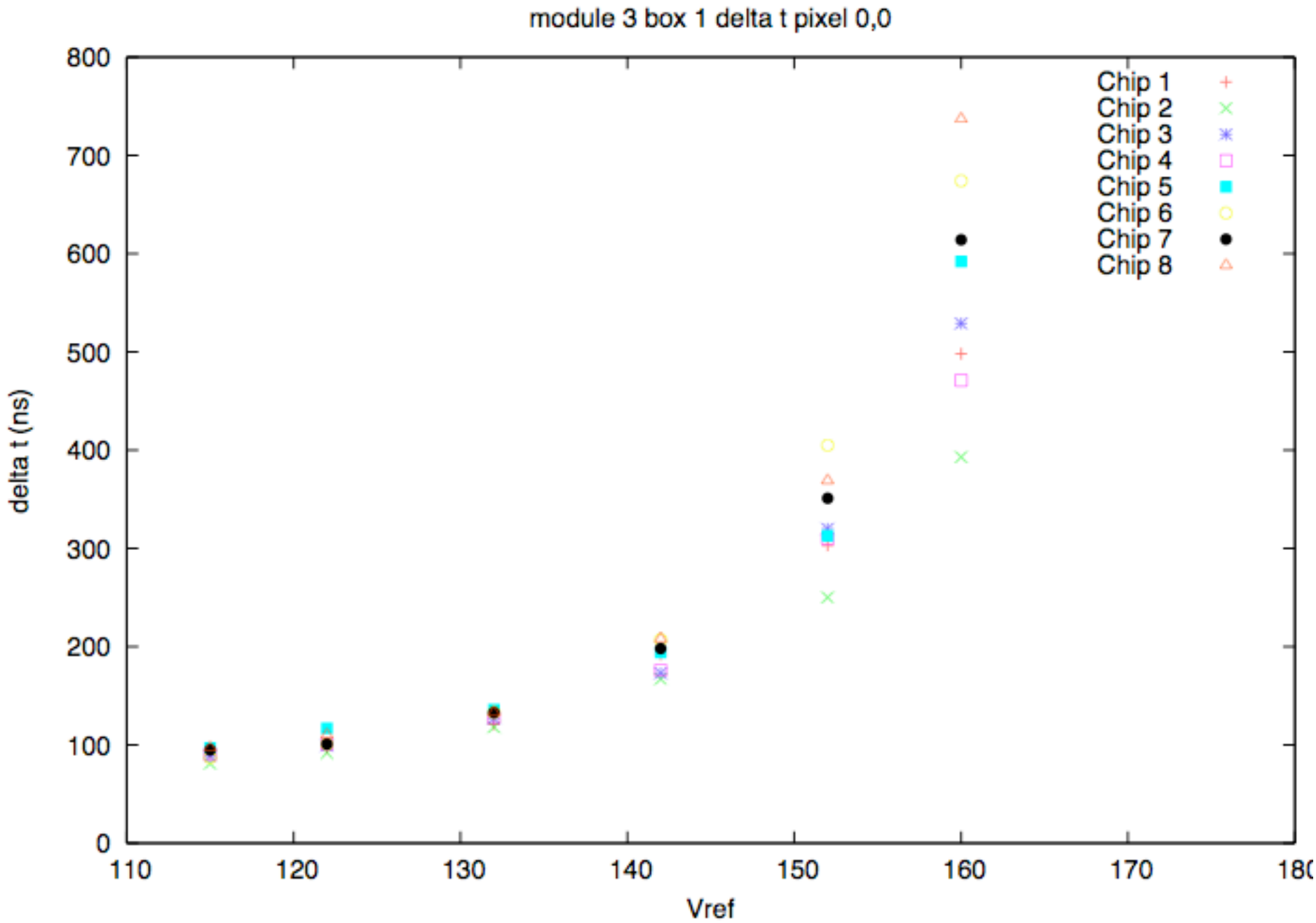
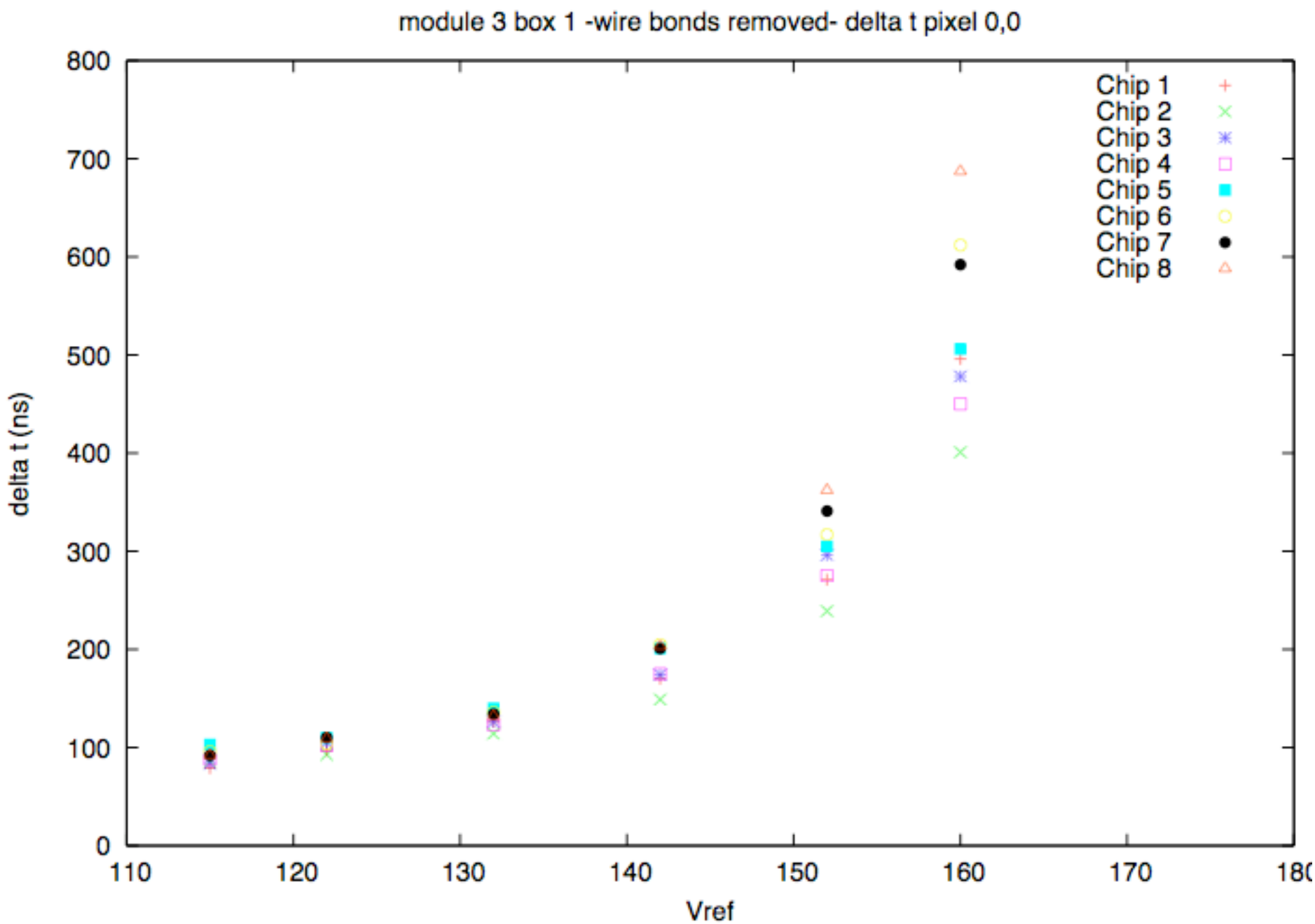
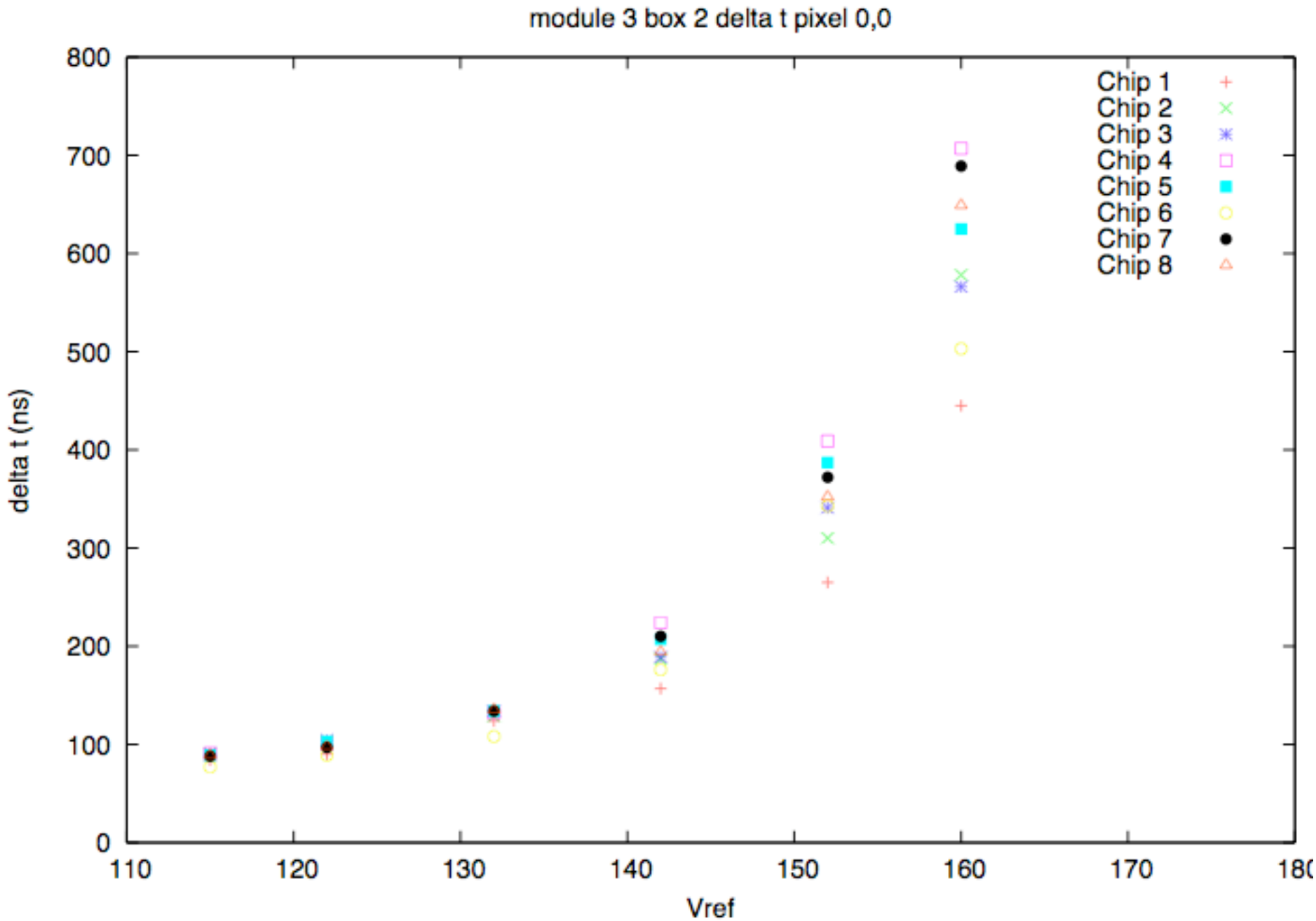
