

8 Documents

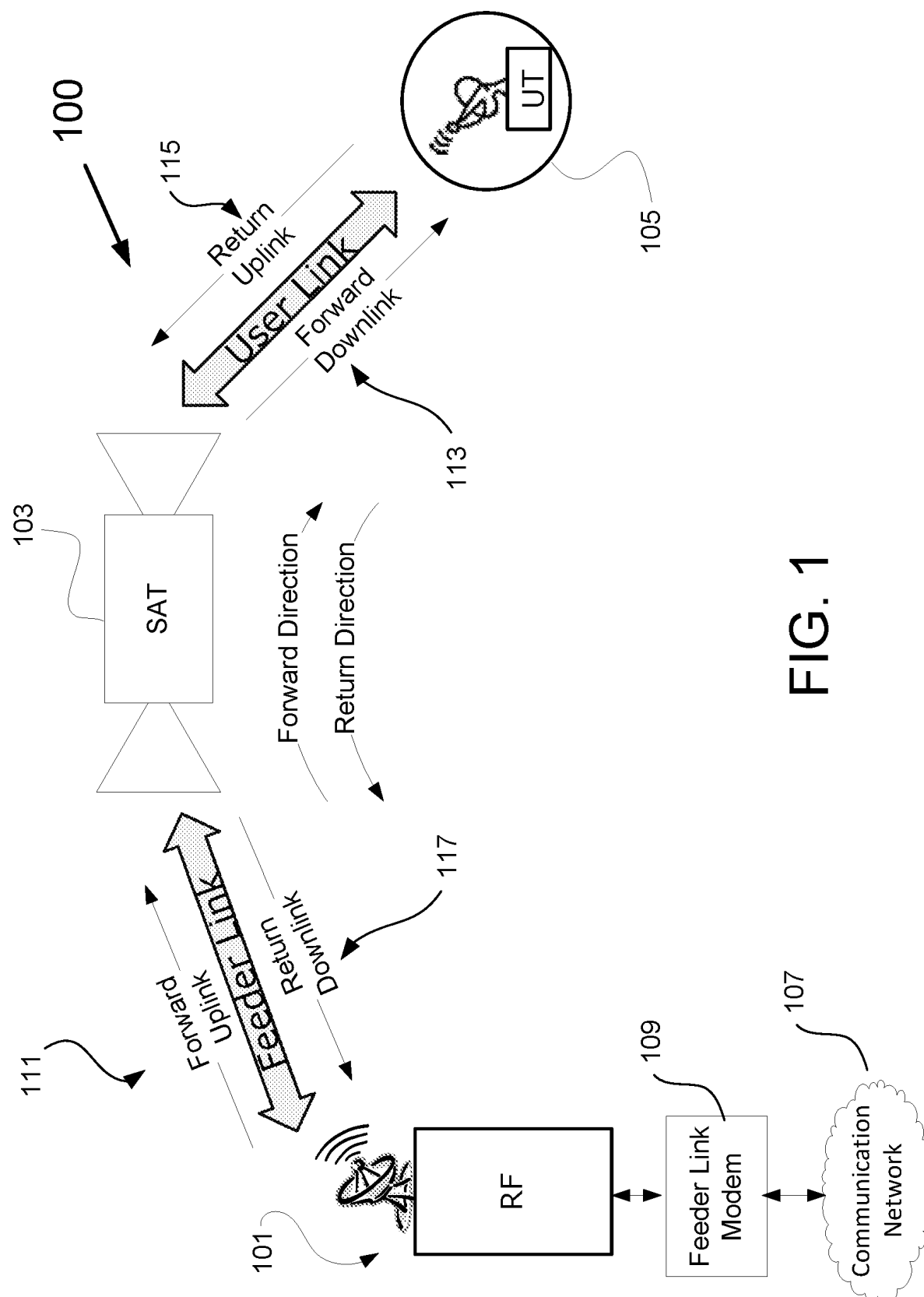
Publication numbers	Title	Current assignees
EP3281308 A2	Ground based antenna beamforming for communications between access nodes and users terminals linked by a satelliten and satellite therefore.	VIASAT
EP1618730 A2	Aggregate radiated power control for multi-band/multi-mode satellite radiotelephone communications systems and methods	ATC TECHNOLOGY
EP-936766 A1	Satellite broadcasting system	TOSHIBA
EP3398266 A1	Broadband satellite communication system using optical feeder links	VIASAT
WO200165727 A1	Satellite communications with satellite routing according to channels assignment signals	ICO SERVICES
EP3110695 A2	An improved performance and cost global navigation satellite system architecture	PNT HOLDINGS
EP1382141 A1	Power division multiplexing with incoherent signals and fixed power hierarchy	DIRECTV
EP1624598 A1	Carrier to noise ratio estimations from a received signal	DIRECTV

Family 1/8 - FAMPAT - ©Questel

Title

(EP3281308)

Ground based **antenna** beamforming for communications between **access** nodes and users terminals linked by a satellite and **satellite** therefore.

