US Patent & Trademark Office

US 6,240,073

USPTO Transaction Information*

SEQ.[δ]	DATE	DESCRIPTION
1	15 Apr 1998	Information Disclosure Statement (IDS) Filed
2	08 May 2014	Mail-Petition Decision - Granted
3	08 May 2014	Petition Decision - Granted
4	11 Mar 2014	Petition Entered
5	23 Oct 2012	Correspondence Address Change
6	04 Oct 2004	Applicant Has Filed a Verified Statement of Small Entity Status in Compliance with 37 CFR 1.27
7	25 Jan 2001	Workflow - File Sent to Contractor
8	29 May 2001	Recordation of Patent Grant Mailed
9	11 May 2001	Issue Notification Mailed
10	26 Apr 2001	Application Is Considered Ready for Issue
11	04 Apr 2001	Workflow - Drawings Received at Contractor
12	04 Apr 2001	Issue Fee Payment Verified
13	04 Apr 2001	Workflow - Drawings Finished
14	04 Apr 2001	Workflow - Drawings Matched with File at Contractor
15	04 Apr 2001	Workflow - Drawings Sent to Contractor
16	23 Apr 2001	Workflow - Complete WF Records for Drawings
17	03 Jan 2001	Mail Notice of Allowance
18	03 Jan 2001	Notice of Allowance Data Verification Completed
19	26 Dec 2000	Date Forwarded to Examiner
20	15 Dec 2000	Response after Non-Final Action
21	15 Dec 2000	Request for Extension of Time - Granted
22	06 Oct 2000	Case Docketed to Examiner in GAU
23	19 Jul 2000	Mail Non-Final Rejection
24	17 Jul 2000	Non-Final Rejection
25	09 Jun 1999	Preexamination Location Change
26	15 Apr 1998	Information Disclosure Statement (IDS) Filed
27	15 Apr 1998	Information Disclosure Statement (IDS) Filed
28	14 Nov 1997	Preliminary Amendment
29	30 Apr 1998	Case Docketed to Examiner in GAU
30	12 Mar 1998	Application Dispatched from OIPE
31	25 Feb 1998	IFW Scan & PACR Auto Security Review
32	05 Dec 1997	Initial Exam Team nn

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[δ] Transaction Sequence Number (SEQ.) is unrelated to Paper Number in File Table of contents.

Patent Assignment Abstract of Title

Total Assignments: 2

Application #: 08970922 **Filing Dt:** 11/14/1997 **Patent #:** 6240073 **Issue Dt:** 05/29/2001

PCT #: NONE **Intl Reg #:** **Publication #:** NONE **Pub Dt:**

Inventors: ARIE REICHMAN, SHAUL LAUFER, AVI BARDA, SORIN GOLDENBERG

Title: REVERSE LINK FOR A SATELLITE COMMUNICATION NETWORK

Assignment: 1

Reel/Frame: 009126 / 0684 **Received:** 04/30/1998 **Recorded:** 04/20/1998 **Mailed:** 06/24/1998 **Pages:** 3

Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Assignors:		
	REICHMAN, ARIE	**Exec Dt:** 03/30/1998
	LAUFER, SHAUL	**Exec Dt:** 03/30/1998
	BARDA, AVI	**Exec Dt:** 03/29/1998
	GOLDENBERG, SORIN	**Exec Dt:** 03/30/1998

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Assignment: 2

Reel/Frame: 024294 / 0787 **Received:** 04/28/2010 **Recorded:** 04/28/2010 **Mailed:** 04/28/2010 **Pages:** 2

Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Assignor: SHIRON SATELLITE COMMUNICATIONS (1996) LTD. **Exec Dt:** 12/31/2009

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US Patent & Trademark Office

US 6,240,073

Maintenance Fee Statement*

	Fee Description	Amount	Surcharge	Small Entity	Attorney Docket No.	Status
1	4th yr. Maintenance Fee	455.00	0.00	SMALL	0866/OD811	PAID
2	8th yr. Maintenance Fee	1,180.00	0.00	SMALL	0866/OD811	PAID
3	12th yr. Maintenance Fee	2,365.00	0.00	SMALL	0866/OD811	PAID

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Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

WM02/0103

DARBY & DARBY
805 THIRD AVENUE
NEW YORK NY 10022

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT		DATE MAILED
08/970,922	11/14/97	036	VU, H	2663	01/03/01

First Named Applicant: REICHMAN, 35 USC 154(b) term ext. = 0 Days.