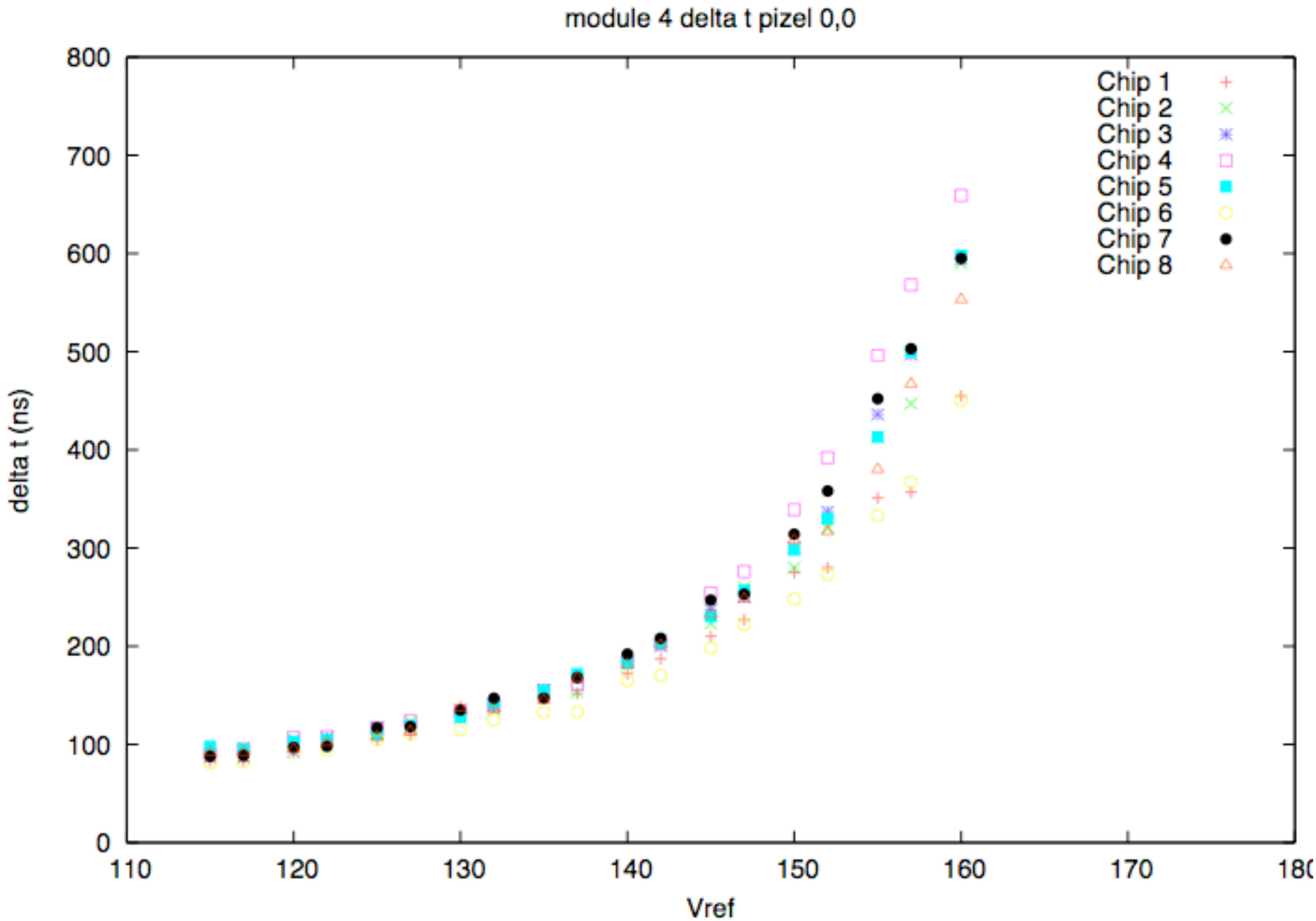
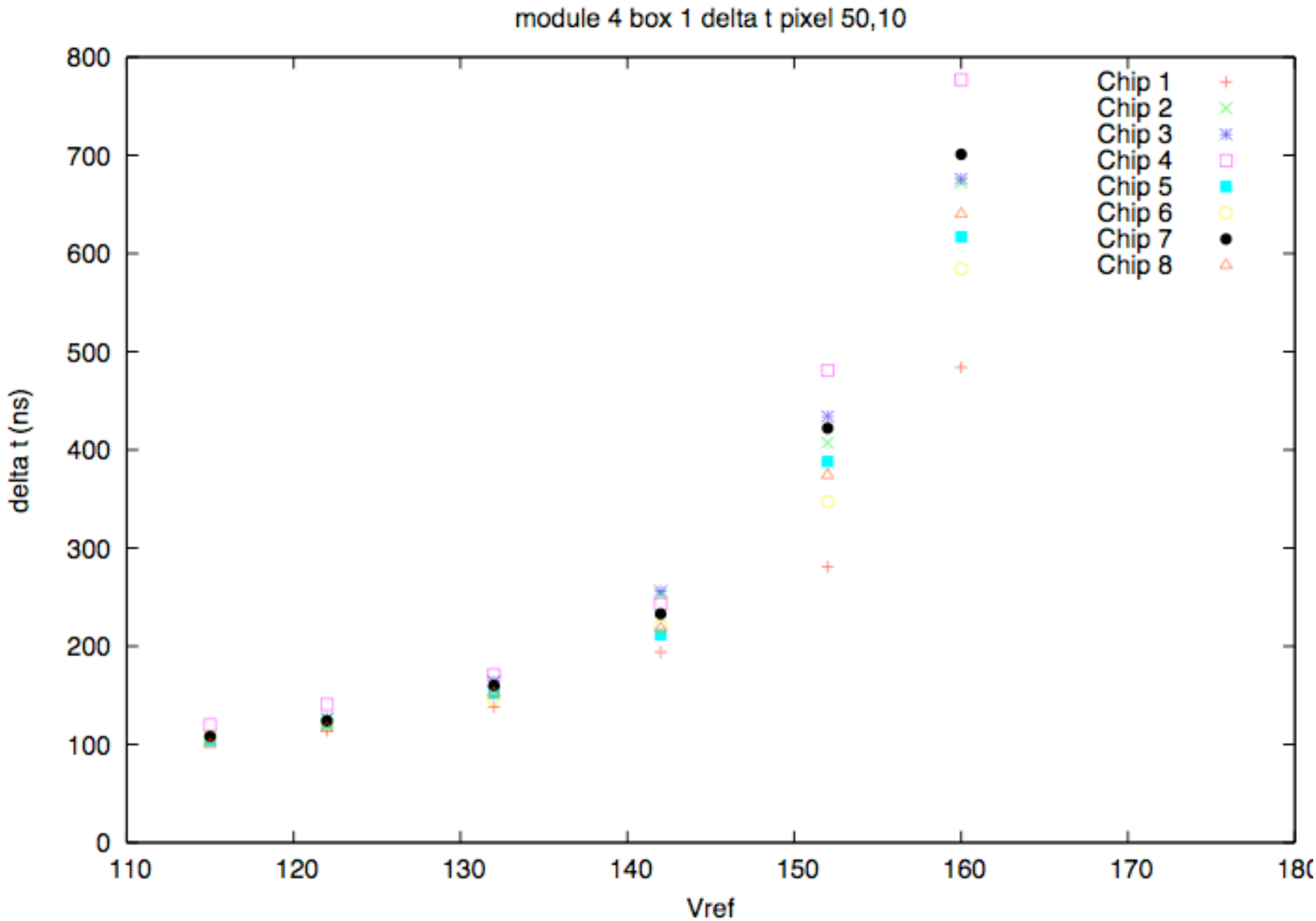
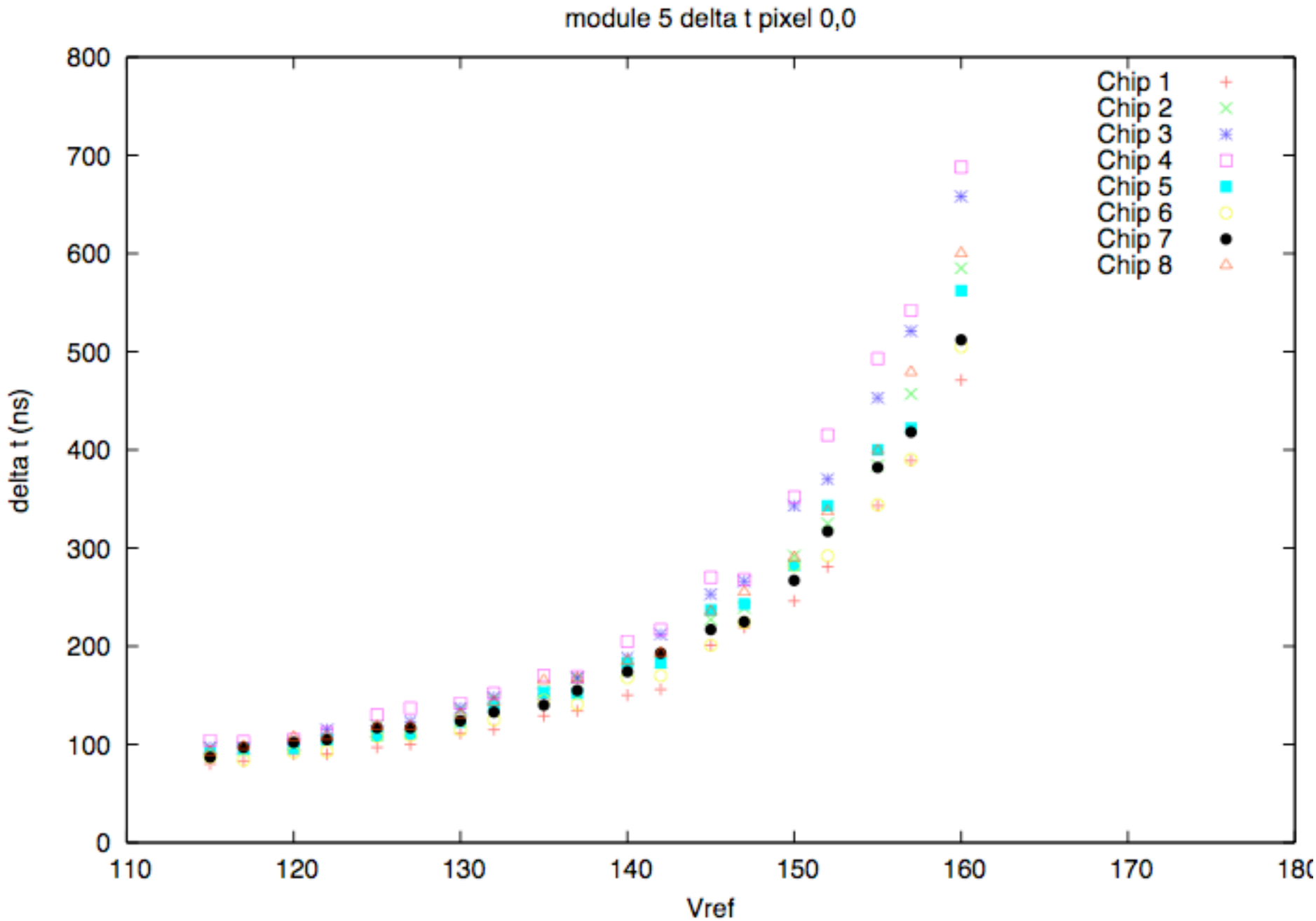

