



April 1, 2024

ATSC Attachment 1

Page 1 of 5

LG Electronics Inc.

CA 2,482,015  
CA 2,704,055  
CA 2,736,037  
CA 2,736,049  
CA 2,736,071  
CA 2,736,089  
CA 2,775,719  
CA 2,775,955  
CN 200410082420.5  
CN 201010166905.8  
CN 201010166915.1  
CN 201010167609.X  
CN 201010167638.6  
US 7,542,096  
US 7,714,933  
US 7,719,615  
US 7,877,769  
US 7,936,399  
US 8,035,742  
US 8,605,216  
US 8,711,281  
US 8,711,282  
US 8,711,283  
US 8,743,282  
US 8,743,283  
US 8,749,705  
US 8,754,985  
US 8,754,986  
US 8,760,576  
US 8,780,268  
US 8,786,777  
US 8,792,055  
US 8,797,459  
US 8,817,180  
US 8,817,181  
US 8,823,874  
US 8,830,396  
US 8,885,101  
US 8,988,606  
US 8,988,607  
US 8,988,608  
US 9,001,273  
US 9,019,434  
US 9,030,608  
US 9,049,476  
US 9,060,154  
US 9,060,204

**Expired Patents****Cisco Technology, Inc.**

CA 2,220,918 - Exp. May 21, 2016  
JP 3,443,122 - Exp. Nov 10, 2017  
US 5,600,378 - Exp. May 21, 2015  
US 6,215,530 - Exp. May 21, 2015

**JVCKENWOOD Corporation**

CN 95102295.4 - Exp. Feb 21, 2015  
IN 183,312 - Exp. Mar 12, 2015  
JP 2,853,727 - Exp. Feb 22, 2014  
JP 3,102,416 - Exp. Feb 22, 2014  
US Re. 42,549 - Exp. Feb 21, 2015  
US 8,220,016 - Exp. Feb 21, 2015

**Koninklijke Philips N.V.**

US 5,684,541 - Exp. May 11, 2014

**LG Electronics Inc.**

CA 2,322,909 - Exp. Oct 6, 2020  
CA 2,575,035 - Exp. Oct 6, 2020  
CA 2,575,037 - Exp. Oct 6, 2020  
CA 2,575,038 - Exp. Oct 6, 2020  
CA 2,628,000 - Exp. Oct 6, 2020  
CA 2,629,277 - Exp. Oct 6, 2020  
CA 2,630,140 - Exp. Oct 6, 2020  
CA 2,688,848 - Exp. Oct 6, 2020  
CA 2,688,849 - Exp. Oct 6, 2020  
CA 2,688,851 - Exp. Oct 6, 2020  
CA 2,688,917 - Exp. Oct 6, 2020  
CA 2,688,918 - Exp. Oct 6, 2020  
CA 2,688,919 - Exp. Oct 6, 2020  
CA 2,688,931 - Exp. Oct 6, 2020  
CA 2,688,933 - Exp. Oct 6, 2020  
CA 2,689,061 - Exp. Oct 6, 2020  
CA 2,689,063 - Exp. Oct 6, 2020  
CA 2,689,070 - Exp. Oct 6, 2020  
CA 2,730,368 - Exp. Oct 6, 2020  
CA 2,730,576 - Exp. Oct 6, 2020  
CA 2,730,840 - Exp. Oct 6, 2020  
CA 2,767,311 - Exp. Oct 6, 2020  
CA 2,796,906 - Exp. Oct 6, 2020  
CA 2,796,926 - Exp. Oct 6, 2020  
CA 2,797,143 - Exp. Oct 6, 2020