Images**Publication numbers with kind code & date**

EP3298703

B1 2019-11-06

EP3298703

RU2704243

C1 2019-10-25

RU2704243



RU2704119	C1	2019-10-24	RU2704119				
EP3281309	B1	2019-10-09	EP3281309				
SG10201906561Q	A	2019-09-27	SG10201906561Q				
AU2017207482	B2	2019-09-26	AU2017207482				
IL268407	A	2019-09-26	IL-268407				
IL268408	A	2019-09-26	IL-268408				
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SV2017005542	A	2018-09-17	SV2017005542				
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WO2016/209332	A2	2016-12-29	WO2016209332				
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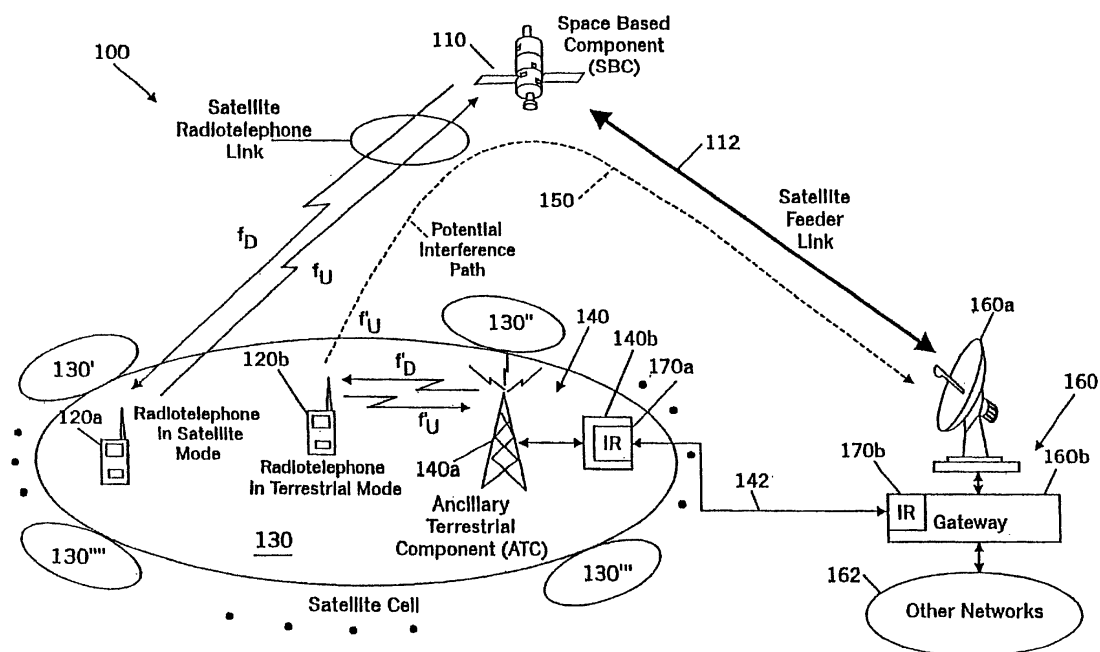
Abstract

(EP3281308)

End-to-end beamforming systems (500) include end-to-end relays (503, 1202, 3403) and ground networks (502) to provide communications to user terminals (517) located in user beam coverage areas (519). The ground segment can include geographically distributed **access** nodes (515) and a central processing system (505). Return **uplink** signals (525), transmitted from the user terminals, have multipath induced by a plurality of receive/transmit signal paths (1702) in the end to end relay and are relayed to the ground network. The ground network, using beamformers (513, 531), recovers user

VIASAT

Images



CA2515209	C	2018-02-13	CA2515209
CN1799208	B	2012-07-11	CN1799208B
EP1618730	A4	2010-08-25	EP1618730
AU2004237669	C1	2009-11-26	AU2004237669
AU2004237669	B2	2009-07-02	AU2004237669
IN3374/DELNP/2005	A	2007-11-30	IN2005DN03374
JP2006525752	A	2006-11-09	JP2006525752
CN1799208	A	2006-07-05	CN1799208
KR20060014365	A	2006-02-15	KR20060014365
BRPI0407464	A	2006-02-14	BR200407464
EP1618730	A2	2006-01-25	EP1618730
WO2004/100501	A3	2005-10-20	WO2004100501
MXPA05008651	A	2005-10-18	MX2005PA008651
AU2004237669	A1	2004-11-18	AU2004237669
CA2515209	A1	2004-11-18	CA2515209
CA2989660	A1	2004-11-18	CA2989660



WO2004/100501

A2 2004-11-18 WO2004100501

Abstract

(EP1618730)

A **satellite** radiotelephone system includes a space-based component that is configured to communicate with multiple radiotelephones over multiple **frequency** bands and/or multiple air interfaces. An ancillary terrestrial network is configured to communicate terrestrially with the multiple radiotelephones over substantially the multiple **frequency** bands and/or substantially the multiple air interfaces. An aggregate radiated power controller is configured to limit an aggregate radiated power by the multiple radiotelephones to a maximum aggregate radiated power.

