

## Anhang C Koeffizienten und Übertragungsfunktionen optimierter Filterbänke

### C.1 Filterkoeffizienten der optimierten Filterbänke für Prädiktionsfehlersignale

#### C.1.1 Horizontale Filterbank

$h_{0x}(0) = h_{0x}(15) =$	0.01353543	$g_{0x}(0) = g_{0x}(15) =$	0.00920556
$h_{0x}(1) = h_{0x}(14) =$	-.04403076	$g_{0x}(1) = g_{0x}(14) =$	-.00264768
$h_{0x}(2) = h_{0x}(13) =$	-.04269265	$g_{0x}(2) = g_{0x}(13) =$	-.00756738
$h_{0x}(3) = h_{0x}(12) =$	0.06305284	$g_{0x}(3) = g_{0x}(12) =$	0.01425355
$h_{0x}(4) = h_{0x}(11) =$	0.19771196	$g_{0x}(4) = g_{0x}(11) =$	0.02250144
$h_{0x}(5) = h_{0x}(10) =$	0.30049768	$g_{0x}(5) = g_{0x}(10) =$	0.04894323
$h_{0x}(6) = h_{0x}(9) =$	0.35690704	$g_{0x}(6) = g_{0x}(9) =$	0.06769977
$h_{0x}(7) = h_{0x}(8) =$	0.36976278	$g_{0x}(7) = g_{0x}(8) =$	0.04791821
$h_{1x}(0) = h_{1x}(15) =$	-.00872522	$g_{1x}(0) = g_{1x}(15) =$	-.01679411
$h_{1x}(1) = h_{1x}(14) =$	-.01515233	$g_{1x}(1) = g_{1x}(14) =$	0.00578923
$h_{1x}(2) = h_{1x}(13) =$	-.08434514	$g_{1x}(2) = g_{1x}(13) =$	-.02999877
$h_{1x}(3) = h_{1x}(12) =$	-.00375723	$g_{1x}(3) = g_{1x}(12) =$	-.00484151
$h_{1x}(4) = h_{1x}(11) =$	0.22158507	$g_{1x}(4) = g_{1x}(11) =$	0.10041212
$h_{1x}(5) = h_{1x}(10) =$	-.04435126	$g_{1x}(5) = g_{1x}(10) =$	-.03879328
$h_{1x}(6) = h_{1x}(9) =$	-.17938708	$g_{1x}(6) = g_{1x}(9) =$	-.11289843
$h_{1x}(7) = h_{1x}(8) =$	0.18332608	$g_{1x}(7) = g_{1x}(8) =$	0.08547542
$h_{2x}(0) = -h_{2x}(15) =$	0.01082033	$g_{2x}(0) = -g_{2x}(15) =$	-.00582741
$h_{2x}(1) = -h_{2x}(14) =$	-.03078528	$g_{2x}(1) = -g_{2x}(14) =$	0.00489623
$h_{2x}(2) = -h_{2x}(13) =$	-.07373143	$g_{2x}(2) = -g_{2x}(13) =$	0.01164390
$h_{2x}(3) = -h_{2x}(12) =$	0.08823135	$g_{2x}(3) = -g_{2x}(12) =$	-.01042336
$h_{2x}(4) = -h_{2x}(11) =$	0.44855532	$g_{2x}(4) = -g_{2x}(11) =$	-.06415009
$h_{2x}(5) = -h_{2x}(10) =$	0.45865244	$g_{2x}(5) = -g_{2x}(10) =$	-.04742238
$h_{2x}(6) = -h_{2x}(9) =$	0.30889538	$g_{2x}(6) = -g_{2x}(9) =$	-.02686584
$h_{2x}(7) = -h_{2x}(8) =$	0.11776956	$g_{2x}(7) = -g_{2x}(8) =$	-.01429942
$h_{3x}(0) = -h_{3x}(15) =$	0.02520866	$g_{3x}(0) = -g_{3x}(15) =$	-.01878288
$h_{3x}(1) = -h_{3x}(14) =$	0.00506408	$g_{3x}(1) = -g_{3x}(14) =$	0.01577787
$h_{3x}(2) = -h_{3x}(13) =$	0.04591041	$g_{3x}(2) = -g_{3x}(13) =$	-.02933613
$h_{3x}(3) = -h_{3x}(12) =$	0.02295689	$g_{3x}(3) = -g_{3x}(12) =$	-.02470600
$h_{3x}(4) = -h_{3x}(11) =$	-.09957415	$g_{3x}(4) = -g_{3x}(11) =$	0.11046254
$h_{3x}(5) = -h_{3x}(10) =$	0.17996995	$g_{3x}(5) = -g_{3x}(10) =$	-.14372545
$h_{3x}(6) = -h_{3x}(9) =$	0.01316446	$g_{3x}(6) = -g_{3x}(9) =$	0.00062396
$h_{3x}(7) = -h_{3x}(8) =$	-.16276222	$g_{3x}(7) = -g_{3x}(8) =$	0.14336949

$$\begin{array}{ll}
h_{4x}(0) = h_{4x}(15) = & 0.00930697 & g_{4x}(0) = g_{4x}(15) = & 0.00490206 \\
h_{4x}(1) = h_{4x}(14) = & 0.01748514 & g_{4x}(1) = g_{4x}(14) = & -0.00826517 \\
h_{4x}(2) = h_{4x}(13) = & -0.03975320 & g_{4x}(2) = g_{4x}(13) = & -0.00234798 \\
h_{4x}(3) = h_{4x}(12) = & 0.05198325 & g_{4x}(3) = g_{4x}(12) = & 0.00588675 \\
h_{4x}(4) = h_{4x}(11) = & 0.36950710 & g_{4x}(4) = g_{4x}(11) = & 0.05099161 \\
h_{4x}(5) = h_{4x}(10) = & 0.33950615 & g_{4x}(5) = g_{4x}(10) = & 0.05084106 \\
h_{4x}(6) = h_{4x}(9) = & -0.09236345 & g_{4x}(6) = g_{4x}(9) = & -0.01043254 \\
h_{4x}(7) = h_{4x}(8) = & -0.41235140 & g_{4x}(7) = g_{4x}(8) = & -0.06095128
\end{array}$$