CA 2,797,145 - Exp. Oct 6, 2020  
CA 2,797,146 - Exp. Oct 6, 2020  
CN 00136652.1 - Exp. Oct 8, 2020  
CN 02120676.7 - Exp. Feb 17, 2015  
CN 95102034.X - Exp. Feb 17, 2015  
CN 200510004609.7 - Exp. Feb 17, 2015  
KR 10-1012392 - Exp. Sep 17, 2023  
KR 10-1012393 - Exp. Sep 17, 2023  
KR 10-1012394 - Exp. Sep 17, 2023  
KR 10-1012395 - Exp. Sep 17, 2023  
KR 10-1012396 - Exp. Sep 17, 2023  
KR 10-1041826 - Exp. Sep 17, 2023  
KR 10-1092459 - Exp. Sep 17, 2023  
KR 10-1128819 - Exp. Sep 17, 2023  
KR 10-1259123 - Exp. Sep 17, 2023  
KR 10-1284632 - Exp. Sep 17, 2023  
KR 10-1285670 - Exp. Sep 17, 2023  
KR 10-1285671 - Exp. Sep 17, 2023  
KR 10-1285673 - Exp. Sep 17, 2023  
KR 10-1285674 - Exp. Sep 17, 2023  
KR 348,249 - Exp. Oct 8, 2019  
KR 820,154 - Exp. Jun 16, 2021  
KR 848,653 - Exp. Jun 16, 2021  
KR 962,937 - Exp. Jun 16, 2021  
KR 962,938 - Exp. Jun 16, 2021  
KR 962,939 - Exp. Jun 16, 2021  
KR 962,940 - Exp. Jun 16, 2021  
KR 962,941 - Exp. Jun 16, 2021  
KR 962,942 - Exp. Jun 16, 2021  
KR 962,943 - Exp. Jun 16, 2021  
KR 978,504 - Exp. Jun 16, 2021  
KR 978,505 - Exp. Jun 16, 2021  
KR 980,047 - Exp. Sep 17, 2023  
KR 1,019,486 - Exp. Sep 17, 2023  
KR 1,019,487 - Exp. Sep 17, 2023  
KR 1,165,645 - Exp. Sep 17, 2023  
KR 1,208,562 - Exp. Sep 17, 2023  
KR 1,314,629 - Exp. Sep 17, 2023  
KR 1,314,630 - Exp. Sep 17, 2023  
KR 1,314,631 - Exp. Sep 17, 2023  
KR 1,328,968 - Exp. Sep 17, 2023  
KR 1,341,539 - Exp. Sep 17, 2023  
KR 1,341,544 - Exp. Sep 17, 2023  
KR 1,342,380 - Exp. Sep 17, 2023  
KR 1,342,381 - Exp. Sep 17, 2023  
KR 1,342,382 - Exp. Sep 17, 2023  
KR 1,342,384 - Exp. Sep 17, 2023  
KR 1,342,387 - Exp. Sep 17, 2023

KR 1,342,388 - Exp. Sep 17, 2023  
KR 1,342,389 - Exp. Sep 17, 2023  
KR 1,377,971 - Exp. Sep 17, 2023  
KR 1,377,972 - Exp. Sep 17, 2023  
KR 1,377,975 - Exp. Sep 17, 2023  
KR 1,377,976 - Exp. Sep 17, 2023  
KR 1,405,979 - Exp. Sep 17, 2023  
KR 1,405,981 - Exp. Sep 17, 2023  
KR 1,405,982 - Exp. Sep 17, 2023  
KR 1,405,983 - Exp. Sep 17, 2023  
KR 1,405,984 - Exp. Sep 17, 2023  
KR 1,405,985 - Exp. Sep 17, 2023  
KR 1,405,986 - Exp. Sep 17, 2023  
KR 1,405,987 - Exp. Sep 17, 2023  
KR 1,405,988 - Exp. Sep 17, 2023  
KR 1,405,989 - Exp. Sep 17, 2023  
KR 1,430,504 - Exp. Sep 17, 2023  
KR 1,467,807 - Exp. Sep 17, 2023  
KR 1,467,809 - Exp. Sep 17, 2023  
KR 1,467,810 - Exp. Sep 17, 2023  
KR 1,467,811 - Exp. Sep 17, 2023  
KR 1,467,812 - Exp. Sep 17, 2023  
KR 1,467,813 - Exp. Sep 17, 2023  
KR 1,467,814 - Exp. Sep 17, 2023  
KR 1,467,815 - Exp. Sep 17, 2023  
KR 1,467,816 - Exp. Sep 17, 2023  
KR 1,490,273 - Exp. Sep 17, 2023  
KR 1,490,274 - Exp. Sep 17, 2023  
KR 1,490,275 - Exp. Sep 17, 2023  
KR 1,490,276 - Exp. Sep 17, 2023  
KR 1,490,277 - Exp. Sep 17, 2023  
KR 1,490,278 - Exp. Sep 17, 2023  
KR 1,490,279 - Exp. Sep 17, 2023  
KR 1,490,280 - Exp. Sep 17, 2023  
KR 1,490,281 - Exp. Sep 17, 2023  
KR 1,507,872 - Exp. Sep 17, 2023  
KR 1,520,715 - Exp. Sep 17, 2023  
KR 1,520,716 - Exp. Sep 17, 2023  
KR 1,520,717 - Exp. Sep 17, 2023  
KR 1,520,718 - Exp. Sep 17, 2023  
KR 1,537,627 - Exp. Sep 17, 2023  
US Re. 36,919 - Exp. Nov 30, 2015  
US Re. 36,980 - Exp. Jan 22, 2015  
US Re. 42,320 - Exp. Sep 15, 2014  
US Re. 42,342 - Exp. Sep 15, 2014  
US Re. 44,231 - Exp. Sep 15, 2014  
US Re. 44,259 - Exp. Sep 15, 2014  
US Re. 44,282 - Exp. Sep 15, 2014  
US Re. 44,729 - Exp. Sep 15, 2014



