

# BYZANTINE MUSIC FORMULÆ

## *Plagal First Mode - Verses (Tetraphonos)*

### Contents\*

A) Cadences on Di .....	504
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Key:

1 = accented syllable

0 = unaccented syllable

X = syllable that may be either  
accented or unaccented

Variations of the same formula  
are indicated in color

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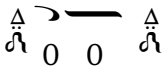
\* The Byzantine music formulae herein were extracted from all the verses found in the *Zoe Anastasimatarion* (14th edition, 2002), the *Anastasimatarion* of Petros Peloponnesios (Mousike Bibliothek), and the *Neon Anastasimatarion* by Petros Ephesios. These formulae are applicable only to the brief verses (that are not immediately followed by troparia) of Psalms 140, 141, and 129 chanted in the beginning of Vespers immediately after "Lord I Have Cried" and the brief verses of Psalms 148, 149, and 150 chanted in Orthros immediately after "Let Every Breath."

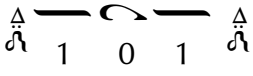
*Plagal First Mode - Verses (Tetraphonos)*

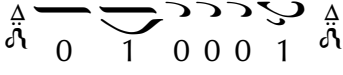
**A) Cadences on Di**


Accented on last syllable:

From Di

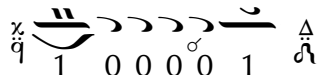
00 

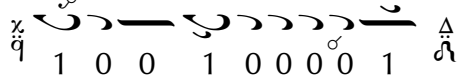
101 

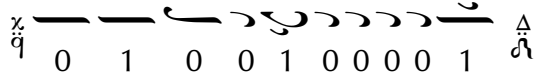
010001 

0100101 

From Ke

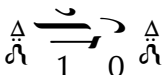
100001 


100100001 

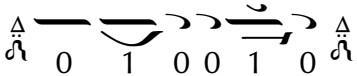
0100100001 


Accented on second to last syllable:

From Di

10 

10010 

010010 


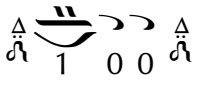
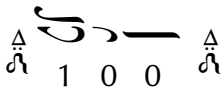
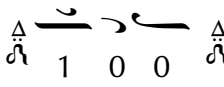
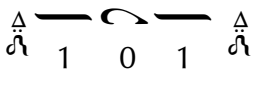


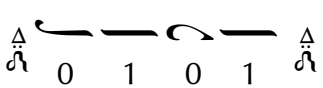
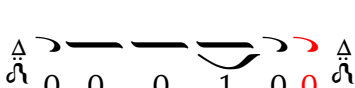
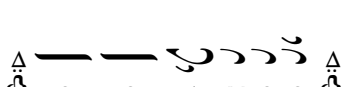

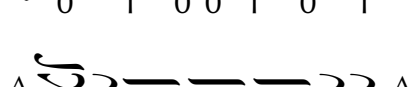
  
1



*Plagal First Mode - Verses (Tetrachonos)*

Accented on third to last syllable:

From Di

100	
	
	
	
101	
0100	
	
0101	
000100	
001X00	
0100101	
1000100	



*Plagal First Mode - Verses (Tetrachordos)*

$\overset{\Delta}{\underset{\text{d}\lambda}{\text{A}}}$   $\overset{\Delta}{\underset{\text{d}\lambda}{\text{A}}}$   
1 0 0 0 1 0 0

00100100

$\overset{\Delta}{\underset{\text{d}\lambda}{\text{A}}}$   $\overset{\Delta}{\underset{\text{d}\lambda}{\text{A}}}$   
0 0 1 0 0 1 0 0

10000100

$\overset{\Delta}{\underset{\text{d}\lambda}{\text{A}}}$   $\overset{\Delta}{\underset{\text{d}\lambda}{\text{A}}}$   
1 0 0 0 0 1 0 0

From Ke

100

$\overset{\times}{\underset{\text{q}}{\text{q}}}$   $\overset{\Delta}{\underset{\text{d}\lambda}{\text{A}}}$   
1 0 0