module 3 box 1 delta t pixel 0,0
delta t (ns)
Vref
0
100
200
300
400
500
600
700
800
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8

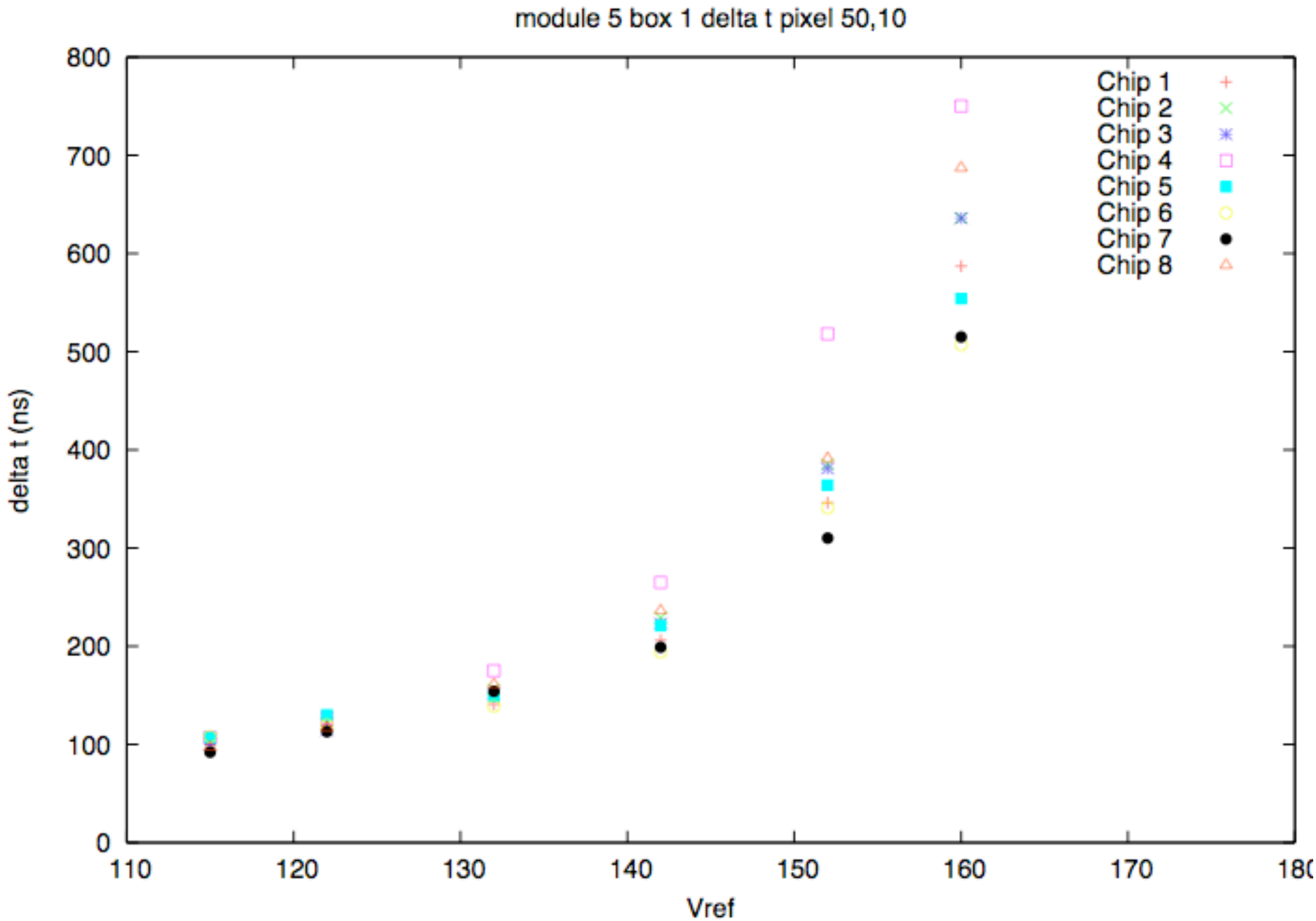

module 3 box 1 -wire bonds removed- delta t pixel 0,0
delta t (ns)
Vref
0
100
200
300
400
500
600
700
800
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8

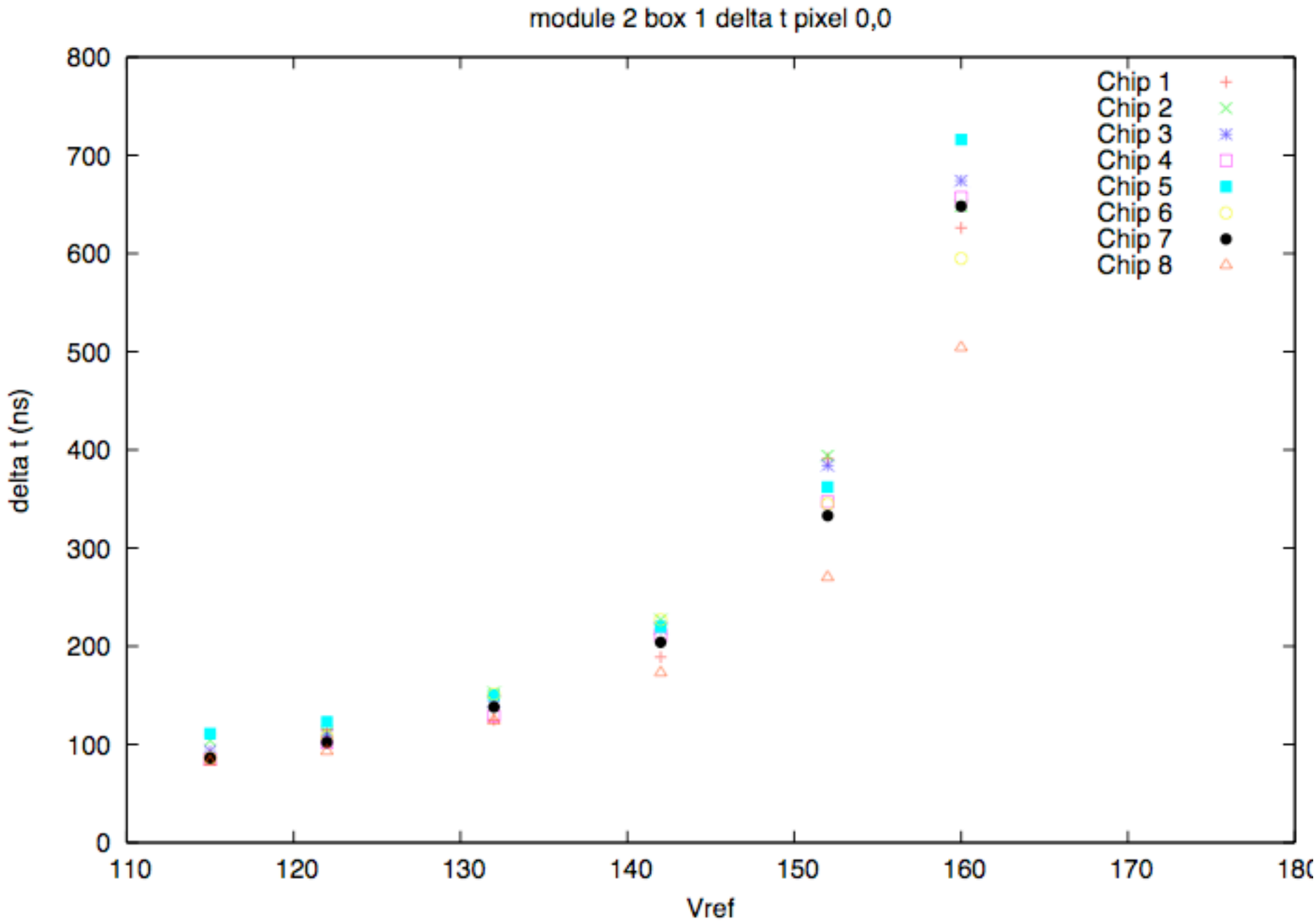

module 3 box 2 delta t pixel 0,0
delta t (ns)
Vref
0
100
200
300
400
500
600
700
800
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8

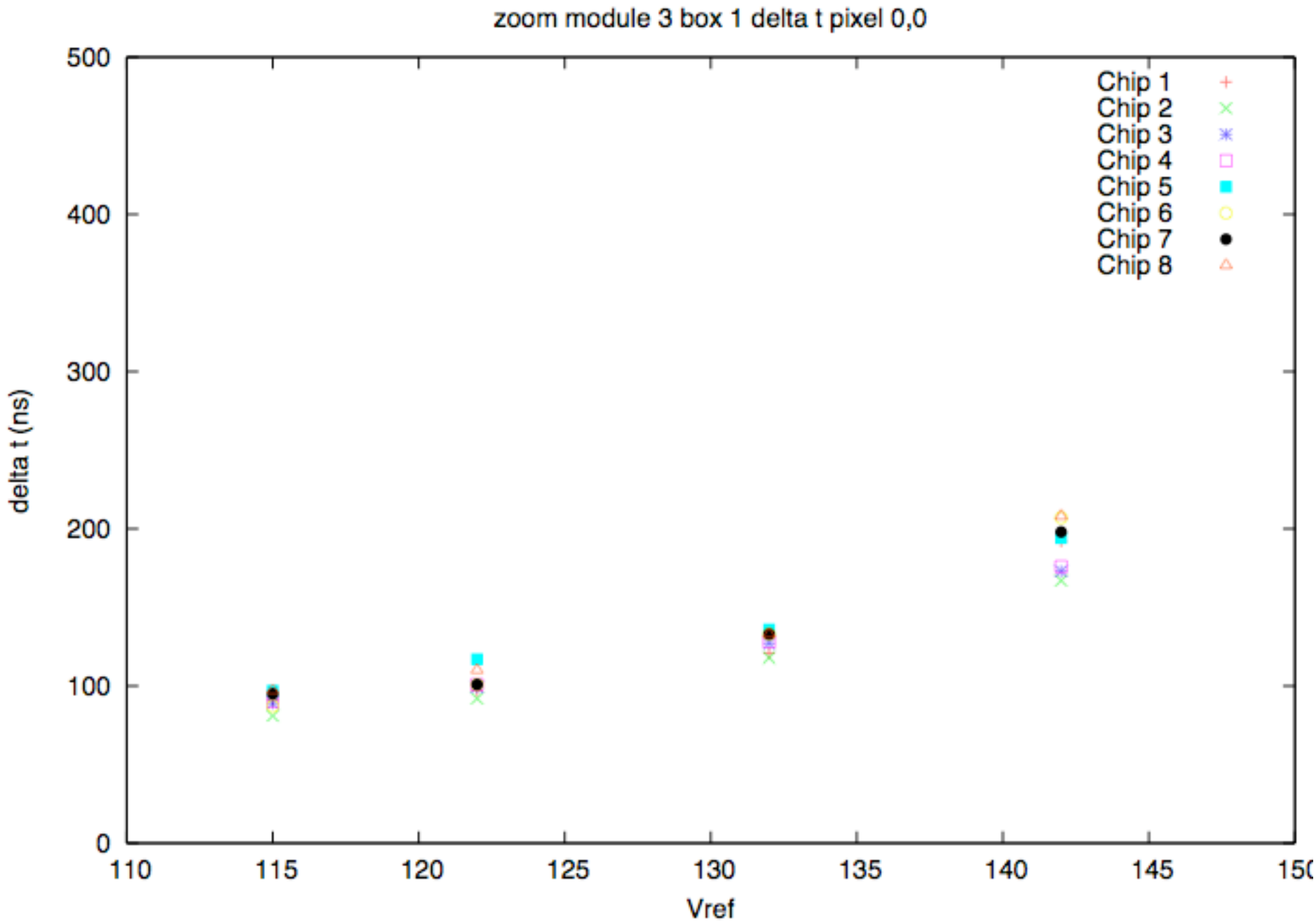

module 4 delta t pizel 0,0
delta t (ns)
Vref
0
100
200
300
400
500
600
700
800
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8