Inventors

KARABINIS PETER D

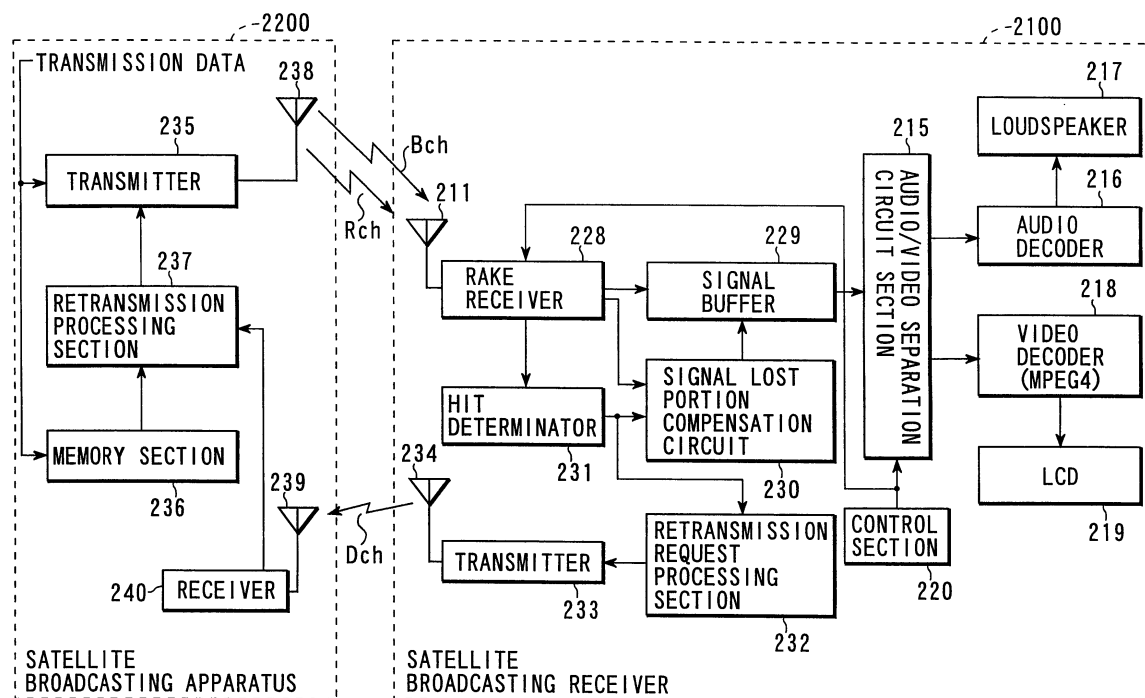
Latest standardized assignees - inventors removed

ATC TECHNOLOGY

Family 3/8 - FAMPAT - ©Questel

Title

(EP-936766)

Satellite broadcasting system**Images****Publication numbers with kind code & date**

CN1881856	B	2012-05-30	CN1881856B
CN1881854	B	2011-11-02	CN1881854B
CN1881835	B	2010-09-08	CN1881835B
CN1881836	B	2010-07-07	CN1881836B
CN1536800	B	2010-04-28	CN1536800B
DE69837034	T2	2007-10-18	DE69837034
DE69837034	D1	2007-03-22	DE69837034
EP0936766	B1	2007-02-07	EP-936766
CN1881835	A	2006-12-20	CN1881835
CN1881836	A	2006-12-20	CN1881836
CN1881854	A	2006-12-20	CN1881854



CN1881856	A	2006-12-20	CN1881856				
KR100644173	B1	2006-11-10	KR100644173				
US6996077	B1	2006-02-07	US6996077				
EP0936766	A4	2005-01-26	EP-936766				
CN1536800	A	2004-10-13	CN1536800				
KR100425810	B1	2004-04-03	KR100425810				
JP3505354	B2	2004-03-08	JP3505354				
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KR20040004460	A	2004-01-13	KR20040004460				
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US20030137963	A1	2003-07-24	US20030137963				
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KR100350935	B1	2002-08-30	KR100350935				
CA2260227	C	2002-08-27	CA2260227				
KR100347409	B1	2002-08-03	KR100347409				
KR100347410	B1	2002-08-03	KR100347410				
KR100338289	B1	2002-05-27	KR100338289				
KR20000068332	A	2000-11-25	KR20000068332				
AU724049	B2	2000-09-14	AU-724049				
CN1231090	A	1999-10-06	CN1231090				
EP0936766	A1	1999-08-18	EP-936766				
JP11074826	A	1999-03-16	JP11074826				
JP11027230	A	1999-01-29	JP11027230				
JP11027592	A	1999-01-29	JP11027592				
JP11027659	A	1999-01-29	JP11027659				
AU7937598	A	1999-01-25	AU9879375				
CA2260227	A1	1999-01-14	CA2260227				
WO99/01957	A1	1999-01-14	WO9901957				
JP10308941	A	1998-11-17	JP10308941				

