in and to any and all patents, certificates of invention and other forms of protection thereon (hereinafter termed "patents") applied for or granted in the United States and/or other countries.

NOW THEREFORE, for good and valuable consideration acknowledged by each of said Inventors to have been received in full from said Assignee:

1. Said Inventors do hereby sell, assign, transfer and convey to said Assignee, the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply in any or all countries of the world for patents, certificates of inventions or other governmental grants on said invention, including the right to apply for patents pursuant to the International Convention for the Protection of Industrial Property or pursuant to any other convention, treaty, agreement or understanding; (c) in and to any and all applications filed and any and all patents, certificates of inventions or other governmental grants granted on said invention in the United States or any other country, including each and every application filed and each and every patent granted on any application which is a division, substitution, or continuation of any of said applications; (d) in and to each and every reissue or extension of any of said patents; and (e) in and to each and every patent claim resulting from a reexamination certificate for any and all of said patents.

Page 1 of 2

Attorney Docket No.: SSLL-01025US1 ssll\1025us1\1025us1-assignment

- 2. Said Inventors hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and other countries. Such cooperation by said Inventors shall include prompt production of pertinent facts and documents, giving of testimony, executing of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for complying with any duty of disclosure; (c) for prosecuting any of said applications; (d) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (e) for filing and prosecuting applications for reissue of any of said patents; (f) for interference or other priority proceedings involving said invention; and (g) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, reexamination proceedings, compulsory licensing proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignee.
- 3. The terms and covenants of this Assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, their respective heirs, legal representatives and assigns.
- 4. Said Inventors hereby jointly and severally warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

/2/16/2016 Date	(1) Ghislain Turgeon
Date	(2)Vijaya Gallagher
Date	(3)Leah Wang

Page 2 of 2

Attorney Docket No.: SSLL-01025US1 ssll\1025us1\1025us1-assignment

- 2. Said Inventors hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and other countries. Such cooperation by said Inventors shall include prompt production of pertinent facts and documents, giving of testimony, executing of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for complying with any duty of disclosure; (c) for prosecuting any of said applications; (d) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (e) for filing and prosecuting applications for reissue of any of said patents; (f) for interference or other priority proceedings involving said invention; and (g) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, reexamination proceedings, compulsory licensing proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignee.
- 3. The terms and covenants of this Assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, their respective heirs, legal representatives and assigns.
- 4. Said Inventors hereby jointly and severally warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

	(1)
Date	Ghislain Turgeon
12/28/2016 Date	(2) Vijaya Gallagher
Date	v ijaya Canagnei
	(3)
Date	Leah Wang

- 2. Said Inventors hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and other countries. Such cooperation by said Inventors shall include prompt production of pertinent facts and documents, giving of testimony, executing of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for complying with any duty of disclosure; (c) for prosecuting any of said applications; (d) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (e) for filing and prosecuting applications for reisease of any of said patents; (f) for interference or other priority proceedings involving said invention, and (g) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation opposition proceedings, compulsory incensing proceedings, infringement actions and court actions; provided, however, that the expense meanred by said Inventors in providing such cooperation shall be paid for by said Assignee.
- 3. The terms and covenants of this Assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, their respective heirs, legal representatives and assigns.
- Said Inventors hereby jointly and severally warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

Date	Ghislain Turgeon	
Date	Vijaya Gallagher	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
12/15/	o Lehto	and the second
Date	Leah Wang	

Page 2 of 2

Attemey Docket Mc.: SSLL-61025US) svii:1025us1/1025us1-assignment

RECORDED: 01/05/2017