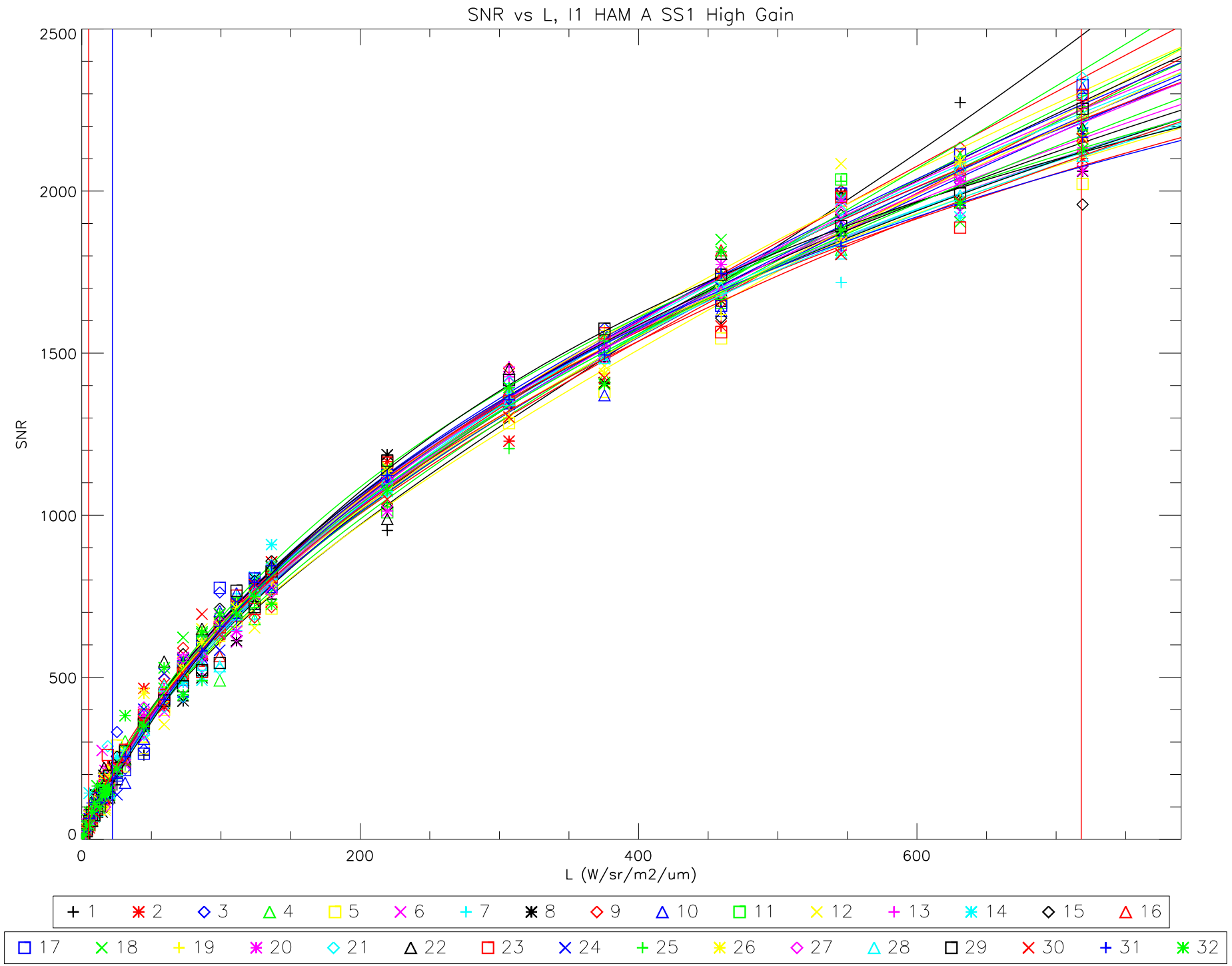
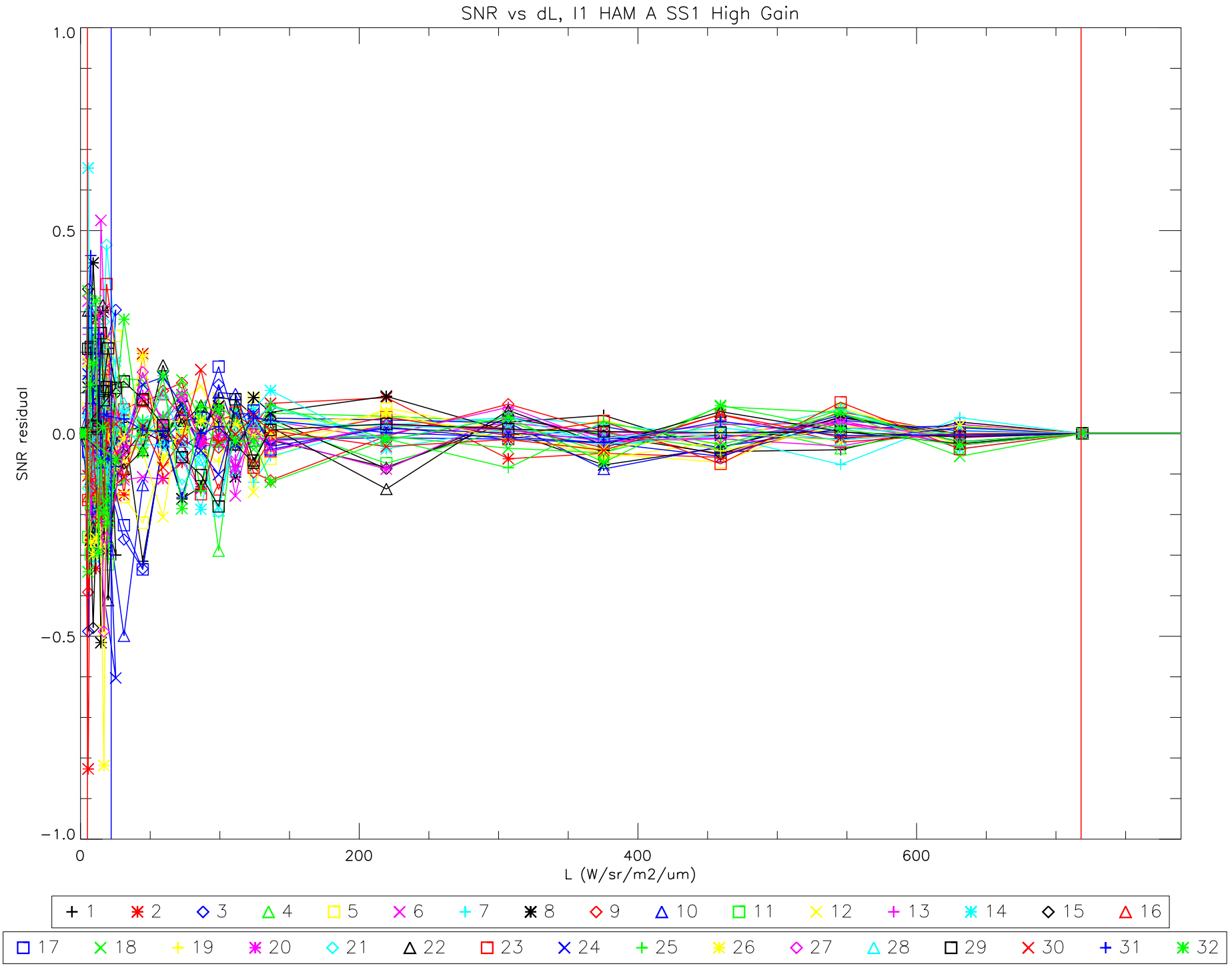
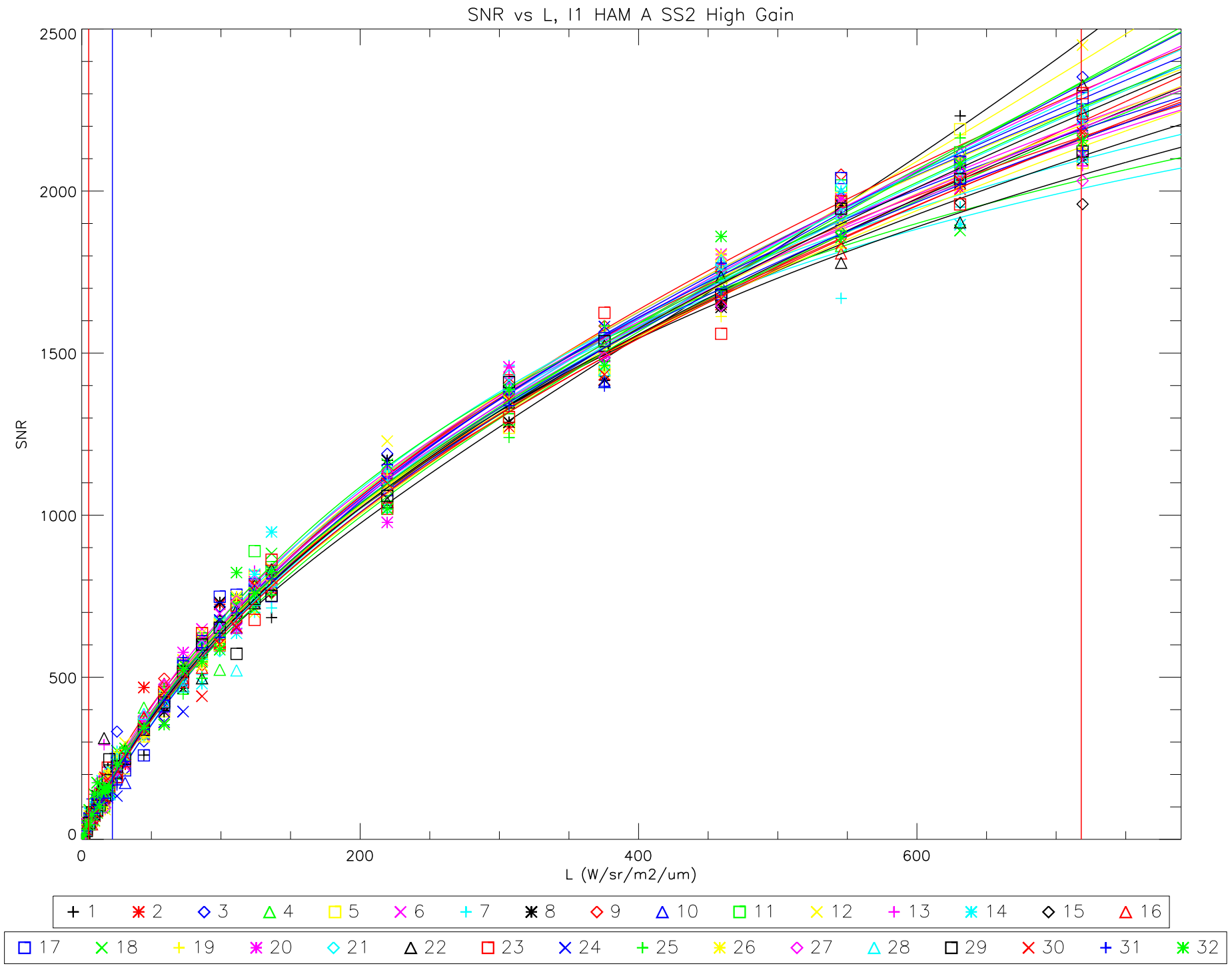
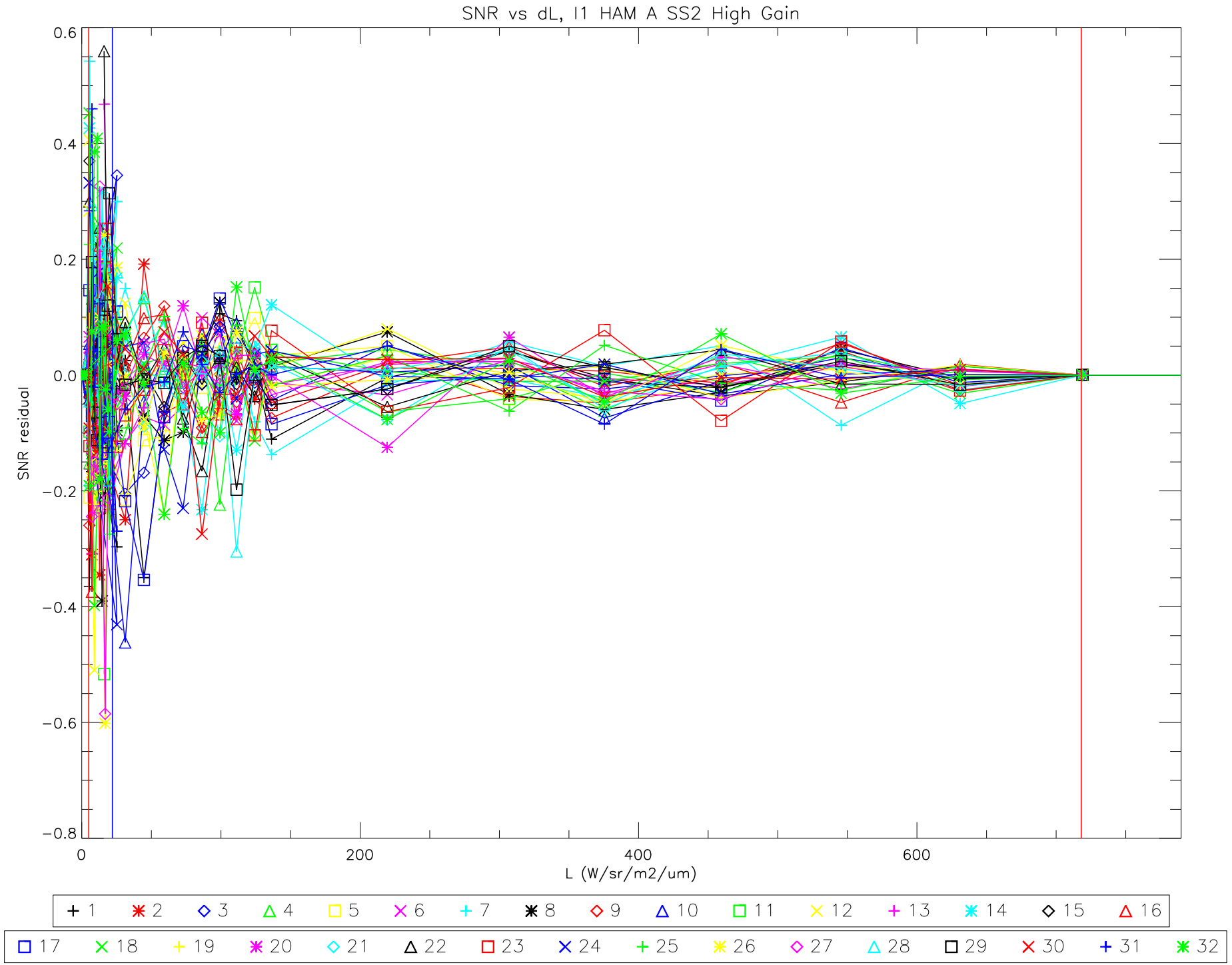
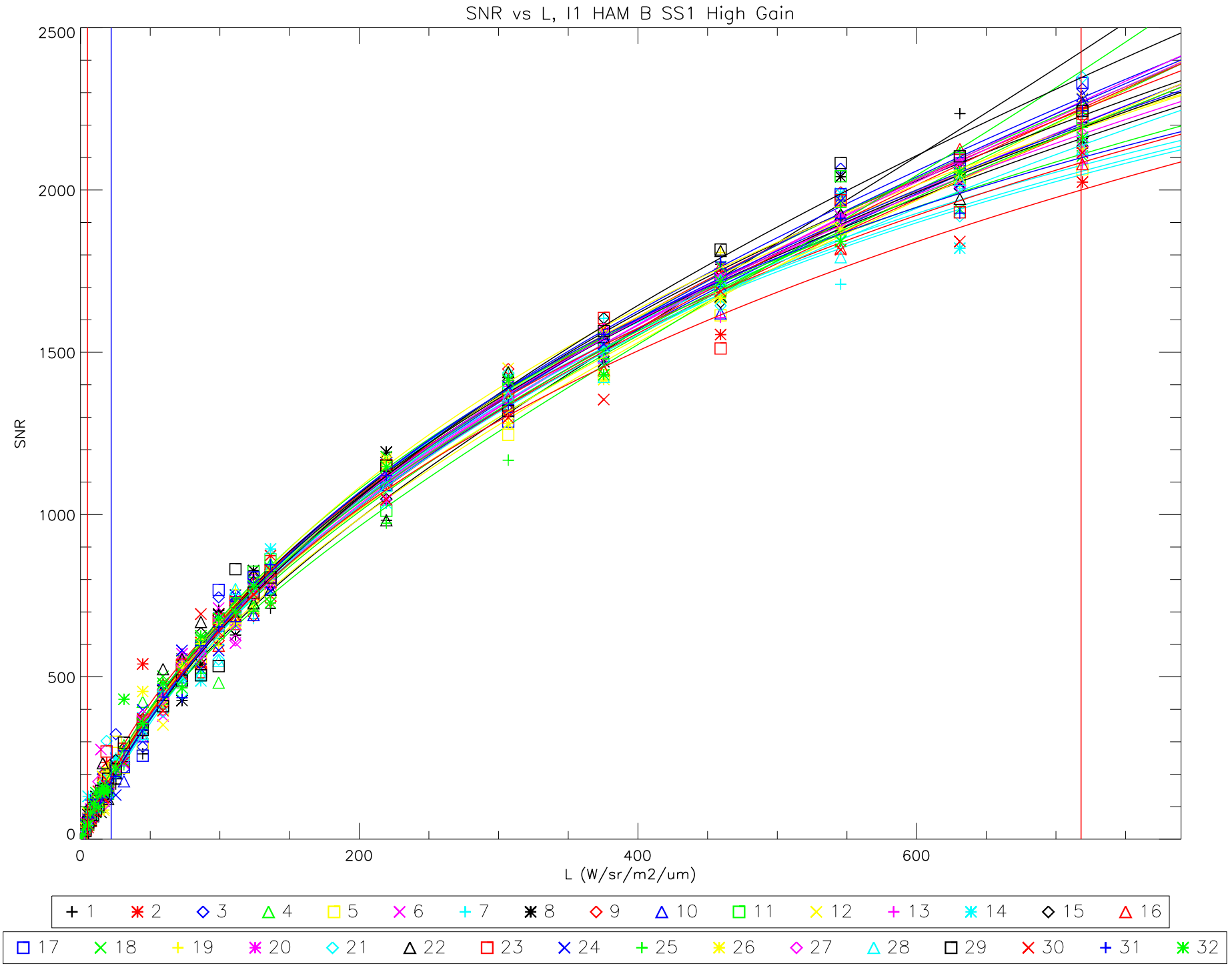
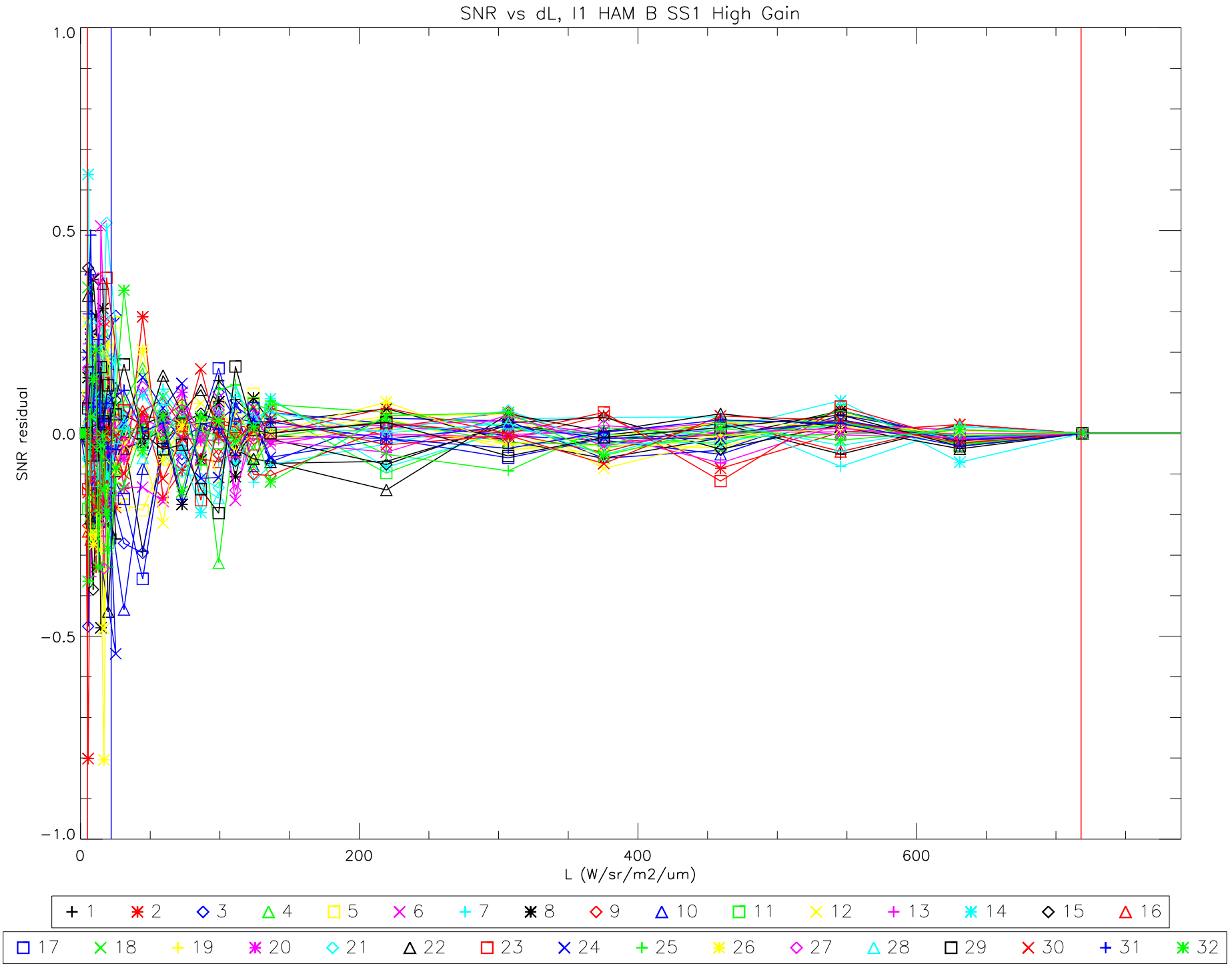