TITLE OF INVENTION: REVERSE LINK FOR A SATELLITE COMMUNICATION NETWORK

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
2 0866/OD811	370-319.000	A18	UTILITY	NO	$1240.00	04/03/01

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.
If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

A. Pay FEE DUE shown above, or

B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give application number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

***IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.*

PATENT AND TRADEMARK OFFICE COPY

PTOL-85 (REV. 10-96) Approved for use through 06/30/99. (0651-0033)

*U.S. GPO: 1999-454-457/24601

Electronic Acknowledgement Receipt

EFS ID:	9500609
Application Number:	08970922
International Application Number:	
Confirmation Number:	3419
Title of Invention:	REVERSE LINK FOR A SATELLITE COMMUNICATION NETWORK
First Named Inventor/Applicant Name:	ARIE REICHMAN
Correspondence Address:	DARBY & DARBY - 805 THIRD AVENUE - NEW YORK NY 10022 US - -
Filer:	Jason Harris Rosenblum/Dorit Handrus
Filer Authorized By:	Jason Harris Rosenblum
Attorney Docket Number:	0866/OD811
Receipt Date:	23-FEB-2011
Filing Date:	14-NOV-1997
Time Stamp:	11:27:24
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	25663_LBE_Assertion.pdf	14870 7d8bf21dfa181b31742599e27a3514200b1a1b8d	no	1
Warnings:					
Information:					
		Total Files Size (in bytes):	14870		

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New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
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Electronic Acknowledgement Receipt

EFS ID:	13959677
Application Number:	08970922
International Application Number:	
Confirmation Number:	3419
Title of Invention:	REVERSE LINK FOR A SATELLITE COMMUNICATION NETWORK
First Named Inventor/Applicant Name:	ARIE REICHMAN
Correspondence Address:	DARBY & DARBY - 805 THIRD AVENUE - NEW YORK NY 10022 US - -
Filer:	Jason Harris Rosenblum/Dorit Handrus
Filer Authorized By:	Jason Harris Rosenblum
Attorney Docket Number:	0866/OD811
Receipt Date:	11-OCT-2012
Filing Date:	14-NOV-1997
Time Stamp:	12:06:16
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	25663LBEAssertionRe-Filedon11-Oct-2012.pdf	14887 f0a285b380689a227fae9674096553f9de20d762	no	1
Warnings:					
Information:					
			Total Files Size (in bytes):	14887	

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National Stage of an International Application under 35 U.S.C. 371
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New International Application Filed with the USPTO as a Receiving Office
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Electronic Acknowledgement Receipt

EFS ID:	13979966
Application Number:	08970922
International Application Number:	
Confirmation Number:	3419
Title of Invention:	REVERSE LINK FOR A SATELLITE COMMUNICATION NETWORK
First Named Inventor/Applicant Name:	ARIE REICHMAN
Correspondence Address:	DARBY & DARBY - 805 THIRD AVENUE - NEW YORK NY 10022 US - -
Filer:	Jason Harris Rosenblum/Dorit Handrus
Filer Authorized By:	Jason Harris Rosenblum
Attorney Docket Number:	0866/OD811
Receipt Date:	15-OCT-2012
Filing Date:	14-NOV-1997
Time Stamp:	06:30:44
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	25663FeeAddress.pdf	20439 c0d4800169c62417e6fb0787d04626abe02b57e4	no	1
Warnings:					
Information:					
		Total Files Size (in bytes):	20439		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Electronic Acknowledgement Receipt

EFS ID:	18747503
Application Number:	08970922
International Application Number:	
Confirmation Number:	3419
Title of Invention:	REVERSE LINK FOR A SATELLITE COMMUNICATION NETWORK
First Named Inventor/Applicant Name:	ARIE REICHMAN
Customer Number:	106330
Filer:	Jason Harris Rosenblum/Robert Shein
Filer Authorized By:	Jason Harris Rosenblum
Attorney Docket Number:	0866/OD811
Receipt Date:	13-APR-2014
Filing Date:	14-NOV-1997
Time Stamp:	06:58:55
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Notification of loss of entitlement to small entity status	25663LargeEntityAssertion.pdf	16793 c78a199470c0458a76b249bf703363dd7d89bab8	no	1