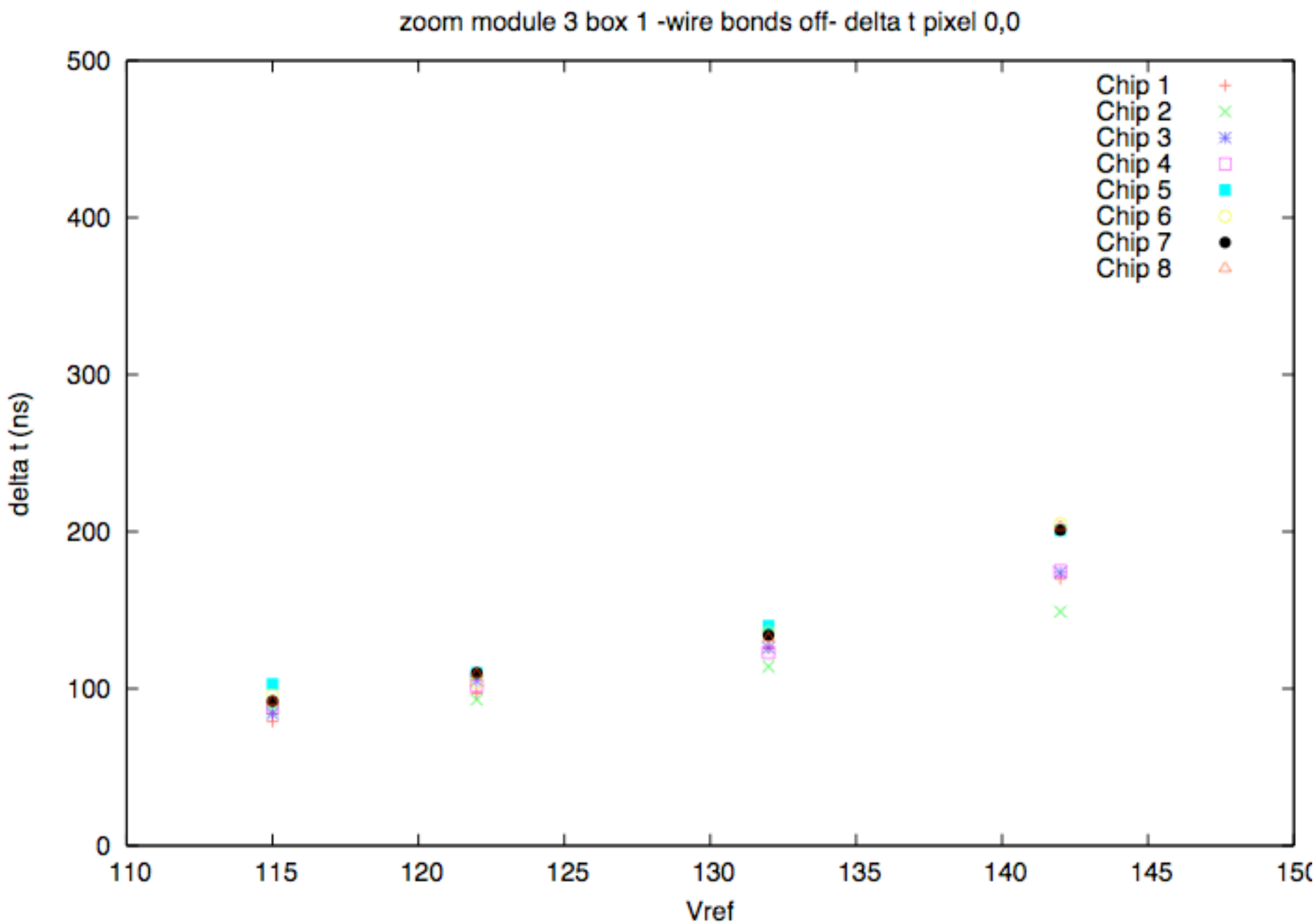

module 4 box 1 delta t pixel 50,10
delta t (ns)
Vref
0
100
200
300
400
500
600
700
800
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8

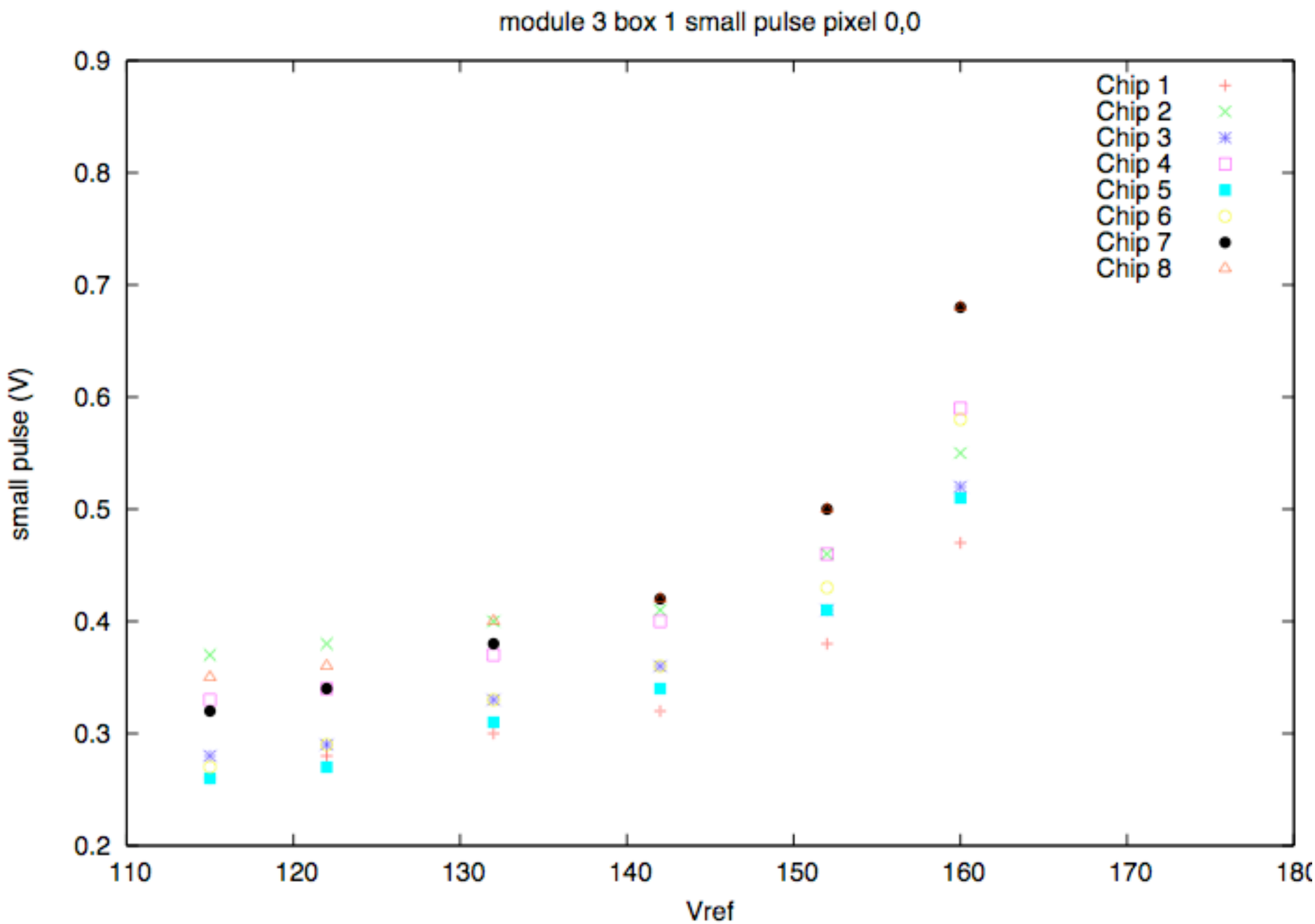

module 5 delta t pixel 0,0
delta t (ns)
Vref
0
100
200
300
400
500
600
700
800
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8

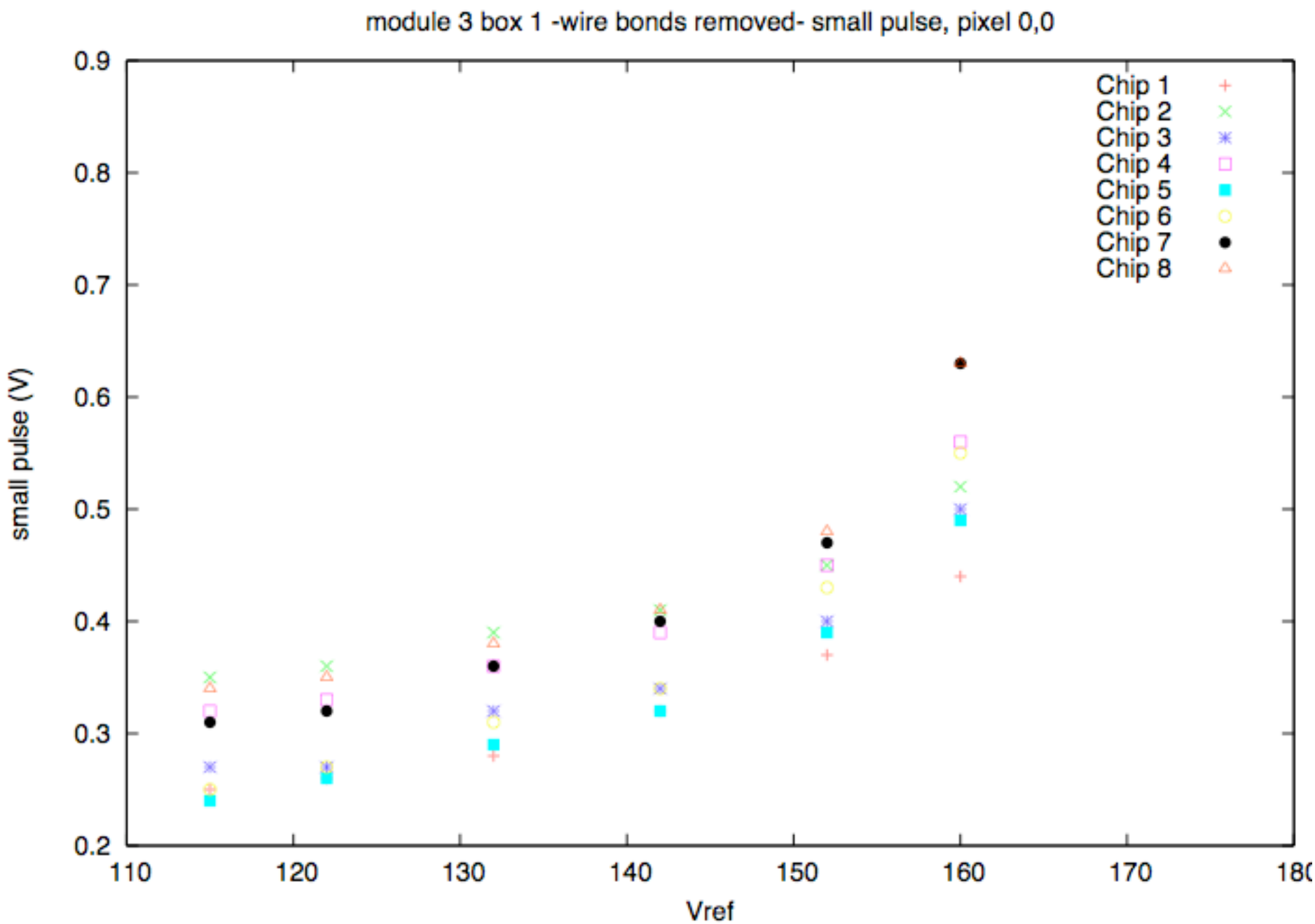

module 5 box 1 delta t pixel 50,10
delta t (ns)
Vref
0
100
200
300
400
500
600
700
800
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8

