VAEVS 1000
METHOD AND DEVICE FOR EFFICIENT FRAME ERASURE CONCEALMENT IN LINEAR PREDICTIVE BASED SPEECH CODECS

Country	Patent #	Issue Date (yyyy/mm/dd)
US	7,693,710	2010-04-06
AU	2003233724	2009-10-29
BR	PI0311523-2	2018-06-26
BR Divisional	BR122017019860-2	2019-01-29
CA	2,483,791	2013-09-03
CN	ZL03812594.3	2007-09-19
EP	1509903	2017-04-12
BE	1509903	2017-04-12
CH/LI	1509903	2017-04-12
DE	1509903	2017-04-12
DK	1509903	2017-04-12
ES	1509903	2017-04-12
FI	1509903	2017-04-12
FR	1509903	2017-04-12
UK	1509903	2017-04-12
IE	1509903	2017-04-12
IT	1509903	2017-04-12
NL	1509903	2017-04-12
SE	1509903	2017-04-12
TR	1509903	2017-04-12
IN	239135	2010-03-09
HK	HK1076907B	2018-04-13
JP	4658596	2011-01-07
KR	1032119	2011-04-22
MX	262081	2008-11-10
MY	MY-141649-A	2010-05-31
NZ	536238	2006-10-12
RU	2325707	2008-05-27
ZA	2004/9643	2006-06-28

VAC 1100
METHOD AND DEVICE FOR FREQUENCY-SELECTIVE PITCH ENHANCEMENT OF SYNTHESIZED SPEECH

Country	Patent #	Issue Date (yyyy/mm/dd)
US	7,529,660	2009-05-05
AU	2003233722	2009-09-17
BR	PI0311314-0	2018-02-14
CA	2,483,790	2011-12-20
CN	ZL03812588.9	2008-01-30
EP	1509906	2008-06-25
AT	1509906	2008-06-25
BE	1509906	2008-06-25
CH/LI	1509906	2008-06-25
CY	1509906	2008-06-25
DE	1509906	2008-06-25
DK	1509906	2008-06-25
ES	1509906	2008-06-25
FI	1509906	2008-06-25
FR	1509906	2008-06-25
UK	1509906	2008-06-25
GR	1509906	2008-06-25
IE	1509906	2008-06-25
IT	1509906	2008-06-25
LU	1509906	2008-06-25
MC	1509906	2008-06-25
NL	1509906	2008-06-25
PT	1509906	2008-06-25
SE	1509906	2008-06-25
TR	1509906	2008-06-25
HK	HK1078978	2008-01-30
IN	237351	2009-12-17
JP	4842538	2011-10-14
KR	1039343	2011-05-31
MX	261878	2008-11-03
MY	MY-140905-A	2010-01-29
NO	332045	2012-06-11
NZ	536237	2007-09-13
RU	2327230	2008-06-20
ZA	2004/9647	2006-06-28

VAC 1200
METHOD AND DEVICE FOR MULTI-RATE LATTICE VECTOR QUANTIZATION OF A SIGNAL

Country	Patent #	Issue Date (yyyy/mm/dd)
US	7,106,228	2006-09-12
CA	2,482,994	2011-10-11
CN	ZL 03812652.4	2011-04-20
EP	1514355	2009-08-19
AT	1514355	2009-08-19
CH/LI	1514355	2009-08-19
DE	1514355	2009-08-19
DK	1514355	2009-08-19
ES	1514355	2009-08-19
FI	1514355	2009-08-19
FR	1514355	2009-08-19
UK	1514355	2009-08-19
GR	1514355	2009-08-19
IT	1514355	2009-08-19
NL	1514355	2009-08-19
PT	1514355	2009-08-19
SE	1514355	2009-08-19
JP	4224021	2008-11-28

VAEVS 2200
METHOD AND DEVICE FOR EFFICIENT FRAME ERASURE CONCEALMENT IN SPEECH CODECS

Country	Patent #	Issue Date (yyyy/mm/dd)
US	8,255,207	2012-08-28
IN	322739	2019-10-14
CA	2,628,510	2015-02-24
EP	1979895	2013-10-09
AT	1979895	2013-10-09
BE	1979895	2013-10-09
CH/LI	1979895	2013-10-09
DE	1979895	2013-10-09
DK	1979895	2013-10-09
ES	1979895	2013-10-09
FI	1979895	2013-10-09
FR	1979895	2013-10-09
UK	1979895	2013-10-09
GR	1979895	2013-10-09
IE	1979895	2013-10-09
IT	1979895	2013-10-09
NL	1979895	2013-10-09
PL	1979895	2013-10-09
PT	1979895	2013-10-09
SE	1979895	2013-10-09
TR	1979895	2013-10-09
JP	5149198	2012-12-07
RU	2419891	2011-05-27