Warnings:

Information:

Total Files Size (in bytes):	16793

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New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

a plurality of user terminals for generating data to be transmitted over said multiple access communication system;

at least one hub for receiving data over said multiple access communication system from said plurality of user terminals;

transmitter means within each user terminal for receiving data to be transmitted from said user terminal to said hub, said transmitter means including first communication means for transmitting short bursty data in combination with second communication means for continuous transmission of data;

switching means coupled to said transmitter means for switching transmission between said first communication means and said second communication means in accordance with predefined criteria, and

receiver means within said at least one hub adapted to receive data transmitted by said plurality of terminals utilizing either said first communication means or said second communication means;

wherein said switching means comprises means for switching transmission from said second communication means to said first communication means when a continuation flag in a message received by said transmitter means is turned off.

7. A multiple access communications system for use in a satellite communication network, comprising:

a plurality of user terminals for generating data to be transmitted over said multiple access communication system;

at least one hub for receiving data over said multiple access communication system from said plurality of user terminals;

transmitter means within each user terminal for receiving data to be transmitted from said user terminal to said hub, said transmitter means including first communication means for transmitting short bursty data in combination with second communication means for continuous transmission of data;

switching means coupled to said transmitter means for switching transmission between said first communication means and said second communication means in accordance with predefined criteria, and

receiver means within said at least one hub adapted to receive data transmitted by said plurality of terminals utilizing either said first communication means or said second communication means;

wherein said switching means comprises means for switching transmission from said second communication means to said first communication means when the software application meeting a predetermined criteria that initiated a message to be transmitted via said transmitter means ceases to generate message data.

8. A multiple access communications system for use in a satellite communication network, comprising:

a plurality of user terminals for generating data to be transmitted over said multiple access communication system;

at least one hub for receiving data over said multiple access communication system from said plurality of user terminals;

transmitter means within each user terminal for receiving data to be transmitted from said user terminal to said hub, said transmitter means including first communication means for transmitting short bursty data in combination with second communication means for continuous transmission of data;

switching means coupled to said transmitter means for switching transmission between said first communication means and said second communication means in accordance with predefined criteria, and

receiver means within said at least one hub adapted to receive data transmitted by said plurality of terminals utilizing either said first communication means or said second communication means; **p1** wherein said at least one hub comprises collision detection means for determining when two frequency hops associated with two independent receivers are utilizing the same frequency at the same time, thus improving decoding within said receiver means.

9. A multiple access communication system for use in a satellite communication network, said satellite communication network including a plurality of user terminals and at least one hub, said system comprising:

first transmitter means for transmitting data utilizing a non synchronous frequency hopping code division multiple access communication scheme;

second transmitter means for transmitting data utilizing a frequency division multiple access communication scheme;

switching means for switching transmission between said first transmitter means and said second transmitter means in accordance with predefined criteria;

first receiver means for receiving data transmitted using utilizing said non synchronous frequency hopping code division multiple access communication scheme;

second receiver means for receiving data transmitted using said frequency division multiple access communication scheme; and

third receiver means for receiving preamble and synchronization data transmitted utilizing said utilizing a non synchronous frequency hopping code division multiple access communication scheme.

10. The system according to claim **9**, wherein said switching means comprises means for switching transmission from said first transmitter means to said second transmitter means in accordance with a source port field within messages received by said transmitter means.

11. The system according to claim **9**, wherein said switching means comprises means for switching transmission from said first transmitter means to said second transmitter means when the length of a message received by said transmitter means exceeds a predetermined threshold.

12. The system according to claim **9**, wherein said switching means comprises means for switching transmission from said first transmitter means to said second transmitter means when a continuation flag in a message received by said transmitter means is turned on.

13. The system according to claim **9**, wherein said switching means comprises means for switching transmission from said first transmitter means to said second transmitter means when a user buffer containing a plurality of messages to be sent via said transmitter means fills beyond predetermined level.

14. The system according to claim **9**, wherein said switching means comprises means for switching transmission from said first transmitter means to said second transmitter means in accordance with the type and nature of the software application that initiated a message to be transmitted via said transmitter means.