US Re. 44,741 - Exp. Sep 15, 2014  
US 6,175,718 - Exp. Mar 4, 2017  
US 7,051,359 - Exp. Jan 3, 2021  
US 7,051,361 - Exp. Jul 4, 2023  
US 7,073,194 - Exp. Nov 15, 2020  
US 7,080,401 - Exp. Dec 2, 2020  
US 7,100,189 - Exp. Dec 27, 2020  
US 7,424,729 - Exp. Aug 2, 2023  
US 7,426,742 - Exp. Apr 9, 2021  
US 7,428,745 - Exp. Apr 9, 2021  
US 7,448,064 - Exp. Nov 15, 2020  
US 7,469,415 - Exp. Nov 15, 2020  
US 7,574,722 - Exp. Jan 16, 2021  
US 7,594,248 - Exp. Jan 16, 2021  
US 7,603,695 - Exp. Nov 15, 2020  
US 7,620,972 - Exp. Nov 15, 2020  
US 7,735,112 - Exp. Oct 9, 2020  
US 7,743,397 - Exp. Jan 16, 2021  
US 7,748,024 - Exp. Oct 9, 2020  
US 7,752,645 - Exp. Jan 16, 2021  
US 7,752,646 - Exp. Jan 16, 2021  
US 7,757,256 - Exp. Apr 9, 2021  
US 7,757,257 - Exp. Apr 9, 2021  
US 7,757,266 - Exp. Oct 9, 2020  
US 7,761,894 - Exp. Apr 9, 2021  
US 7,761,895 - Exp. Apr 9, 2021  
US 7,761,896 - Exp. Apr 9, 2021  
US 7,765,572 - Exp. Jan 16, 2021  
US 7,779,447 - Exp. Nov 15, 2020  
US 7,779,448 - Exp. Nov 15, 2020  
US 7,802,289 - Exp. Nov 15, 2020  
US 7,814,529 - Exp. Oct 9, 2020  
US 7,814,530 - Exp. Oct 9, 2020  
US 7,831,994 - Exp. Oct 9, 2020  
US 7,836,468 - Exp. Apr 9, 2021  
US 7,836,469 - Exp. Apr 9, 2021  
US 7,849,484 - Exp. Jan 16, 2021  
US 7,853,976 - Exp. Jan 16, 2021  
US 7,877,770 - Exp. Jun 29, 2022  
US 7,877,771 - Exp. Jun 29, 2022  
US 7,877,772 - Exp. Jun 29, 2022  
US 7,877,773 - Exp. Jun 29, 2022  
US 7,882,534 - Exp. Oct 9, 2020  
US 7,882,535 - Exp. Oct 9, 2020  
US 7,882,536 - Exp. Oct 9, 2020  
US 7,886,331 - Exp. Oct 9, 2020  
US 7,917,926 - Exp. Jun 29, 2022  
US 7,934,238 - Exp. Jan 16, 2021  
US 7,950,035 - Exp. Apr 9, 2021