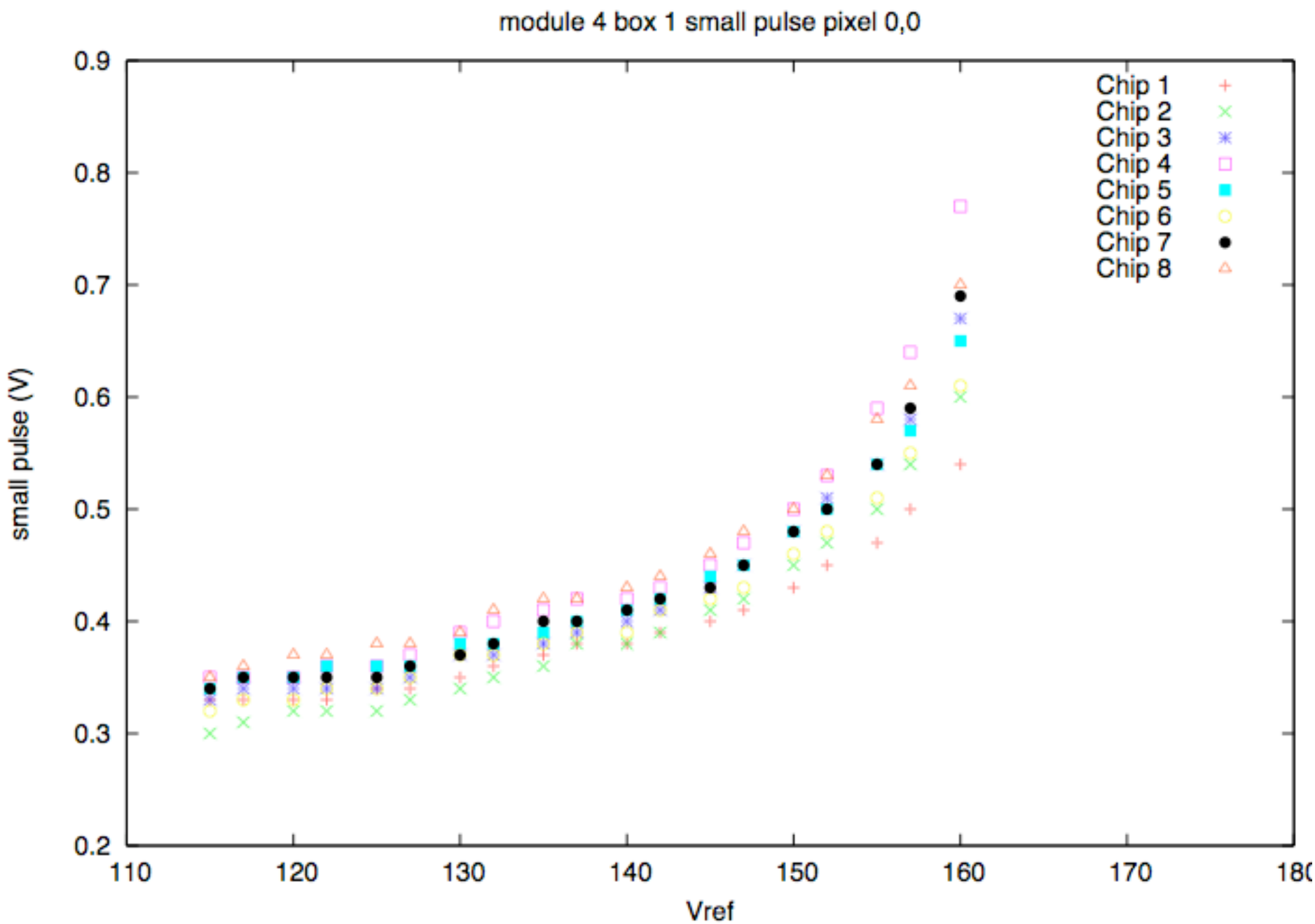

module 2 box 1 delta t pixel 0,0
delta t (ns)
Vref
0
100
200
300
400
500
600
700
800
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8

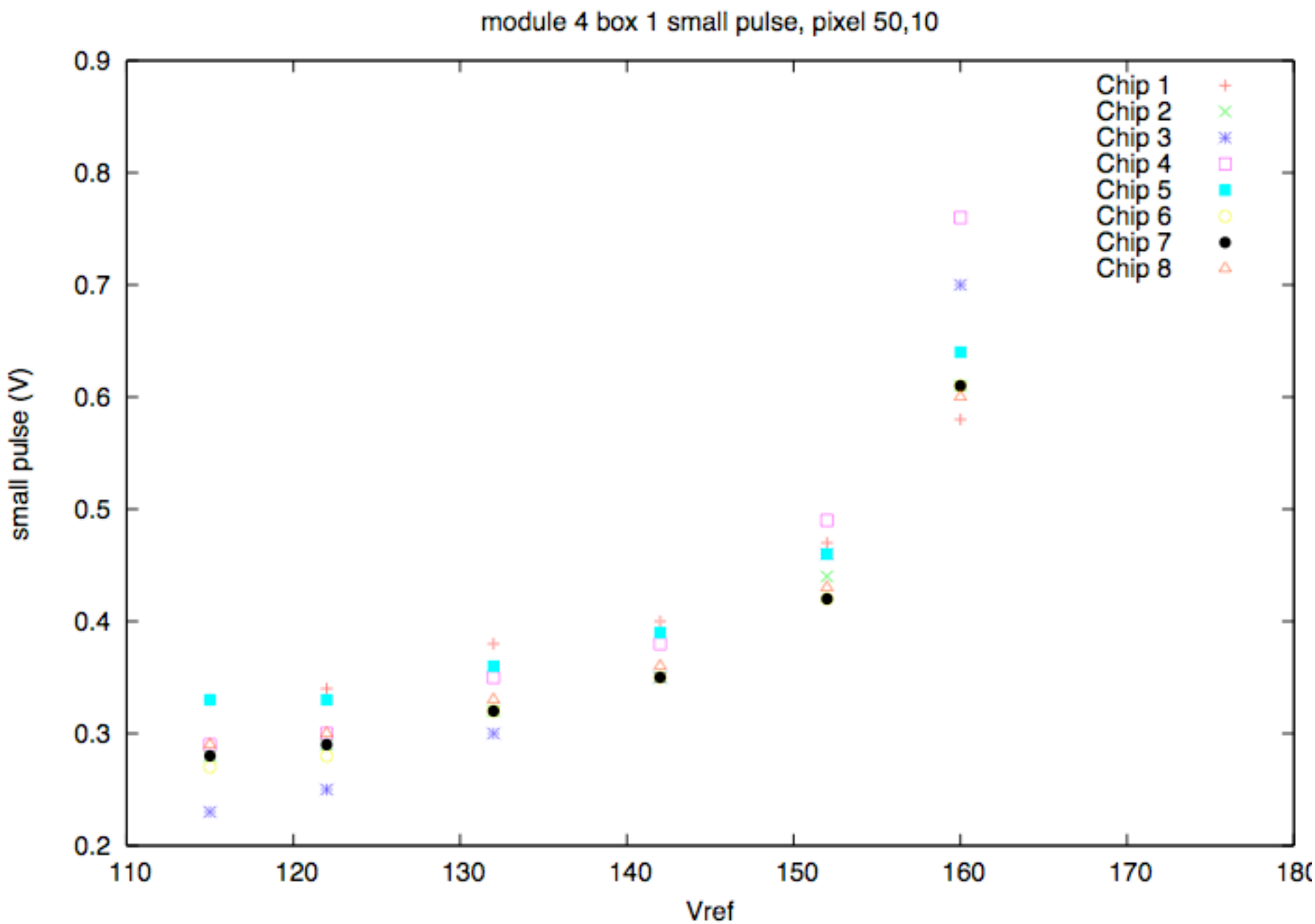

zoom module 3 box 1 delta t pixel 0,0
delta t (ns)
Vref
0
100
200
300
400
500
110
115
120
125
130
135
140
145
150
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8

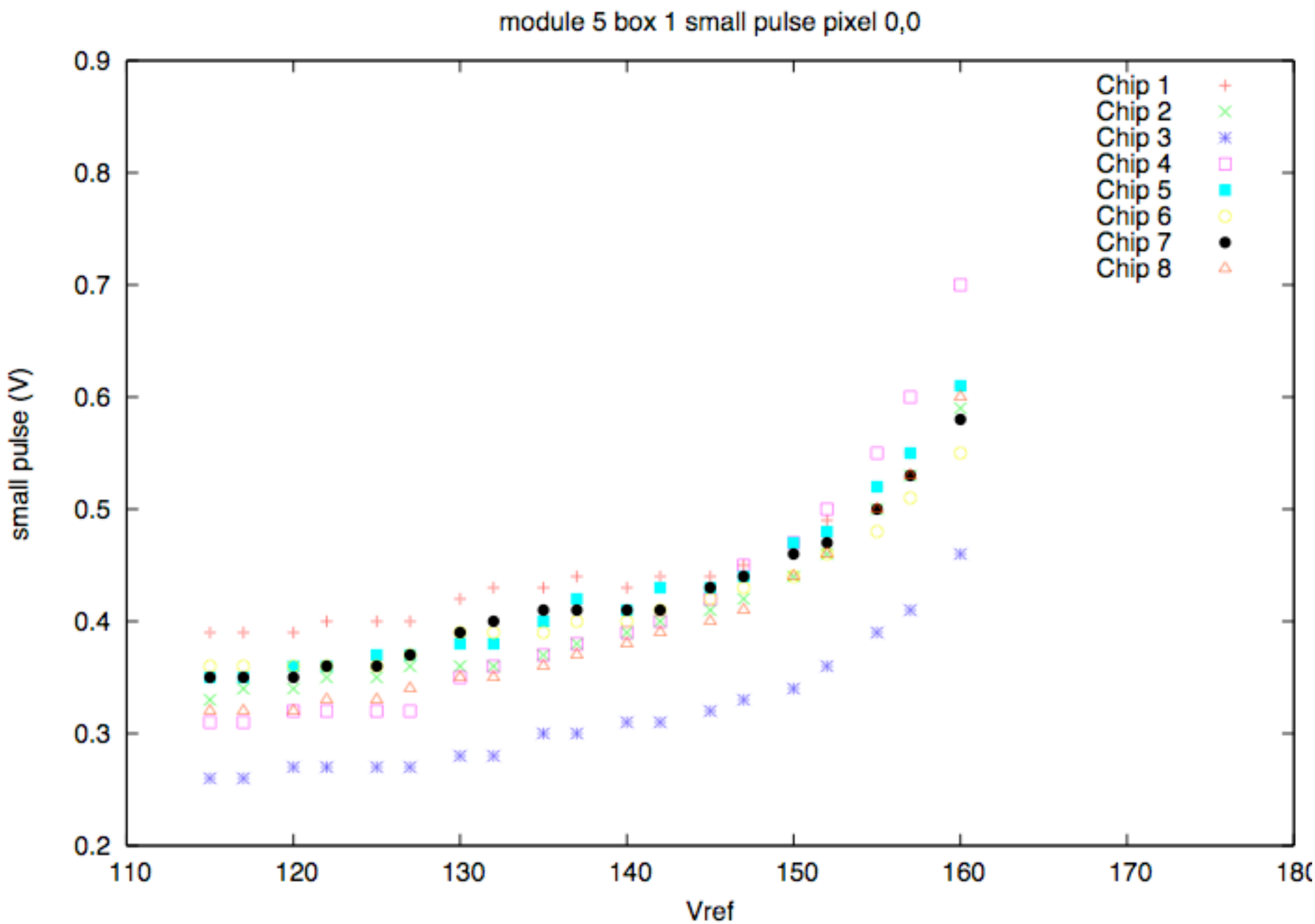

zoom module 3 box 1 -wire bonds off- delta t pixel 0,0
delta t (ns)
Vref
0
100
200
300
400
500
110
115
120
125
130
135
140
145
150
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8