Abstract

(EP0936766)

In a broadcasting receiver, to quickly switch channels of the received multiplexed broadcasting signals at a high response speed to improve the convenience for a viewer, when broadcasting signals of a plurality of channels are to be code-division-multiplexed and broadcasted from a ground broadcasting station (BC1, BC2) to a broadcasting receiver (MS) in a service area via a geostationary **satellite** (SAT), the broadcasting signals are multiplexed and transmitted after matching the spreading code phase between the channels in the ground broadcasting station (BC1, BC2). Alternatively, the spreading code phase difference between the channels of a CDM broadcasting signal arriving from the ground broadcasting station (BC1, BC2) is detected in the geostationary **satellite** (SAT), and the broadcasting signal is transmitted to the broadcasting receiver (MS) after matching the spreading code phase between the channels on the basis of the detection result.

Inventors

SUENAGA MASASHI

OKA MASARU

KOISHI YOICHI

FUJIMORI YUKIYOSHI

KIKUCHI HIDEO

Latest standardized assignees - inventors removed

TOSHIBA

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Title

(EP3398266)

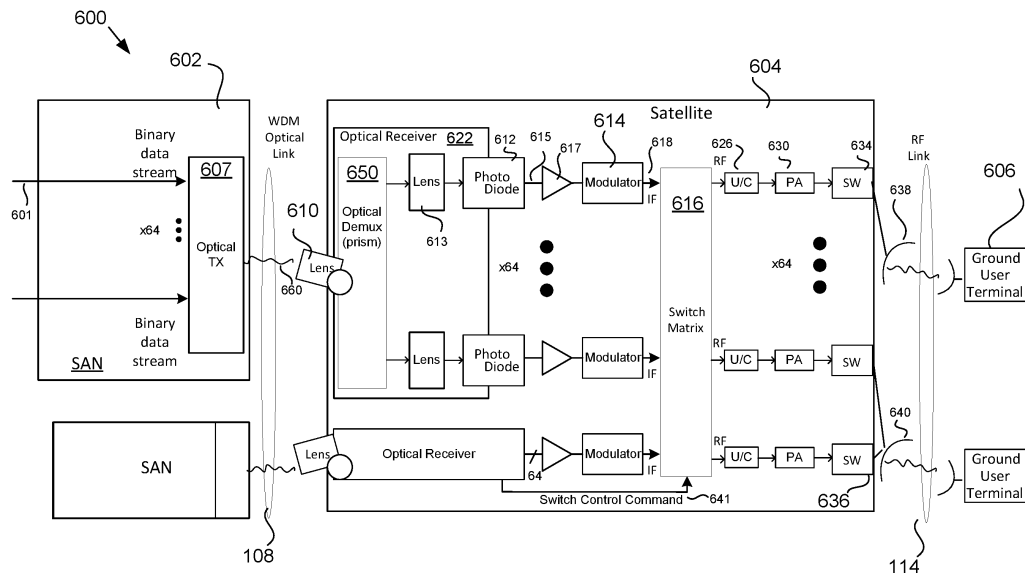
Broadband **satellite** communication system using optical feeder links**Images**

FIG. 4

Publication numbers with kind code & date

AU2019246933	A1	2019-10-31	AU2019246933
AU2016381512	B2	2019-09-19	AU2016381512
PH12018501377	A1	2019-02-18	PH12018501377
JP2019500808	A	2019-01-10	JP2019500808
BR112018013347	A2	2018-12-11	BR112018013347
CN108886402	A	2018-11-23	CN108886402
IN201817026999	A	2018-11-16	IN201817026999
EP3398266	A1	2018-11-07	EP3398266
SV2018005719	A	2018-10-16	SV2018005719
CL2018001778	A1	2018-09-28	CL2018001778
KR20180105140	A	2018-09-27	KR20180105140
VN59539	A	2018-09-25	VN--59539
IL260276	A	2018-09-20	IL-260276
MX2018008156	A	2018-09-03	MX2018008156
CO2018007822	A2	2018-08-10	CO2018007822
SG11201805447W	A	2018-07-30	SG11201805447W
AU2016381512	A1	2018-07-12	AU2016381512
BR112018013347	A1	2018-07-10	BR112018013347
CA3009795	A1	2017-07-06	CA3009795
WO2017/117584	A1	2017-07-06	WO2017/117584

**Abstract**

(EP3398266)

Broadband **satellite** communications systems using optical feeder links are disclosed. Various optical modulation schemes

are disclosed that can provide improved capacity for fixed spot beam, on board beamforming, and ground-based beamforming broadband **satellite** systems.