SNR vs L, I1 HAM A SS1 High Gain
SNR
L (W/sr/m2/um)
0
500
1000
1500
2000
2500
0
200
400
600
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32


SNR vs dL, I1 HAM A SS1 High Gain
SNR residual
L (W/sr/m2/um)
1.0
0.5
0.0
−0.5
−1.0
0
200
400
600
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32


SNR vs L, I1 HAM A SS2 High Gain
SNR
L (W/sr/m2/um)
0
500
1000
1500
2000
2500
0
200
400
600
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32


SNR vs dL, I1 HAM A SS2 High Gain
SNR residual
L (W/sr/m2/um)
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6
−0.8
0
200
400
600
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32


SNR vs L, I1 HAM B SS1 High Gain
SNR
L (W/sr/m2/um)
0
500
1000
1500
2000
2500
0
200
400
600
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32


SNR vs dL, I1 HAM B SS1 High Gain
SNR residual
1.0
0.5
0.0
−0.5
−1.0
0
200
400
600
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
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16
17
18
19
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21
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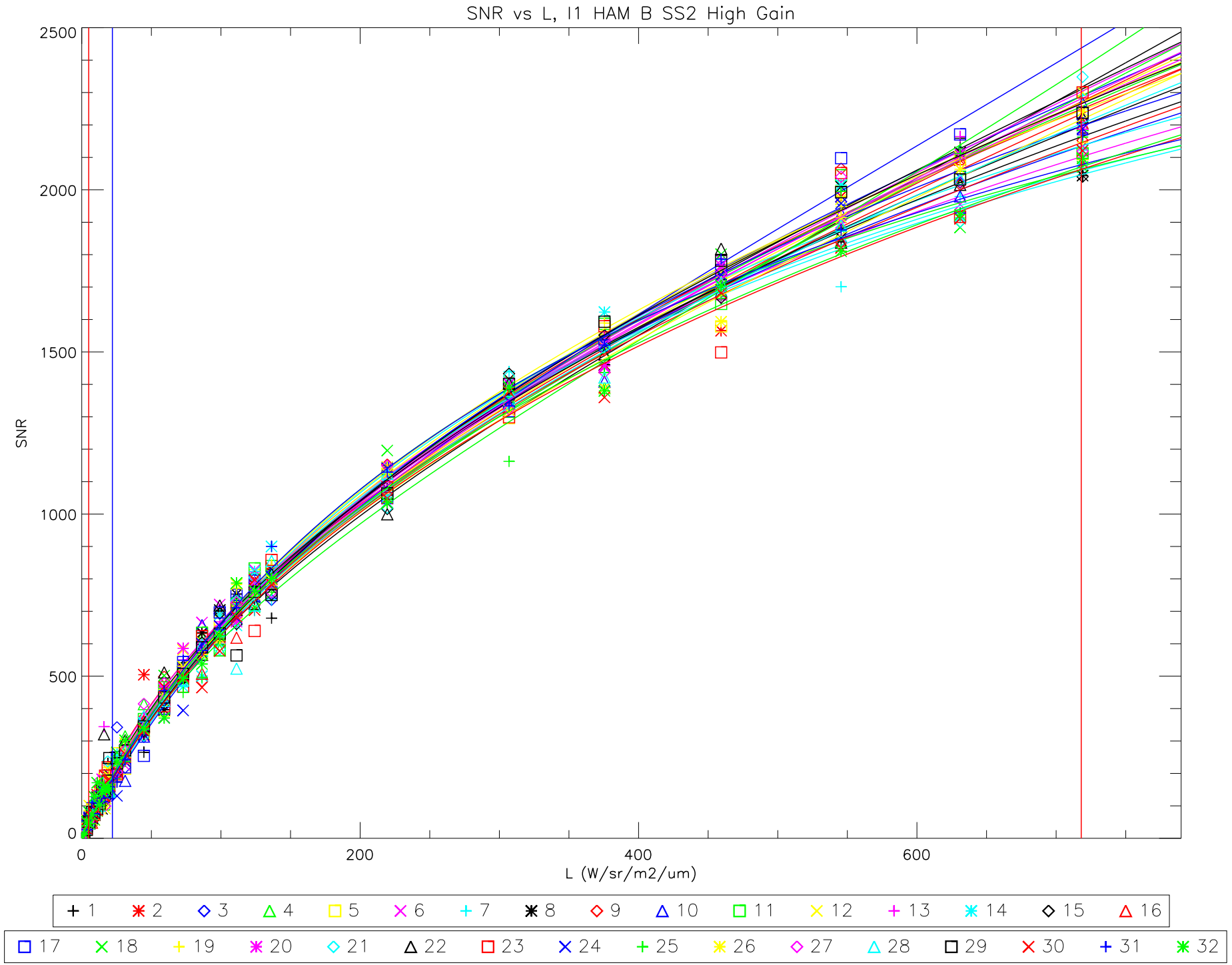
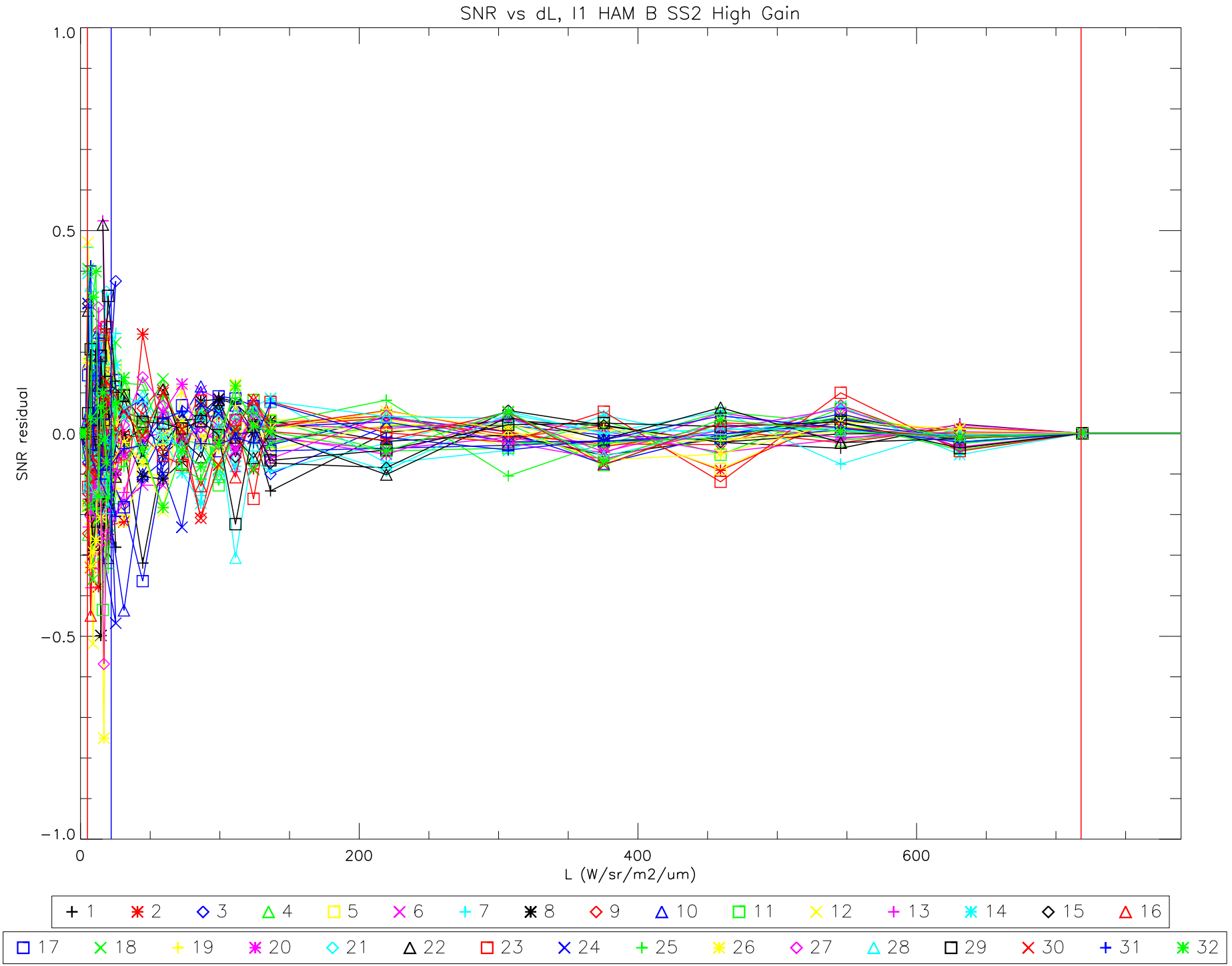
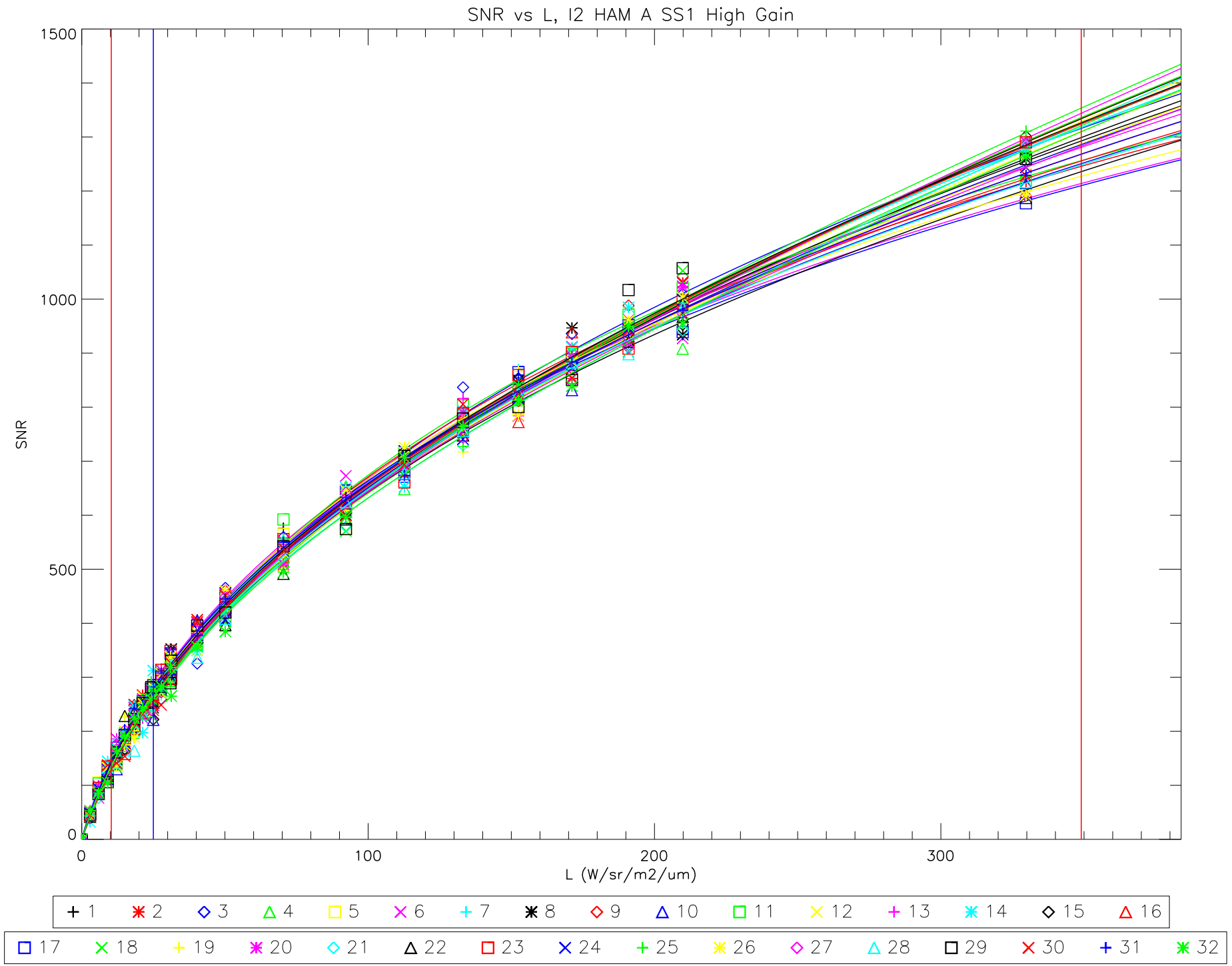
27
28
29
30
31
32


