

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT						
NATURE OF CONVEYANCE:	ASSIGNMENT						
CONVEYING PARTY DATA							
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Alexander Golitschek Edler von Elbwart</td> <td>07/10/2013</td> </tr> <tr> <td>Michael Einhaus</td> <td>07/10/2013</td> </tr> </tbody> </table>		Name	Execution Date	Alexander Golitschek Edler von Elbwart	07/10/2013	Michael Einhaus	07/10/2013
Name	Execution Date						
Alexander Golitschek Edler von Elbwart	07/10/2013						
Michael Einhaus	07/10/2013						
RECEIVING PARTY DATA							
Name:	Panasonic Corporation						
Street Address:	1006, Oaza Kadoma, Kadoma-shi						
City:	Osaka						
State/Country:	JAPAN						
PROPERTY NUMBERS Total: 1							
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13978073</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13978073		
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Application Number:	13978073						
CORRESPONDENCE DATA							
Fax Number: <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>							
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ATTORNEY DOCKET NUMBER:	PGRU-51188						
NAME OF SUBMITTER:	Aaron A. Fishman						
Signature:	/Aaron A. Fishman/						
Date:	08/08/2013						
Total Attachments: 2 source=PGRU-51188-Assignment#page1.tif source=PGRU-51188-Assignment#page2.tif							

CH \$40.00 13978073

ASSIGNMENT

WHEREAS, new and useful improvements have been made by the undersigned in
CHANNEL STATE INFORMATION REPORTING FOR COMPONENT CARRIERS FOR
WHICH NO CHANNEL STATE INFORMATION WAS CALCULATED

for which an application for Letters Patent of the United States was filed on which
application is identified by Serial No. (Pearne & Gordon LLP Docket No. PGRU-51188).

WHEREAS, Panasonic, a corporation of Japan, having a place of business at 1006,
Oaza Kadoma, Kadoma-shi, Osaka, Japan hereinafter referred to as "assignee", is desirous of
acquiring all right, title, and interest throughout the world in, to, and under said
improvements and inventions and patent rights therefor.

NOW, THEREFORE, be it known that, for valuable consideration, the receipt and
sufficiency of which are hereby acknowledged, all right, title, and interest, in the United
States and throughout the world, in, to and under said improvements and inventions and all
patents, patent applications, patent rights, and inventors' certificates thereof, therefor, and
therein, including without limitation said application for patent in the United States, all
divisions and continuations thereof, all patents which may be granted thereon, all reissues and
extensions thereof, all right to sue for past infringement thereunder, all patents which may be
granted for said improvements and inventions by states or nations other than the United
States, or by other authority, entity, or organization, and all applications therefor, have been
and are hereby sold, assigned, transferred, and delivered unto assignee, its successors and
assigns; and it is covenanted and agreed by the undersigned, and for executors,
administrators, and legal representatives of the undersigned, that at assignee's request any and
all applications, affidavits, assignments, and other instruments will be made, executed, and
delivered as may be necessary, or desirable to secure for or vest in assignee, its successors or
assigns, any improvement, inventions, right, title, interest, application, patent, patent right or
other right or property covered by this assignment, and the United States Commissioner of
Patents and Trademarks is hereby requested and authorized to issue any and all United States
patents granted on any of said applications to assignee as owner of the entire right, title, and
interest in, to, and under the same, and appropriately empowered officials of foreign countries
are hereby authorized to issue any letters patent granted on any of said applications to
assignee as owner of the entire right, title and interest in, to, and under the same.

The undersigned hereby grant the firm of Pearne & Gordon LLP the power to insert
on this assignment any further identification which may be necessary or desirable in order to
comply with the rules of the United States Patent and Trademark Office for recordation of
this document.

IN WITNESS WHEREOF, this assignment has been executed below by the undersigned:

(1) Inventor Name: Alexander Golitschek Edler von Elbwart

Signature: *Alexander Golitschek Edler von Elbwart*

Today's Date: 07/10/2013

Date I Signed Declaration: 07/10/2013

Witness: *H. Michals*

Witness: *K. Letz*

(2) Inventor Name: Michael Einhaus

Signature: *M. Einhaus*

Today's Date: 07/10/2013

Date I Signed Declaration: 07/10/2013

Witness: *H. Michals*

Witness: *K. Letz*