Inventors

MENDELSON AARON

Latest standardized assignees - inventors removed

VIASAT

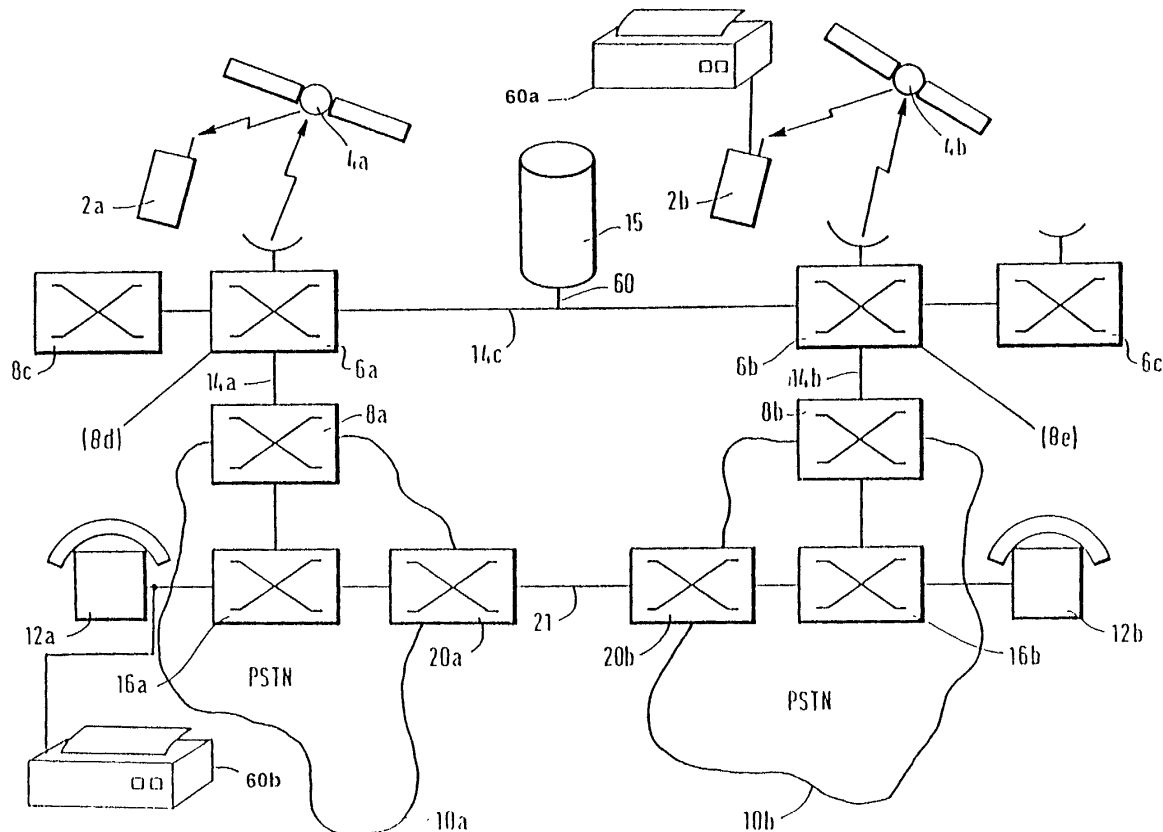
Family 5/8 - FAMPAT - ©Questel

Title

(WO200165727)

Satellite communications with **satellite** routing according to channels assignment signals

Images



Publication numbers with kind code & date

US20020122408	A1	2002-09-05	US20020122408
GB2365677	A	2002-02-20	GB2365677
WO01/65727	A1	2001-09-07	WO200165727
GB0004856	D0	2000-04-19	GB200004856



Abstract

(WO01/65727)

A **satellite** system comprising at least one **satellite** (4); at least one Earth station (6), and a plurality of user terminals (2), the **satellite** (4) being arranged to provide a link between each user terminal (2) and the Earth station (6), via communications channels, each channel comprising one or more timeslots in a repeating time frame on one or more frequencies, carried by a feeder link beam between said **satellite** (4) and the or each said Earth station (6), and one of a plurality of user terminal link beams (B1-BN) between the **satellite** (4) and the user terminals (2), the **satellite** comprising a multiplexer (211) for multiplexing the channels from multiple said terminal link beams onto each said feeder link beam, and a demultiplexer (111) for demultiplexing the channels from onto each said feeder link beam onto multiple said terminal link beams; and further comprising at least one router (112, 212) for assigning channels to and from particular said terminal link beams in

response to control signals from said Earth station (6), characterised in that the Earth station (6) is arranged to send, during a first said frame period, channel assignment signals relating to channel assignments in a following said frame period, and in that the **satellite** (4) is arranged to control the router (112, 212) in accordance with said channel assignment signals in said following frame period.