SNR vs L, I1 HAM B SS2 High Gain
SNR
L (W/sr/m2/um)
0
500
1000
1500
2000
2500
0
200
400
600
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32


SNR vs dL, I1 HAM B SS2 High Gain
SNR residual
L (W/sr/m2/um)
1.0
0.5
0.0
−0.5
−1.0
0
200
400
600
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32


SNR vs L, I2 HAM A SS1 High Gain
SNR
L (W/sr/m2/um)
0
500
1000
1500
0
100
200
300
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
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25
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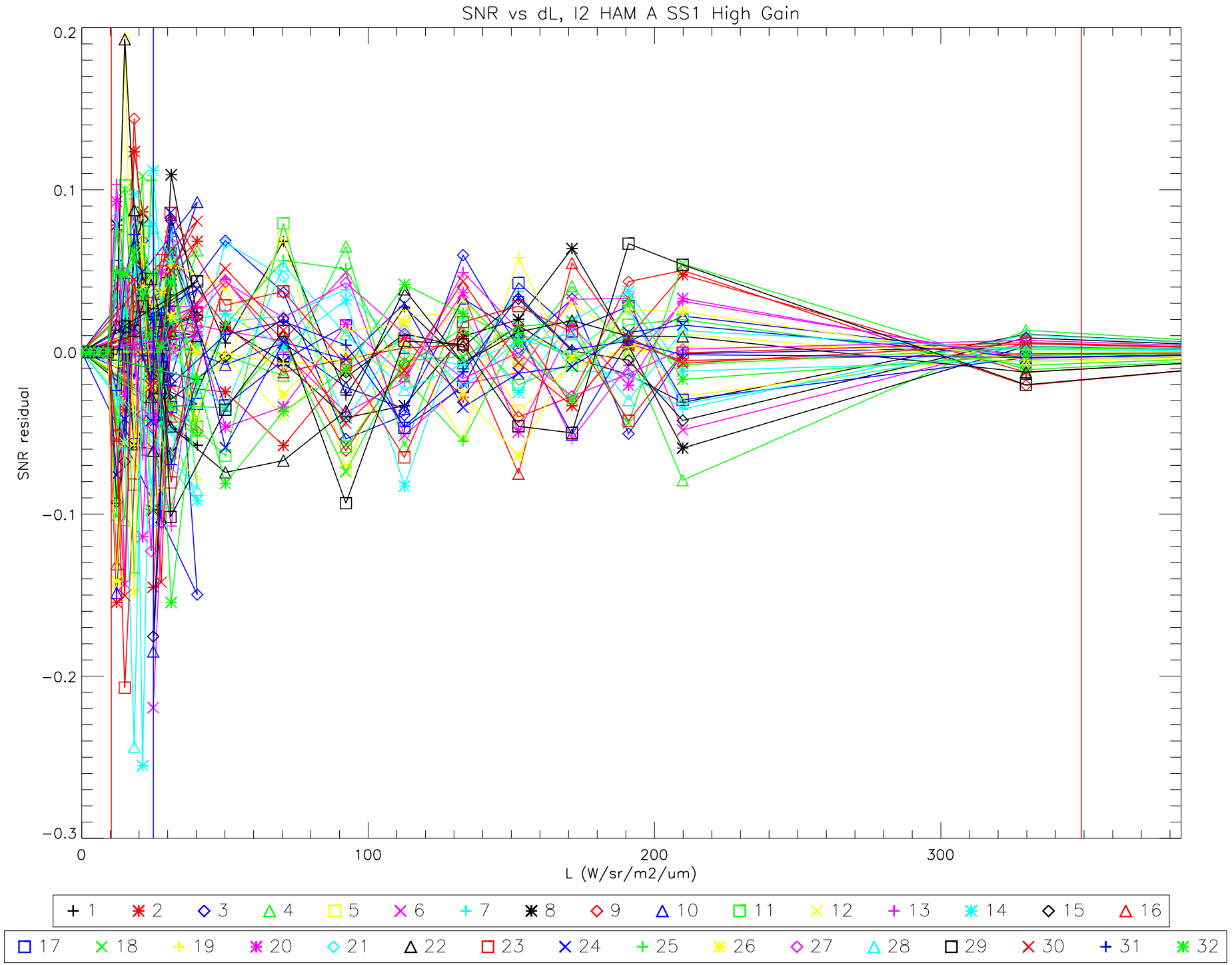
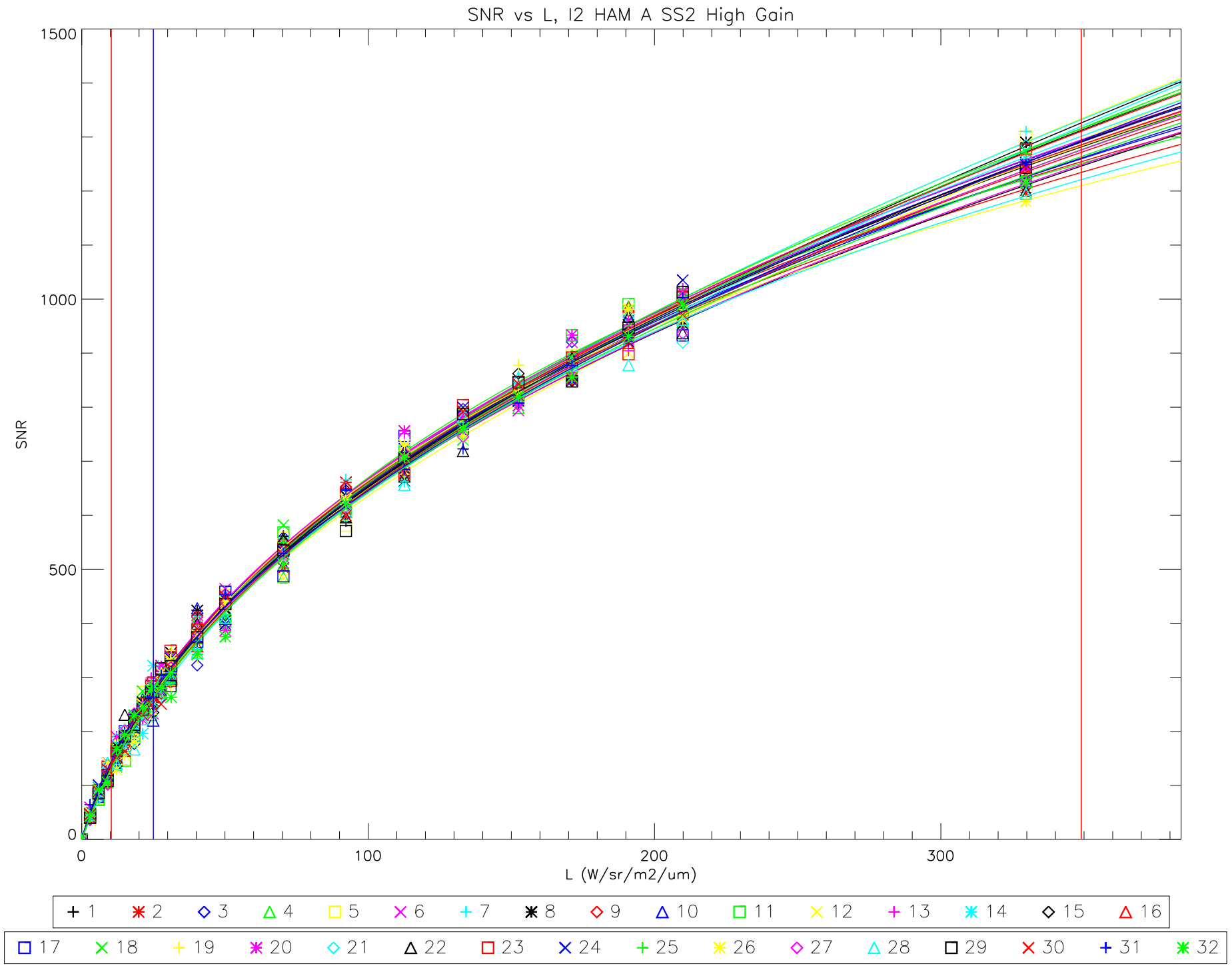
27
28
29
30
31
32


SNR vs dL, I2 HAM A SS1 High Gain
SNR residual
L (W/sr/m2/um)
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32


SNR vs L, I2 HAM A SS2 High Gain
SNR
L (W/sr/m2/um)
0
500
1000
1500
0
100
200
300
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
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22
23
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25
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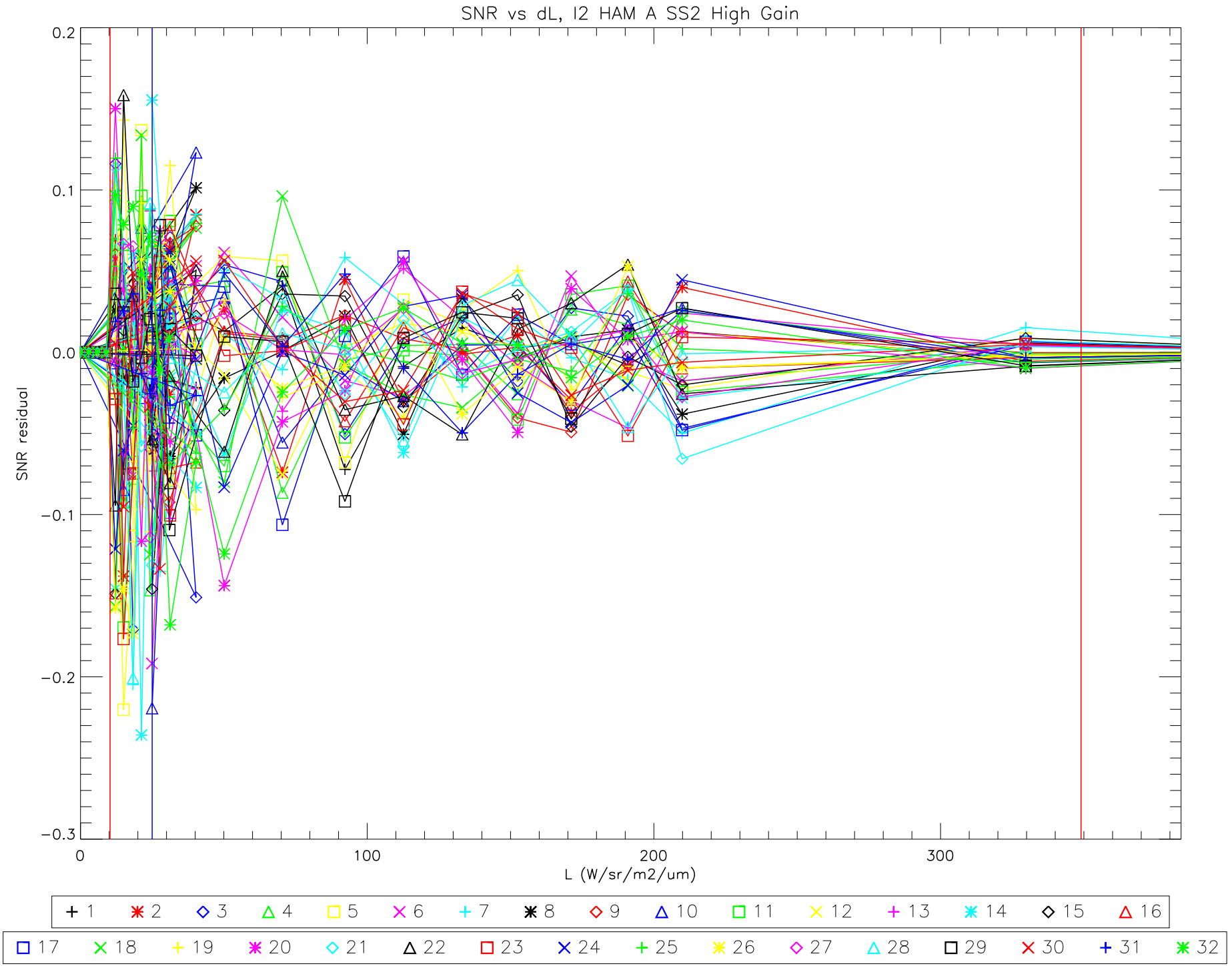
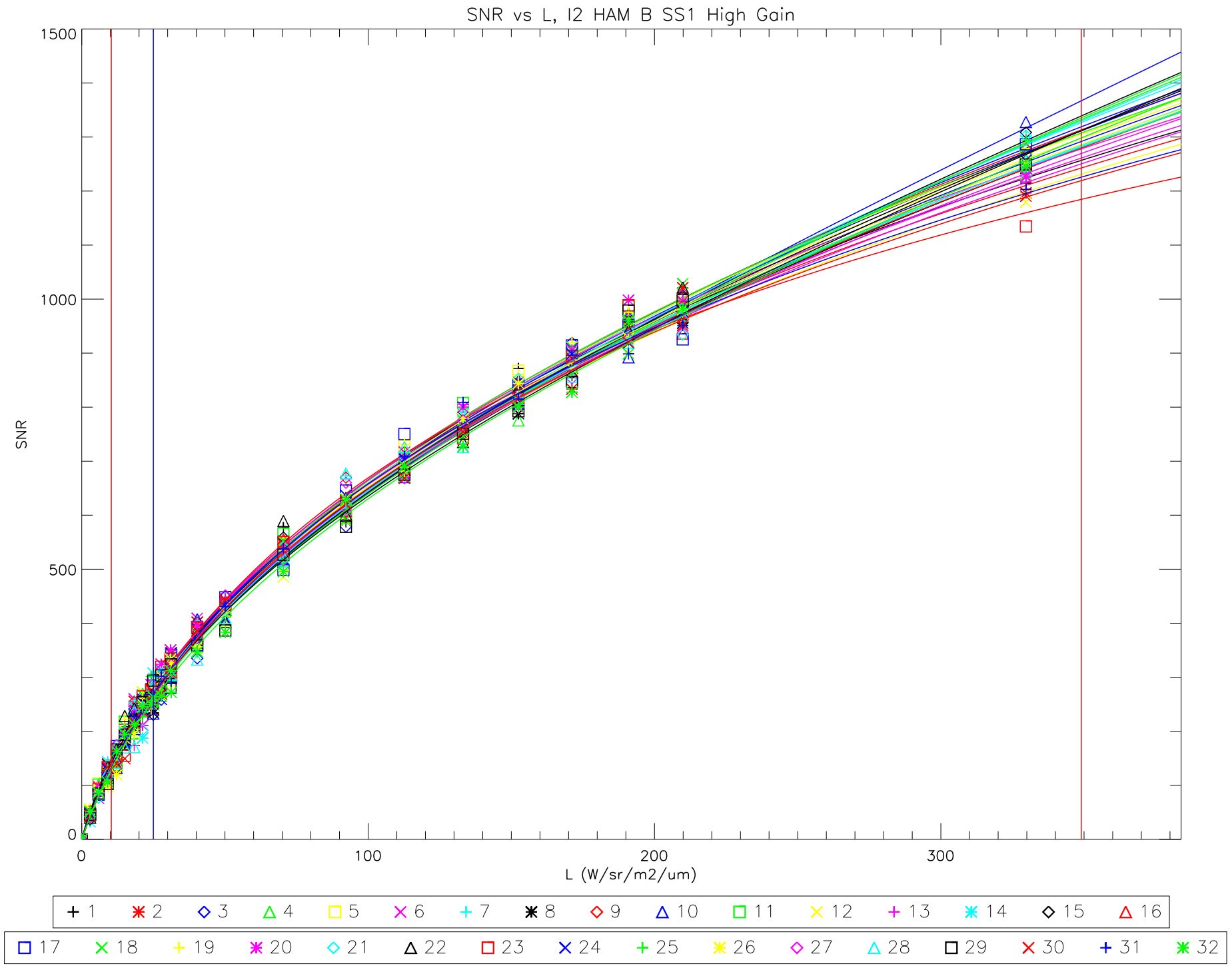
27
28
29
30
31
32