15. The system according to claim **9**, wherein said switching means comprises means for switching transmission from said second transmitter means to said first transmitter means when a source port matching a predetermined criteria ceases to transmit messages.

16. The system according to claim **9**, wherein said switching means comprises means for switching transmission from said second transmitter means to said first transmitter means when the length of a message received by said transmitter means fails to exceed a predetermined threshold.

17. The system according to claim **9**, wherein said switching means comprises means for switching transmission from said second transmitter means to said first transmitter means when a continuation flag in a message received by said transmitter means is turned off.

18. The system according to claim **9**, wherein said switching means comprises means for switching transmission from said second transmitter means to said first transmitter means when a user buffer containing a plurality of messages to be sent via said transmitter means empties.

19. The system according to claim **9**, wherein said switching means comprises means for switching transmission from said second transmitter means to said first transmitter means when the software application meeting a predetermined criteria that initiated a message to be transmitted via said transmitter means ceases to generate message data.

20. The system according to claim **1**, further comprising interface means for interfacing said at least one hub to an external communications network.

21. The system according to claim **20**, wherein said external communications network comprises the Internet.

22. The system according to claim **20**, wherein said external communications network comprises a packet switched telephone network (PSTN).

23. The system according to claim **20**, wherein said external communications network comprises an Integrated Services Digital Network (ISDN).

24. The system according to claim **20**, wherein said external communications network comprises a Community Antenna Television (CATV) network.

25. The system according to claim **20**, wherein said external communications network comprises a Digital Subscriber Loop (xDSL).

26. The system according to claim **20**, wherein said external communications network comprises a Frame Relay network.

27. The system according to claim **9**, further comprising collision detection means for determining when two frequency hops associated with two independent receivers within said receiver means are utilizing the same frequency at the same time, thus improving decoding within said first receiver means.

28. A multiple access communications system for use in a satellite communication network, comprising:

a plurality of user terminals for transmitting and receiving data over said multiple access communication system;

at least one hub for transmitting and receiving data over said multiple access communication system to and from said plurality of user terminals;

a forward communication link for transmitting data from said at least one hub to said plurality of user terminals;

a return communication link for transmitting data from said plurality of user terminals to said at least one hub, said return communication link including a first communication means for transmitting short bursty data in combination with second communication means for continuous transmission of data;

switching means within said plurality of user terminals for switching transmission between said first communication means and said second communication means in accordance with predefined criteria; and

receiver means within said at least one hub adapted to receive data transmitted by said plurality of terminals utilizing either said first communication means or said second communication means,

wherein each user terminal comprises means for generating a request to be sent over said return communications link in order to utilize said second communication means.

29. A multiple access communications system for use in a satellite communication network, comprising:

a plurality of user terminals for transmitting and receiving data over said multiple access communication system;

at least one hub for transmitting and receiving data over said multiple access communication system to and from said plurality of user terminals;

a forward communication link for transmitting data from said at least one hub to said plurality of user terminals;

a return communication link for transmitting data from said plurality of user terminals to said at least one hub, said return communication link including a first communication means for transmitting short bursty data in combination with second communication means for continuous transmission of data;

switching means within said plurality of user terminals for switching transmission between said first communication means and said second communication means in accordance with predefined criteria; and

receiver means within said at least one hub adapted to receive data transmitted by said plurality of terminals utilizing either said first communication means or said second communication means,

wherein said at least one hub comprises means for polling each user terminal over said forward communication link as to whether said transmission of data should be switched to utilize said second communication means.

30. The system according to claim **9**, further comprising interface means for interfacing said at least one hub to an external communications network.

31. The system according to claim **30**, wherein said external communications network comprises the Internet.

32. The system according to claim **30**, wherein said external communications network comprises a packet switched telephone network (PSTN).

33. The system according to claim **30**, wherein said external communications network comprises an Integrated Services Digital Network (ISDN).

34. The system according to claim **30**, wherein said external communications network comprises a Community Antenna Television (CATV) network.

35. The system according to claim **20**, wherein said external communications network comprises a Digital Subscriber Loop (xDSL).

36. The system according to claim **20**, wherein said external communications network comprises a Frame Relay network.

* * * * *