Inventors

MULLINS DENNIS ROY

Latest standardized assignees - inventors removed

ICO SERVICES

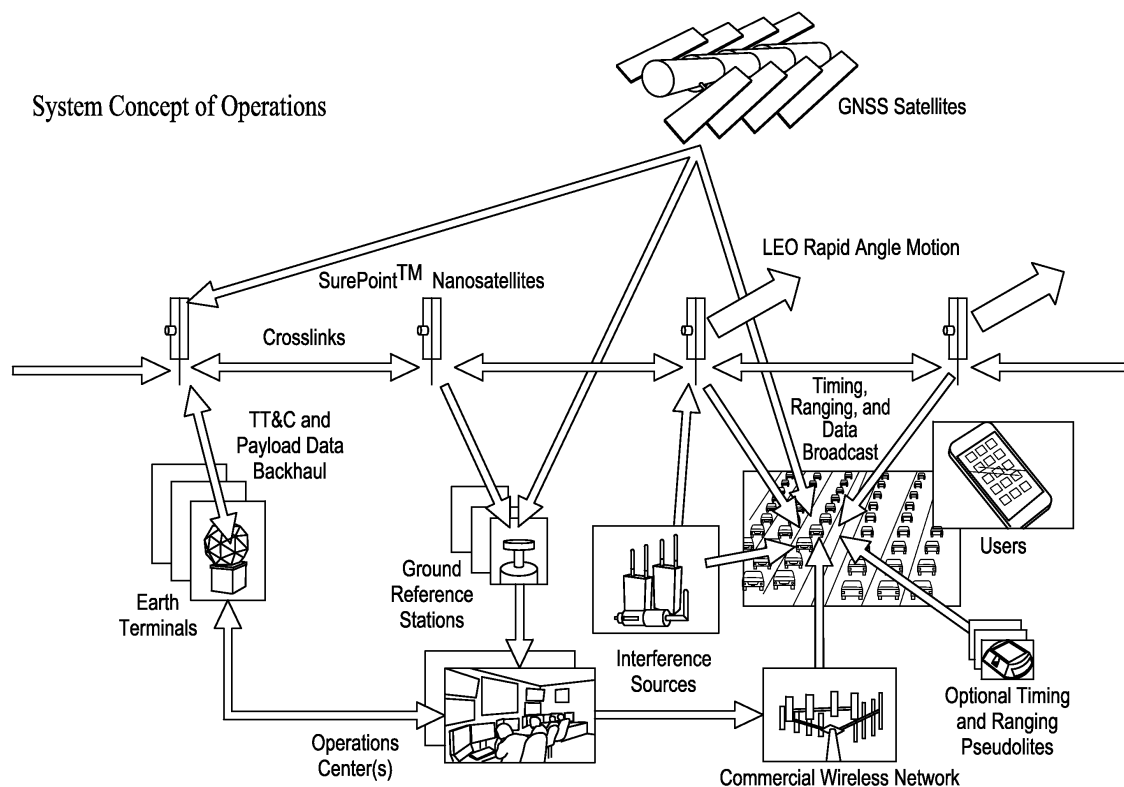
Family 6/8 - FAMPAT - ©Questel

Title

(EP3110695)

An improved performance and cost global navigation **satellite** system architecture

Images



Publication numbers with kind code & date

EP3110695	A4	2018-02-21	EP3110695
JP2017511885	A	2017-04-27	JP2017511885
CN106470901	A	2017-03-01	CN106470901
EP3110695	A2	2017-01-04	EP3110695
KR20160147724	A	2016-12-23	KR20160147724
IN201647032512	A	2016-11-11	IN201647032512
AU2015222926	A1	2016-10-13	AU2015222926
US20160011318	A1	2016-01-14	US20160011318
WO2015/130950	A3	2015-11-26	WO2015130950
CA2940652	A1	2015-09-03	CA2940652
WO2015/130950	A2	2015-09-03	WO2015130950



Abstract

(EP3110695)

Significant, cost-effective improvement is introduced for Position, Navigation, and Timing (PNT) on a global basis,

particularly enhancing the performance of Global Navigation **Satellite** Systems (GNSS), an example of which is the Global Positioning System (GPS). The solution significantly improves performance metrics including the accuracy, integrity, time to acquire, interference rejection, and spoofing protection. A constellation of small satellites employing a low-cost architecture combined with improved signal processing yields an affordable enabler for spectrum-efficient transportation mobility. As air traffic management modernization transitions to a greater dependence on **satellite** positioning, the solution provides aviation users new protections from both intentional and unintentional interference to navigation and surveillance. And in response to an era in which intelligent transportation is under development for automobiles, reliable where-in-lane positioning enables new applications in connected and autonomous vehicles. New military capability increases PNT availability.