$\overset{\times}{\underset{\text{q}}{\text{q}}}$   $\overset{\Delta}{\underset{\text{d}\lambda}{\text{A}}}$   
1 0 0

0

$\overset{\times}{\underset{\text{q}}{\text{q}}}$   $\overset{\Delta}{\underset{\text{d}\lambda}{\text{A}}}$   
1 0 0

0100

$\overset{\times}{\underset{\text{q}}{\text{q}}}$   $\overset{\Delta}{\underset{\text{d}\lambda}{\text{A}}}$   
0 1 0 0

1100

$\overset{\times}{\underset{\text{q}}{\text{q}}}$   $\overset{\Delta}{\underset{\text{d}\lambda}{\text{A}}}$   
1 1 0 0

00100

$\overset{\times}{\underset{\text{q}}{\text{q}}}$   $\overset{\Delta}{\underset{\text{d}\lambda}{\text{A}}}$   
0 0 1 0 0

10100

$\overset{\times}{\underset{\text{q}}{\text{q}}}$   $\overset{\Delta}{\underset{\text{d}\lambda}{\text{A}}}$   
1 0 1 0 0

000100

$\overset{\times}{\underset{\text{q}}{\text{q}}}$   $\overset{\Delta}{\underset{\text{d}\lambda}{\text{A}}}$   
0 0 0 1 0 0

010100

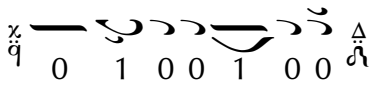
$\overset{\times}{\underset{\text{q}}{\text{q}}}$   $\overset{\Delta}{\underset{\text{d}\lambda}{\text{A}}}$   
0 1 0 1 0 0

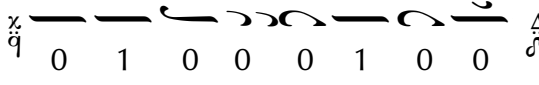
1

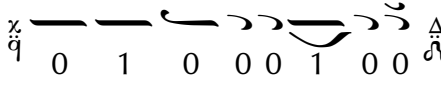
0X0100

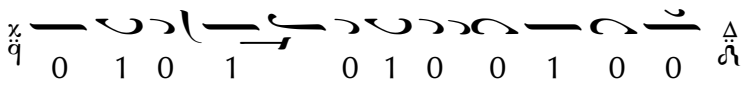
$\overset{\times}{\underset{\text{q}}{\text{q}}}$   $\overset{\Delta}{\underset{\text{d}\lambda}{\text{A}}}$   
0 X 0 1 0 0

*Plagal First Mode - Verses (Tetraphonos)*

0100100 

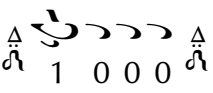
01000100 




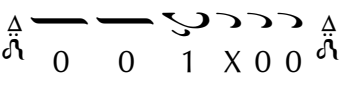
01010100100 


Accented on fourth to last syllable:

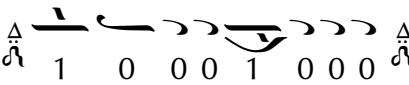
From Di

1000 


01000 

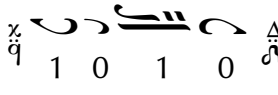
001X00 

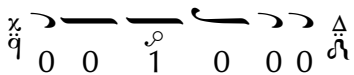
010X010 

10001000 

From Ke

1000 

1010 

001000 

*Plagal First Mode - Verses (Tetraphonos)*

0101010       $\frac{x}{q}$  — — — — — — — — — —  $\frac{\Delta}{d}$   
                   0 1 0 1 0 1 0

0101001010       $\frac{x}{q}$  — — — — — — — — — —  $\frac{\Delta}{d}$   
                   0 1 0 1 0 0 1 0 1 0

010100X010       $\frac{x}{q}$  — — — — — — — — — —  $\frac{\Delta}{d}$   
                   0 1 0 1 0 0 X 0 1 0

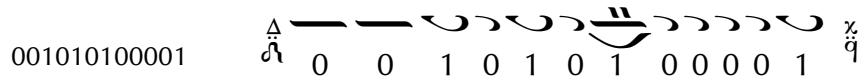
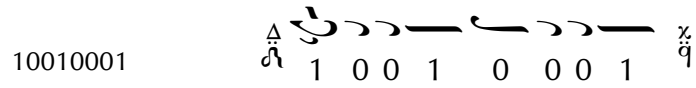
*Plagal First Mode - Verses (Tetraphonos)*

**B) Cadences on Ke**

These are used as initial formulae.