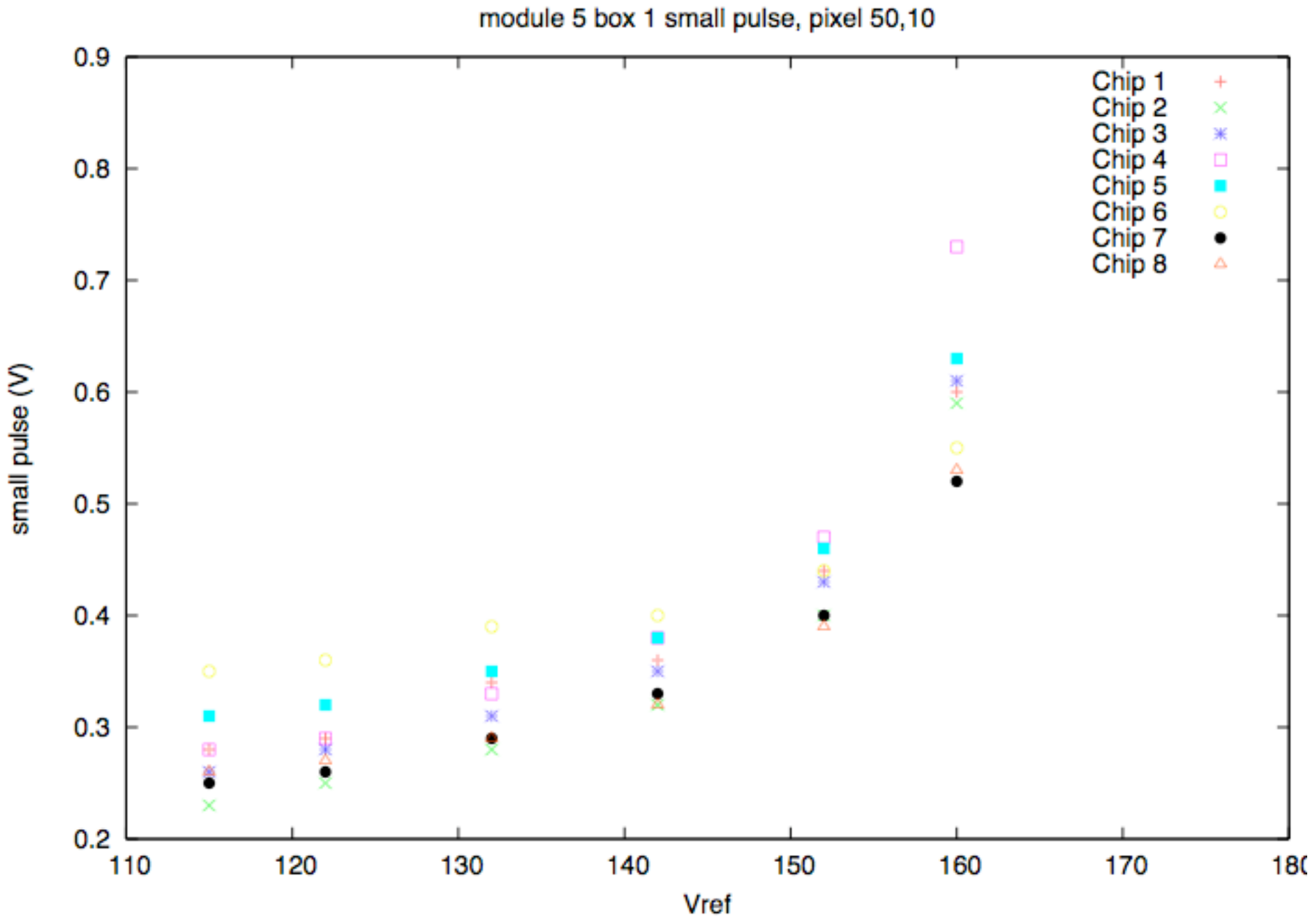

module 3 box 1 small pulse pixel 0,0
small pulse (V)
Vref
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8

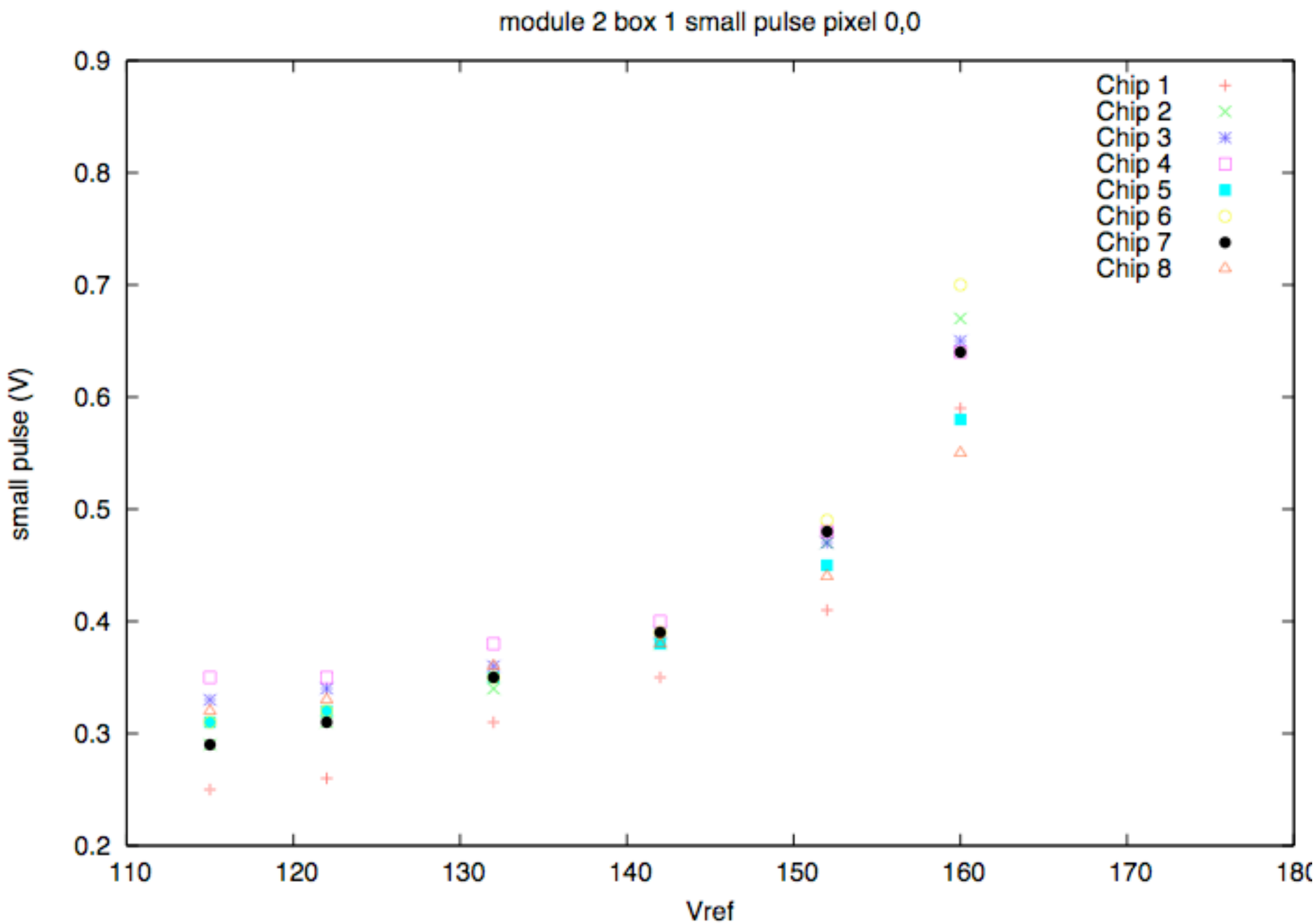

module 3 box 1 -wire bonds removed- small pulse, pixel 0,0
small pulse (V)
Vref
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8

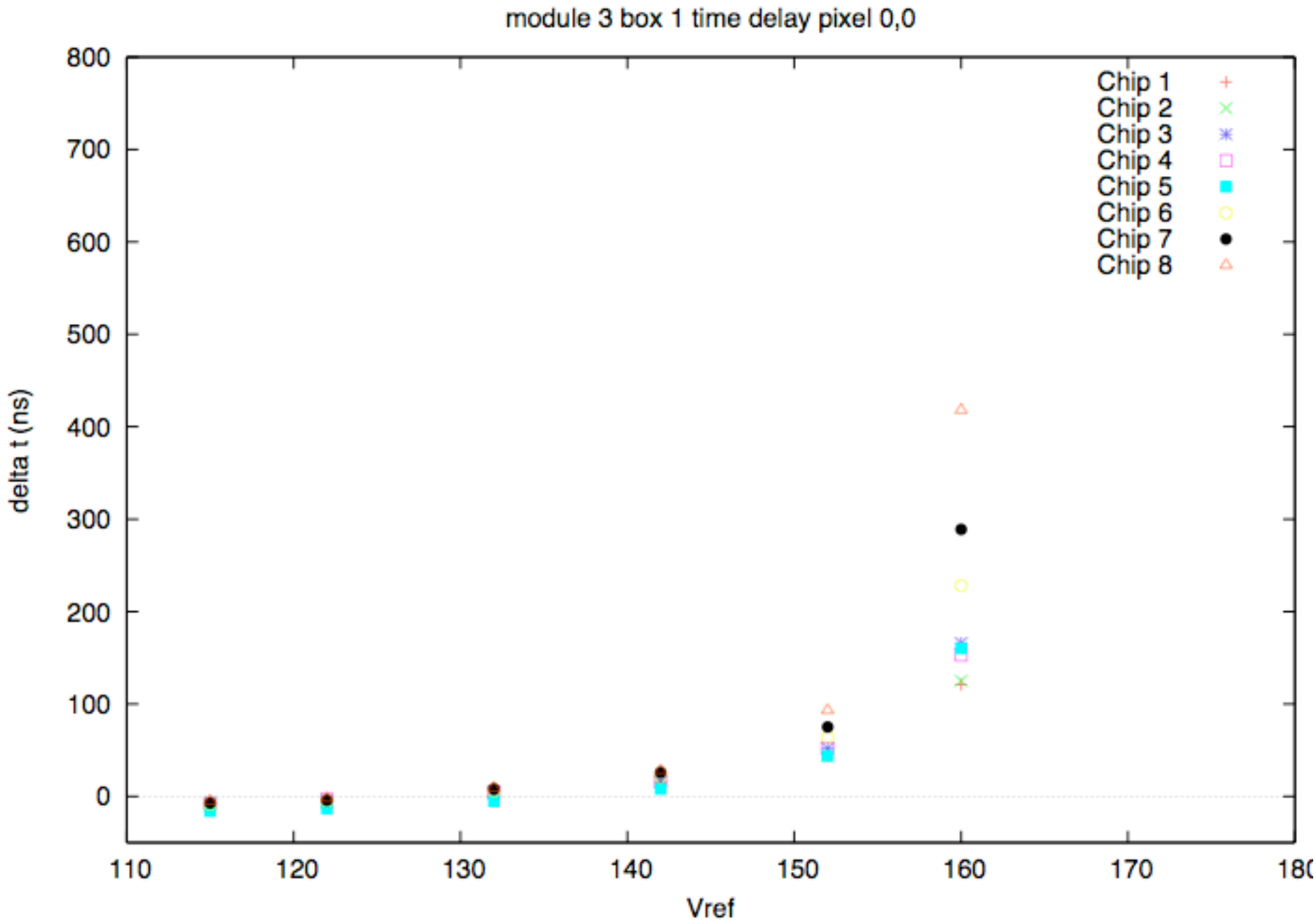

module 4 box 1 small pulse pixel 0,0
small pulse (V)
Vref
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8