$$\begin{array}{ll}
h_{5x}(0) = h_{5x}(15) = & -0.02414326 & g_{5x}(0) = g_{5x}(15) = & -0.00653959 \\
h_{5x}(1) = h_{5x}(14) = & 0.00952331 & g_{5x}(1) = g_{5x}(14) = & 0.00861530 \\
h_{5x}(2) = h_{5x}(13) = & -0.01111446 & g_{5x}(2) = g_{5x}(13) = & 0.00133439 \\
h_{5x}(3) = h_{5x}(12) = & -0.01238302 & g_{5x}(3) = g_{5x}(12) = & -0.06672502 \\
h_{5x}(4) = h_{5x}(11) = & 0.07911463 & g_{5x}(4) = g_{5x}(11) = & 0.18846615 \\
h_{5x}(5) = h_{5x}(10) = & -0.10573582 & g_{5x}(5) = g_{5x}(10) = & -0.24475585 \\
h_{5x}(6) = h_{5x}(9) = & 0.08371910 & g_{5x}(6) = g_{5x}(9) = & 0.20491123 \\
h_{5x}(7) = h_{5x}(8) = & -0.04034046 & g_{5x}(7) = g_{5x}(8) = & -0.08685484
\end{array}$$

$$\begin{array}{ll}
h_{6x}(0) = -h_{6x}(15) = & 0.00668270 & g_{6x}(0) = -g_{6x}(15) = & -0.00668911 \\
h_{6x}(1) = -h_{6x}(14) = & -0.01784850 & g_{6x}(1) = -g_{6x}(14) = & -0.00364400 \\
h_{6x}(2) = -h_{6x}(13) = & 0.06521797 & g_{6x}(2) = -g_{6x}(13) = & -0.00850663 \\
h_{6x}(3) = -h_{6x}(12) = & 0.01221632 & g_{6x}(3) = -g_{6x}(12) = & -0.00439758 \\
h_{6x}(4) = -h_{6x}(11) = & -0.23744927 & g_{6x}(4) = -g_{6x}(11) = & 0.06732028 \\
h_{6x}(5) = -h_{6x}(10) = & 0.03091870 & g_{6x}(5) = -g_{6x}(10) = & 0.00347605 \\
h_{6x}(6) = -h_{6x}(9) = & 0.40856686 & g_{6x}(6) = -g_{6x}(9) = & -0.08536344 \\
h_{6x}(7) = -h_{6x}(8) = & 0.23045571 & g_{6x}(7) = -g_{6x}(8) = & -0.04841489
\end{array}$$

$$\begin{array}{ll}
h_{7x}(0) = -h_{7x}(15) = & 0.01348400 & g_{7x}(0) = -g_{7x}(15) = & 0.00790589 \\
h_{7x}(1) = -h_{7x}(14) = & -0.00964444 & g_{7x}(1) = -g_{7x}(14) = & -0.00408567 \\
h_{7x}(2) = -h_{7x}(13) = & -0.00409649 & g_{7x}(2) = -g_{7x}(13) = & 0.04191129 \\
h_{7x}(3) = -h_{7x}(12) = & 0.00603754 & g_{7x}(3) = -g_{7x}(12) = & -0.08424367 \\
h_{7x}(4) = -h_{7x}(11) = & -0.03002730 & g_{7x}(4) = -g_{7x}(11) = & 0.15624415 \\
h_{7x}(5) = -h_{7x}(10) = & 0.04972116 & g_{7x}(5) = -g_{7x}(10) = & -0.24253242 \\
h_{7x}(6) = -h_{7x}(9) = & -0.06547508 & g_{7x}(6) = -g_{7x}(9) = & 0.29578306 \\
h_{7x}(7) = -h_{7x}(8) = & 0.07629491 & g_{7x}(7) = -g_{7x}(8) = & -0.33879969
\end{array}$$

**C.1.2 Vertikale Filterbank**

$$\begin{array}{llll}
h_{0y}(0) = h_{0y}(15) = & 0.00688428 & g_{0y}(0) = g_{0y}(15) = & 0.00785539 \\
h_{0y}(1) = h_{0y}(14) = & -0.05715548 & g_{0y}(1) = g_{0y}(14) = & -0.00168812 \\
h_{0y}(2) = h_{0y}(13) = & -0.09952234 & g_{0y}(2) = g_{0y}(13) = & -0.00634818 \\
h_{0y}(3) = h_{0y}(12) = & 0.04318886 & g_{0y}(3) = g_{0y}(12) = & 0.01992763 \\
h_{0y}(4) = h_{0y}(11) = & 0.19476318 & g_{0y}(4) = g_{0y}(11) = & 0.03583152 \\
h_{0y}(5) = h_{0y}(10) = & 0.25683993 & g_{0y}(5) = g_{0y}(10) = & 0.03718690 \\
h_{0y}(6) = h_{0y}(9) = & 0.33807114 & g_{0y}(6) = g_{0y}(9) = & 0.05385967 \\
h_{0y}(7) = h_{0y}(8) = & 0.39405799 & g_{0y}(7) = g_{0y}(8) = & 0.06628174
\end{array}$$

