

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Hughes Electronics Corporation	10/06/2000
RECEIVING PARTY DATA	
Name:	The Boeing Company
Street Address:	100 North Riverside Plaza
City:	Chicago
State/Country:	ILLINOIS
Postal Code:	60606-1596
PROPERTY NUMBERS Total: 2	
Property Type	Number
Patent Number:	5721503
Patent Number:	5889487
CORRESPONDENCE DATA	
Fax Number:	(949)790-1211
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
Phone:	(949) 790-1361
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Correspondent Name:	Terje Gudmestad
Address Line 1:	15460 Laguna Canyon Road
Address Line 4:	Irvine, CALIFORNIA 92618
ATTORNEY DOCKET NUMBER:	092635/092635A
NAME OF SUBMITTER:	Terje Gudmestad
Total Attachments: 5 source=5721503.092635.5889487.092635A#page1.tif source=5721503.092635.5889487.092635A#page2.tif source=5721503.092635.5889487.092635A#page3.tif	

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PATENT

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Docket No: 092635/092635A

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

HUGHES ELECTRONICS CORPORATION

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Other _____

Execution Date: October 6, 2000

2. Name and address of receiving party(ies)

Name: **THE BOEING COMPANY**

Internal Address: **100 North Riverside Plaza
Chicago, IL 60606-1596**

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s): 092635/092635A

If this document is being filed together with a new application, the execution date of the application is: _____

A. Patent Application No.(s) :
08/329,565
08/841,833

B. Patent No.(s):
5,721,503
5,889,487

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: **Terje Gudmestad**
Internal Address: **Boeing Management Company
15460 Laguna Canyon Road
Irvine, CA 92618**

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41).....\$80.00

- ☐ Enclosed
☒ Authorized to be charged to deposit account

8. Deposit account number:

18-1730

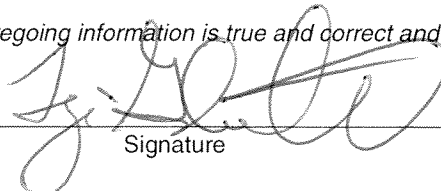
(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Terje Gudmestad, Registration No. 32,232
Name of Person Signing


Signature

9/7/06
Date

Total number of pages including cover sheet, attachments, and documents: 5

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignments
Washington, D.C. 20231

**CONFIRMATION OF ASSIGNMENT OF PATENT AND TRADEMARK
RIGHTS WITH AUTHORIZATION AND APPOINTMENT BY ASSIGNOR**

WHEREAS, HUGHES ELECTRONICS CORPORATION, a corporation of the State of Delaware, United States of America ("**Assignor**"), having a principal place of business at 200 North Sepulveda, El Segundo, California 90245, is assigning or has assigned all of its rights, title and interests in the United States and throughout the world, in and to the invention disclosures, patent applications and patents listed on Schedule A (the "**Patents**"), to the Intellectual Property Agreement dated as of the date hereof between Hughes Electronics Corporation, Hughes Space and Communications Company and The Boeing Company (the "**Intellectual Property Agreement**") to THE BOEING COMPANY ("**Assignee**"); and

WHEREAS, **Assignor** is assigning or has assigned all of its rights, title and interests in the United States and throughout the world, in and to the trademarks listed on Schedule B and tradenames listed on Schedule C ("**the Trademarks**"), to the Intellectual Property Agreement to **Assignee**; and

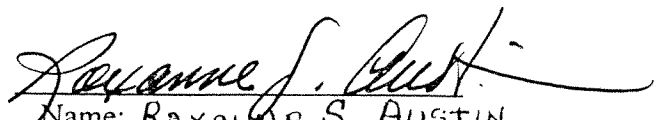
WHEREAS, it was contemplated, at the time of assignment and stated in the Purchase Agreement, that the execution and delivery of papers would be necessary for **Assignee**, its successors, assigns or representatives to perfect, affirm, record and maintain the title to the Patents and the Trademarks in **Assignee**, its successors, assigns or other legal representatives; and

WHEREAS, **Assignor** had agreed to generally cooperate to the fullest extent in all matters pertaining to the Patents and the Trademarks, and to do all lawful acts, including the execution and delivery of all papers and proper oaths that are deemed necessary or desirable by **Assignee**, its successors, assigns or representatives for accomplishing the foregoing;

NOW THEREFORE, **Assignor** hereby confirms the foregoing assignment and authorizes and appoints **Assignee** and grants **Assignee** full power of attorney to execute all necessary papers and oaths on **Assignor's** behalf and in **Assignor's** name that are necessary for **Assignee**, its successors, assigns or representatives to perfect, affirm, record and maintain the title in **Assignee**, its successors, assigns or other legal representatives to any and all of the Patents and the Trademarks in the United States and throughout the world.