Inventors

COHEN CLARK EMERSON

Latest standardized assignees - inventors removed

PNT HOLDINGS

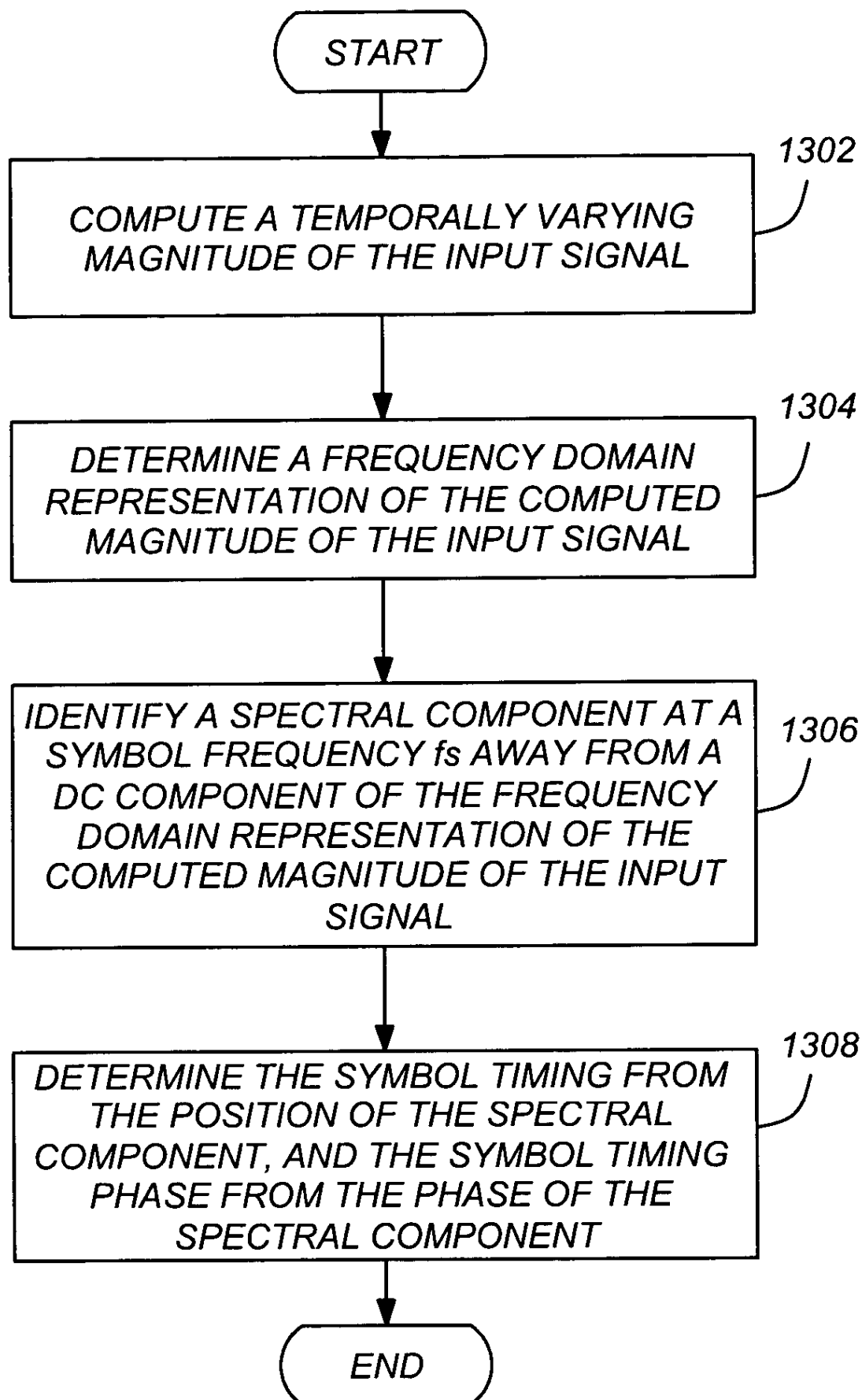
Family 7/8 - FAMPAT - ©Questel

Title

(EP1382141)

Power division multiplexing with incoherent signals and fixed power hierarchy

Images

**Publication numbers with kind code & date**

NO337735	B1	2016-06-13	NO-337735
NO335059	B1	2014-09-01	NO-335059
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EP1382141	B1	2012-11-28	EP1382141				
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AT453970	T	2010-01-15	ATE453970				
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US7423987	B2	2008-09-09	US7423987				
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US20040141575	A1	2004-07-22	US20040141575				
US20040136469	A1	2004-07-15	US20040136469				
WO2004/040820	A3	2004-07-15	WO200440820				
AU2003282854	A1	2004-05-25	AU2003282854				
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WO2004/040820	A2	2004-05-13	WO200440820				
WO2004/040924	A1	2004-05-13	WO200440924				
IL157960	A	2004-03-28	IL-157960				
EP1382141	A1	2004-01-21	EP1382141				
AR033277	A1	2003-12-10	AR--33277				
WO02/89371	A8	2003-02-27	WO200289371				
NO20026115	D0	2002-12-19	NO200206115				
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US20020181604	A1	2002-12-05	US20020181604				
CA2442400	A1	2002-11-07	CA2442400				
WO02/89371	A1	2002-11-07	WO200289371				

Abstract

(EP1382141)

A multiresolution transmission scheme is proposed in which the different data is transmitted from separate incoherent transmitters possibly located at different locations. This scheme permits a backward compatible upgrade of an existing system. The different data streams are transmitted at different power levels, that is power division multiplexing is used. A multistage receiver which performs successive cancellation is proposed to extract the data. For each transmitter QPSK modulation is considered.