SNR vs dL, I2 HAM A SS2 High Gain
SNR residual
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
100
200
300
L (W/sr/m2/um)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32


SNR vs L, I2 HAM B SS1 High Gain
SNR
L (W/sr/m2/um)
0
500
1000
1500
0
100
200
300
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
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21
22
23
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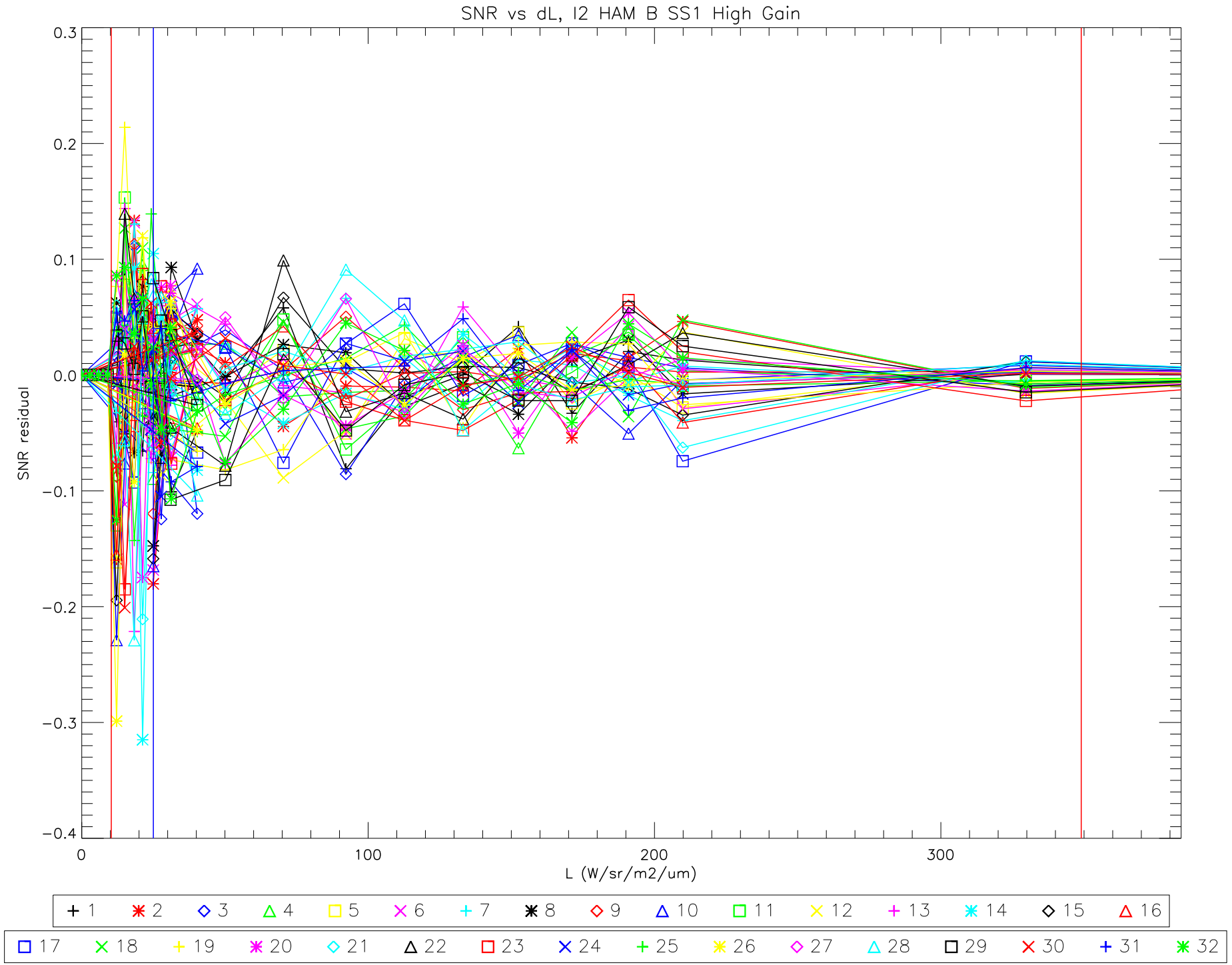
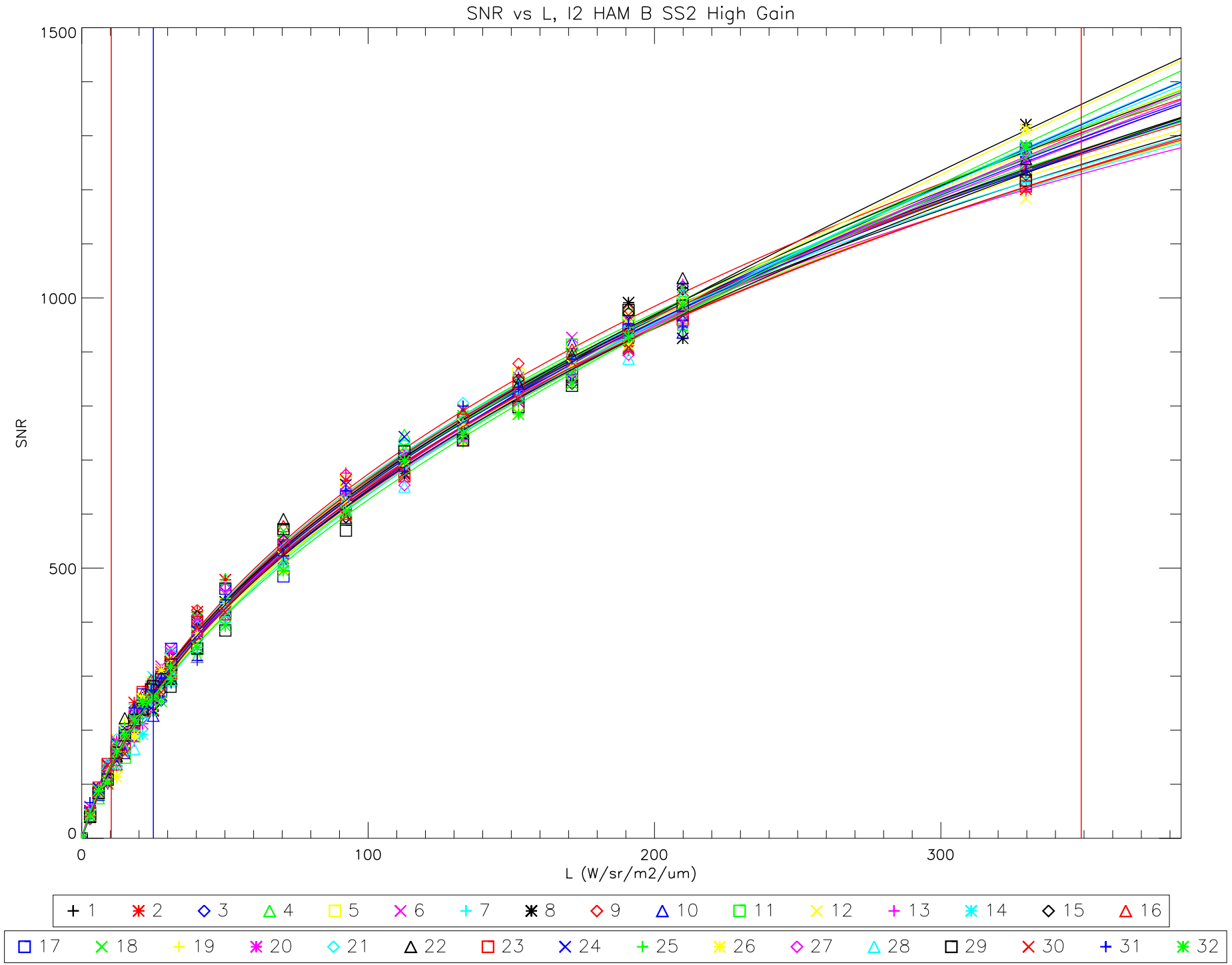
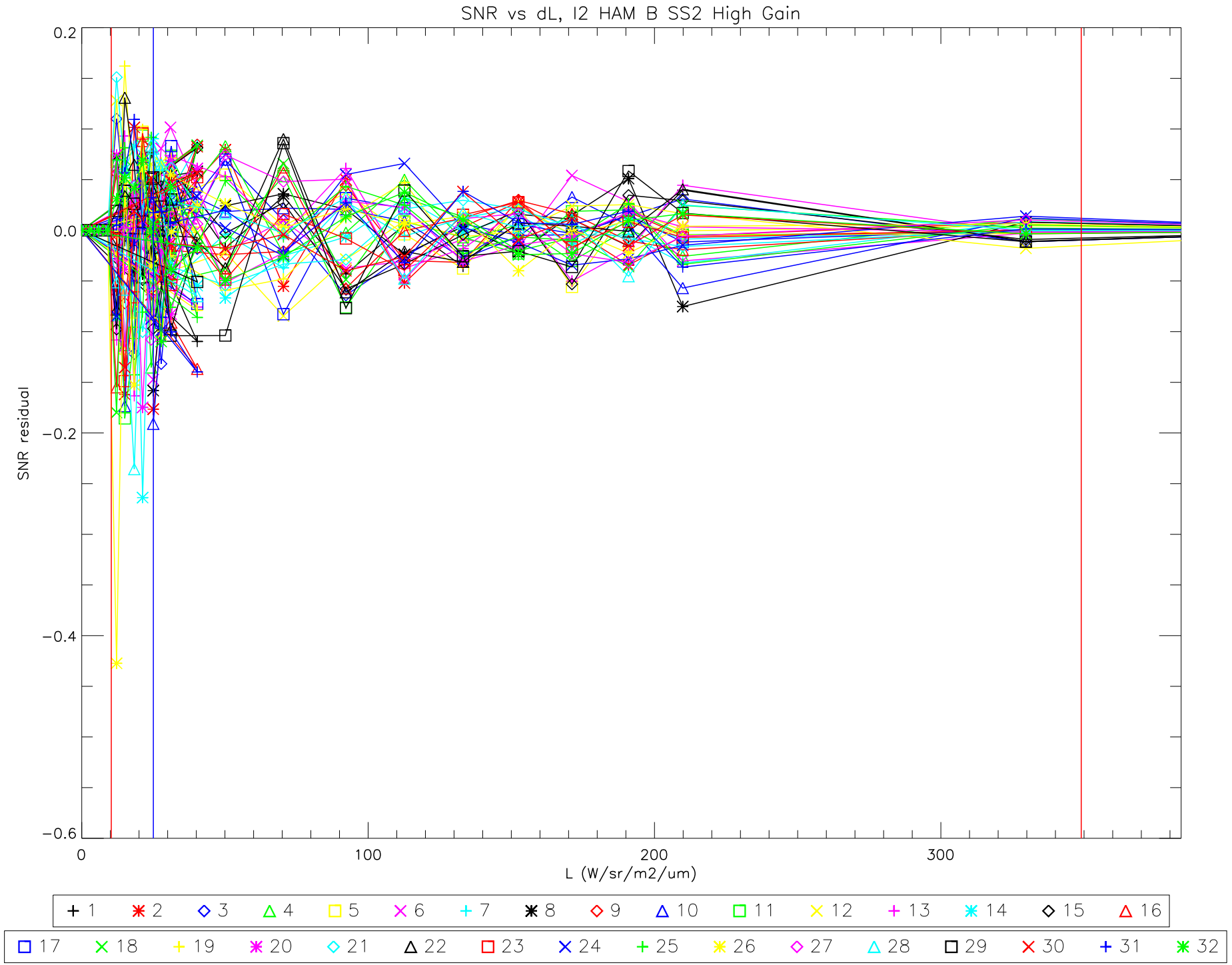
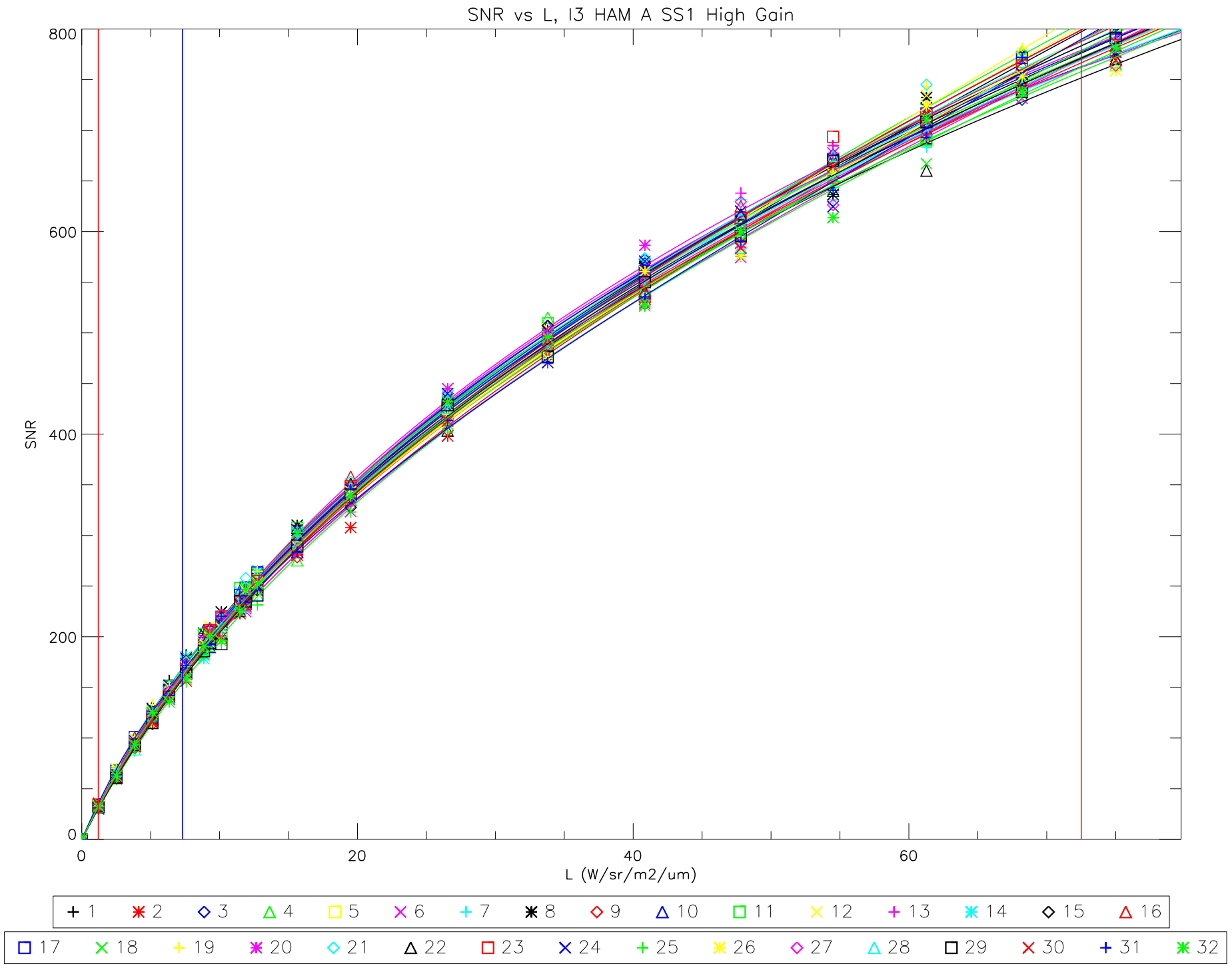
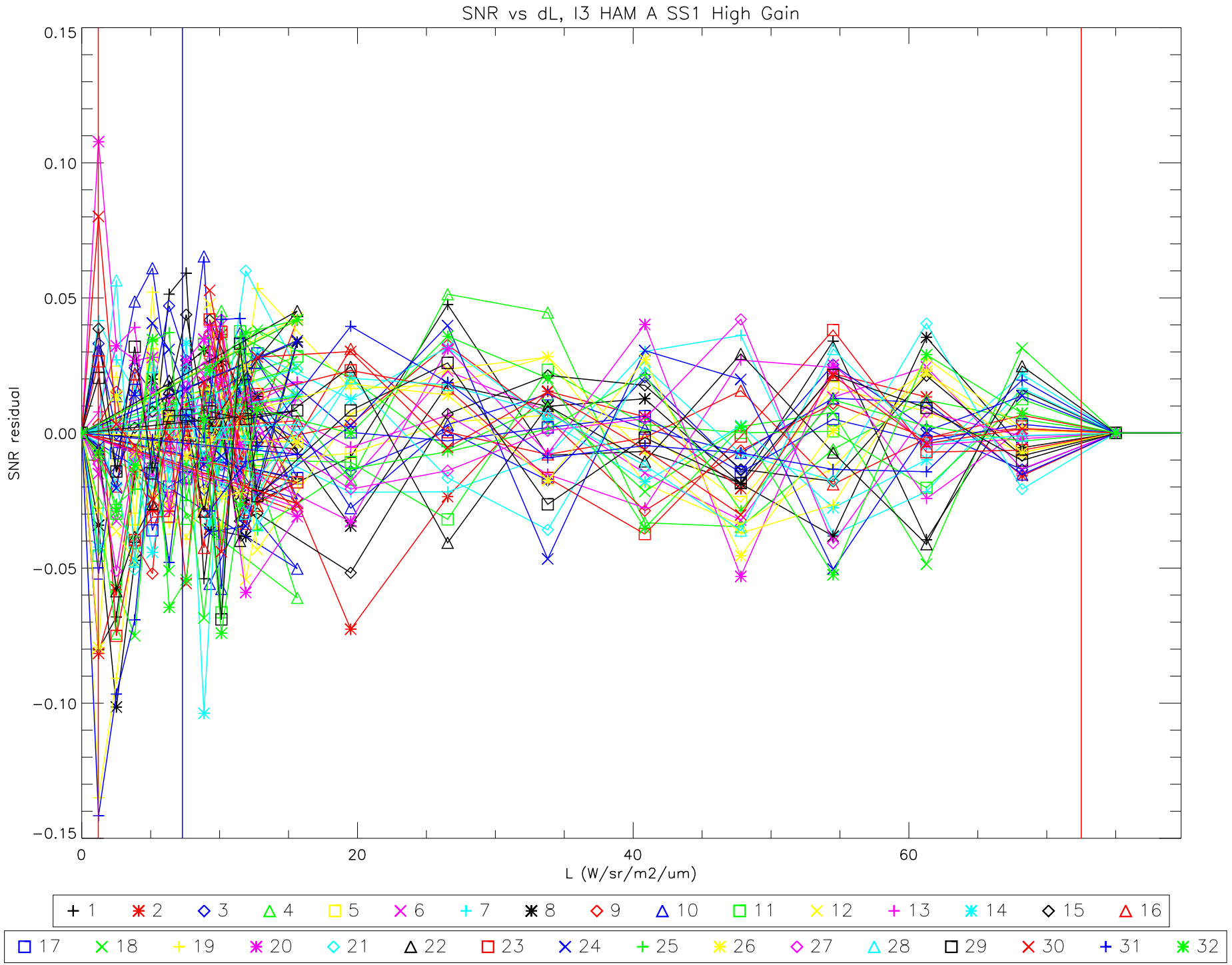
27
28
29
30
31
32