ASSIGNOR:

BY:



Name: ROXANNE S. AUSTIN

Title: Sr. V.P. & CFO

STATE OF CALIFORNIA
COUNTY OF LOS ANGELES

ON September 5, 2000 before me, ELAINE M. MCGEE, a Notary Public in
and for said State, personally appeared Brent Reed

☐ personally known to me or ☒ proved to me on the basis of satisfactory evidence to be
the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged
to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that
by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of
which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Notary Public Elaine M. McGee

AGREED TO AND ACCEPTED BY:

ASSIGNEE:

BY:

Name:

Title:



Confirmation of Assignment of Patent and Trademark Rights

SCHEDULE A
PATENTS

PATENT_NO	ISSUE_DATE	PD_NO	TITLE
5,614,877	03/25/97	093350A	BICONICAL MULTIMODE RESONATOR
5,616,185	04/01/97	L94002	SOLAR CELL WITH INTEGRATED BYPASS DIODE AND METHOD
5,617,108	04/01/97	091063A	SIMPLIFIED TRACKING ANTENNA
5,620,529	04/15/97	095227	LOW DISTURBANCE SOLAR ARRAY
5,626,280	05/06/97	094139	INFRARED TRANSPARENT SOLDERING TOOL AND INFRARED SOLDERING METHOD
5,626,314	05/06/97	095204	PASSIVE INTERMODULATION SHIELD
5,640,082	06/17/97	093428	DUTY CYCLE CONTROLLED SWITCH VARIABLE CAPACITOR CIRCUIT
5,644,243	07/01/97	093277NT	DETECTOR POWER LINEARITY REQUIREMENTS AND VERIFICATION TECHNIQUES FOR TM DIRECT DETECTION RECEIVERS
5,650,240	07/22/97	093483	MULTICELL BATTERY SYSTEM WITH INDIVIDUALLY CONTROLLABLE CELL BYPASSES
5,650,760	07/22/97	095242	MICROWAVE ENCLOSURE
5,652,696	07/29/97	094253	MECHANICALLY CAPTIVATED INTEGRATED CIRCUIT CHIP
5,654,549	08/05/97	094042A	SATELLITE FOCAL PLANE ARRAY IMAGER
5,658,181	08/19/97	094512	DIE AND METHOD FOR APPLYING RADIAL FORCES TO AN ECCENTRIC WORKPIECE
5,659,463	08/19/97	095408	HIGH-EFFICIENCY SUMMING POWER CONVERTER AND METHOD THEREFOR
5,661,733	08/26/97	095023	AUTOMATED TEST INSERTION
5,665,274	09/09/97	094299	ELECTRICALLY CONDUCTIVE BLACK SILICONE PAINT HAVING SPACECRAFT APPLICATIONS
5,667,171	09/16/97	094013	SATELLITE SPIN AXIS STABILIZATION USING A SINGLE DEGREE OF FREEDOM TRANSVERSE MOMENTUM STORAGE DEVICE
5,668,842	09/16/97	094324	HIGH-SPEED DIGITAL-TO-RF CONVERTER
5,673,006	09/30/97	095404	SEAMLESS SWITCH-OVER FREQUENCY SYNTHESIZER
5,673,056	09/30/97	091355A	IDENTICAL SURFACE SHAPED REFLECTORS IN SEMI-TANDEM ARRANGEMENT