$$\begin{array}{llll}
h_{1y}(0) = h_{1y}(15) = & -0.01632641 & g_{1y}(0) = g_{1y}(15) = & -0.00188221 \\
h_{1y}(1) = h_{1y}(14) = & -0.04319396 & g_{1y}(1) = g_{1y}(14) = & 0.00098544 \\
h_{1y}(2) = h_{1y}(13) = & -0.12169640 & g_{1y}(2) = g_{1y}(13) = & -0.02384944 \\
h_{1y}(3) = h_{1y}(12) = & -0.03550390 & g_{1y}(3) = g_{1y}(12) = & -0.02553750 \\
h_{1y}(4) = h_{1y}(11) = & 0.31299293 & g_{1y}(4) = g_{1y}(11) = & 0.07154144 \\
h_{1y}(5) = h_{1y}(10) = & -0.15874019 & g_{1y}(5) = g_{1y}(10) = & -0.04383797 \\
h_{1y}(6) = h_{1y}(9) = & -0.32113850 & g_{1y}(6) = g_{1y}(9) = & -0.06537821 \\
h_{1y}(7) = h_{1y}(8) = & 0.18066427 & g_{1y}(7) = g_{1y}(8) = & 0.04625425
\end{array}$$

$$\begin{array}{llll}
h_{2y}(0) = -h_{2y}(15) = & 0.02139603 & g_{2y}(0) = -g_{2y}(15) = & -0.00869330 \\
h_{2y}(1) = -h_{2y}(14) = & -0.07749750 & g_{2y}(1) = -g_{2y}(14) = & 0.00286551 \\
h_{2y}(2) = -h_{2y}(13) = & -0.12944674 & g_{2y}(2) = -g_{2y}(13) = & 0.00449995 \\
h_{2y}(3) = -h_{2y}(12) = & 0.10534045 & g_{2y}(3) = -g_{2y}(12) = & -0.02217372 \\
h_{2y}(4) = -h_{2y}(11) = & 0.31071955 & g_{2y}(4) = -g_{2y}(11) = & -0.04341306 \\
h_{2y}(5) = -h_{2y}(10) = & 0.47862369 & g_{2y}(5) = -g_{2y}(10) = & -0.05345111 \\
h_{2y}(6) = -h_{2y}(9) = & 0.40695599 & g_{2y}(6) = -g_{2y}(9) = & -0.04060449 \\
h_{2y}(7) = -h_{2y}(8) = & 0.16912130 & g_{2y}(7) = -g_{2y}(8) = & -0.02115136
\end{array}$$

$$\begin{array}{llll}
h_{3y}(0) = -h_{3y}(15) = & -0.02759355 & g_{3y}(0) = -g_{3y}(15) = & 0.00129448 \\
h_{3y}(1) = -h_{3y}(14) = & -0.02270119 & g_{3y}(1) = -g_{3y}(14) = & -0.00163383 \\
h_{3y}(2) = -h_{3y}(13) = & -0.08271256 & g_{3y}(2) = -g_{3y}(13) = & 0.02310080 \\
h_{3y}(3) = -h_{3y}(12) = & -0.05854462 & g_{3y}(3) = -g_{3y}(12) = & 0.02535974 \\
h_{3y}(4) = -h_{3y}(11) = & 0.21012637 & g_{3y}(4) = -g_{3y}(11) = & -0.06712734 \\
h_{3y}(5) = -h_{3y}(10) = & -0.26376545 & g_{3y}(5) = -g_{3y}(10) = & 0.07107236 \\
h_{3y}(6) = -h_{3y}(9) = & -0.00634941 & g_{3y}(6) = -g_{3y}(9) = & 0.00445875 \\
h_{3y}(7) = -h_{3y}(8) = & 0.29950431 & g_{3y}(7) = -g_{3y}(8) = & -0.08756468
\end{array}$$

$$\begin{array}{ll}
 h_{4y}(0) = h_{4y}(15) = & 0.01758195 & g_{4y}(0) = g_{4y}(15) = & 0.00683930 \\
 h_{4y}(1) = h_{4y}(14) = & -0.05631918 & g_{4y}(1) = g_{4y}(14) = & -0.00386088 \\
 h_{4y}(2) = h_{4y}(13) = & -0.11318640 & g_{4y}(2) = g_{4y}(13) = & -0.00399500 \\
 h_{4y}(3) = h_{4y}(12) = & 0.09510522 & g_{4y}(3) = g_{4y}(12) = & 0.01299476 \\
 h_{4y}(4) = h_{4y}(11) = & 0.37365189 & g_{4y}(4) = g_{4y}(11) = & 0.05703199 \\
 h_{4y}(5) = h_{4y}(10) = & 0.30862302 & g_{4y}(5) = g_{4y}(10) = & 0.05218159 \\
 h_{4y}(6) = h_{4y}(9) = & -0.05783085 & g_{4y}(6) = g_{4y}(9) = & -0.00452033 \\
 h_{4y}(7) = h_{4y}(8) = & -0.37110427 & g_{4y}(7) = g_{4y}(8) = & -0.06143365
 \end{array}$$

$$\begin{array}{ll}
 h_{5y}(0) = h_{5y}(15) = & -0.02180045 & g_{5y}(0) = g_{5y}(15) = & -0.00069858 \\
 h_{5y}(1) = h_{5y}(14) = & 0.00786478 & g_{5y}(1) = g_{5y}(14) = & -0.00098244 \\
 h_{5y}(2) = h_{5y}(13) = & -0.01391940 & g_{5y}(2) = g_{5y}(13) = & -0.00781310 \\
 h_{5y}(3) = h_{5y}(12) = & -0.02401400 & g_{5y}(3) = g_{5y}(12) = & -0.03104101 \\
 h_{5y}(4) = h_{5y}(11) = & 0.10991900 & g_{5y}(4) = g_{5y}(11) = & 0.07342356 \\
 h_{5y}(5) = h_{5y}(10) = & -0.21156247 & g_{5y}(5) = g_{5y}(10) = & -0.12190496 \\
 h_{5y}(6) = h_{5y}(9) = & 0.20662580 & g_{5y}(6) = g_{5y}(9) = & 0.11020452 \\
 h_{5y}(7) = h_{5y}(8) = & -0.09995662 & g_{5y}(7) = g_{5y}(8) = & -0.05008249
 \end{array}$$