US 7,950,036 - Exp. Apr 9, 2021  
US 7,958,538 - Exp. Oct 9, 2020  
US 7,962,939 - Exp. Apr 9, 2021  
US 7,984,470 - Exp. Jan 16, 2021  
US 8,347,330 - Exp. Oct 9, 2020  
US 8,347,335 - Exp. Apr 9, 2021  
US 8,347,336 - Exp. Jan 16, 2021  
US 8,443,391 - Exp. Apr 9, 2021  
US 8,443,392 - Exp. Apr 9, 2021  
US 8,443,393 - Exp. Apr 9, 2021  
US 8,443,394 - Exp. Apr 9, 2021  
US 8,443,395 - Exp. Apr 9, 2021  
US 8,443,396 - Exp. Apr 9, 2021  
US 8,443,400 - Exp. Jan 16, 2021  
US 8,443,401 - Exp. Jan 16, 2021  
US 8,448,211 - Exp. Jan 16, 2021  
US 8,473,987 - Exp. Jan 16, 2021  
US 8,484,683 - Exp. Apr 16, 2021  
US 8,495,684 - Exp. Jan 16, 2021  
US 8,510,777 - Exp. Apr 16, 2021  
US 8,516,526 - Exp. Jan 16, 2021  
US 8,522,285 - Exp. Jan 16, 2021  
US 8,522,286 - Exp. Jan 16, 2021  
US 8,539,521 - Exp. Oct 9, 2020  
US 8,539,522 - Exp. Oct 9, 2020  
US 8,544,041 - Exp. Oct 9, 2020  
US 8,549,562 - Exp. Jan 16, 2021  
US 8,555,307 - Exp. Oct 9, 2020  
US 8,561,112 - Exp. Apr 9, 2021  
US 8,621,522 - Exp. Apr 9, 2021  
US 8,627,375 - Exp. Apr 9, 2021  
US 8,631,442 - Exp. Jan 16, 2021  
US 8,631,443 - Exp. Jan 16, 2021  
US 8,631,444 - Exp. Jan 16, 2021  
US 8,631,445 - Exp. Jan 16, 2021  
US 8,631,446 - Exp. Jan 16, 2021  
US 8,631,447 - Exp. Jan 16, 2021  
US 8,635,648 - Exp. Apr 16, 2021  
US 8,635,650 - Exp. Jan 16, 2021  
US 8,640,155 - Exp. Oct 9, 2020  
US 8,640,169 - Exp. Apr 16, 2021  
US 8,640,171 - Exp. Jan 16, 2021  
US 8,646,004 - Exp. Apr 16, 2021  
US 8,646,007 - Exp. Jan 16, 2021  
US 8,650,594 - Exp. Apr 16, 2021  
US 8,667,535 - Exp. Apr 16, 2021  
US 8,677,405 - Exp. Oct 9, 2020  
US 8,677,411 - Exp. Apr 16, 2021  
US 8,677,412 - Exp. Apr 16, 2021

US 8,677,413 - Exp. Apr 16, 2021  
US 8,683,506 - Exp. Oct 9, 2020  
US 8,683,523 - Exp. Apr 16, 2021  
US 8,695,039 - Exp. Apr 16, 2021  
US 8,695,040 - Exp. Apr 16, 2021  
US 8,701,142 - Exp. Oct 9, 2020  
US 8,707,344 - Exp. Oct 9, 2020  
US 8,707,345 - Exp. Oct 9, 2020  
US 8,707,356 - Exp. Oct 9, 2020  
US 8,707,367 - Exp. Oct 9, 2020  
US 8,707,368 - Exp. Oct 9, 2020  
US 8,713,610 - Exp. Apr 9, 2021  
US 8,713,611 - Exp. Apr 9, 2021  
US 8,726,333 - Exp. Oct 9, 2020  
US 8,732,752 - Exp. Oct 9, 2020  
US 8,739,209 - Exp. Oct 9, 2020  
US 8,752,082 - Exp. Oct 9, 2020  
US 8,776,128 - Exp. Apr 9, 2021  
US 8,776,129 - Exp. Apr 9, 2021  
US 8,776,130 - Exp. Apr 9, 2021  
US 8,776,131 - Exp. Apr 9, 2021  
US 8,776,135 - Exp. Jan 16, 2021  
US 8,782,695 - Exp. Oct 9, 2020  
US 8,782,705 - Exp. Apr 16, 2021  
US 8,782,707 - Exp. Apr 9, 2021  
US 8,782,708 - Exp. Apr 9, 2021  
US 8,789,112 - Exp. Jan 16, 2021  
US 8,793,740 - Exp. Jan 16, 2021  
US 8,793,741 - Exp. Jan 16, 2021  
US 8,799,960 - Exp. Jan 16, 2021  
US 8,806,539 - Exp. Jan 16, 2021  
US 8,850,484 - Exp. Apr 9, 2021  
US 8,863,197 - Exp. Jan 16, 2021  
US 8,881,199 - Exp. Apr 9, 2021  
US 8,893,188 - Exp. Apr 9, 2021  
US 8,898,699 - Exp. Oct 9, 2020  
US 8,898,706 - Exp. Apr 9, 2021  
US 8,910,204 - Exp. Oct 9, 2020  
US 8,910,205 - Exp. Oct 9, 2020  
US 8,910,214 - Exp. Jan 16, 2021  
US 8,910,215 - Exp. Jan 16, 2021  
US 8,918,813 - Exp. Apr 16, 2021  
US 8,918,816 - Exp. Jan 16, 2021  
US 8,918,817 - Exp. Jan 16, 2021  
US 8,925,012 - Exp. Apr 16, 2021  
US 8,925,013 - Exp. Apr 16, 2021  
US 8,931,006 - Exp. Apr 16, 2021  
US 8,931,007 - Exp. Apr 16, 2021  
US 8,931,012 - Exp. Jan 16, 2021