5,681,012	10/28/97	092587	SPACECRAFT CONTROL WITH SKEWED CONTROL MOMENT GYROS
5,688,450	11/18/97	093332	METHOD OF MAKING AN ELECTRONIC PACKAGE STRUCTURE UTILIZING ALUMINUM NITRIDE/ALUMINUM COMPOSITE MATERIAL
5,691,627	11/25/97	095373	PUSH-PULL FULL SHUNT SWITCHING BUS VOLTAGE LIMITER WITH CURRENT SENSE CAPABILITY
5,692,707	12/02/97	094024	UNIVERSAL SPACECRAFT ATTITUDE STEERING CONTROL SYSTEM
5,695,888	12/09/97	094474	PRESSUREIZED-GAS ENERGY STORAGE CELL WITH INSULATED CATALYTIC SURFACES
5,699,029	12/16/97	095441	SIMULTANEOUS COUPLING BANDPASS FILTER AND METHOD
5,703,531	12/30/97	094127A	PREDISTORTION LINEARIZER AND METHOD EMPLOYING UNIPLANAR MAGIC T HYBRIDS
5,708,336	01/13/98	095359	THERMAL CONTROL SYSTEM FOR A MOTOR
5,716,029	02/10/98	095158	CONSTANT SUN ANGLE TRANSFER ORBIT SEQUENCE AND METHOD USING ELECTRIC PROPULSION
5,716,459	02/10/98	L95001	MONOLITHICALLY INTEGRATED SOLAR CELL MICROARRAY AND FABRICATION METHOD
5,717,576	02/10/98	095331	DEVICE AND METHOD FOR PROTECTING ELECTRONIC UNITS IN A SATELLITE FROM ELECTRICAL DISTURBANCE
5,717,702	02/10/98	94010A	SCAN TESTING DIGITAL LOGIC WITH DIFFERING FREQUENCIES OF SYSTEM CLOCK AND TEST CLOCK
5,720,824	02/24/98	095440	PROPULSION CLEANING SYSTEM
5,721,503	02/24/98	092635	FLASH ANALOG-TO-DIGITAL CONVERTER WITH LATCHING EXCLUSIVE OR GATES
5,722,709	03/03/98	093507	SEPARATION DEVICE USING A SHAPE MEMORY ALLOY RETAINER
5,724,010	03/03/98	095019	WIDEBAND "Y" JUNCTION ISOLATOR/CIRCULATOR AT V-BAND
5,731,726	03/24/98	93326A	CONTROLLABLE PRECISION ON-CHIP DELAY ELEMENT
5,731,750	03/24/98	094056	SPHERICAL CAVITY MODE TRANSCENDENTAL CONTROL METHODS AND SYSTEMS
5,731,777	03/24/98	095325	RADIO- FREQUENCY ABSORBING FIN BLANKET
5,731,993	03/24/98	095338	NONLINEAR AMPLIFIER OPERATING POINT DETERMINATION SYSTEM AND METHOD
5,732,765	03/31/98	095312	ADJUSTABLE HEAT REJECTION SYSTEM
5,734,278	03/31/98	095117	LOW-POWER, HIGH-RELIABILITY SWITCHING ROTARY PHASE SHIFTER DEVICE
5,735,489	04/07/98	095310	HEAT TRANSPORT SYSTEM FOR SPACECRAFT INTEGRATION
5,738,309	04/14/98	095074	SINGLE AXIS CORRECTION FOR ORBIT INCLINATION
5,743,325	04/28/98	095318A	FLEXIBLE HEAT TRANSPORT DESIGN FOR DEPLOYABLE RADIATOR APPLICATIONS
5,748,057	05/05/98	094366	PHOTONIC BANDGAP CRYSTAL FREQUENCY MULTIPLEXERS AND A PULSE BLANKING FILTER FOR USE THEREWITH