$$\begin{array}{ll}
 h_{6y}(0) = -h_{6y}(15) = & 0.00557168 & g_{6y}(0) = -g_{6y}(15) = & -0.00239448 \\
 h_{6y}(1) = -h_{6y}(14) = & -0.05042507 & g_{6y}(1) = -g_{6y}(14) = & 0.00194759 \\
 h_{6y}(2) = -h_{6y}(13) = & -0.12086763 & g_{6y}(2) = -g_{6y}(13) = & 0.01336399 \\
 h_{6y}(3) = -h_{6y}(12) = & 0.03664328 & g_{6y}(3) = -g_{6y}(12) = & 0.00543366 \\
 h_{6y}(4) = -h_{6y}(11) = & 0.37021279 & g_{6y}(4) = -g_{6y}(11) = & -0.06586993 \\
 h_{6y}(5) = -h_{6y}(10) = & 0.08754838 & g_{6y}(5) = -g_{6y}(10) = & -0.01975063 \\
 h_{6y}(6) = -h_{6y}(9) = & -0.41679767 & g_{6y}(6) = -g_{6y}(9) = & 0.06239202 \\
 h_{6y}(7) = -h_{6y}(8) = & -0.25422123 & g_{6y}(7) = -g_{6y}(8) = & 0.03482169
 \end{array}$$

$$\begin{array}{ll}
 h_{7y}(0) = -h_{7y}(15) = & -0.01302166 & g_{7y}(0) = -g_{7y}(15) = & -0.00113477 \\
 h_{7y}(1) = -h_{7y}(14) = & 0.00591140 & g_{7y}(1) = -g_{7y}(14) = & 0.00330760 \\
 h_{7y}(2) = -h_{7y}(13) = & -0.00833253 & g_{7y}(2) = -g_{7y}(13) = & -0.00160732 \\
 h_{7y}(3) = -h_{7y}(12) = & -0.00525440 & g_{7y}(3) = -g_{7y}(12) = & 0.02421995 \\
 h_{7y}(4) = -h_{7y}(11) = & 0.09156981 & g_{7y}(4) = -g_{7y}(11) = & -0.07394342 \\
 h_{7y}(5) = -h_{7y}(10) = & -0.12070409 & g_{7y}(5) = -g_{7y}(10) = & 0.10228611 \\
 h_{7y}(6) = -h_{7y}(9) = & 0.15180977 & g_{7y}(6) = -g_{7y}(9) = & -0.12962914 \\
 h_{7y}(7) = -h_{7y}(8) = & -0.16446047 & g_{7y}(7) = -g_{7y}(8) = & 0.14364638
 \end{array}$$

## C.2 Filterkoeffizienten der optimierten Filterbänke für Originalsignale

### C.2.1 Horizontale Filterbank

$h_{0x}(0) = h_{0x}(15) =$	-0.05444036	$g_{0x}(0) = g_{0x}(15) =$	0.00175223
$h_{0x}(1) = h_{0x}(14) =$	-0.15151164	$g_{0x}(1) = g_{0x}(14) =$	0.00578233
$h_{0x}(2) = h_{0x}(13) =$	-0.12036870	$g_{0x}(2) = g_{0x}(13) =$	0.01189060
$h_{0x}(3) = h_{0x}(12) =$	0.04363113	$g_{0x}(3) = g_{0x}(12) =$	0.02069275
$h_{0x}(4) = h_{0x}(11) =$	0.22045013	$g_{0x}(4) = g_{0x}(11) =$	0.03050031
$h_{0x}(5) = h_{0x}(10) =$	0.38987359	$g_{0x}(5) = g_{0x}(10) =$	0.03933354
$h_{0x}(6) = h_{0x}(9) =$	0.51559436	$g_{0x}(6) = g_{0x}(9) =$	0.04506174
$h_{0x}(7) = h_{0x}(8) =$	0.38767520	$g_{0x}(7) = g_{0x}(8) =$	0.04825537

$h_{1x}(0) = h_{1x}(15) =$	0.00402239	$g_{1x}(0) = g_{1x}(15) =$	-0.01123980
$h_{1x}(1) = h_{1x}(14) =$	-0.05797371	$g_{1x}(1) = g_{1x}(14) =$	0.00638498
$h_{1x}(2) = h_{1x}(13) =$	0.09937068	$g_{1x}(2) = g_{1x}(13) =$	0.05124927
$h_{1x}(3) = h_{1x}(12) =$	0.06158020	$g_{1x}(3) = g_{1x}(12) =$	-0.01244120
$h_{1x}(4) = h_{1x}(11) =$	-0.24588542	$g_{1x}(4) = g_{1x}(11) =$	-0.09224028
$h_{1x}(5) = h_{1x}(10) =$	0.03772997	$g_{1x}(5) = g_{1x}(10) =$	0.02267876
$h_{1x}(6) = h_{1x}(9) =$	0.27247894	$g_{1x}(6) = g_{1x}(9) =$	0.08611142
$h_{1x}(7) = h_{1x}(8) =$	-0.17387733	$g_{1x}(7) = g_{1x}(8) =$	-0.06665087

$h_{2x}(0) = -h_{2x}(15) =$	0.04137085	$g_{2x}(0) = -g_{2x}(15) =$	0.00113911
$h_{2x}(1) = -h_{2x}(14) =$	0.22210708	$g_{2x}(1) = -g_{2x}(14) =$	0.00182074
$h_{2x}(2) = -h_{2x}(13) =$	0.16713304	$g_{2x}(2) = -g_{2x}(13) =$	0.00939703
$h_{2x}(3) = -h_{2x}(12) =$	-0.07917516	$g_{2x}(3) = -g_{2x}(12) =$	0.02478488
$h_{2x}(4) = -h_{2x}(11) =$	-0.29381302	$g_{2x}(4) = -g_{2x}(11) =$	0.04297711
$h_{2x}(5) = -h_{2x}(10) =$	-0.57173777	$g_{2x}(5) = -g_{2x}(10) =$	0.04949527
$h_{2x}(6) = -h_{2x}(9) =$	-0.52658033	$g_{2x}(6) = -g_{2x}(9) =$	0.03756078
$h_{2x}(7) = -h_{2x}(8) =$	-0.13753845	$g_{2x}(7) = -g_{2x}(8) =$	0.01349023