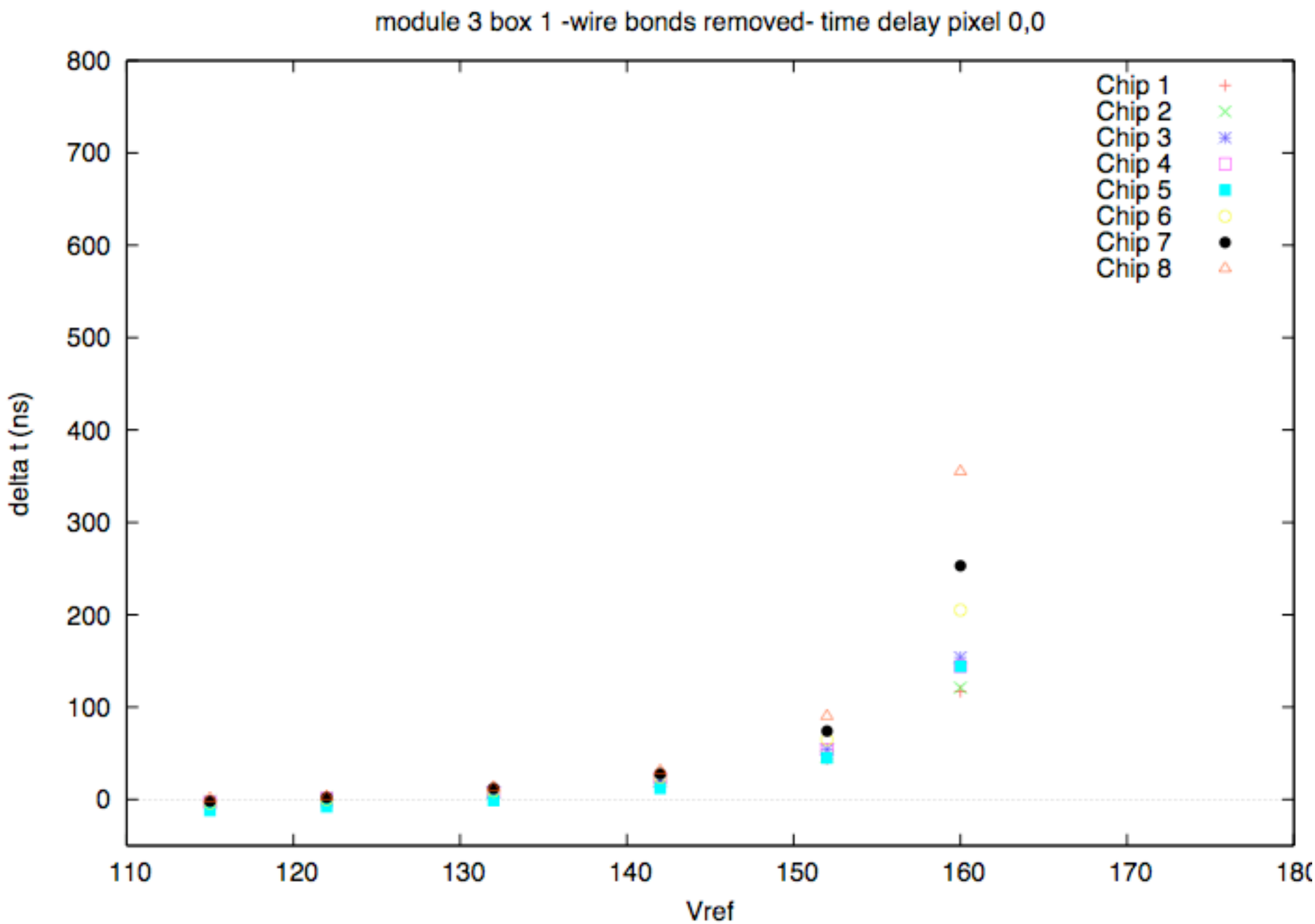

module 4 box 1 small pulse, pixel 50,10
small pulse (V)
Vref
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8

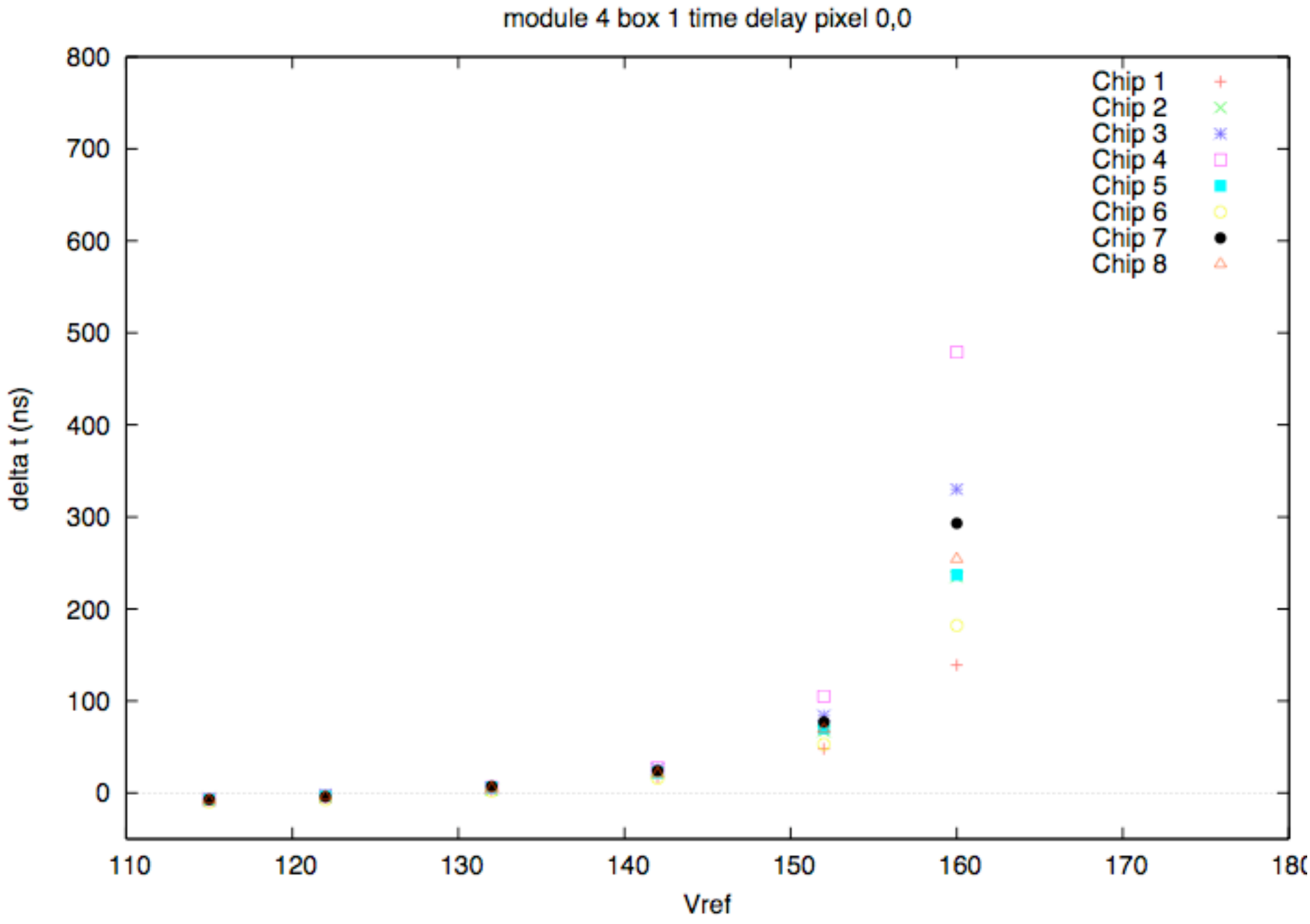

module 5 box 1 small pulse pixel 0,0
small pulse (V)
Vref
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8

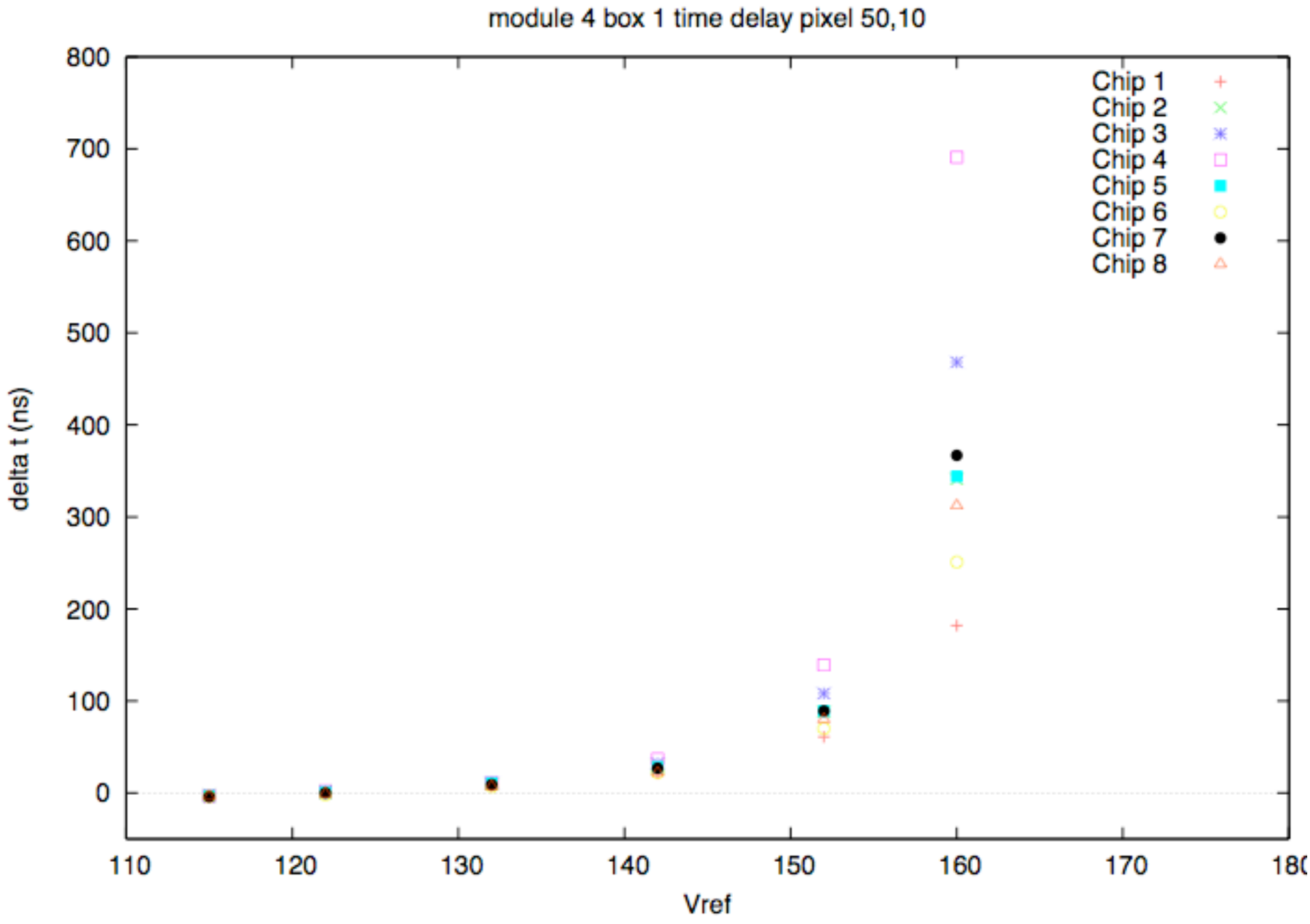

module 5 box 1 small pulse, pixel 50,10
small pulse (V)
Vref
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8