Accented on last syllable:

From Di

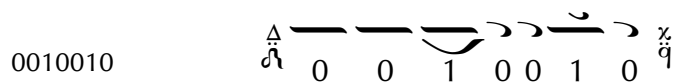


From Ke

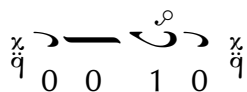
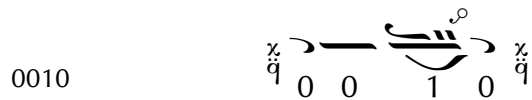


Accented on second to last syllable:

From Di

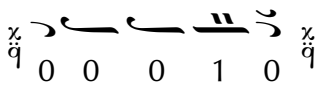


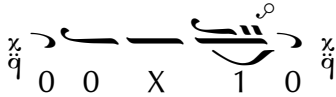
From Ke

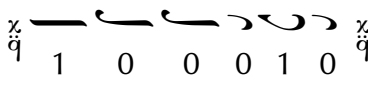


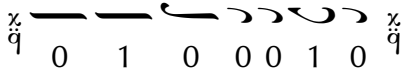


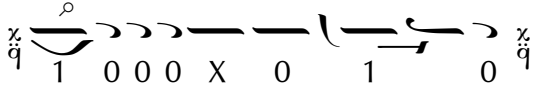
*Plagal First Mode - Verses (Tetraphonos)*

00010 

00X10 


10010 

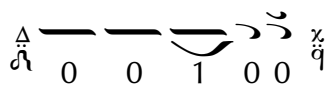
0100010 

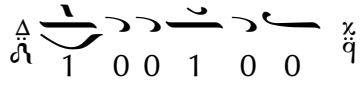
1000X010 

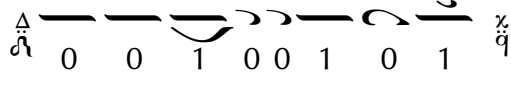
Accented on third to last syllable:

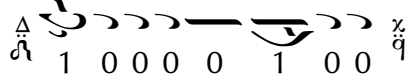
From Di

0100 

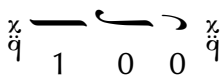
00100 


100100 

00100101 

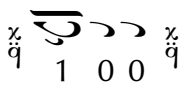
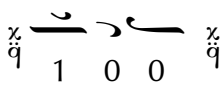
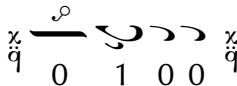
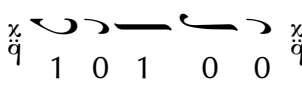
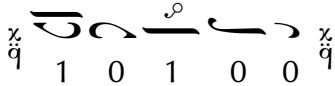
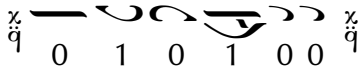
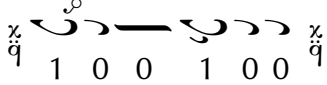
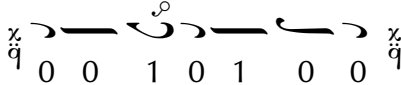
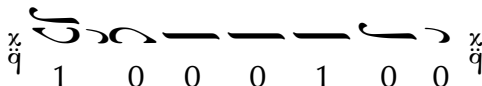
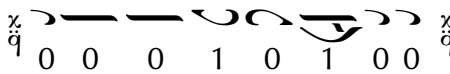
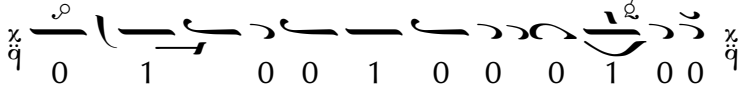
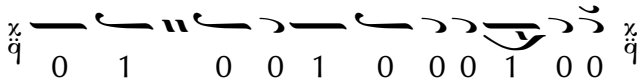
10000100 