$h_{3x}(0) = -h_{3x}(15) =$	0.01692596	$g_{3x}(0) = -g_{3x}(15) =$	0.01192996
$h_{3x}(1) = -h_{3x}(14) =$	-0.05325136	$g_{3x}(1) = -g_{3x}(14) =$	0.00930005
$h_{3x}(2) = -h_{3x}(13) =$	0.04271162	$g_{3x}(2) = -g_{3x}(13) =$	-0.04834457
$h_{3x}(3) = -h_{3x}(12) =$	0.05179016	$g_{3x}(3) = -g_{3x}(12) =$	-0.00915652
$h_{3x}(4) = -h_{3x}(11) =$	-0.13751653	$g_{3x}(4) = -g_{3x}(11) =$	0.13220637
$h_{3x}(5) = -h_{3x}(10) =$	0.10377847	$g_{3x}(5) = -g_{3x}(10) =$	-0.10354914
$h_{3x}(6) = -h_{3x}(9) =$	0.047718778	$g_{3x}(6) = -g_{3x}(9) =$	-0.01098709
$h_{3x}(7) = -h_{3x}(8) =$	-0.19466932	$g_{3x}(7) = -g_{3x}(8) =$	0.15522000

$$\begin{array}{ll}
 h_{4x}(0) = h_{4x}(15) = & 0.01339607 & g_{4x}(0) = g_{4x}(15) = & -0.00008480 \\
 h_{4x}(1) = h_{4x}(14) = & -0.11501692 & g_{4x}(1) = g_{4x}(14) = & -0.00929686 \\
 h_{4x}(2) = h_{4x}(13) = & -0.14385711 & g_{4x}(2) = g_{4x}(13) = & -0.00537547 \\
 h_{4x}(3) = h_{4x}(12) = & 0.03458226 & g_{4x}(3) = g_{4x}(12) = & 0.02210168 \\
 h_{4x}(4) = h_{4x}(11) = & 0.29332232 & g_{4x}(4) = g_{4x}(11) = & 0.05249430 \\
 h_{4x}(5) = h_{4x}(10) = & 0.31516430 & g_{4x}(5) = g_{4x}(10) = & 0.04672279 \\
 h_{4x}(6) = h_{4x}(9) = & 0.00928636 & g_{4x}(6) = g_{4x}(9) = & -0.00980245 \\
 h_{4x}(7) = h_{4x}(8) = & -0.41704947 & g_{4x}(7) = g_{4x}(8) = & -0.07160333
 \end{array}$$

$$\begin{array}{ll}
 h_{5x}(0) = h_{5x}(15) = & 0.01161945 & g_{5x}(0) = g_{5x}(15) = & 0.00991043 \\
 h_{5x}(1) = h_{5x}(14) = & -0.02407842 & g_{5x}(1) = g_{5x}(14) = & -0.01819827 \\
 h_{5x}(2) = h_{5x}(13) = & 0.01216721 & g_{5x}(2) = g_{5x}(13) = & 0.01023690 \\
 h_{5x}(3) = h_{5x}(12) = & 0.02794513 & g_{5x}(3) = g_{5x}(12) = & 0.08212835 \\
 h_{5x}(4) = h_{5x}(11) = & -0.07562646 & g_{5x}(4) = g_{5x}(11) = & -0.19175540 \\
 h_{5x}(5) = h_{5x}(10) = & 0.09933544 & g_{5x}(5) = g_{5x}(10) = & 0.27205378 \\
 h_{5x}(6) = h_{5x}(9) = & -0.08267712 & g_{5x}(6) = g_{5x}(9) = & -0.18908109 \\
 h_{5x}(7) = h_{5x}(8) = & 0.03151822 & g_{5x}(7) = g_{5x}(8) = & 0.07513024
 \end{array}$$

$$\begin{array}{ll}
 h_{6x}(0) = -h_{6x}(15) = & 0.02230120 & g_{6x}(0) = -g_{6x}(15) = & -0.00436680 \\
 h_{6x}(1) = -h_{6x}(14) = & -0.00164791 & g_{6x}(1) = -g_{6x}(14) = & 0.01379195 \\
 h_{6x}(2) = -h_{6x}(13) = & -0.13112962 & g_{6x}(2) = -g_{6x}(13) = & 0.03156567 \\
 h_{6x}(3) = -h_{6x}(12) = & -0.02575610 & g_{6x}(3) = -g_{6x}(12) = & -0.01891053 \\
 h_{6x}(4) = -h_{6x}(11) = & 0.29435834 & g_{6x}(4) = -g_{6x}(11) = & -0.07021149 \\
 h_{6x}(5) = -h_{6x}(10) = & 0.10115729 & g_{6x}(5) = -g_{6x}(10) = & -0.02277874 \\
 h_{6x}(6) = -h_{6x}(9) = & -0.33088350 & g_{6x}(6) = -g_{6x}(9) = & 0.06865514 \\
 h_{6x}(7) = -h_{6x}(8) = & -0.25062948 & g_{6x}(7) = -g_{6x}(8) = & 0.05202630
 \end{array}$$

$$\begin{array}{ll}
 h_{7x}(0) = -h_{7x}(15) = & 0.00545598 & g_{7x}(0) = -g_{7x}(15) = & -0.02292570 \\
 h_{7x}(1) = -h_{7x}(14) = & -0.00950158 & g_{7x}(1) = -g_{7x}(14) = & 0.01554069 \\
 h_{7x}(2) = -h_{7x}(13) = & 0.00338089 & g_{7x}(2) = -g_{7x}(13) = & 0.02195940 \\
 h_{7x}(3) = -h_{7x}(12) = & 0.01301838 & g_{7x}(3) = -g_{7x}(12) = & -0.09575909 \\
 h_{7x}(4) = -h_{7x}(11) = & -0.03860466 & g_{7x}(4) = -g_{7x}(11) = & 0.20279251 \\
 h_{7x}(5) = -h_{7x}(10) = & 0.05940358 & g_{7x}(5) = -g_{7x}(10) = & -0.27930999 \\
 h_{7x}(6) = -h_{7x}(9) = & -0.06826271 & g_{7x}(6) = -g_{7x}(9) = & 0.28154263 \\
 h_{7x}(7) = -h_{7x}(8) = & 0.06964880 & g_{7x}(7) = -g_{7x}(8) = & -0.25004393
 \end{array}$$