VAEVS 2400
METHOD AND DEVICE FOR CODING TRANSITION FRAMES IN SPEECH SIGNALS

Country	Patent #	Issue Date (yyyy/mm/dd)
US	8,401,843	2013-03-19
BR	PI0718300-3	2018-08-14
CA	2,666,546	2016-01-19
CN	ZL200780048077.4	2013-07-13
EP	2 102 619	2017-03-22
AT	2 102 619	2017-03-22
BE	2 102 619	2017-03-22
CH/LI	2 102 619	2017-03-22
DE	2 102 619	2017-03-22
DK	2 102 619	2017-03-22
ES	2 102 619	2017-03-22
FI	2 102 619	2017-03-22
FR	2 102 619	2017-03-22
UK	2 102 619	2017-03-22
GR	2 102 619	2017-03-22
IE	2 102 619	2017-03-22
IT	2 102 619	2017-03-22
NL	2 102 619	2017-03-22
PT	2 102 619	2017-03-22
SE	2 102 619	2017-03-22
TR	2 102 619	2017-03-22
HK	HK1132324	2013-11-15
ID	IDP000035689	2014-03-14
IN	315569	2019-07-04
JP	5166425	2012-12-28
KR	1406113	2014-06-03
MX	310,803	2013-06-21
MY	MY-152845-A	2014-11-28
NO	341585	2017-11-12
PH	1-2009-500783	2014-03-31
RU	2462769	2012-09-27

VAEVS 2700
METHOD AND DEVICE FOR SOUND ACTIVITY DETECTION AND SOUND SIGNAL CLASSIFICATION

Country	Patent #	Issue Date (yyyy/mm/dd)
US	8,990,073	2015-03-24
CA	2,690,433	2016-01-19
EP	2162880	2014-12-24
BE	2162880	2014-12-24
CH/LI	2162880	2014-12-24
DE	2162880	2014-12-24
ES	2162880	2014-12-24
FR	2162880	2014-12-24
UK	2162880	2014-12-24
IT	2162880	2014-12-24
NO	2162880	2014-12-24
TR	2162880	2014-12-24
IN	320355	2019-09-12
JP	5395066	2013-10-25
RU	2441286	2012-01-27

VAEVS 2900
SYSTEM AND METHOD FOR ENHANCING A DECODED TONAL SOUND SIGNAL

Country	Patent #	Issue Date (yyyy/mm/dd)
US	8,401,845	2013-03-19
CA	2,715,432	2016-08-16
EP	2863390	2018-03-31
DE	2863390	2018-03-31
ES	2863390	2018-03-31
FR	2863390	2018-03-31
UK	2863390	2018-03-31
IT	2863390	2018-03-31
IN	301675	2018-09-28
JP	5247826	2013-04-19
RU	2470385	2012-12-20

VAEVS 3300
FLEXIBLE AND SCALABLE COMBINED INNOVATION CODEBOOK FOR USE IN CELP CODER AND DECODER

Country	Patent #	Issue Date (yyyy/mm/dd)
US	9,053,705	2015-06-09
IN	354339	2020-12-23
BR	BR112012025347-6	2020-06-09
CA	2,789,107	2017-08-15
AU	2011241424	2016-08-18
CN	ZL 201180018989.3	2017-05-03
EP	2559028	2015-09-16
AT	2559028	2015-09-16
BE	2559028	2015-09-16
CH/LI	2559028	2015-09-16
DE	2559028	2015-09-16
DK	2559028	2015-09-16
ES	2559028	2015-09-16
FI	2559028	2015-09-16
FR	2559028	2015-09-16
UK	2559028	2015-09-16
GR	2559028	2015-09-16
IE	2559028	2015-09-16
IT	2559028	2015-09-16
NO	2559028	2015-09-16
NL	2559028	2015-09-16
PT	2559028	2015-09-16
SE	2559028	2015-09-16
TR	2559028	2015-09-16
HK	HK1175581B	2018-03-09
JP	6073215	2017-01-13
JP Divisional	6456412	2018-12-28
KR	1771065	2017-08-18
MY	MY-162594-A	2017-06-30
MX	323972	2014-09-17
RU	2547238	2015-04-10
ZA	2012/06333	2013-04-24