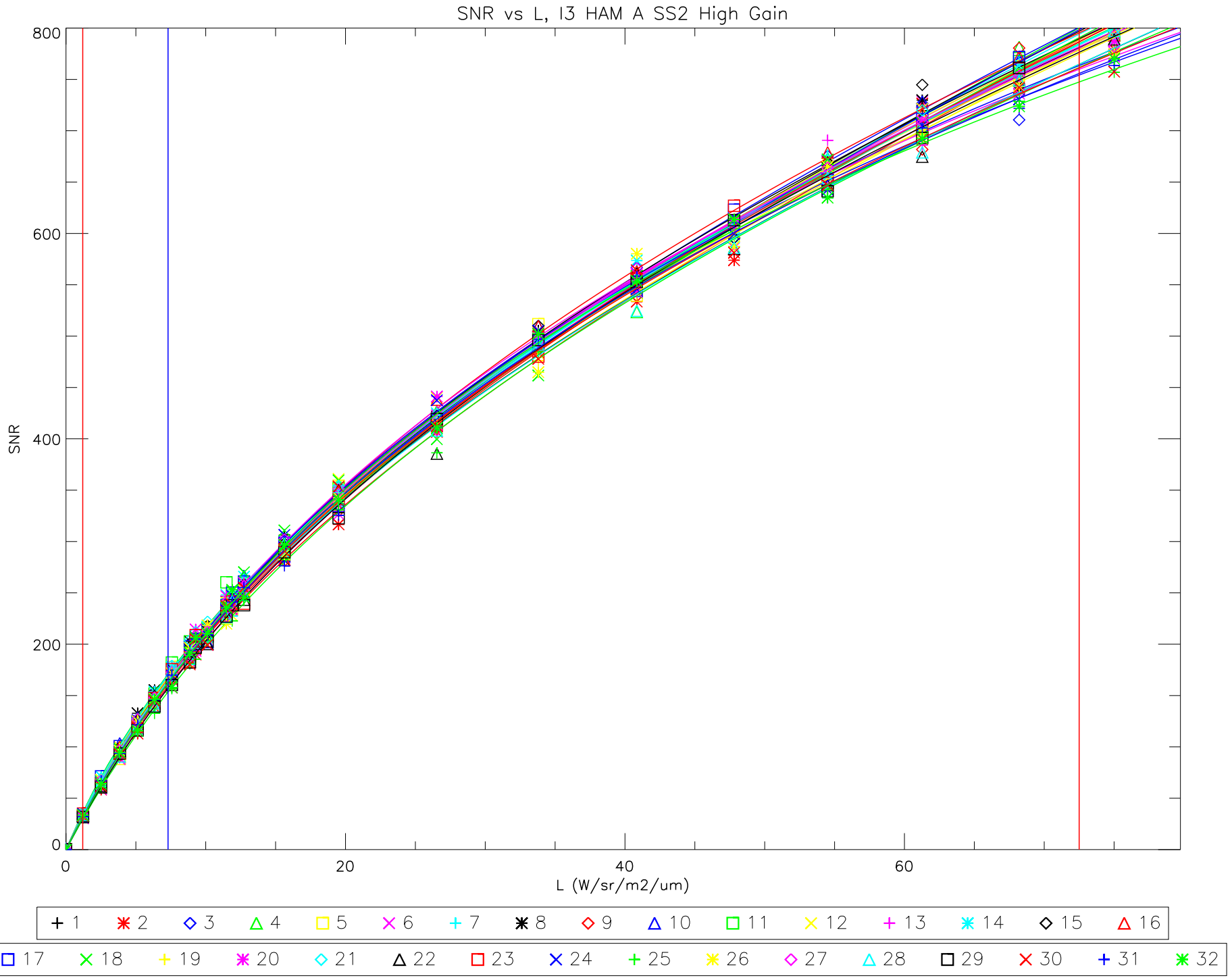

SNR vs dL, I2 HAM B SS1 High Gain
SNR residual
L (W/sr/m2/um)
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

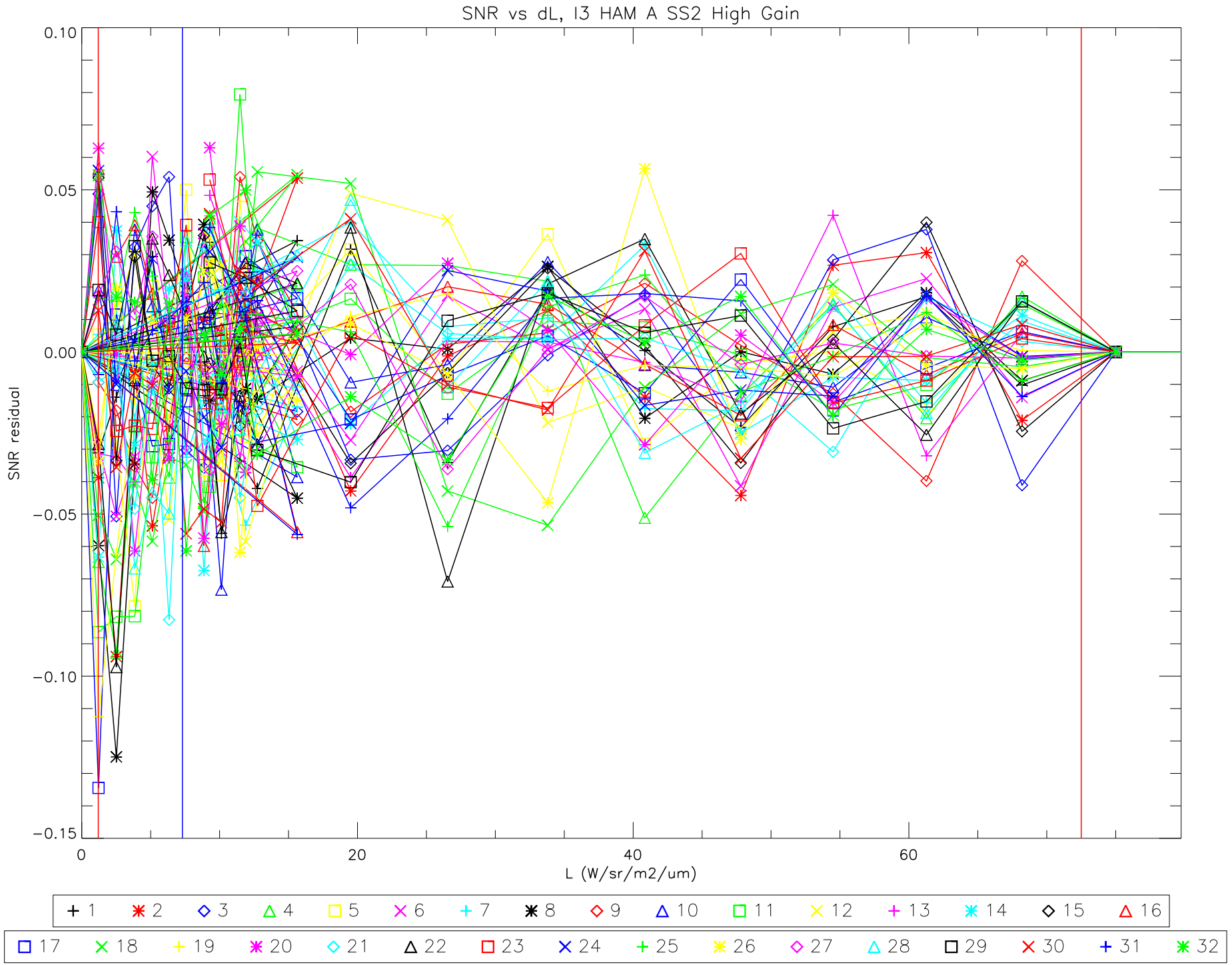

SNR vs L, I2 HAM B SS2 High Gain
SNR
L (W/sr/m2/um)
0
500
1000
1500
0
100
200
300
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

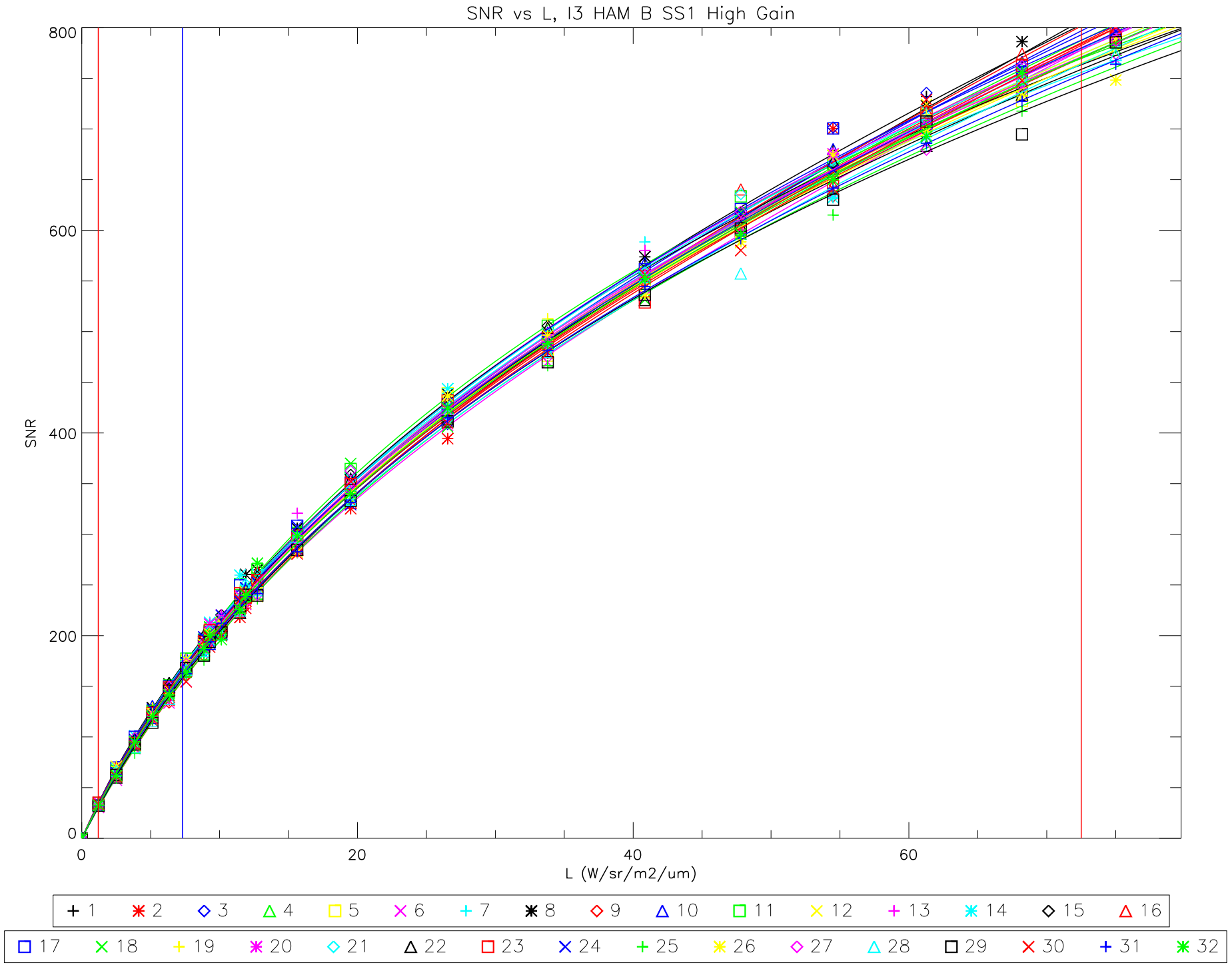

SNR vs dL, I2 HAM B SS2 High Gain
SNR residual
L (W/sr/m2/um)
0.2
0.0
−0.2
−0.4
−0.6
0
100
200
300
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