US 8,935,729 - Exp. Apr 9, 2021  
US 8,935,730 - Exp. Jan 16, 2021  
US 8,938,754 - Exp. Oct 9, 2020  
US 8,949,897 - Exp. Apr 16, 2021  
US 8,949,898 - Exp. Apr 16, 2021  
US 8,959,549 - Exp. Apr 16, 2021  
US 8,959,550 - Exp. Apr 16, 2021  
US 8,959,551 - Exp. Apr 16, 2021  
US 8,966,529 - Exp. Oct 9, 2020  
US 8,966,540 - Exp. Jan 16, 2021  
US 8,966,541 - Exp. Jan 16, 2021  
US 8,973,041 - Exp. Apr 16, 2021  
US 8,973,042 - Exp. Apr 16, 2021  
US 8,973,043 - Exp. Apr 16, 2021  
US 8,973,044 - Exp. Apr 16, 2021  
US 8,978,063 - Exp. Oct 9, 2020  
US 8,984,553 - Exp. Oct 9, 2020  
US 8,990,860 - Exp. Apr 16, 2021  
US 8,997,147 - Exp. Oct 9, 2020  
US 8,997,152 - Exp. Apr 16, 2021  
US 9,003,444 - Exp. Oct 9, 2020  
US 9,003,469 - Exp. Oct 9, 2020  
US 9,015,752 - Exp. Oct 9, 2020  
US 9,015,753 - Exp. Oct 9, 2020  
US 9,015,754 - Exp. Oct 9, 2020  
US 9,015,760 - Exp. Apr 16, 2021  
US 9,015,767 - Exp. Jan 16, 2021  
US 9,015,768 - Exp. Jan 16, 2021  
US 9,021,523 - Exp. Oct 9, 2020  
US 9,021,524 - Exp. Oct 9, 2020  
US 9,021,532 - Exp. Jan 16, 2021  
US 9,027,055 - Exp. Apr 16, 2021  
US 9,032,436 - Exp. Oct 9, 2020  
US 9,038,101 - Exp. Oct 9, 2020  
US 9,043,836 - Exp. Oct 9, 2020  
US 9,078,032 - Exp. Oct 9, 2020  
US 9,084,009 - Exp. Oct 9, 2020  
US 9,088,806 - Exp. Oct 9, 2020

### Mitsubishi Electric Corporation

CA 2,152,409 - Exp. Jun 22, 2015  
JP 3,172,425 - Exp. Feb 1, 2016  
JP 3,216,534 - Exp. Aug 29, 2016  
JP 3,316,572 - Exp. Apr 7, 2012  
JP 3,316,573 - Exp. Apr 7, 2012  
KR 215,101 - Exp. Sep 12, 2015  
US 5,488,418 - Exp. Jan 29, 2013  
US 5,671,226 - Exp. Jun 4, 2015

US 5,734,430 - Exp. Apr 6, 2012  
US 5,793,432 - Exp. Apr 6, 2012  
US 6,487,220 - Exp. Jul 13, 2017  
US 6,522,672 - Exp. Jul 13, 2017  
US 8,046,796 - Exp. May 12, 2021  
US 9,246,609 - Exp. Oct 14, 2021