**C.2.2 Vertikale Filterbank**

$h_{0y}(0) = h_{0y}(15) =$	-0.07416311	$g_{0y}(0) = g_{0y}(15) =$	0.00063361
$h_{0y}(1) = h_{0y}(14) =$	-0.10456441	$g_{0y}(1) = g_{0y}(14) =$	0.00498362
$h_{0y}(2) = h_{0y}(13) =$	-0.05287262	$g_{0y}(2) = g_{0y}(13) =$	0.00988192
$h_{0y}(3) = h_{0y}(12) =$	0.01382995	$g_{0y}(3) = g_{0y}(12) =$	0.01978690
$h_{0y}(4) = h_{0y}(11) =$	0.23579502	$g_{0y}(4) = g_{0y}(11) =$	0.03492632
$h_{0y}(5) = h_{0y}(10) =$	0.43608919	$g_{0y}(5) = g_{0y}(10) =$	0.04539088
$h_{0y}(6) = h_{0y}(9) =$	0.36212105	$g_{0y}(6) = g_{0y}(9) =$	0.04954540
$h_{0y}(7) = h_{0y}(8) =$	0.33056048	$g_{0y}(7) = g_{0y}(8) =$	0.05247323

$h_{1y}(0) = h_{1y}(15) =$	0.02779800	$g_{1y}(0) = g_{1y}(15) =$	0.00517682
$h_{1y}(1) = h_{1y}(14) =$	0.04685149	$g_{1y}(1) = g_{1y}(14) =$	0.01245869
$h_{1y}(2) = h_{1y}(13) =$	-0.12911382	$g_{1y}(2) = g_{1y}(13) =$	-0.02559043
$h_{1y}(3) = h_{1y}(12) =$	-0.03387130	$g_{1y}(3) = g_{1y}(12) =$	-0.00074685
$h_{1y}(4) = h_{1y}(11) =$	0.29193172	$g_{1y}(4) = g_{1y}(11) =$	0.07405377
$h_{1y}(5) = h_{1y}(10) =$	-0.11746971	$g_{1y}(5) = g_{1y}(10) =$	-0.02917990
$h_{1y}(6) = h_{1y}(9) =$	-0.29955733	$g_{1y}(6) = g_{1y}(9) =$	-0.06691736
$h_{1y}(7) = h_{1y}(8) =$	0.22244935	$g_{1y}(7) = g_{1y}(8) =$	0.06001827

$h_{2y}(0) = -h_{2y}(15) =$	-0.06985549	$g_{2y}(0) = -g_{2y}(15) =$	-0.00149514
$h_{2y}(1) = -h_{2y}(14) =$	-0.11516048	$g_{2y}(1) = -g_{2y}(14) =$	0.00053198
$h_{2y}(2) = -h_{2y}(13) =$	-0.14408089	$g_{2y}(2) = -g_{2y}(13) =$	-0.00185926
$h_{2y}(3) = -h_{2y}(12) =$	0.01468012	$g_{2y}(3) = -g_{2y}(12) =$	-0.02365064
$h_{2y}(4) = -h_{2y}(11) =$	0.47411495	$g_{2y}(4) = -g_{2y}(11) =$	-0.05430096
$h_{2y}(5) = -h_{2y}(10) =$	0.47428036	$g_{2y}(5) = -g_{2y}(10) =$	-0.05637283
$h_{2y}(6) = -h_{2y}(9) =$	0.25420442	$g_{2y}(6) = -g_{2y}(9) =$	-0.03503593
$h_{2y}(7) = -h_{2y}(8) =$	0.10026731	$g_{2y}(7) = -g_{2y}(8) =$	-0.01073292

$h_{3y}(0) = -h_{3y}(15) =$	0.00492334	$g_{3y}(0) = -g_{3y}(15) =$	-0.00396580
$h_{3y}(1) = -h_{3y}(14) =$	0.06087298	$g_{3y}(1) = -g_{3y}(14) =$	-0.02292163
$h_{3y}(2) = -h_{3y}(13) =$	-0.07730665	$g_{3y}(2) = -g_{3y}(13) =$	0.01841503
$h_{3y}(3) = -h_{3y}(12) =$	-0.06470538	$g_{3y}(3) = -g_{3y}(12) =$	0.01651870
$h_{3y}(4) = -h_{3y}(11) =$	0.24048349	$g_{3y}(4) = -g_{3y}(11) =$	-0.07923409
$h_{3y}(5) = -h_{3y}(10) =$	-0.22304174	$g_{3y}(5) = -g_{3y}(10) =$	0.08048596
$h_{3y}(6) = -h_{3y}(9) =$	-0.04507118	$g_{3y}(6) = -g_{3y}(9) =$	0.02652747
$h_{3y}(7) = -h_{3y}(8) =$	0.26024562	$g_{3y}(7) = -g_{3y}(8) =$	-0.07835239

