PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
NEOGRAF SOLUTIONS, LLC	01/31/2023

RECEIVING PARTY DATA

Name:	GCG INVESTORS V, L.P., AS AGENT
Street Address:	300 S. WACKER DRIVE
Internal Address:	SUITE 201
City:	CHICAGO
State/Country:	ILLINOIS
Postal Code:	60606

PROPERTY NUMBERS Total: 66

Property Type	Number
Patent Number:	9716296
Patent Number:	9774063
Patent Number:	D814625
Patent Number:	7161809
Patent Number:	8067091
Patent Number:	9444123
Patent Number:	9653763
Patent Number:	9797664
Patent Number:	10099929
Patent Number:	7160619
Patent Number:	D686769
Patent Number:	9253924
Patent Number:	9368843
Patent Number:	10094516
Patent Number:	9887438
Patent Number:	D795906
Patent Number:	7138029
Patent Number:	D701166
Patent Number:	D709027

PATENT REEL: 062568 FRAME: 0036

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Property Type	Number
Patent Number:	9546763
Patent Number:	6982874
Patent Number:	10589998
Patent Number:	D662898
Patent Number:	10744736
Patent Number:	11186061
Patent Number:	8955983
Patent Number:	9253932
Patent Number:	10440865
Patent Number:	10177070
Patent Number:	6749010
Patent Number:	6771502
Patent Number:	7573717
Patent Number:	D677227
Patent Number:	9267745
Patent Number:	9673494
Patent Number:	7292441
Patent Number:	D814626
Patent Number:	10587019
Application Number:	16752057
Application Number:	16769491
Patent Number:	RE48639
Patent Number:	7799428
Patent Number:	8211260
Patent Number:	D703865
Patent Number:	9087669
Patent Number:	9104058
Patent Number:	9343784
Patent Number:	9761403
Patent Number:	D814627
Patent Number:	7658999
Patent Number:	9081220
Patent Number:	9250462
Patent Number:	9546764
Patent Number:	9664368
Patent Number:	7150914
Patent Number:	7276273
Patent Number:	7666270

Property Type	Number
Patent Number:	10772463
Patent Number:	11189420
Patent Number:	7889502
Patent Number:	8916269
Application Number:	16347223
Application Number:	15255262
PCT Number:	US2119920
PCT Number:	US2148979
PCT Number:	US2138352

CORRESPONDENCE DATA

Fax Number:

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.

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Email: kristen.lange@goldbergkohn.com
Correspondent Name: KRISTEN N. LANGE, PARALEGAL
Address Line 1: C/O GOLDBERG KOHN LTD.

Address Line 2: 55 E. MONROE STREET, SUITE 3300

Address Line 4: CHICAGO, ILLINOIS 60603

ATTORNEY DOCKET NUMBER:	5286.025
NAME OF SUBMITTER:	KRISTEN N. LANGE
SIGNATURE:	/kristenlange/
DATE SIGNED:	01/31/2023
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 6

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GRANT OF A SECURITY INTEREST – PATENTS

January 31, 2023

WHEREAS, **NEOGRAF SOLUTIONS, LLC**, a Delaware limited liability company (the "<u>Grantor</u>") holds all right, title and interest in the letter patents, design patents and utility patents listed on the attached Schedule A, which patents are issued or applied for in the United States Patent and Trademark Office (the "<u>Patents</u>");

WHEREAS, the Grantor has entered into that certain Pledge and Security Agreement, dated as of January 31, 2023 (as amended, restated, supplemented, modified or otherwise changed from time to time, the "Security Agreement"), in favor of GCG Investors V, L.P., as the Agent (in such capacity, together with its successors and assigns, if any, the "Grantee"); and

WHEREAS, pursuant to the Security Agreement, the Grantor has granted to the Grantee a continuing security interest in all right, title and interest of the Grantor in, to and under the Patents, together with, among other things, the goodwill of the business symbolized by the Patents and the applications and registrations thereof, and all proceeds thereof, including, without limitation, any and all causes of action which may exist by reason of infringement thereof and any and all damages arising from past, present and future violations thereof (the "Collateral"), to secure the payment and performance of the Secured Obligations (as defined in the Security Agreement).

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Grantor does hereby confirm the grant to the Grantee of a continuing security interest in the Collateral to secure the prompt payment and performance of the Secured Obligations.