SCHEDULE A

PATENTS

PATENT_NO	ISSUE_DATE	PD_NO	TITLE
5,818,309	10/06/98	096112	MICROWAVE ACTIVE NOTCH FILTER AND OPERATING METHOD WITH PHOTONIC BANDGAP CRYSTAL FEEDBACK LOOP
5,818,314	10/06/98	960381	TUNABLE ELECTROMAGNETIC WAVE RESONANT FILTER
5,818,388	10/06/98	096098	SATELLITE COMMUNICATIONS APPARATUS USING ACTIVE REDUNDANCY
5,820,078	10/13/98	096205	CONTROL MOTION GYRO WITH VIBRATION ISOLATION
5,820,669	10/13/98	970036	(ZINC, CADMIUM) ALUMINATE-GALLATE-CONTAINING PAINTS
5,823,476	10/20/98	095301	DEVICE AND METHOD FOR EQUALIZING HEAT DISSIPATION BETWEEN MULTIPLE RADIATORS ON A SPACECRAFT
5,823,477	10/20/98	095314	DEVICE AND METHOD FOR MINIMIZING RADIATOR AREA REQUIRED FOR HEAT DISSIPATION ON A SPACECRAFT
5,826,828	10/27/98	093317	SUN/EARTH ACQUISITION WITHOUT THRUSTERS
5,826,830	10/27/98	095315	DUAL-HALF SYSTEM, FULL TORQUE REACTION CONTROL THRUSTER CONFIGURATION FOR THREE-AXIS STABILIZED SPACECRAFT
5,826,831	10/27/98	095346	SATELLITE CO-LOCATION METHODS
5,828,268	10/27/98	095353	MICROWAVE SWITCHES AND REDUNDANT SWITCHING SYSTEMS
5,832,307	11/03/98	096050	SATELLITE COMMUNICATION SYSTEM OVERWRITING NOT VALIDATED MESSAGE STORED IN CIRCULAR BUFFER WITH NEW MESSAGE IN ACCORDANCE WITH ADDRESS STORED IN LAST VALID WRITE ADDRESS REGISTER
5,833,175	11/10/98	095485	SPACECRAFT WITH LARGE EAST-WEST DIMENSIONS
5,833,176	11/10/98	093037	BOWED SOLAR ARRAY
5,834,971	11/10/98	094511	RF AMPLIFIER INCLUDING TRAVELING WAVE TUBE WITH SEQUENTIAL STAGES
5,834,993	11/10/98	096027	PASSIVE MICROWAVE STRUCTURES AND METHODS HAVING REDUCED PASSIVE INTERMODULATION
5,837,399	11/17/98	096055	THROUGH-WALL ELECTRICAL TERMINAL AND ENERGY STORAGE CELL UTILIZING THE TERMINAL
5,839,696	11/24/98	095324	MODULAR PAYLOAD ARRANGEMENT
5,840,829	11/24/98	094561A	PLATEABLE STRUCTURAL ADHESIVE FOR CYANATE ESTER COMPOSITES
5,847,681	12/08/98	094142	COMMUNICATION AND TRACKING ANTENNA SYSTEMS FOR SATELLITES
5,849,396	12/15/98	095040	MULTILAYER ELECTRONIC STRUCTURE AND ITS PREPARATION
5,850,389	12/15/98	095479	HIGH SPEED CIRCULAR DATA BUS SYSTEM
5,853,497	12/29/98	L96003	HIGH EFFICIENCY MULTI-JUNCTION SOLAR CELLS
5,858,557	01/12/99	096230	NICKEL/GOLD PLATING OF A COPPER-REFRACTORY METAL MATERIAL
5,859,368	01/12/99	095298	TUNNELING-BASED ROTATION RATE SENSOR
5,861,738	01/19/99	096150	DC TO DC CONVERTER WITH A FAULT TOLERANT OUTPUT VOLTAGE CLAMP
5,861,843	01/19/99	970039	PHASED ARRAY CALIBRATION ORTHOGONAL PHASE SEQUENCE
5,869,948	02/09/99	095118	A UNIDIRECTIONAL BATTERY CHARGE/DISCHARGE CONTROLLER FOR A REGULATED ELECTRICAL BUS SYSTEM WITH A SOLAR CURRENT SOURCE
5,871,684	02/16/99	096227	METHOD OF MAKING LIGHTWEIGHT, LOW THERMAL EXPANSION MICROWAVE STRUCTURES SAME
5,875,685	03/02/99	095190	MULTI-AXIS POSITIONER WITH BASE-MOUNTED ACTUATORS
5,876,856	03/02/99	096157	ARTICLE HAVING A HIGH-TEMPERATURE THERMAL CONTROL COATING
5,878,980	03/09/99	095402	ATTENUATION RING
5,883,549	03/16/99	096308	BIPOLAR JUNCTION TRANSISTOR (BJT)- RESONANT TUNNELING DIODE (RTD) OSCILLATOR CIRCUIT AND METHOD
5,883,552	03/16/99	096174	MICROWAVE POWER DIVIDER/COMBINER STRUCTURES
5,884,868	03/23/99	096323	RADIATOR USING THERMAL CONTROL COATING
5,884,869	03/23/99	095073	SATELLITE SPIN VECTOR CONTROL WITH SUN SENSOR
5,885,906	03/23/99	096009	LOW PIM REFLECTOR MATERIAL
5,886,590	03/23/99	096282	MICROSTRIP TO COAX VERTICAL LAUNCHER USING FUZZ
5,887,823	03/30/99	960391	GIMBAL MECHANISM AND GEARBOX FOR SAME
5,889,487	03/30/99	092635A	FLASH ANALOG-TO-DIGITAL CONVERTER WITH LATCHING EXCLUSIVE OR GATES
5,892,401	04/06/99	095270	SOLID STATE POWER AMPLIFIER WITH LOW DISTORTION NOISE PROTECTION LIMITER
5,895,014	04/20/99	094151	SATELLITE SOLAR ARRAY AND METHOD OF BIASING TO REDUCE SEASONAL OUTPUT POWER FLUCTUATIONS
5,895,982	04/20/99	095341	A FULLY REGULATED POWER BUS USING MULTIPLE SOURCE BUS REGULATORS
5,901,923	05/11/99	096236	ROLLING GIMBAL HARNESS