From Ke

100 



*Plagal First Mode - Verses (Tetraphonos)*

	
	
0100	
10100	
	
010100	
100100	
0010100	
1000100	
00010100	
01001000100	
	

Accented on fourth to last syllable:

From Di

*Plagal First Mode - Verses (Tetraphonos)*

1000  $\overset{\Delta}{\underset{\text{A}}{\text{A}}} \begin{array}{cccc} \text{—} & \text{—} & \text{—} & \text{—} \\ 1 & 0 & 0 & 0 \end{array} \overset{\times}{\underset{\text{q}}{\text{q}}}$

01010  $\overset{\Delta}{\underset{\text{A}}{\text{A}}} \begin{array}{cccccc} \text{—} & \text{—} & \text{—} & \text{—} & \text{—} & \text{—} \\ 0 & 0 & 1 & 0 & 1 & 0 \end{array} \overset{\times}{\underset{\text{q}}{\text{q}}}$

From Ke

1001  $\overset{\times}{\underset{\text{q}}{\text{q}}} \begin{array}{cccc} \overset{\circ}{\text{—}} & \text{—} & \text{—} & \text{—} \\ 1 & 0 & 0 & 1 \end{array} \overset{\times}{\underset{\text{q}}{\text{q}}}$

1010  $\overset{\times}{\underset{\text{q}}{\text{q}}} \begin{array}{cccc} \overset{\circ}{\text{—}} & \text{—} & \text{—} & \text{—} \\ 1 & 0 & 1 & 0 \end{array} \overset{\times}{\underset{\text{q}}{\text{q}}}$

01000  $\overset{\times}{\underset{\text{q}}{\text{q}}} \begin{array}{cccc} \text{—} & \text{—} & \text{—} & \text{—} \\ 0 & 1 & 0 & 0 \end{array} \overset{\times}{\underset{\text{q}}{\text{q}}}$

01001  $\overset{\times}{\underset{\text{q}}{\text{q}}} \begin{array}{cccc} \text{—} & \text{—} & \text{—} & \text{—} \\ 0 & 1 & 0 & 1 \end{array} \overset{\times}{\underset{\text{q}}{\text{q}}}$

*1*

01010  $\overset{\times}{\underset{\text{q}}{\text{q}}} \begin{array}{cccc} \text{—} & \text{—} & \text{—} & \text{—} \\ 0 & 1 & 0 & 1 \end{array} \overset{\times}{\underset{\text{q}}{\text{q}}}$

001001  $\overset{\times}{\underset{\text{q}}{\text{q}}} \begin{array}{cccc} \text{—} & \text{—} & \text{—} & \text{—} \\ 0 & 0 & 1 & 0 \end{array} \overset{\times}{\underset{\text{q}}{\text{q}}}$

101000  $\overset{\times}{\underset{\text{q}}{\text{q}}} \begin{array}{cccc} \text{—} & \text{—} & \text{—} & \text{—} \\ 1 & 0 & 1 & 0 \end{array} \overset{\times}{\underset{\text{q}}{\text{q}}}$

01001000  $\overset{\times}{\underset{\text{q}}{\text{q}}} \begin{array}{cccc} \text{—} & \text{—} & \text{—} & \text{—} \\ 0 & 1 & 0 & 0 \end{array} \overset{\times}{\underset{\text{q}}{\text{q}}}$

$\overset{\times}{\underset{\text{q}}{\text{q}}} \begin{array}{cccc} \text{—} & \text{—} & \text{—} & \text{—} \\ 0 & 1 & 0 & 0 \end{array} \overset{\times}{\underset{\text{q}}{\text{q}}}$