VAEVS 3500 CODING GENERIC AUDIO SIGNALS AT LOW BITRATES AND LOW DELAY		
Country	**Patent #**	**Issue Date (yyyy/mm/dd)**
US	9,015,038	2015-04-21
IN	405869	2022-09-06
CA	2,815,249	2018-04-24
CN	ZL 201180062729.6	2015-06-03
EP	2633521	2018-08-01
AT	2633521	2018-08-01
BE	2633521	2018-08-01
CH/LI	2633521	2018-08-01
CZ	2633521	2018-08-01
DE	2633521	2018-08-01
DK	2633521	2018-08-01
ES	2633521	2018-08-01
FI	2633521	2018-08-01
FR	2633521	2018-08-01
UK	2633521	2018-08-01
GR	2633521	2018-08-01
IE	2633521	2018-08-01
IT	2633521	2018-08-01
Nl	2633521	2018-08-01
NO	2633521	2018-08-01
PL	2633521	2018-08-01
PT	2633521	2018-08-01
RO	2633521	2018-08-01
SE	2633521	2018-08-01
TR	2633521	2018-08-01
HK	HK1185709B	2015-12-24
JP	5978218	2016-07-29
KR	1858466	2018-05-10
MX	351750	2017-09-29
MY	MY-164748-A	2018-01-30
RU	2596584	2016-09-10
KR	1998609	2019-07-04

VAEVS 3600
DEVICE AND METHOD FOR QUANTIZING THE GAINS OF THE ADAPTATIVE AND FIXED CONTRIBUTIONS OF THE EXCITATION IN A CELP CODEC

Country	Patent #	Issue Date (yyyy/mm/dd)
US	9,076,443	2015-07-07
US Divisional	9,626,982	2017-04-18
US Cont.	9,911,425	2018-03-06
US Cont.	10,115,408	2018-10-30
AU	2012218778	2017-02-17
CN	ZL 201280008952.7	2017-04-12
CN Divisional	ZL 201510023526.6	2018-08-17
HK	HK1187441B	2018-03-09
JP	6072700	2017-01-13
JP Divisional	6316398	2018-04-06
KR	1999563	2019-07-08
MX	330992	2015-04-21
PH	1-2013-501216	2016-03-18
RU	2591021	2016-07-10
NZ	611801	2015-09-29
ZA	2013/05431	2016-07-27
CA	2,821,577	2020-03-24
EP	2676271	2020-07-29
BE	2676271	2020-07-29
CH	2676271	2020-07-29
DE	60 2012 071 475.1	2020-07-29
DK	2676271	2020-07-29
ES	2676271	2020-07-29
FI	2676271	2020-07-29
FR	2676271	2020-07-29
GB	2676271	2020-07-29
HR	2676271	2020-07-29
HU	2676271	2020-07-29
IE	2676271	2020-07-29
IT	2676271	2020-07-29
LT	2676271	2020-07-29
LV	2676271	2020-07-29
MC	2676271	2020-07-29
MT	2676271	2020-07-29

LU	2676271	2020-07-29
NL	2676271	2020-07-29
SE	2676271	2020-07-29
SI	2676271	2020-07-29
TR	2020-GE-365662	2020-07-29
IN	366267	2021-01-07

VAEVS 3700
TRANSFORM-DOMAIN CODEBOOK IN A CELP CODER AND DECODER

Country	Patent #	Issue Date (yyyy/mm/dd)
US	8,825,475	2014-09-02
IN	332054	2020-02-14
CA	2,830,105	2018-06-05
CN	ZL 201280022757.X	2016-04-20
EP	2707687	2018-03-28
AT	2707687	2018-03-28
BE	2707687	2018-03-28
DE	2707687	2018-03-28
DK	2707687	2018-03-28
ES	2707687	2018-03-28
FI	2707687	2018-03-28
FR	2707687	2018-03-28
UK	2707687	2018-03-28
GR	2707687	2018-03-28
IE	2707687	2018-03-28
IT	2707687	2018-03-28
NL	2707687	2018-03-28
NO	2707687	2018-03-28
PT	2707687	2018-03-28
SE	2707687	2018-03-28
TR	2707687	2018-03-28
JP	6173304	2017-07-14
HK	1191395B	2017-01-27

VAEVS 3800
IMPROVING NON-SPEECH CONTENT FOR LOW RATE CELP DECODER

Country	Patent #	Issue Date (yyyy/mm/dd)
US	9,252,728	2016-02-02
CN	ZL 201710019918.4	2020-08-21
CN	ZL 201710020311.8	2020-08-18
EP	2774145	2020-06-17
BE	2774145	2020-06-17
CH	2774145	2020-06-17
DE	60 2012 070 802.6	2020-06-17
DK	2774145	2020-06-17
ES	2774145	2020-06-17
FI	2774145	2020-06-17
FR	2774145	2020-06-17
GB	2774145	2020-06-17
HR	2774145	2020-06-17
HU	2774145	2020-06-17
IE	2774145	2020-06-17
IT	2774145	2020-06-17
LT	2774145	2020-06-17
LV	2774145	2020-06-17
MC	2774145	2020-06-17
MT	2774145	2020-06-17
LU	2774145	2020-06-17
NL	2774145	2020-06-17
SE	SE2774145	2020-06-17
SI	2774145	2020-06-17
TR	2020-GE-299329	2020-06-17
KR	2105044	2020-04-21
CA	2,851,370	2019-12-03
CN	ZL201280065936.1	2017-03-01
JP	6239521	2017-11-10
JP Divisional	6513769	2019-04-19
JP Divisional	6532926	2019-05-31
HK	HK1198265B	2018-01-12