Inventors

CHEN ERNEST C

Latest standardized assignees - inventors removed

DIRECTV

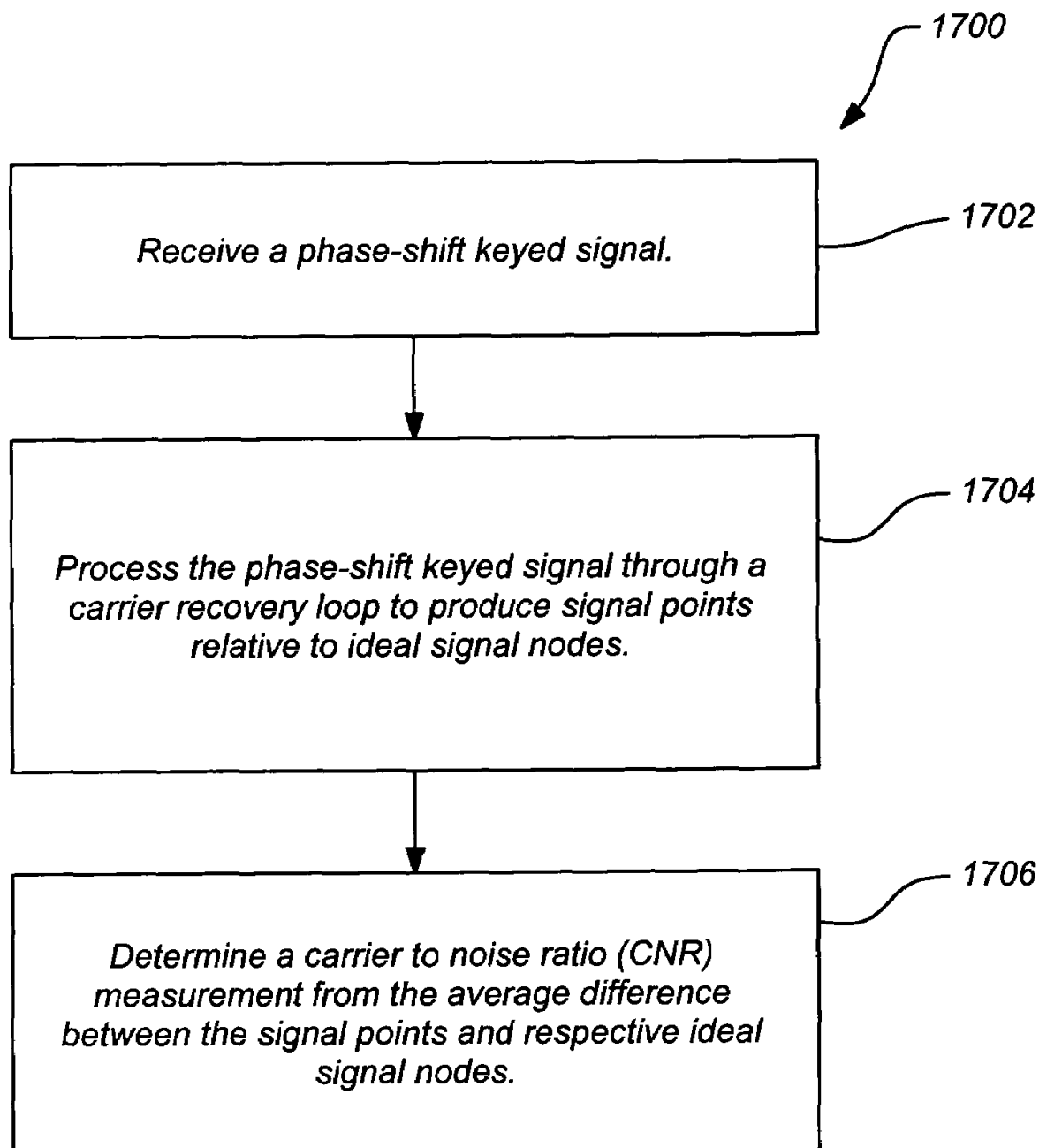
Family 8/8 - FAMPAT - ©Questel

Title

(EP1624598)

Carrier to noise ratio estimations from a received signal

Images



Publication numbers with kind code & date

IL170106	B	2012-02-29	IL-170106
CA2515167	C	2010-03-30	CA2515167
US7639759	B2	2009-12-29	US7639759
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Abstract

(EP1624598)

Techniques for measuring the carrier to noise ratio (CNR) in a received digital signal are disclosed. The methods can operate on a received digital signal, such as a layered modulation signal used in a **satellite** television system. The CNR

measurement can be made at the output of a carrier recovery loop or a timing recovery loop in a tuner/demodulator (904). Alternately, the CNR measurement can be made when the received signal is digitized in an analog to digital (A/D) converter at base-band by the tuner/demodulator (904).

Inventors

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Latest standardized assignees - inventors removed

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