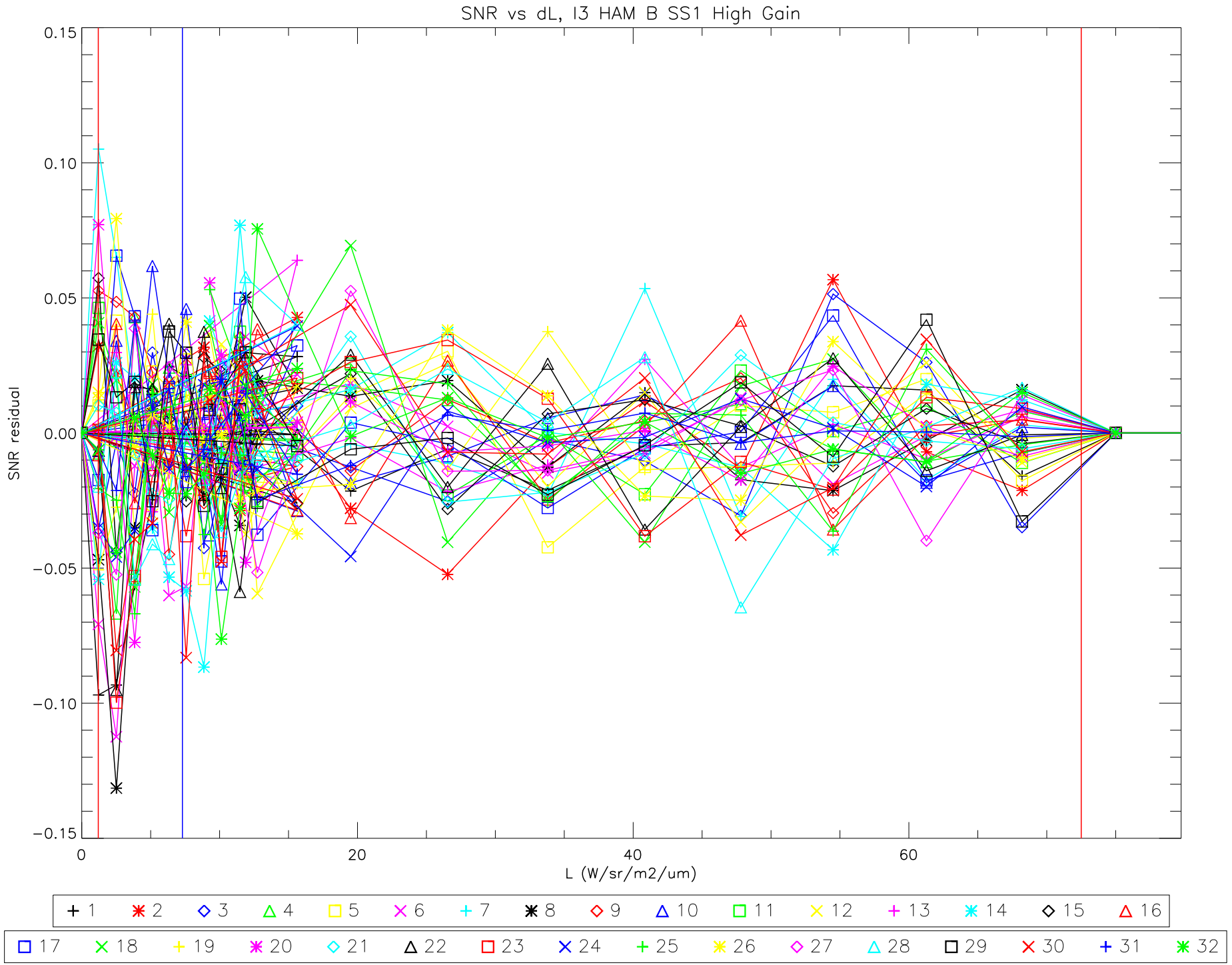

SNR vs L, I3 HAM A SS1 High Gain
SNR
L (W/sr/m2/um)
0
200
400
600
800
0
20
40
60
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

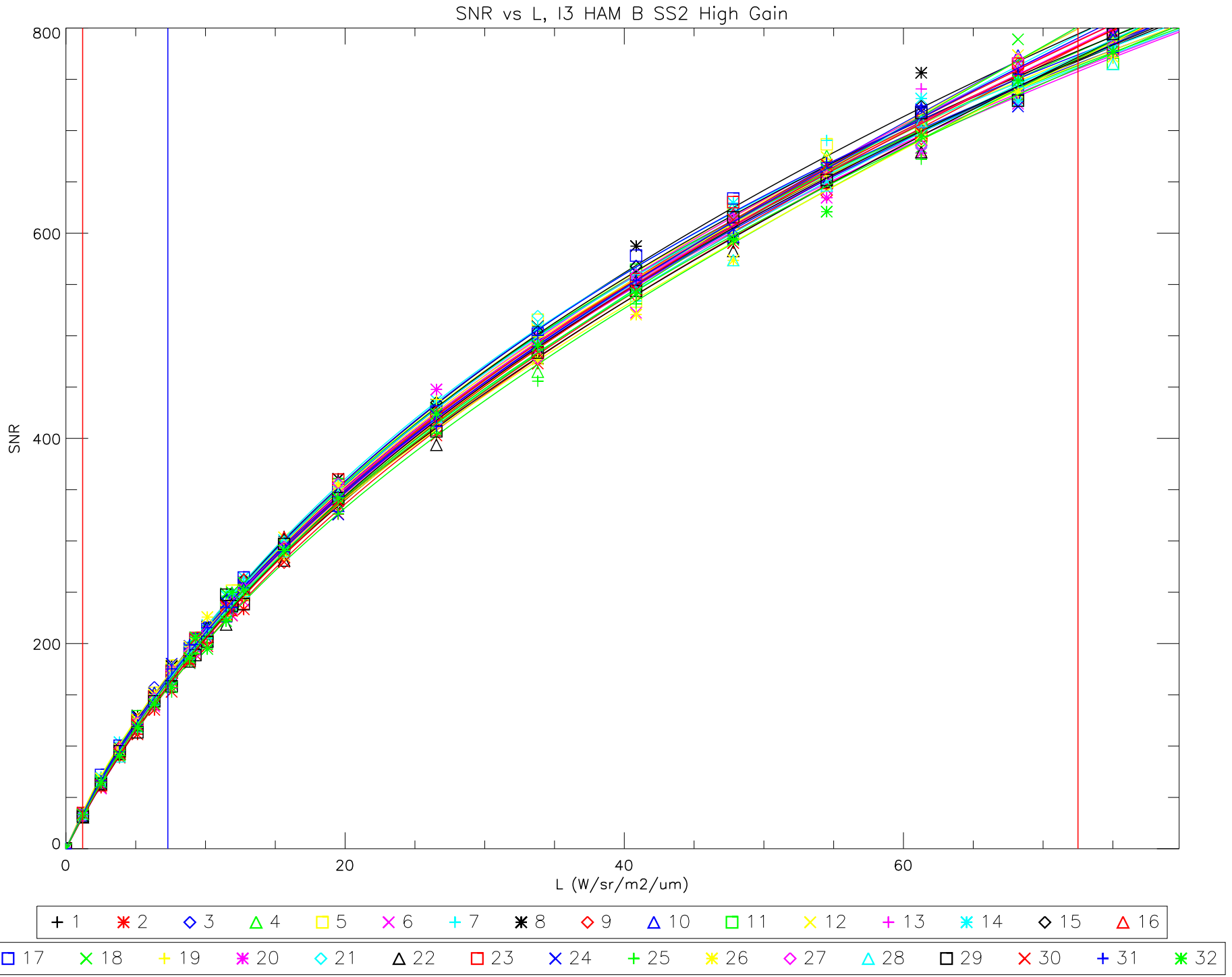

SNR vs dL, I3 HAM A SS1 High Gain
SNR residual
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
0
20
40
60
L (W/sr/m2/um)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

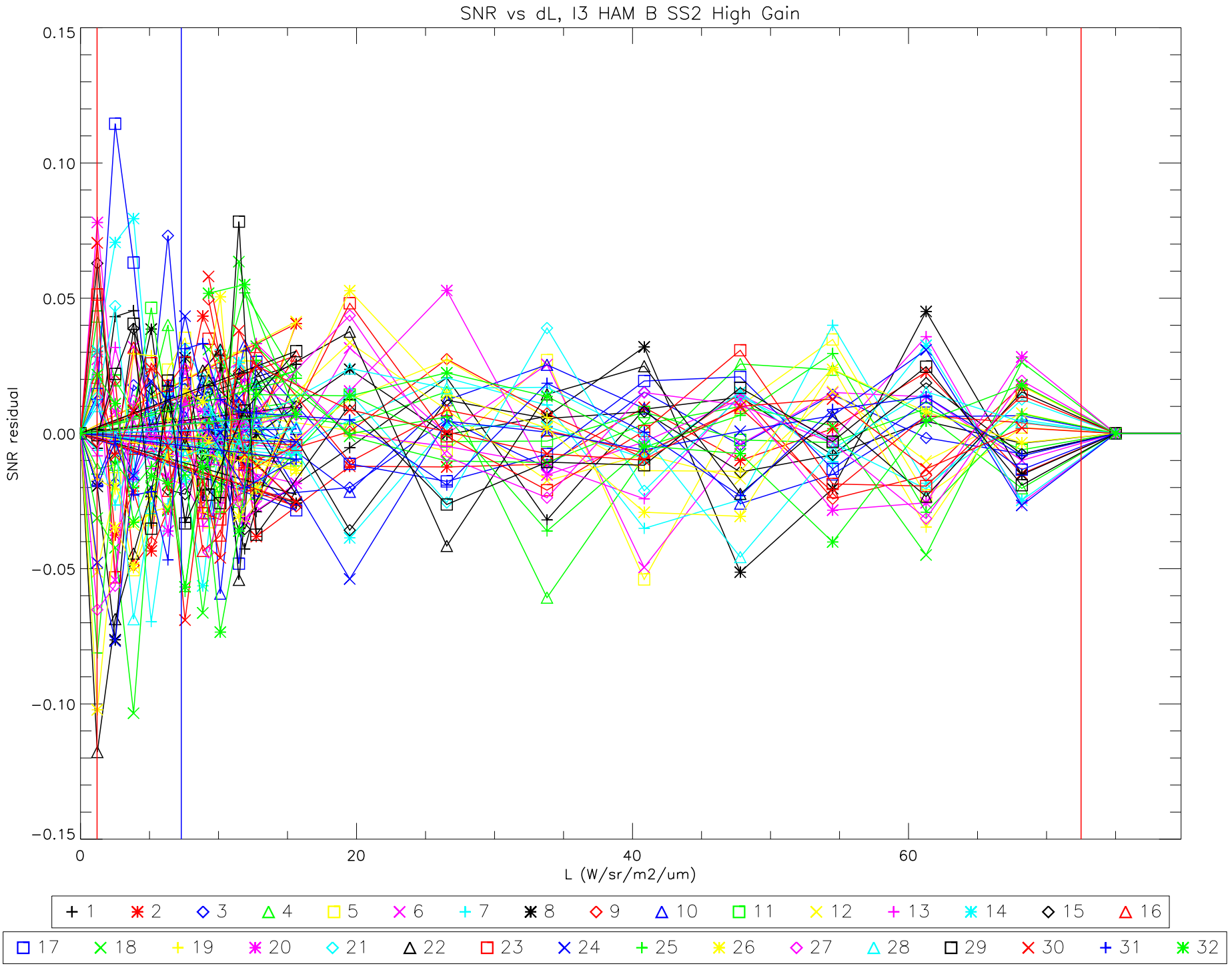

SNR vs L, I3 HAM A SS2 High Gain
SNR
L (W/sr/m2/um)
0
200
400
600
800
0
20
40
60
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

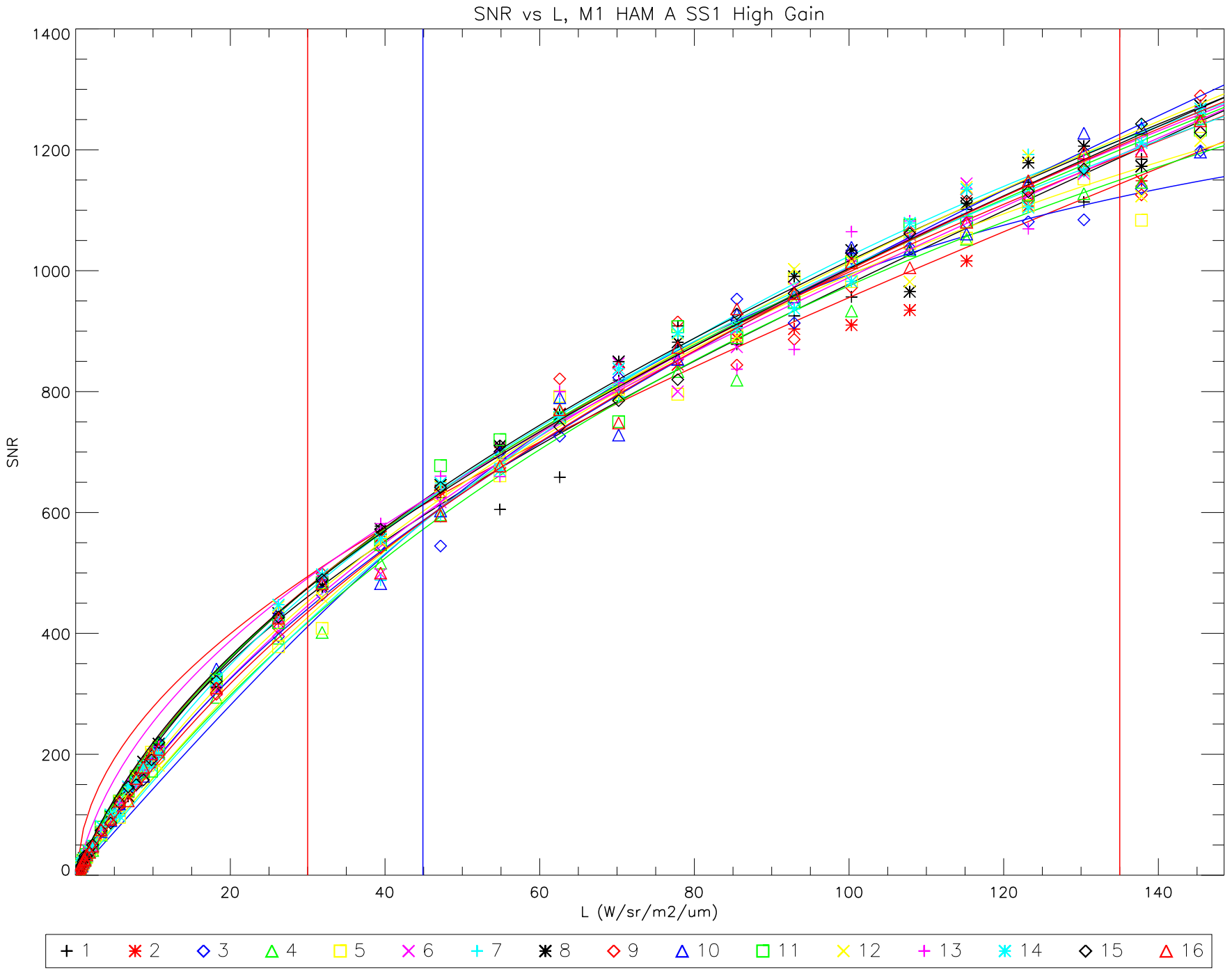

SNR vs dL, I3 HAM A SS2 High Gain
SNR residual
0.10
0.05
0.00
−0.05
−0.10
−0.15
0
20
40
60
L (W/sr/m2/um)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

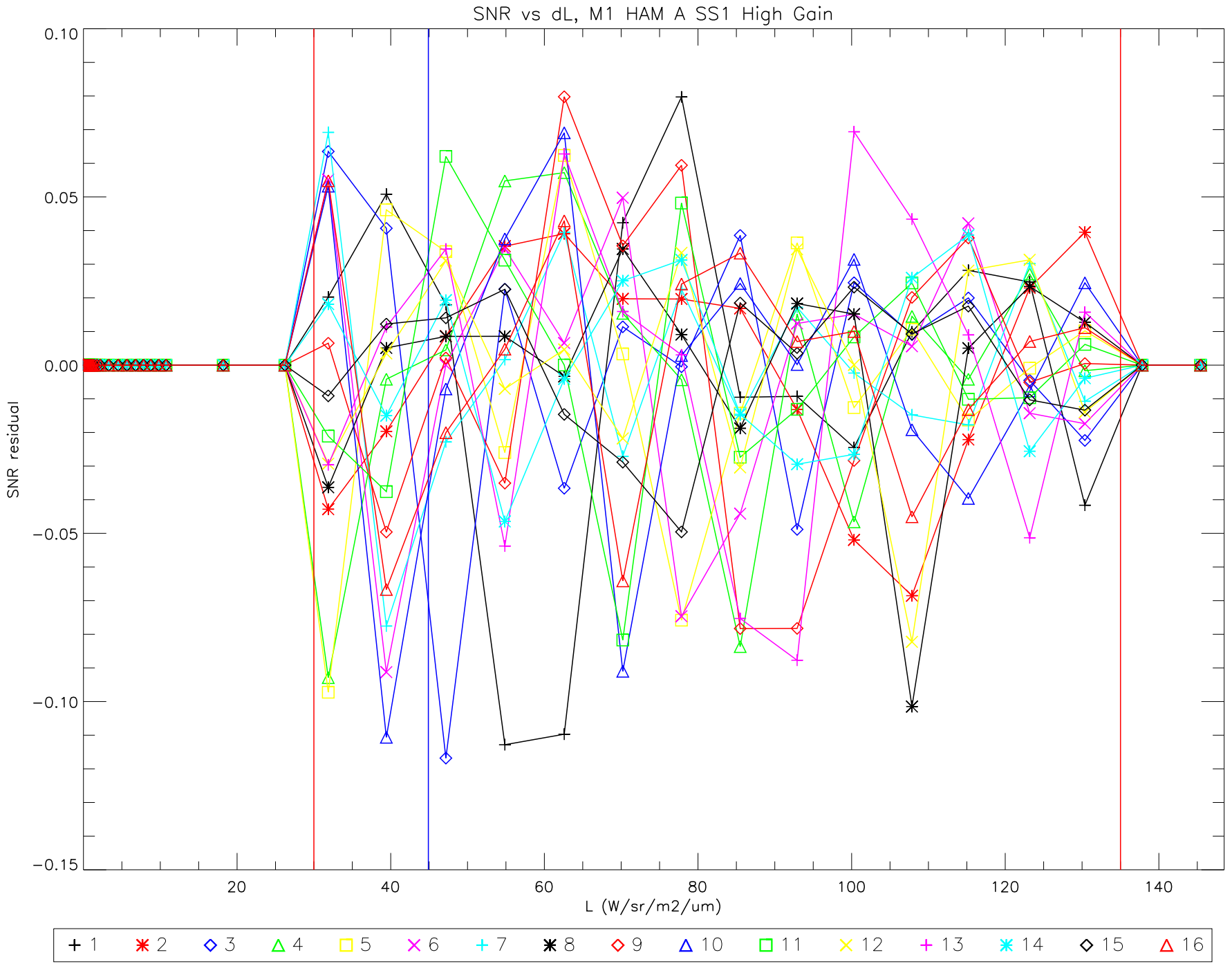

SNR vs L, I3 HAM B SS1 High Gain
SNR
L (W/sr/m2/um)
0
200
400
600
800
0
20
40
60
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