The Grantor does hereby further acknowledge and affirm that the rights and remedies of the Grantee with respect to the Collateral are more fully set forth in the Security Agreement, the terms and provisions of which are hereby incorporated herein by reference as if fully set forth herein.

[Signature Page Follows]

IN WITNESS WHEREOF, the Grantor has caused this Assignment to be duly executed by its officer thereunto duly authorized as of the date first written above.

NEOGRAF SOLUTIONS, LLC,

a Delaware limited liability company

Name: James Kline

Title: Vice President

SCHEDULE A TO GRANT OF A SECURITY INTEREST

Patents and Patent Applications

PATENT	APPL. NUMBER	FILE DATE	PATENT NUMBER	ISSUE DATE
Thermal solution for prismatic lithium ion battery pack	13/699415	01/14/13	9716296	07/25/17
Battery pack assembly having thermal transfer sheets	14/235531	05/16/14	9774063	09/26/17
Heat spreader	29/562388	04/25/16	D814625	04/03/18
Integral heat spreader	10/941639	09/15/04	7161809	01/09/07
Dimensionally stable, leak-free graphite substrate	11/613233	12/20/06	8067091	11/29/11
Battery pack assembly	14/927514	10/30/15	9444123	09/13/16
Battery pack comprising a heat exchanger	13/724211	12/21/12	9653763	05/16/17
Composite heat spreader and battery module incorporating the same	13/766807	02/14/13	9797664	10/24/17
Method of producing a graphene material	14/771293	08/28/15	10099929	10/16/18
Heat spreader for emissive display device	10/897308	07/22/04	7160619	01/09/07
Housing for a recessed light	29/403166	10/02/11	D686769	07/23/13
Optimized frame system for a display device	14/793903	07/08/15	9253924	02/02/16
Battery pack assembly	13/905484	05/30/13	9368843	06/14/16
LED light arrangement with flexible circuit board having graphite substrate	14/809194	07/25/15	10094516	10/09/18
Electronic device thermal management system	14/912998	02/19/16	9887438	02/06/18

PATENT	APPL. NUMBER	FILE DATE	PATENT	ISSUE
			NUMBER	DATE
Portable electronic	29/562298	04/25/16	D795906	08/29/17
device display screen				
or portion thereof				
with graphical user				
interface				
Heat spreader for	10/685103	10/14/03	7138029	11/21/06
plasma display panel				
Battery assembly	29/403092	09/30/11	D7 01166	03/18/14
Battery assembly	29/480254	01/24/14	D709027	07/15/14
Flexible circuit board	14/809193	07/25/15	9546763	01/17/17
with graphite				
substrate and circuit				
arrangements using				
same				
Thermal solution for	10/722364	11/25/03	6982874	01/03/06
electronic devices				
A graphite article	15/030948	04/21/16	10589998	03/17/20
Heat sink for LED	29/388102	03/24/11	D662898	07/03/12
light bulb				
Graphite composites	15/735428	12/11/17	10744736	08/18/20
and thermal				
management systems				
Graphite composites	16/923758	07/08/20	11186061	11/30/21
and thermal				
management systems				
Thermal	13/581006	11/15/12	8955983	02/17/15
management for				
handheld projectors				
Display devise	14/794088	07/08/15	9253932	02/02/16
having improved				
properties				
Heat spreader for	11/590061	10/31/06	10440865	10/08/19
emissive display				
device				
Flexible graphite	15/529644	05/25/17	10177070	01/08/19
sheet support				
structure and thermal				
management				
arrangement				
Composite heat sink	10/184841	06/28/02	6749010	06/15/04
with metal base and				
graphite fins				
Heat sink made from	10/184837	06/28/02	6771502	08/03/04
longer and shorter				
graphite sheets				
Cycling LED heat	12/045086	03/10/08	7573717	08/11/09
spreader				