1000X010  $\overset{\times}{\underset{\text{q}}{\text{q}}} \begin{array}{cccc} \overset{\circ}{\text{—}} & \text{—} & \text{—} & \text{—} \\ 1 & 0 & 0 & 0 \end{array} \overset{\times}{\underset{\text{q}}{\text{q}}}$

01000001001  $\overset{\times}{\underset{\text{q}}{\text{q}}} \begin{array}{cccc} \text{—} & \text{—} & \text{—} & \text{—} \\ 0 & 1 & 0 & 0 \end{array} \overset{\times}{\underset{\text{q}}{\text{q}}}$

*Plagal First Mode - Verses (Tetrachonos)*

**C) Cadences on High Nee**

Accented on last syllable:

From Ke

10001  $\overset{\times}{\underset{\text{q}}{\text{q}}} \overset{\curvearrowright}{\text{—}} \overset{\curvearrowright}{\text{—}} \overset{\curvearrowright}{\text{—}} \overset{\curvearrowright}{\text{—}} \overset{\curvearrowright}{\text{—}} \overset{\text{y}'}{\text{n}}$

From High Nee

01  $\overset{\text{y}'}{\text{n}} \overset{\curvearrowright}{\text{—}} \overset{\text{y}'}{\text{n}}$

Accented on second to last syllable:

From Ke

10  $\overset{\times}{\underset{\text{q}}{\text{q}}} \overset{\curvearrowright}{\text{—}} \overset{\curvearrowright}{\text{—}} \overset{\curvearrowright}{\text{—}} \overset{\text{y}'}{\text{n}}$

0010  $\overset{\times}{\underset{\text{q}}{\text{q}}} \overset{\curvearrowright}{\text{—}} \overset{\curvearrowright}{\text{—}} \overset{\curvearrowright}{\text{—}} \overset{\text{y}'}{\text{n}}$

00010  $\overset{\times}{\underset{\text{q}}{\text{q}}} \overset{\curvearrowright}{\text{—}} \overset{\curvearrowright}{\text{—}} \overset{\curvearrowright}{\text{—}} \overset{\text{y}'}{\text{n}}$

From High Nee

10010  $\overset{\text{y}'}{\text{n}} \overset{\curvearrowright}{\text{—}} \overset{\curvearrowright}{\text{—}} \overset{\curvearrowright}{\text{—}} \overset{\text{y}'}{\text{n}}$

$\overset{\text{y}'}{\text{n}} \overset{\curvearrowright}{\text{—}} \overset{\curvearrowright}{\text{—}} \overset{\curvearrowright}{\text{—}} \overset{\text{y}'}{\text{n}}$

010010  $\overset{\text{y}'}{\text{n}} \overset{\curvearrowright}{\text{—}} \overset{\curvearrowright}{\text{—}} \overset{\curvearrowright}{\text{—}} \overset{\text{y}'}{\text{n}}$

100010  $\overset{\text{y}'}{\text{n}} \overset{\curvearrowright}{\text{—}} \overset{\curvearrowright}{\text{—}} \overset{\curvearrowright}{\text{—}} \overset{\text{y}'}{\text{n}}$

0100010  $\overset{\text{y}'}{\text{n}} \overset{\curvearrowright}{\text{—}} \overset{\curvearrowright}{\text{—}} \overset{\curvearrowright}{\text{—}} \overset{\text{y}'}{\text{n}}$

*Plagal First Mode - Verses (Tetrachonos)*

Accented on third to last syllable:

From Ke

100       $\overset{\times}{\underset{\grave{q}}{\bar{\cup}}} \rightarrow \bar{\cup} \rightarrow \bar{\cup} \rightarrow \overset{\vee'}{\bar{\cup}}$   
            1 0 0

$\overset{\times}{\underset{\grave{q}}{\bar{\cup}}} \rightarrow \bar{\cup} \rightarrow \bar{\cup} \rightarrow \overset{\vee'}{\bar{\cup}}$   
            1 0 0

Accented on fourth to last syllable:

From High Nee

1010       $\overset{\vee'}{\bar{\cup}} \rightarrow \bar{\cup} \rightarrow \bar{\cup} \rightarrow \bar{\cup} \rightarrow \bar{\cup} \rightarrow \overset{\vee'}{\bar{\cup}}$   
            1 0 1 0

*Plagal First Mode - Verses (Tetrachordos)*

**D) Formulae with Fthoras**

0001  $\begin{array}{c} \overset{\rho}{\Delta} \\ \underset{\delta}{\delta} \end{array} \begin{array}{c} \curvearrowright \\ 0 \end{array} \begin{array}{c} \curvearrowright \\ 0 \end{array} \begin{array}{c} \text{---} \\ 0 \end{array} \begin{array}{c} \overset{\rho}{\text{---}} \\ 1 \end{array} \begin{array}{c} \Delta \\ \underset{\delta}{\delta} \end{array}$

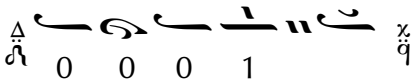
010  $\begin{array}{c} \overset{\rho}{\Delta} \\ \underset{\delta}{\delta} \end{array} \begin{array}{c} \text{---} \\ 0 \end{array} \begin{array}{c} \text{---} \\ 1 \end{array} \begin{array}{c} \text{---} \\ 0 \end{array} \begin{array}{c} \overset{\rho}{\text{---}} \\ 1 \end{array} \begin{array}{c} \Delta \\ \underset{\delta}{\delta} \end{array}$


*Plagal First Mode - Verses (Tetraphonos)*

**E) Final Cadences**

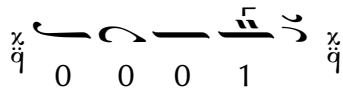
Accented on last syllable:

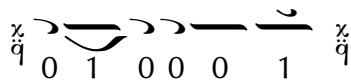
From Di

0001 

010001 

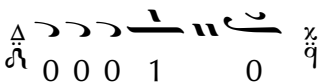
From Ke

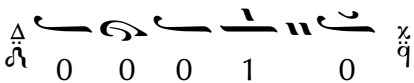
0001 

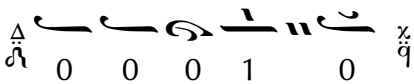
010001 

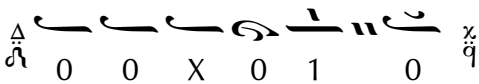
Accented on second to last syllable:

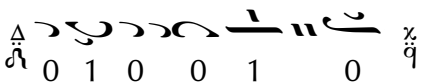
From Di

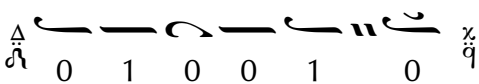
00010 





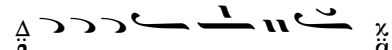
00X010 

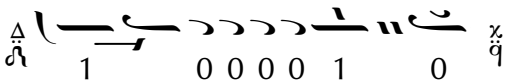
010010 

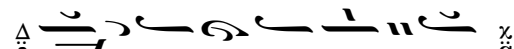


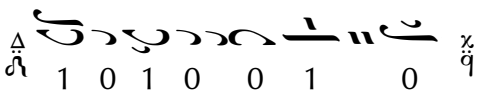
*Plagal First Mode - Verses (Tetraphonos)*