$$\begin{array}{ll}
 h_{4y}(0) = h_{4y}(15) = & -0.01370399 & g_{4y}(0) = g_{4y}(15) = & 0.00187226 \\
 h_{4y}(1) = h_{4y}(14) = & -0.08723687 & g_{4y}(1) = g_{4y}(14) = & -0.01013524 \\
 h_{4y}(2) = h_{4y}(13) = & -0.14104085 & g_{4y}(2) = g_{4y}(13) = & -0.01305232 \\
 h_{4y}(3) = h_{4y}(12) = & 0.04787508 & g_{4y}(3) = g_{4y}(12) = & 0.01391126 \\
 h_{4y}(4) = h_{4y}(11) = & 0.35901946 & g_{4y}(4) = g_{4y}(11) = & 0.04406708 \\
 h_{4y}(5) = h_{4y}(10) = & 0.34875301 & g_{4y}(5) = g_{4y}(10) = & 0.03756304 \\
 h_{4y}(6) = h_{4y}(9) = & -0.10199208 & g_{4y}(6) = g_{4y}(9) = & -0.01838246 \\
 h_{4y}(7) = h_{4y}(8) = & -0.42738551 & g_{4y}(7) = g_{4y}(8) = & -0.06630676
 \end{array}$$

$$\begin{array}{ll}
 h_{5y}(0) = h_{5y}(15) = & -0.01695988 & g_{5y}(0) = g_{5y}(15) = & -0.00079794 \\
 h_{5y}(1) = h_{5y}(14) = & 0.03564754 & g_{5y}(1) = g_{5y}(14) = & 0.01930296 \\
 h_{5y}(2) = h_{5y}(13) = & -0.01698444 & g_{5y}(2) = g_{5y}(13) = & 0.00312831 \\
 h_{5y}(3) = h_{5y}(12) = & -0.05598300 & g_{5y}(3) = g_{5y}(12) = & -0.02790930 \\
 h_{5y}(4) = h_{5y}(11) = & 0.14949286 & g_{5y}(4) = g_{5y}(11) = & 0.09564043 \\
 h_{5y}(5) = h_{5y}(10) = & -0.20349818 & g_{5y}(5) = g_{5y}(10) = & -0.10618363 \\
 h_{5y}(6) = h_{5y}(9) = & 0.19178873 & g_{5y}(6) = g_{5y}(9) = & 0.10951243 \\
 h_{5y}(7) = h_{5y}(8) = & -0.08343041 & g_{5y}(7) = g_{5y}(8) = & -0.04051344
 \end{array}$$

$$\begin{array}{ll}
 h_{6y}(0) = -h_{6y}(15) = & 0.04175636 & g_{6y}(0) = -g_{6y}(15) = & -0.00314792 \\
 h_{6y}(1) = -h_{6y}(14) = & -0.01079899 & g_{6y}(1) = -g_{6y}(14) = & 0.00676185 \\
 h_{6y}(2) = -h_{6y}(13) = & -0.13830945 & g_{6y}(2) = -g_{6y}(13) = & 0.02474218 \\
 h_{6y}(3) = -h_{6y}(12) = & 0.03466181 & g_{6y}(3) = -g_{6y}(12) = & -0.00261503 \\
 h_{6y}(4) = -h_{6y}(11) = & 0.25132054 & g_{6y}(4) = -g_{6y}(11) = & -0.03744595 \\
 h_{6y}(5) = -h_{6y}(10) = & 0.08999703 & g_{6y}(5) = -g_{6y}(10) = & -0.00288348 \\
 h_{6y}(6) = -h_{6y}(9) = & -0.44883603 & g_{6y}(6) = -g_{6y}(9) = & 0.07196131 \\
 h_{6y}(7) = -h_{6y}(8) = & -0.33781508 & g_{6y}(7) = -g_{6y}(8) = & 0.04977144
 \end{array}$$

$$\begin{array}{ll}
 h_{7y}(0) = -h_{7y}(15) = & -0.01254328 & g_{7y}(0) = -g_{7y}(15) = & 0.00305050 \\
 h_{7y}(1) = -h_{7y}(14) = & 0.01662699 & g_{7y}(1) = -g_{7y}(14) = & -0.00633164 \\
 h_{7y}(2) = -h_{7y}(13) = & -0.00163238 & g_{7y}(2) = -g_{7y}(13) = & -0.00516110 \\
 h_{7y}(3) = -h_{7y}(12) = & -0.03057530 & g_{7y}(3) = -g_{7y}(12) = & 0.03338360 \\
 h_{7y}(4) = -h_{7y}(11) = & 0.07872317 & g_{7y}(4) = -g_{7y}(11) = & -0.07319663 \\
 h_{7y}(5) = -h_{7y}(10) = & -0.12314238 & g_{7y}(5) = -g_{7y}(10) = & 0.10542974 \\
 h_{7y}(6) = -h_{7y}(9) = & 0.14873910 & g_{7y}(6) = -g_{7y}(9) = & -0.12413946 \\
 h_{7y}(7) = -h_{7y}(8) = & -0.16680561 & g_{7y}(7) = -g_{7y}(8) = & 0.14468725
 \end{array}$$