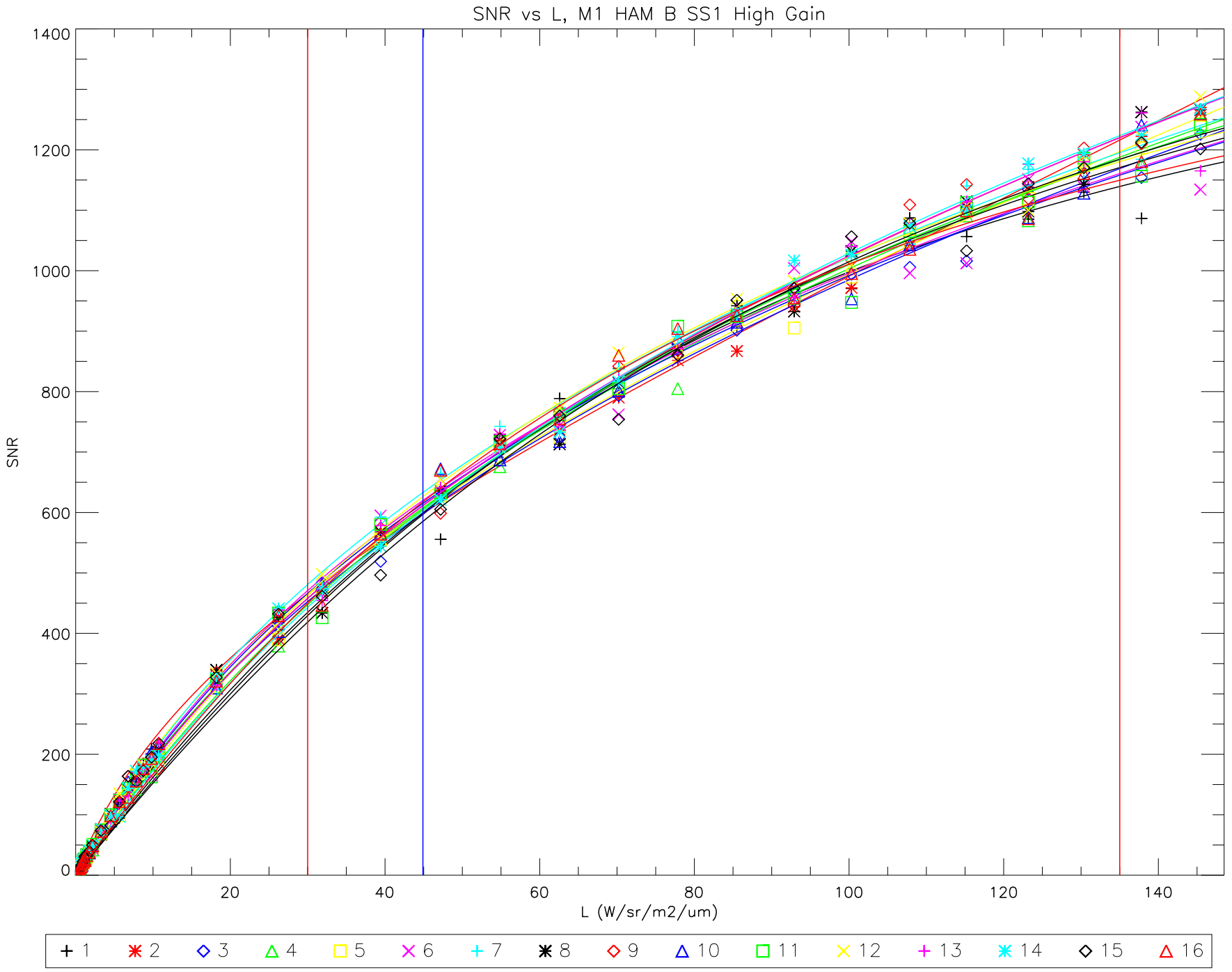

SNR vs dL, I3 HAM B SS1 High Gain
SNR residual
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
0
20
40
60
L (W/sr/m2/um)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

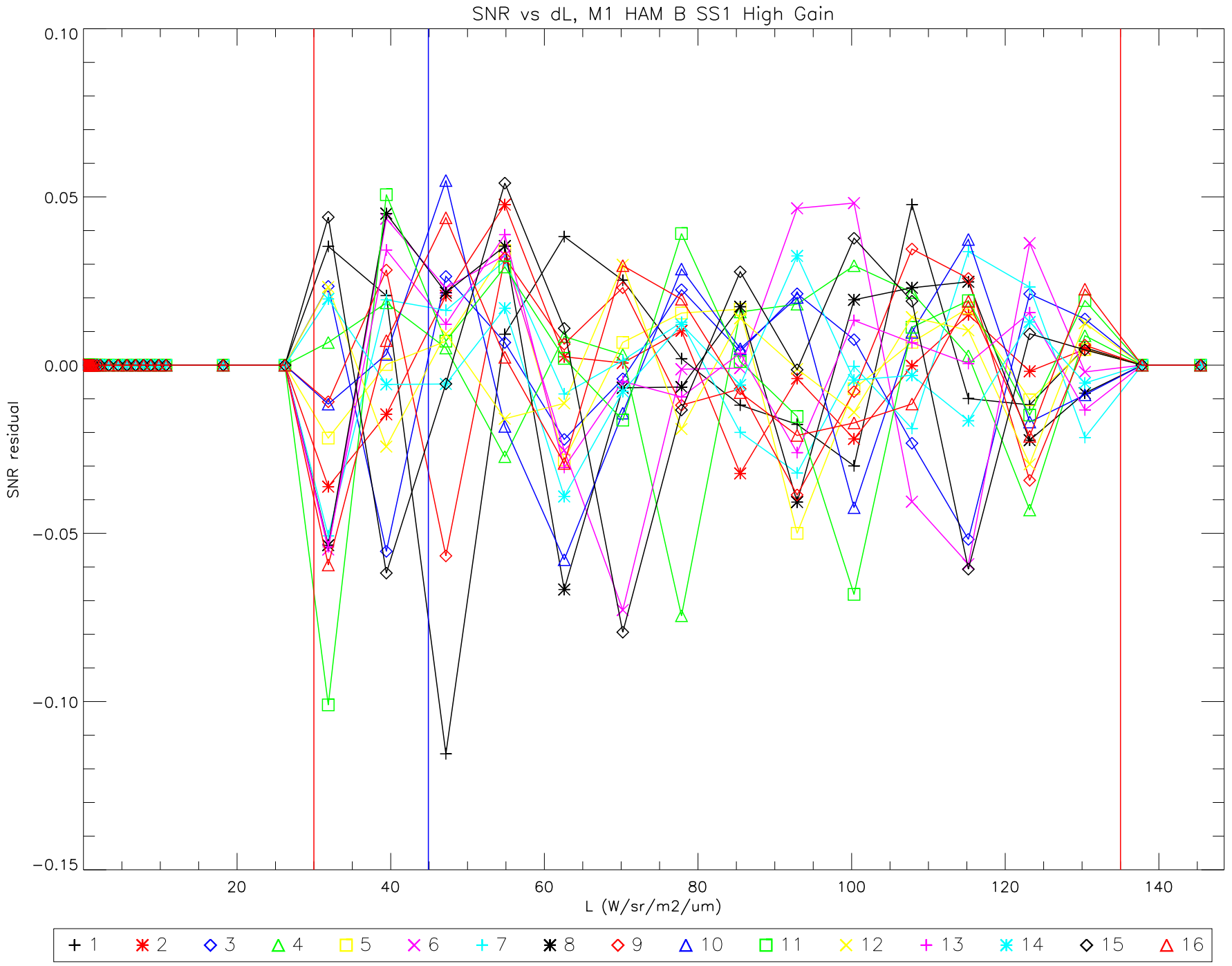

SNR vs L, I3 HAM B SS2 High Gain
SNR
L (W/sr/m2/um)
0
200
400
600
800
0
20
40
60
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

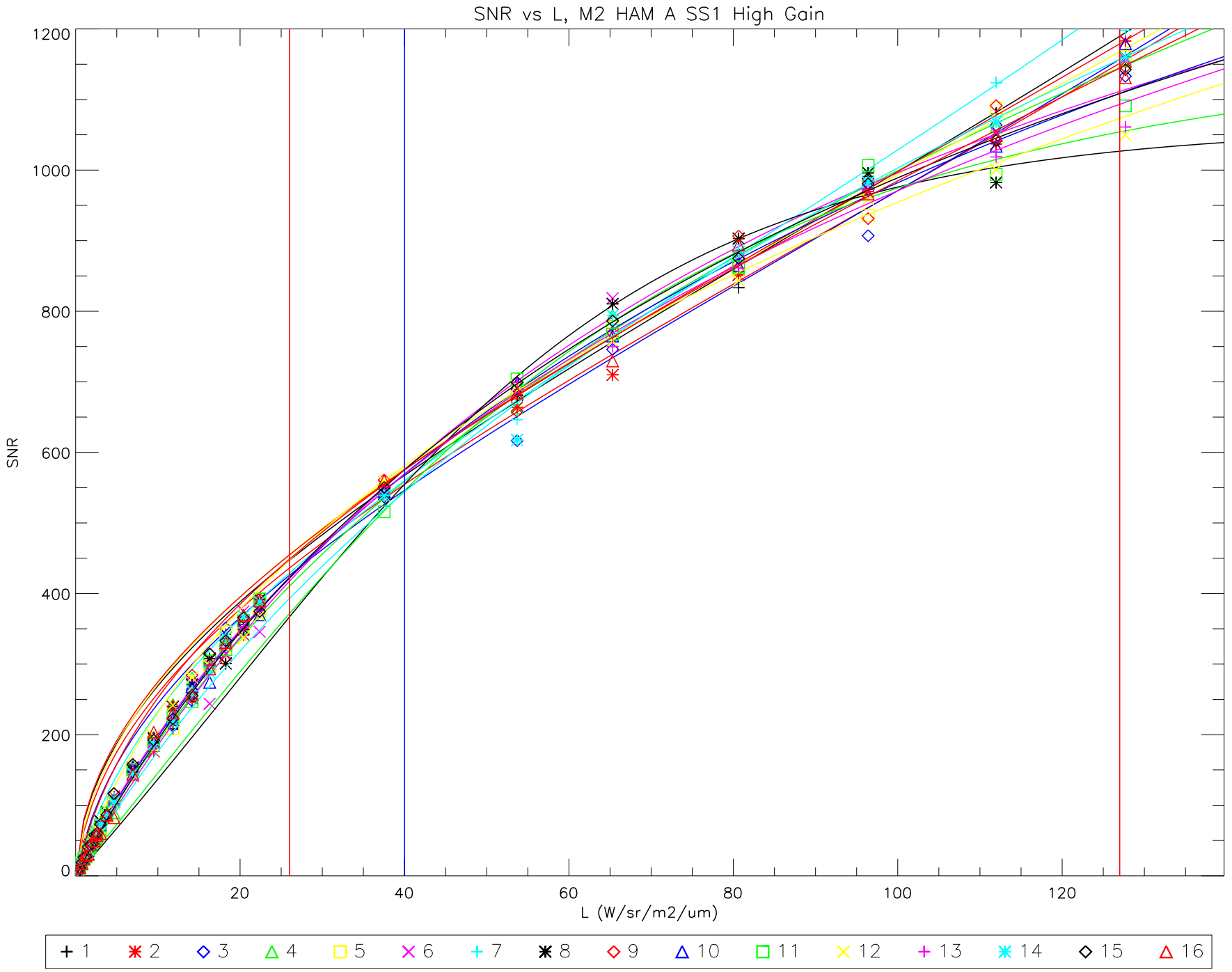

SNR vs dL, I3 HAM B SS2 High Gain
SNR residual
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
0
20
40
60
L (W/sr/m2/um)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

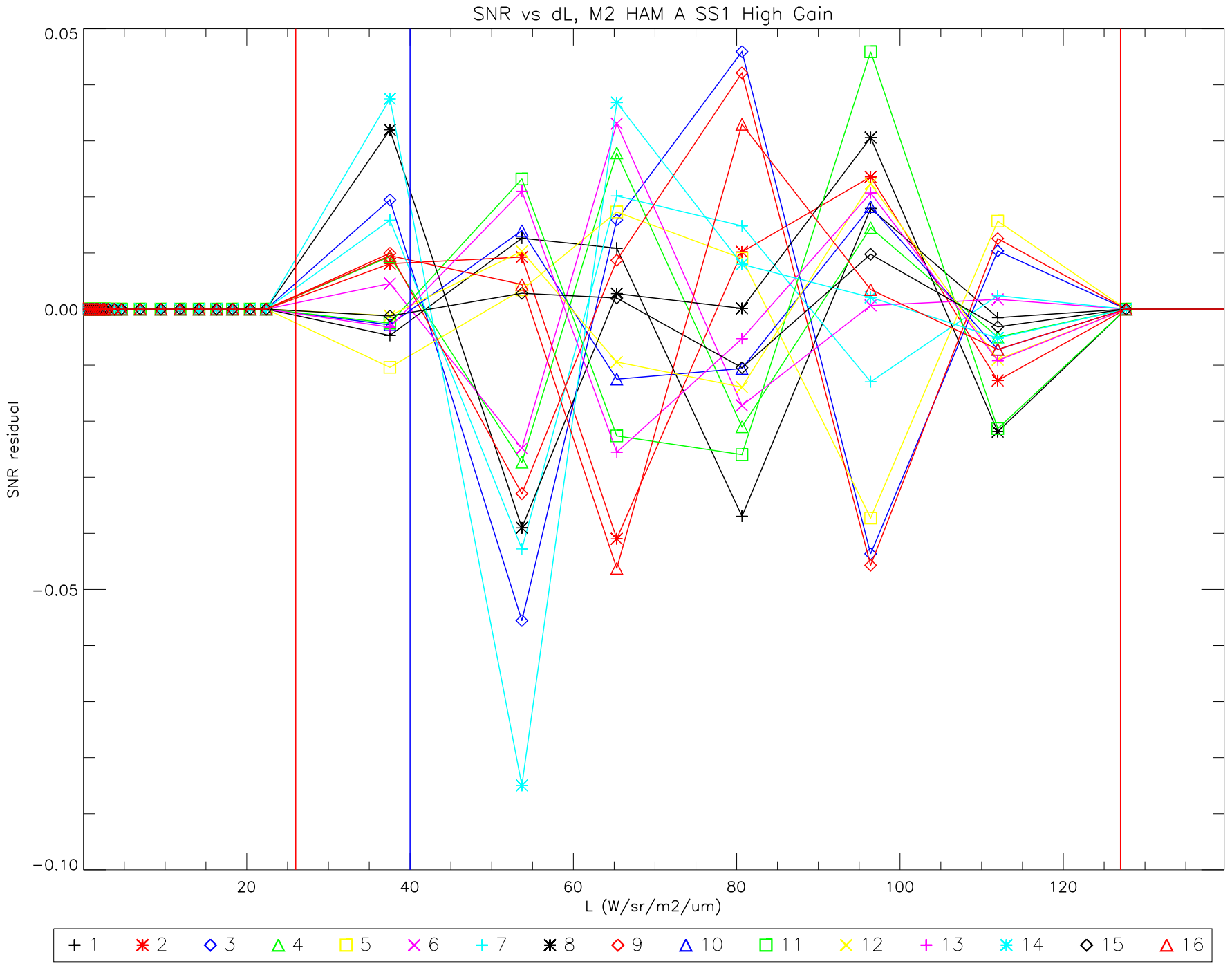

SNR vs L, M1 HAM A SS1 High Gain
SNR
L (W/sr/m2/um)
0
200
400
600
800
1000
1200
1400
20
40
60
80
100
120
140
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