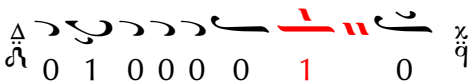
100010   $\frac{x}{q}$

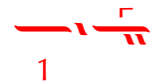
  $\frac{x}{q}$


1000010   $\frac{x}{q}$

  $\frac{x}{q}$

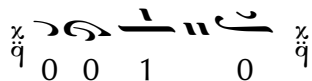
1010010   $\frac{x}{q}$

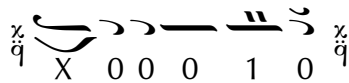
01000010   $\frac{x}{q}$

  $\frac{x}{q}$

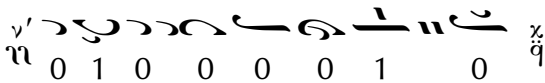
  $\frac{x}{q}$

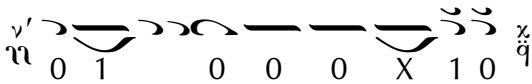
From Ke

0010   $\frac{x}{q}$

X00010   $\frac{x}{q}$

From High Nee

01000010   $\frac{x}{q}$

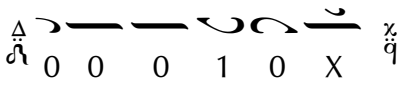
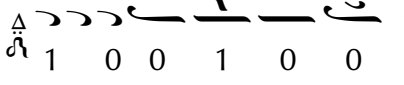
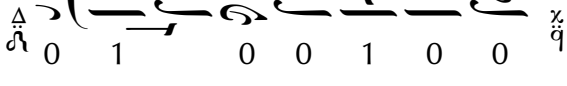
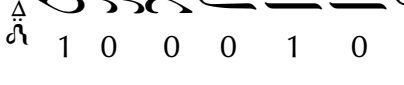
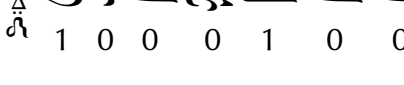
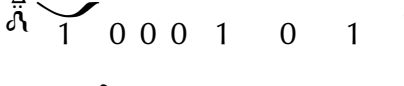
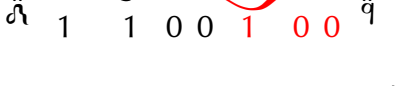

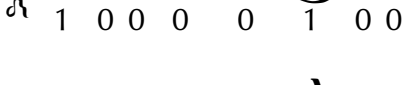
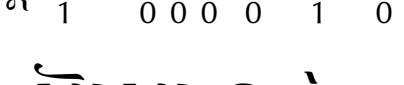
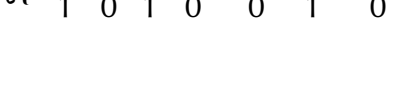
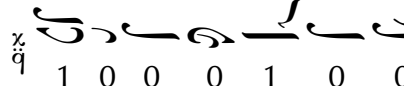
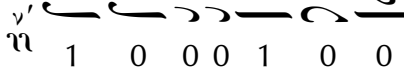
01000X10   $\frac{x}{q}$

Accented on third to last syllable:

From Di



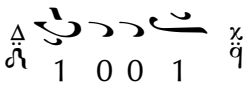
*Plagal First Mode - Verses (Tetraphonos)*

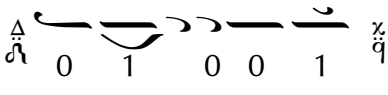
00010X		
100100		
0100100		
1000100		
		
1000101		
1100100		
10000100		
		
10100100		
<u>From Ke</u>		
1000100		
<u>From High Nee</u>		
1000100		

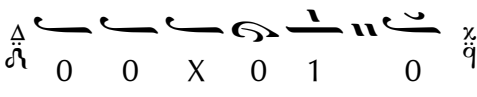
Accented on fourth to last syllable:

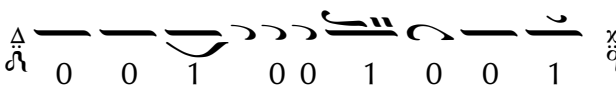
*Plagal First Mode - Verses (Tetraphonos)*

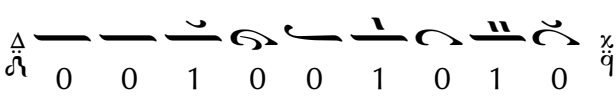
From Di

1001 

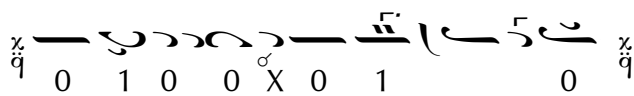
01001 

00X010 

001001001 

001001010 

From Ke

0100X010 

From High Nee

100001010 