

PATENT ASSIGNMENT

Electronic Version v1.1

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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>Olli-Pekka Pohjola</td><td>11/13/2003</td></tr><tr><td>Ari Tervonen</td><td>11/13/2003</td></tr></tbody></table>	Name	Execution Date	Olli-Pekka Pohjola	11/13/2003	Ari Tervonen	11/13/2003	
Name	Execution Date						
Olli-Pekka Pohjola	11/13/2003						
Ari Tervonen	11/13/2003						
RECEIVING PARTY DATA							
Name:	Nokia Corporation						
Street Address:	Keilalahdentie 4						
City:	Espoo						
State/Country:	FINLAND						
Postal Code:	FIN-02150						
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>12006963</td></tr></tbody></table>	Property Type	Number	Application Number:	12006963			
Property Type	Number						
Application Number:	12006963						
CORRESPONDENCE DATA							
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NAME OF SUBMITTER:	Steven C. Becker						
Total Attachments: 1 source=Inventors_to_Nokia#page1.tif							

OP \$40.00 12006963

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PATENT
REEL: 020536 FRAME: 0048

SQUIRE SANDERS & DEMPSEY L.L.P.

Docket No. 60279.00073

WORLDWIDE INVENTION ASSIGNMENT

For good and valuable consideration paid to the undersigned Inventor(s) (hereinafter ASSIGNOR)
by

[Insert
ASSIGNEE's
Name(s)
Address(es)]

Nokia Corporation
Keililahdentie 4
FIN-02150 Espoo
FINLAND

(hereinafter ASSIGNEE), the receipt and sufficiency of which is hereby acknowledged, the undersigned ASSIGNOR hereby sells, assigns and transfers to ASSIGNEE the entire and exclusive right, title and interest to the invention entitled

[Title of
Invention]

SECURE UPSTREAM TRANSMISSION IN PASSIVE OPTICAL NETWORKS

[*If the assignment
is being filed
after the filing of the
application, this
section must be
completed]

for which the following applications were filed:

* Filed on:

Application
Number(s)

(Squire, Sanders & Dempsey L.L.P. is hereby authorized to insert the series code, serial number and/or filing date hereon, when known)



and all Letters Patent of any country in the world to be obtained therefor on said application or any continuation, division, renewal, substitute, reissue or reexamination thereof for the full term or terms for which the same may be granted.

The ASSIGNOR agrees to execute all papers necessary in connection with application and any continuing, divisional, reissue or reexamination applications thereof and also to execute separate assignments in connection with such applications as the ASSIGNEE may deem necessary or expedient.

The ASSIGNOR agrees to execute all papers necessary in connection with any interference, litigation, or other legal proceeding which may be declared concerning this application or any continuation, division, reissue or reexamination thereof or Letters Patent or reissue patent issued thereon and to cooperate with the ASSIGNEE in every way possible in obtaining and producing evidence and proceeding with such interference, litigation, or other legal proceeding.

IN WITNESS WHEREOF, the undersigned inventor(s) has (have) affixed his/her/their signature(s).

[Signature(s)
of Assignor(s)]

 (SIGNATURE)	Olli-Pekka POHJOLA (TYPE NAME)	13.11.2003 (DATE)
 (SIGNATURE)	Ari TERVONEN (TYPE NAME)	13.11.2003 (DATE)
 (SIGNATURE)	 (TYPE NAME)	 (DATE)
 (SIGNATURE)	 (TYPE NAME)	 (DATE)
 (SIGNATURE)	 (TYPE NAME)	 (DATE)
 (SIGNATURE)	 (TYPE NAME)	 (DATE)

RECORDED: 11/21/2003

PATENT
REEL: 014728 FRAME: 0972

RECORDED: 02/20/2008

PATENT
REEL: 020536 FRAME: 0049