### Panasonic Holdings Corporation

CA 2,226,489 - Exp. Mar 25, 2013  
CA 2,259,818 - Exp. Mar 25, 2014  
CA 2,331,203 - Exp. Mar 25, 2013  
CA 2,445,707 - Exp. Mar 25, 2014  
CA 2,636,575 - Exp. Mar 25, 2014  
CA 2,652,487 - Exp. Mar 25, 2014  
CA 2,652,488 - Exp. Mar 25, 2014  
CA 2,652,596 - Exp. Mar 25, 2014  
CA 2,652,602 - Exp. Mar 25, 2014  
CA 2,652,880 - Exp. Mar 25, 2014  
CA 2,653,269 - Exp. Mar 25, 2014  
CA 2,653,282 - Exp. Mar 25, 2014  
CN 200410036959.7 - Exp. Mar 25, 2014  
CN 200410062887.3 - Exp. Dec 6, 2018  
CN 200610101425.7 - Exp. Mar 25, 2014  
CN 200610101693.9 - Exp. Mar 24, 2014  
CN 201110037958.4 - Exp. Mar 24, 2014  
JP 3,008,651 - Exp. Mar 27, 2012  
JP 3,061,053 - Exp. Mar 27, 2012  
JP 3,061,055 - Exp. Mar 27, 2012  
JP 4,615,619 - Exp. Oct 23, 2016  
KR 161,051 - Exp. Mar 25, 2014  
MX 241,838 - Exp. Mar 25, 2014  
MX 244,296 - Exp. Mar 25, 2014  
MX 244,299 - Exp. Mar 25, 2014  
MX 244,300 - Exp. Mar 25, 2014  
MX 244,301 - Exp. Mar 25, 2014  
MY 127,693 - Exp. Dec 29, 2021  
US Re. 38,483 - Exp. Mar 24, 2013  
US Re. 38,513 - Exp. Mar 24, 2013  
US Re. 39,111 - Exp. Mar 24, 2013  
US Re. 39,902 - Exp. Feb 3, 2014  
US Re. 40,134 - Exp. Feb 3, 2014  
US Re. 40,174 - Exp. Feb 3, 2014  
US Re. 40,241 - Exp. Feb 3, 2014  
US Re. 40,242 - Exp. Feb 3, 2014  
US Re. 40,256 - Exp. Mar 24, 2013

US Re. 40,701 - Exp. Feb 3, 2014  
US Re. 40,936 - Exp. Mar 24, 2013  
US Re. 40,978 - Exp. Mar 24, 2013  
US Re. 41,146 - Exp. Mar 24, 2013  
US Re. 42,643 - Exp. Feb 3, 2014  
US Re. 44,970 - Exp. Oct 22, 2017  
US Re. 44,991 - Exp. Oct 22, 2017  
US Re. 45,089 - Exp. Oct 22, 2017  
US 5,999,569 - Exp. Mar 24, 2013  
US 6,549,716 - Exp. Mar 24, 2013  
US 7,383,566 - Exp. Dec 28, 2023  
US 7,594,247 - Exp. Dec 18, 2021  
US 7,836,479 - Exp. Jul 22, 2020

### The Trustees of Columbia University in the City of New York

CA 2,281,538 - Exp. Feb 13, 2018  
CH (EP 1,209,915) - Exp. Feb 13, 2018  
DE (EP 1,209,915) - Exp. Feb 13, 2018  
ES (EP 1,209,915) - Exp. Feb 13, 2018  
FI (EP 1,209,915) - Exp. Feb 13, 2018  
FR (EP 1,209,915) - Exp. Feb 13, 2018  
GB (EP 1,209,915) - Exp. Feb 13, 2018  
IT (EP 1,209,915) - Exp. Feb 13, 2018  
JP 4,393,591 - Exp. Feb 13, 2018  
LI (EP 1,209,915) - Exp. Feb 13, 2018  
SE (EP 1,209,915) - Exp. Feb 13, 2018  
US 7,199,836 - Exp. Feb 12, 2018  
US 8,115,873 - Exp. Feb 12, 2018  
US 8,531,608 - Exp. Feb 12, 2018  
US 8,854,552 - Exp. Feb 12, 2018  
US 8,917,357 - Exp. Feb 12, 2018

### Vientos Alisios Co., Ltd.

KR 960,573 - Exp. Jun 11, 2022

### Zenith Electronics LLC

AR 1,566 - Exp. Apr 8, 2016  
BE (EP 556,306) - Exp. Nov 7, 2011  
BR 9508262-0 - Exp. Jun 29, 2015  
BR 9607071-4 - Exp. Apr 3, 2016  
BR PI-9712028.6 - Exp. Nov 30, 2021  
CA 2,095,435 - Exp. Nov 7, 2011  
CA 2,180,245 - Exp. Dec 15, 2014  
CA 2,194,354 - Exp. Jun 29, 2015