### C.3 Betragssquadrate der Übertragungsfunktionen der optimierten Horizontalfilter für Originalsignale

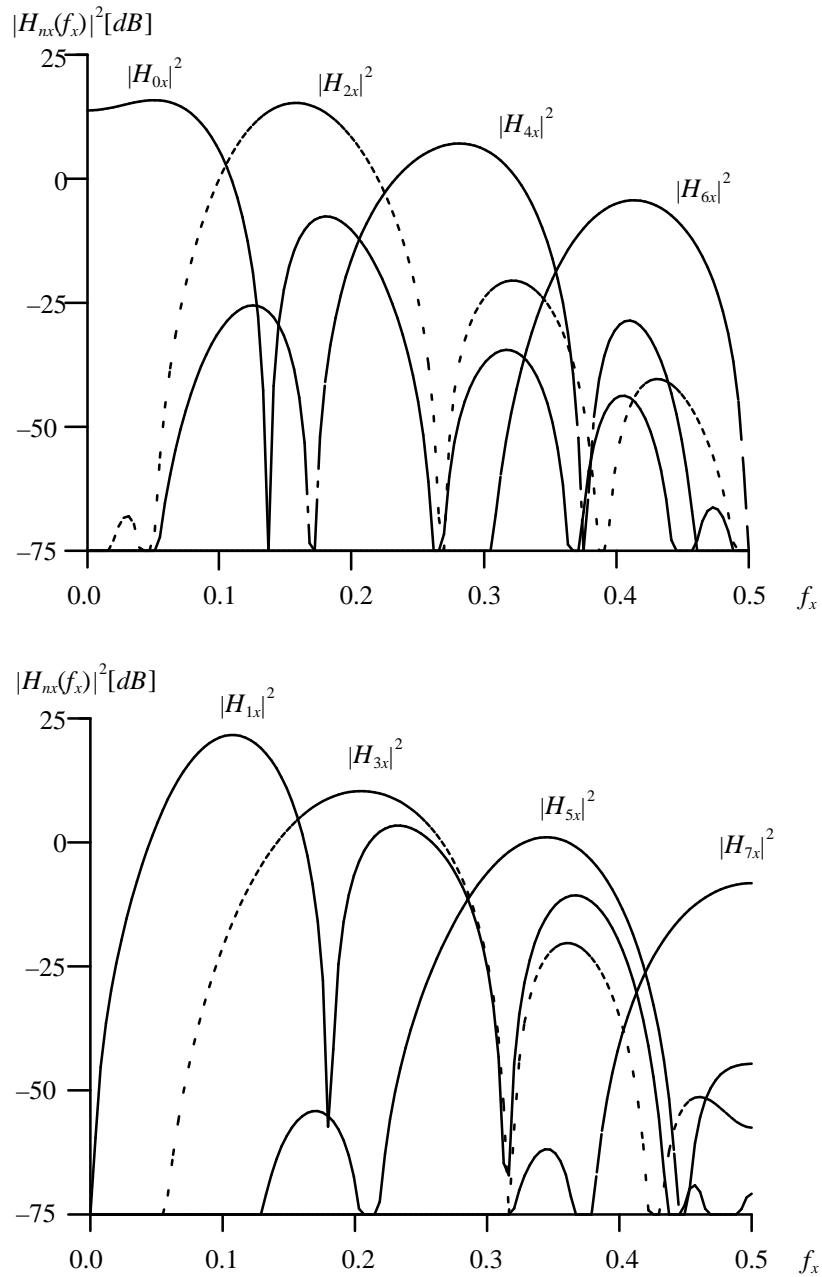


Bild C.1 Betragssquadrate der Übertragungsfunktionen der für Originalsignale optimierten Horizontalfilter  $H_{nx}(f_x)$  der Analysefilterbank

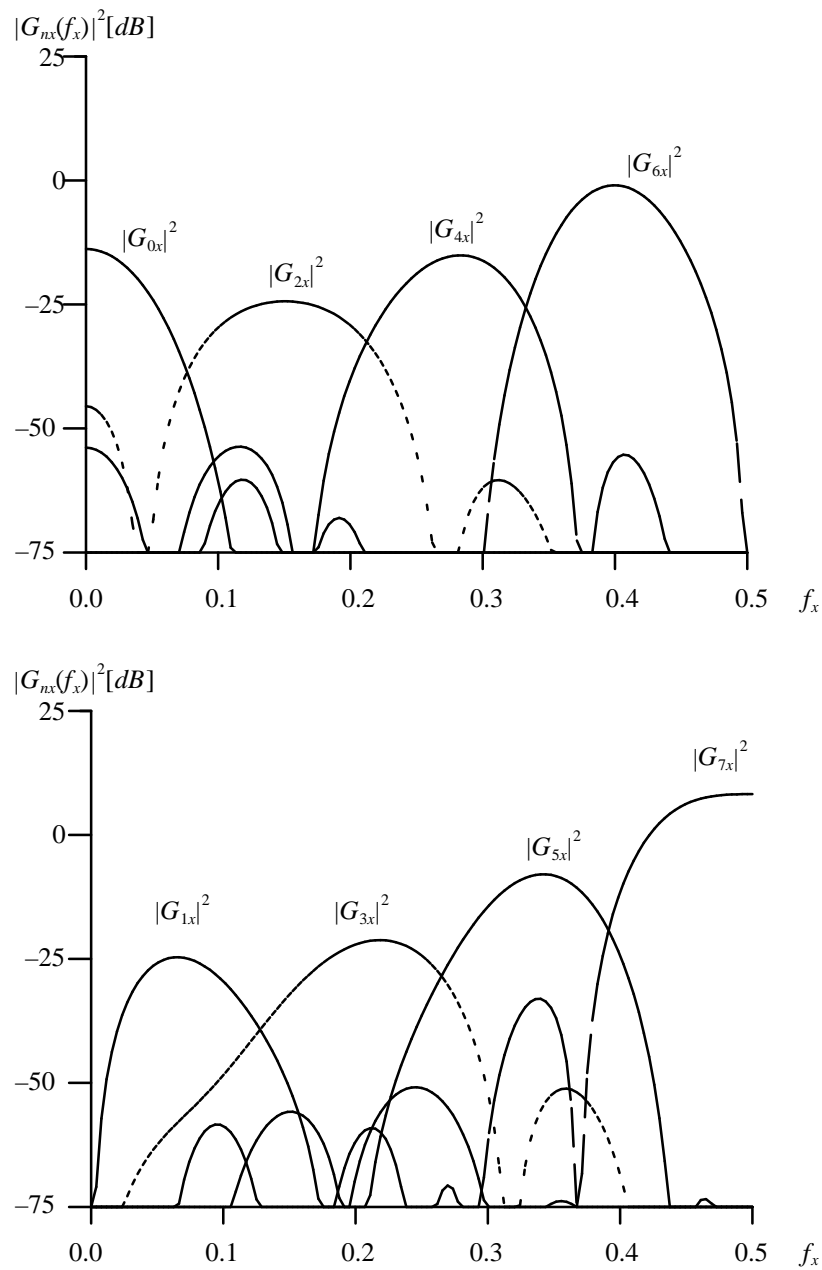


Bild C.2 Betragsquadrate der Übertragungsfunktionen der für Originalsignale optimierten Horizontalfilter  $G_{nx}(f_x)$  der Synthesefilterbank