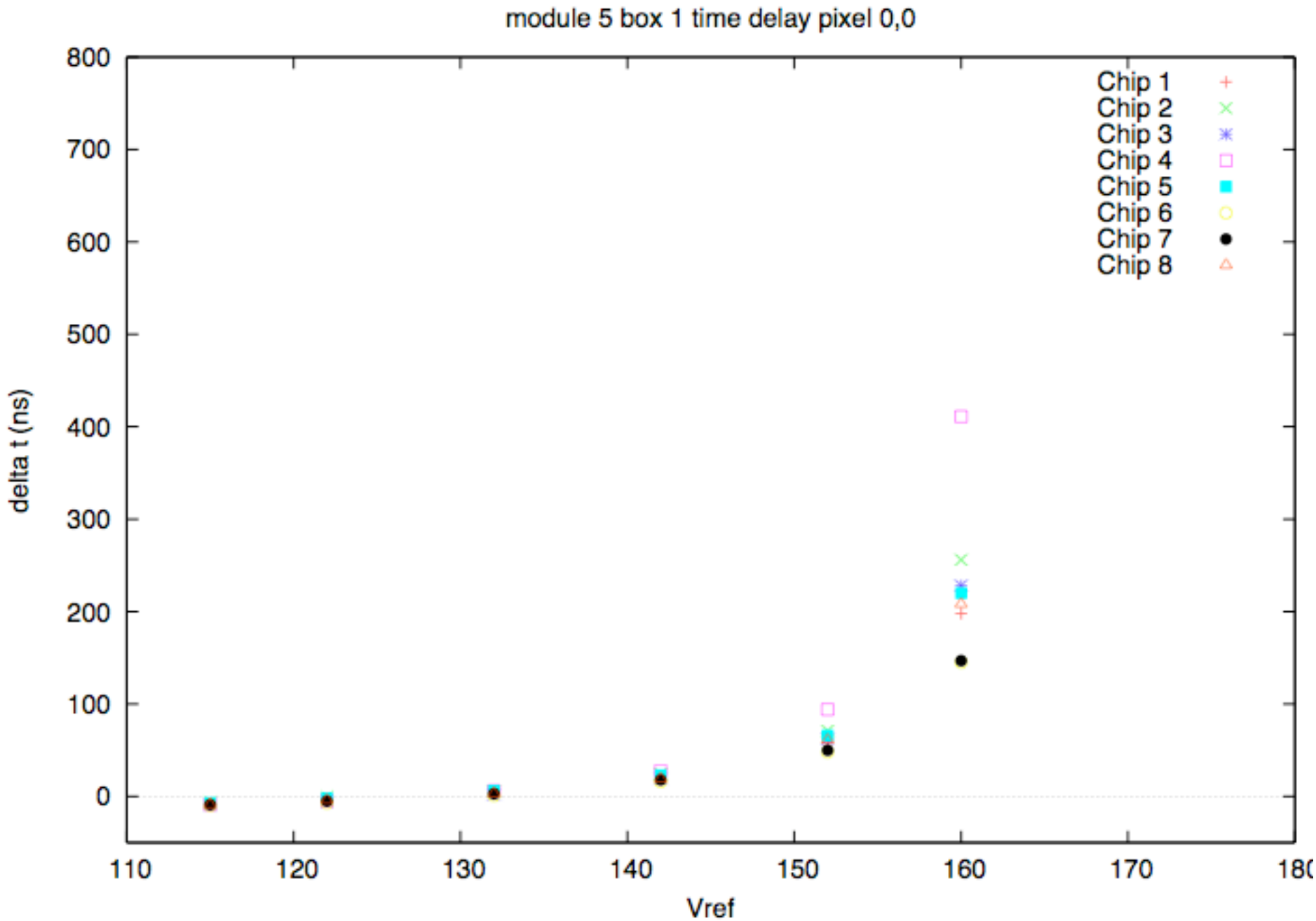

module 2 box 1 small pulse pixel 0,0
small pulse (V)
Vref
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8

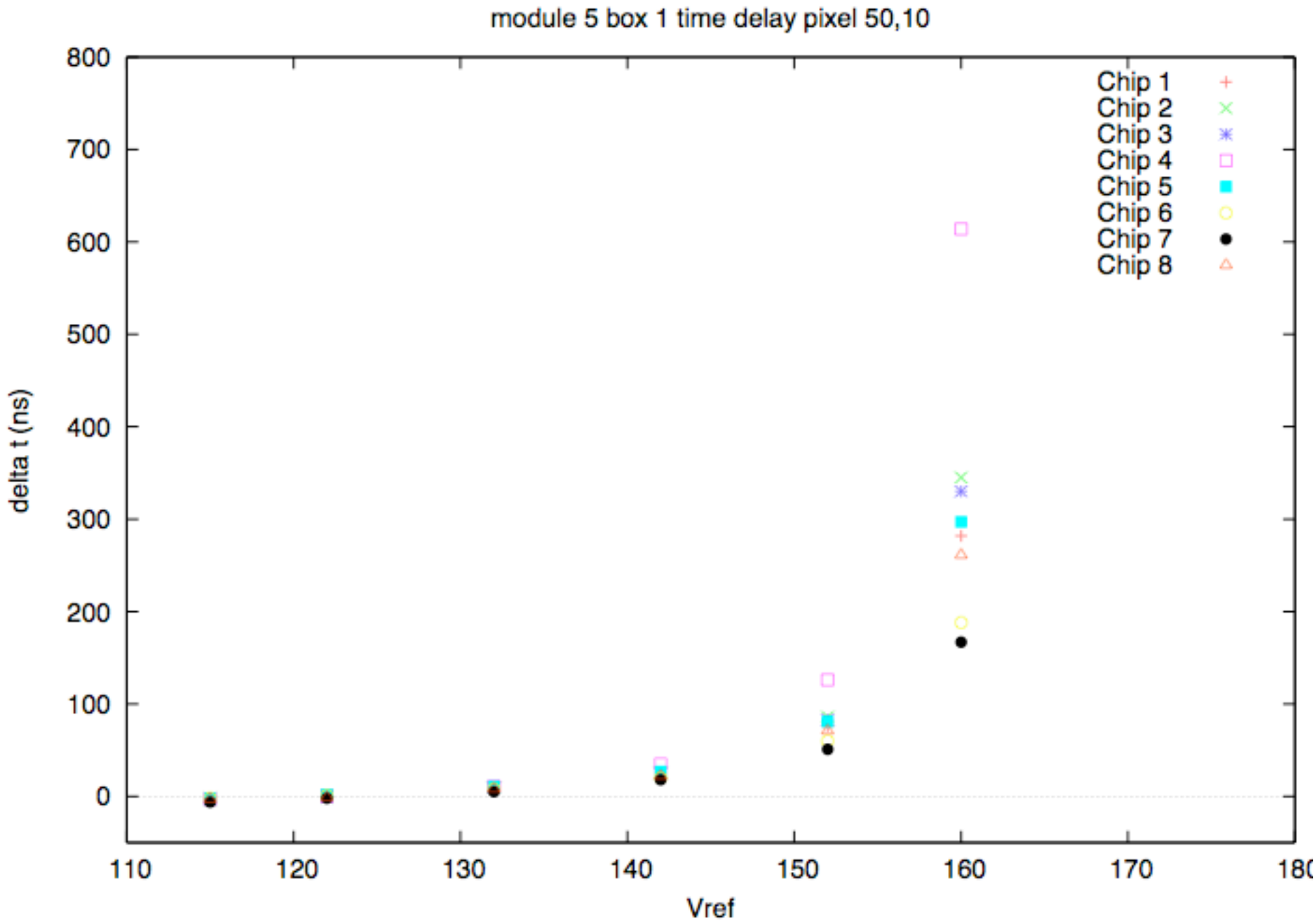

module 3 box 1 time delay pixel 0,0
delta t (ns)
Vref
800
700
600
500
400
300
200
100
0
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8

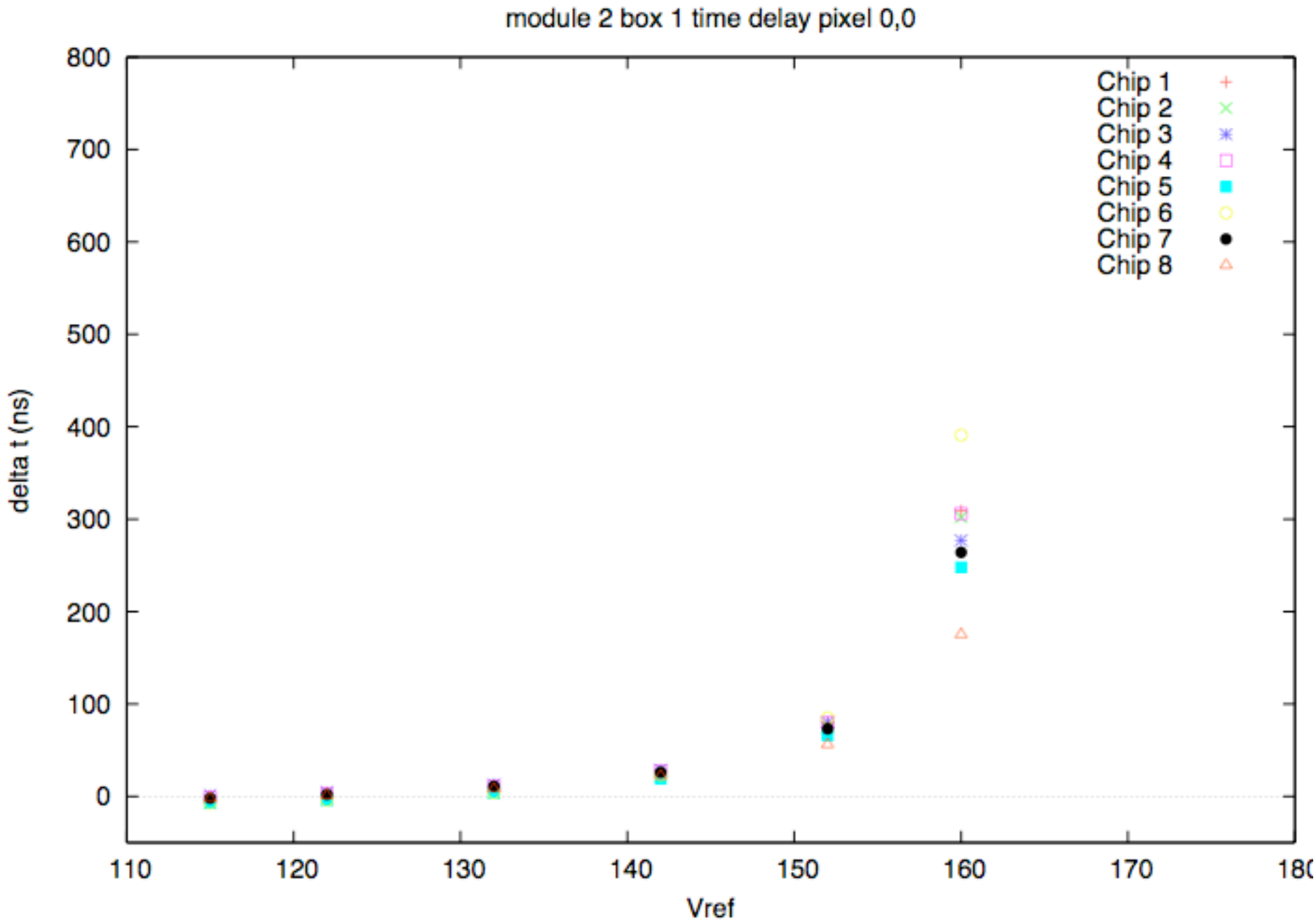

module 3 box 1 -wire bonds removed- time delay pixel 0,0
delta t (ns)
Vref
800
700
600
500
400
300
200
100
0
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8


module 4 box 1 time delay pixel 0,0
delta t (ns)
Vref
800
700
600
500
400
300
200
100
0
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8


module 4 box 1 time delay pixel 50,10
delta t (ns)
Vref
800
700
600
500
400
300
200
100
0
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8


module 5 box 1 time delay pixel 0,0
delta t (ns)
Vref
800
700
600
500
400
300
200
100
0
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8


module 5 box 1 time delay pixel 50,10
delta t (ns)
Vref
800
700
600
500
400
300
200
100
0
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8


module 2 box 1 time delay pixel 0,0
delta t (ns)
Vref
800
700
600
500
400
300
200
100
0
110
120
130
140
150
160
170
180
Chip 1
Chip 2
Chip 3
Chip 4
Chip 5
Chip 6
Chip 7
Chip 8