CA 2,207,003 - Exp. Apr 3, 2016  
CA 2,266,477 - Exp. Sep 11, 2017  
CN 94194755.6 - Exp. Dec 15, 2014  
CN 95193982.3 - Exp. Jun 29, 2015  
CN 96191365.7 - Exp. Apr 3, 2016  
CN 97197911.1 - Exp. Sep 11, 2017  
CO 25,850 - Exp. Apr 8, 2016  
DE (EP 556,306) - Exp. Nov 7, 2011  
FR (EP 556,306) - Exp. Nov 7, 2011  
GB (EP 556,306) - Exp. Nov 7, 2011  
HK 1,003,406 - Exp. Apr 3, 2016  
HK 1,021,101 - Exp. Sep 11, 2017  
JP 3,098,028 - Exp. Nov 7, 2011  
JP 3,219,773 - Exp. Apr 3, 2016  
JP 3,258,022 - Exp. Dec 15, 2014  
JP 3,386,136 - Exp. Jun 29, 2015  
JP 4,285,774 - Exp. Sep 11, 2017  
KR 119,736 - Exp. Nov 7, 2011  
KR 264,624 - Exp. Dec 15, 2014  
KR 274,288 - Exp. Jun 29, 2015  
KR 313,653 - Exp. Apr 3, 2016  
KR 540,316 - Exp. Sep 11, 2017  
MX 196,500 - Exp. Jun 29, 2015  
MX 201,976 - Exp. Jan 2, 2015  
MX 202,505 - Exp. Apr 3, 2016  
MX 210,311 - Exp. Sep 11, 2017  
NL (EP 556,306) - Exp. Nov 7, 2011  
RU 2,196,390 - Exp. Nov 11, 2017  
SE (EP 556,306) - Exp. Nov 7, 2011  
SG 61,249 - Exp. Sep 10, 2017  
TW 255,088 - Exp. Dec 19, 2014  
US Re. 36,992 - Exp. Nov 8, 2010  
US 5,406,587 - Exp. Feb 7, 2013  
US 5,416,524 - Exp. May 15, 2012  
US 5,534,938 - Exp. Jul 8, 2013  
US 5,598,220 - Exp. Jan 27, 2014  
US 5,600,677 - Exp. Jul 7, 2014  
US 5,602,595 - Exp. Feb 10, 2014  
US 5,619,269 - Exp. Jun 6, 2015  
US 5,629,958 - Exp. Jul 7, 2014  
US 5,636,251 - Exp. Jul 7, 2014  
US 5,677,911 - Exp. Oct 13, 2014  
US 5,802,107 - Exp. Sep 12, 2016  
US 5,987,070 - Exp. Jul 12, 2015  
VE 559-96 - Exp. Apr 3, 2016  
VN 2,486 - Exp. Sep 11, 2017



April 1, 2024

**ATSC Addendum of Patents of Terminated Licensors**

**Addendum of Patents of Terminated Licensors**

The following listed patents were contributed to the ATSC Patent Portfolio by an entity that has since terminated as a Licensor. For as long as they continue to be a Licensee, those Licensees with a license in effect prior to the date of such Licensor's termination retain their license to such Licensor's ATSC Patent Portfolio patents (including those listed below) that the Licensor or its Affiliates presently or in the future has the right to license or sublicense (without payment to any third party which is not an Affiliate), including on or after such termination date.



April 1, 2024

ATSC Addendum of Patents of Terminated  
Licensors

Page 1 of 1

Samsung Electronics Co., Ltd.  
(terminated November 4, 2015)

CN 98103912.X  
GB 2327004  
JP 3,037,260  
KR 100,718  
KR 134,327  
KR 138,289  
KR 156,496  
KR 182,004  
KR 194,033  
KR 195,177  
KR 246,792  
KR 317,629  
KR 329,417  
KR 369,579  
US 6,016,172  
US 6,104,436  
US 6,184,938  
US 6,480,239  
US 6,937,292  
US 8,661,470  
US 8,695,036  
US 8,763,039  
US 8,769,574  
US 8,869,201  
US 9,009,757