PATENT	APPL. NUMBER	FILE DATE	PATENT	ISSUE
II / : 1 C IED	20/200101	02/24/11	NUMBER	DATE
Heat sink for LED light bulb	29/388101	03/24/11	D677227	03/05/13
Composite heat	13/818116	04/15/13	9267745	02/23/16
spreader containing				
synthetic graphite				
sheet and				
compressed graphite				
layer joined without				
adhesive				
Portable electronic	14/771299	08/28/15	9673494	06/06.17
device thermal				
management system				
Thermal solution for	11/176596	07/07/05	7292441	11/06/07
portable electronic				
devices				
Heat spreader	29/562390	04/25/16	D814626	04/03/18
Thermal solution for	15/626318	06/19/17	10587019	03/10/20
prismatic lithium ion				
battery pack				
A graphite articles	16/769491	06/03/20	n/a	n/a
and method of				
making same				
Graphite article	16/752057	01/24/20	n/a	n/a
Composite heat	16/396133	04/26/19	RE48639	07/13/21
spreader and battery				
module incorporating				
the same	10/070416	10/06/04	7700420	00/21/10
Sandwiched thermal	10/959416	10/06/04	7799428	09/21/10
solution	11/543714	10/05/06	8211260	07/03/12
Heat spreader for	11/343/14	10/05/06	8211260	07/03/12
plasma display panel Cylindrical LED	29/475332	12/03/13	D703865	04/29/14
fixture	29/4/3332	12/03/13	D703803	04/29/14
Display device	11/225491	09/09/05	9087669	07/21/15
having improved	11/223491	09/09/03	9007009	07/21/13
properties				
Optimized frame	11/223804	09/09/05	9104058	08/11/15
system for a liquid	11/223001	02/02/02	7101000	00/11/10
crystal display device				
Battery pack	14/235532	01/28/14	9343784	05/17/16
assembly having	.,=======	. = •		, = ., • •
thermal sheets and				
heat sink				
Heat spreader for	13/487484	06/04/12	9761403	09/12/17
plasma display panel				
Heat spreader	29/562391	04/25/16	D814627	04/03/18

PATENT	APPL. NUMBER	FILE DATE	PATENT	ISSUE
			NUMBER	DATE
Heat spreader for	11/590115	12/18/06	7658999	02/09/10
emissive display				
device				
Optimized frame	11/167935	06/27/05	9081220	07/14/15
system for a display				
device				
Optimized frame	14/793945	07/08/15	9250462	02/02/16
system for a liquid				
crystal display device				
Display device with	14/809195	07/25/15	9546764	01/17/17
flexible circuit board				
having graphite				
substrate				
Thermal solution for	13/979166	07/11/13	9664368	05/30/17
LED bulbs	10/0::	0.7/1.7/2/		10/10/07
Heat spreader for	10/844537	05/12/04	7150914	12/19/06
emissive display				
device	10/0-7-01-	0.0/0.0/0.4		10/05/05
Heat spreader for	10/953917	09/29/04	7276273	10/02/07
display device	11/1-02-0	0 = 10 = 10 =		00/00/40
Heat spreader for	11/176959	07/07/05	7666270	02/23/10
display panel	1.5/0.00.55	00106110	10==0.460	0.0 (1.7 (0.0
Graphite containing	16/082667	09/06/18	10772463	09/15/20
article	1.5/0.001=1	00/0=/10	11100100	11/20/21
Noise suppressing	16/089171	09/27/18	11189420	11/30/21
assemblies	11/2/5022	11/04/05	5 000503	00/15/11
Heat spreading	11/267933	11/04/05	7889502	02/15/11
circuit assembly	12/200475	10/25/11	0016060	12/22/14
Dimensionally	13/280475	10/25/11	8916269	12/23/14
stable, leak-free				
graphite substrate	1.6/2.47222	0.7/0.2/1.0	,	,
Energy regulating	16/347223	05/03/19	n/a	n/a
system and methods				
using same	DCT/LIC21/10020	02/26/21		
Thermal	PCT/US21/19920	02/26/21	n/a	n/a
management system An electronic device	DCT/HC21/49070	09/03/21	10/0	n/2
	PCT/US21/48979 PCT/US17/64887		n/a	n/a
Energy regulating	PC1/US1//0488/	12/06/17	n/a	n/a
system and methods				
using same	PCT/US17/24479	03/28/17	n/a	n/a
Graphite containing article	rc1/051//244/9	05/28/17	11/a	11/a
Noise suppressing	PCT/US17/24782	03/29/17	n/a	n/a
assemblies	FC1/US1//24/82	03/29/17	11/a	11/a
Shielding article	PCT/US21/38352	06/22/21	n/a	n/a
Thermal solution for	15/255262	09/02/16	n/a n/a	n/a
electronic devices	13/233202	09/02/10	11/a	11/a
ciccionic devices				1

RECORDED: 01/31/2023