VAEVS 3900
DEVICE AND METHOD FOR REDUCING QUANTIZATION NOISE IN A TIME-DOMAIN DECODER

Country	Patent #	Issue Date (yyyy/mm/dd)
US	9,384,755	2016-07-05
US Cont.	9,870,781	2018-01-16
JP	7179812	2022-11-18
IN	398908	2022-06-10
HK	40011549B	2021-08-06
EP	3537437	2021-04-14
BE	3537437	2021-04-14
CH/LI	3537437	2021-04-14
DE	3537437	2021-04-14
DK	3537437	2021-04-14
ES	3537437	2021-04-14
FI	3537437	2021-04-14
FR	3537437	2021-04-14
GB	3537437	2021-04-14
HR	3537437	2021-04-14
HU	3537437	2021-04-14
IE	3537437	2021-04-14
IT	3537437	2021-04-14
LT	3537437	2021-04-14
LV	3537437	2021-04-14
MC	3537437	2021-04-14
MT	3537437	2021-04-14
LU	3537437	2021-04-14
NL	3537437	2021-04-14
SE	3537437	2021-04-14
SI	3537437	2021-04-14
TR	3537437	2021-04-14
KR	2237718	2021-04-02
HK	1212088B	2021-01-15
JP	6790048	2020-11-06
CN	ZL 201480010636.2	2019-12-20
CA	2,898,095	2019-12-03
AU	2014225223	2019-10-17
EP	2965315	2019-04-24
BE	2965315	2019-04-24
CH	2965315	2019-04-24
DE	2965315	2019-04-24

DK	2965315	2019-04-24
FI	2965315	2019-04-24
FR	2965315	2019-04-24
GB	2965315	2019-04-24
IE	2965315	2019-04-24
IT	2965315	2019-04-24
LU	2965315	2019-04-24
NL	2965315	2019-04-24
TR	2965315	2019-04-24
ID	IDP000051355	2018-05-30
JP	6453249	2018-12-21
MX	345,389	2017-01-26
NZ	710060	2017-03-24
PH	1-2015-501575	2018-06-20
RU	2638744	2017-12-15

VAEVS 4000

METHODS, ENCODER AND DECODER FOR LINEAR PREDICTIVE ENCODING AND DECODING OF SOUND SIGNALS UPON TRANSITION BETWEEN FRAMES HAVING DIFFERENT SAMPLING RATES

Country	Patent#	Issue date (yyyy/mm/dd)
US	9,852,741	2017-12-26
US	10,431,233	2019-10-01
US	10,468,045	2019-11-05
US	11,282,530	2022-03-22
IN	405466	2022-09-01
BR	BR122020015614-7	2022-06-07
CA	2,940,657	2021-12-21
HK	1227168B	2021-08-27
CN	ZL 201480077951.7	2021-05-04
HK	40011418B	2021-03-19
KR	2222838	2021-02-25
BR	BR112016022466-3	2020-12-08
EP	3511935	2020-10-07
BE	3511935	2020-10-07
CH/LI	3511935	2020-10-07
DE	3511935	2020-10-07
DK	3511935	2020-10-07
ES	3511935	2020-10-07
FI	3511935	2020-10-07
FR	3511935	2020-10-07
GB	3511935	2020-10-07
HR	3511935	2020-10-07
HU	3511935	2020-10-07
IE	3511935	2020-10-07
IT	3511935	2020-10-07
LT	3511935	2020-10-07
LV	3511935	2020-10-07
MC	3511935	2020-10-07
MT	3511935	2020-10-07
LU	3511935	2020-10-07
NL	3511935	2020-10-07

SE	3511935	2020-10-07
SI	3511935	2020-10-07
TR	3511935	2020-10-07
MY	MY-178026-A	2020-09-09
AU	2014391078	2020-07-09
JP	6692948	2020-04-17
MX	362490	2019-01-18
EP	3132443	2018-12-26
DE	60 2014 038 901.5	2018-12-26
ES	3132443	2018-12-26
FR	3132443	2018-12-26
GB	3132443	2018-12-26
IT	3132443	2018-12-26
NL	3132443	2018-12-26
JP	6486962	2019-03-01
RU	2677453	2019-01-16