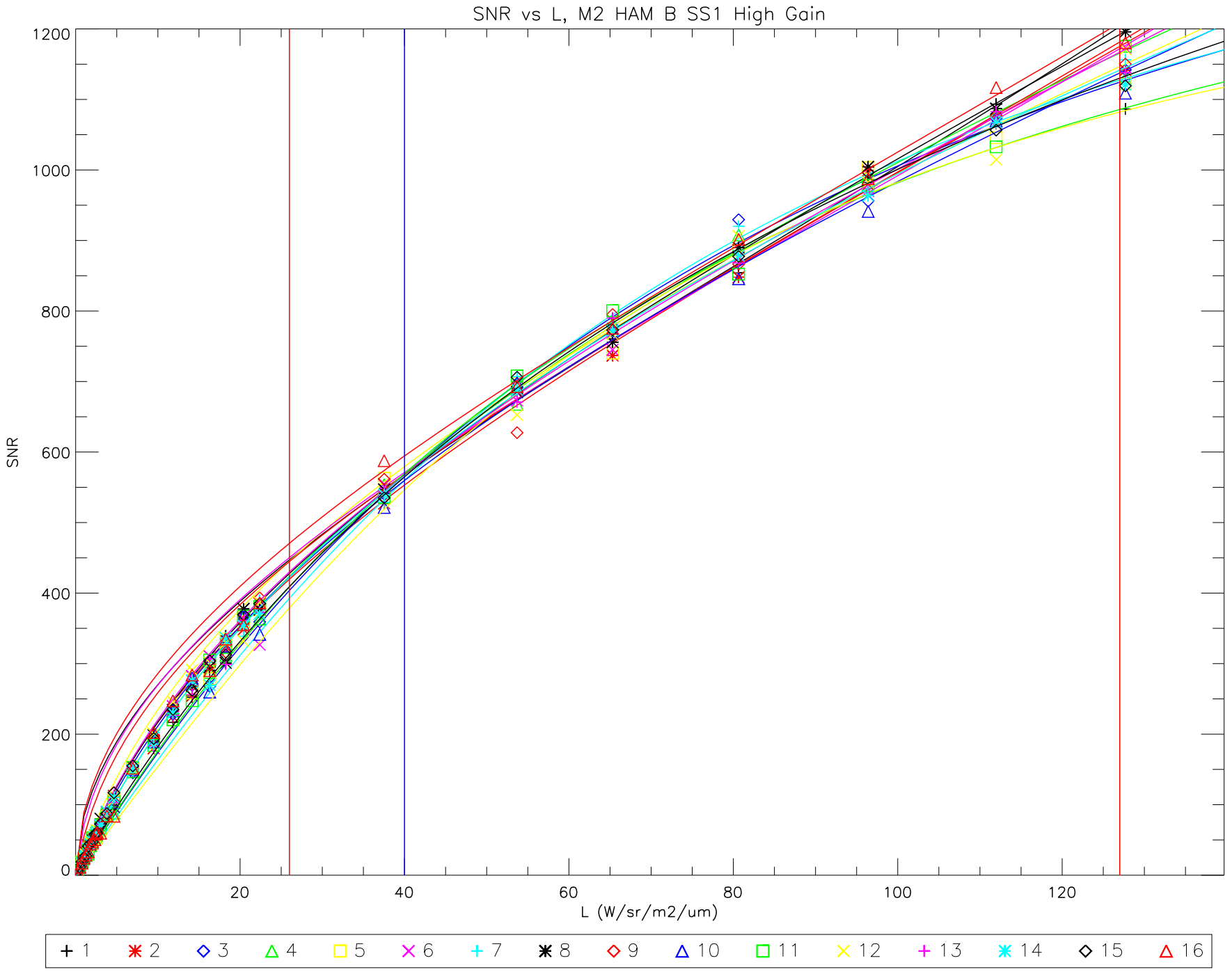

SNR vs dL, M1 HAM A SS1 High Gain
SNR residual
0.10
0.05
0.00
−0.05
−0.10
−0.15
20
40
60
80
100
120
140
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

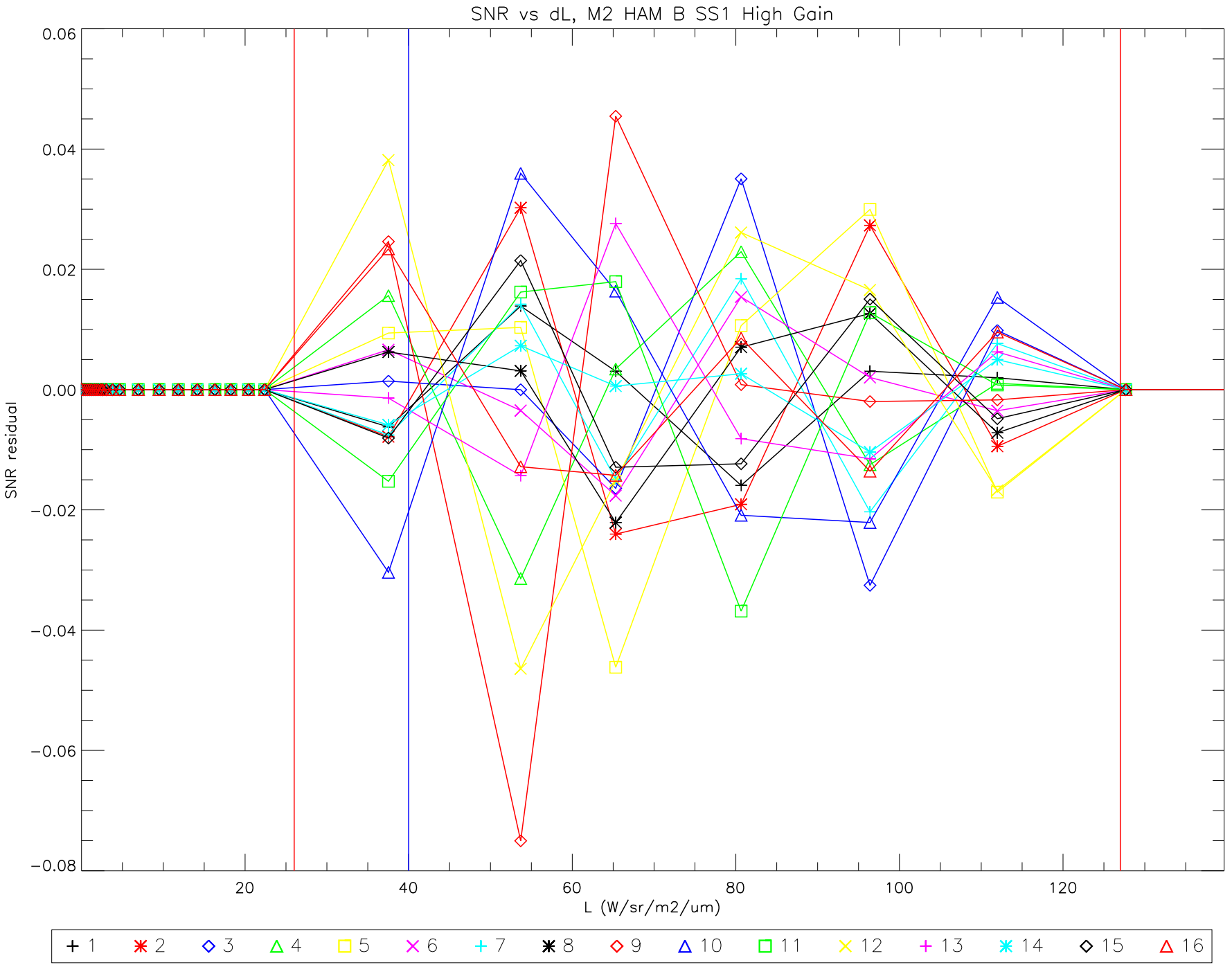

SNR vs L, M1 HAM B SS1 High Gain
SNR
L (W/sr/m2/um)
0
200
400
600
800
1000
1200
1400
20
40
60
80
100
120
140
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

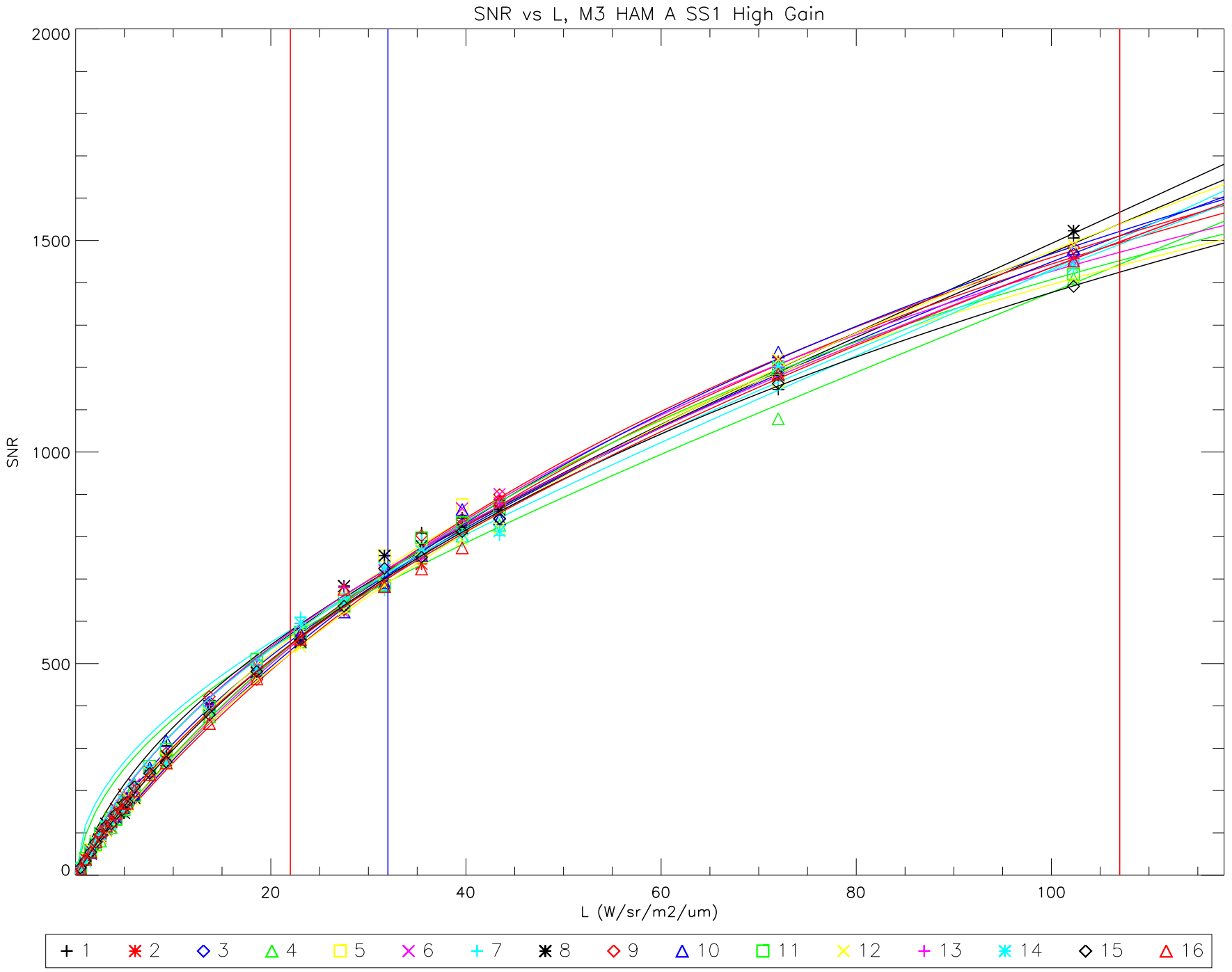

SNR vs dL, M1 HAM B SS1 High Gain
SNR residual
0.10
0.05
0.00
−0.05
−0.10
−0.15
20
40
60
80
100
120
140
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

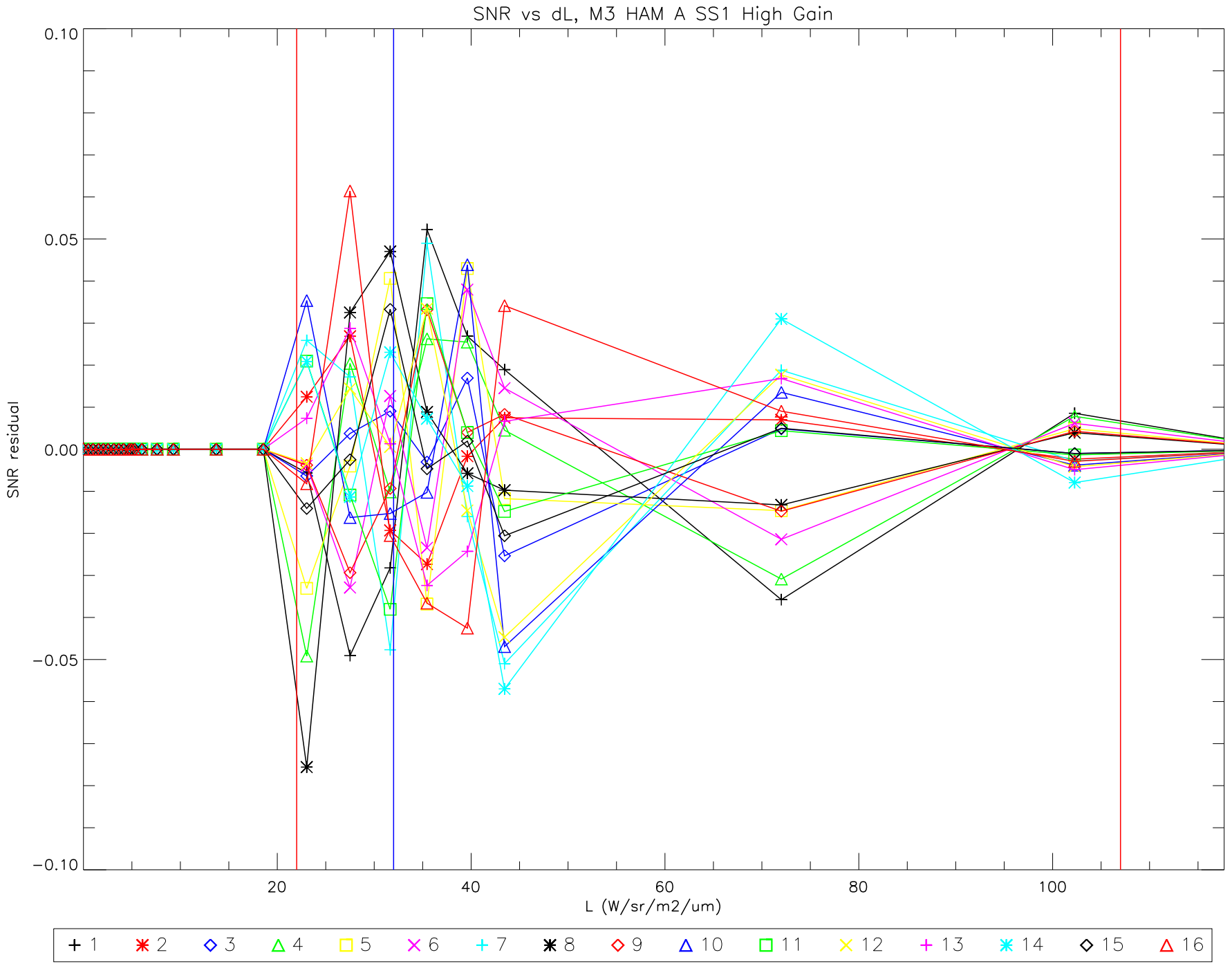

SNR vs L, M2 HAM A SS1 High Gain
SNR
L (W/sr/m2/um)
0
200
400
600
800
1000
1200
20
40
60
80
100
120
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

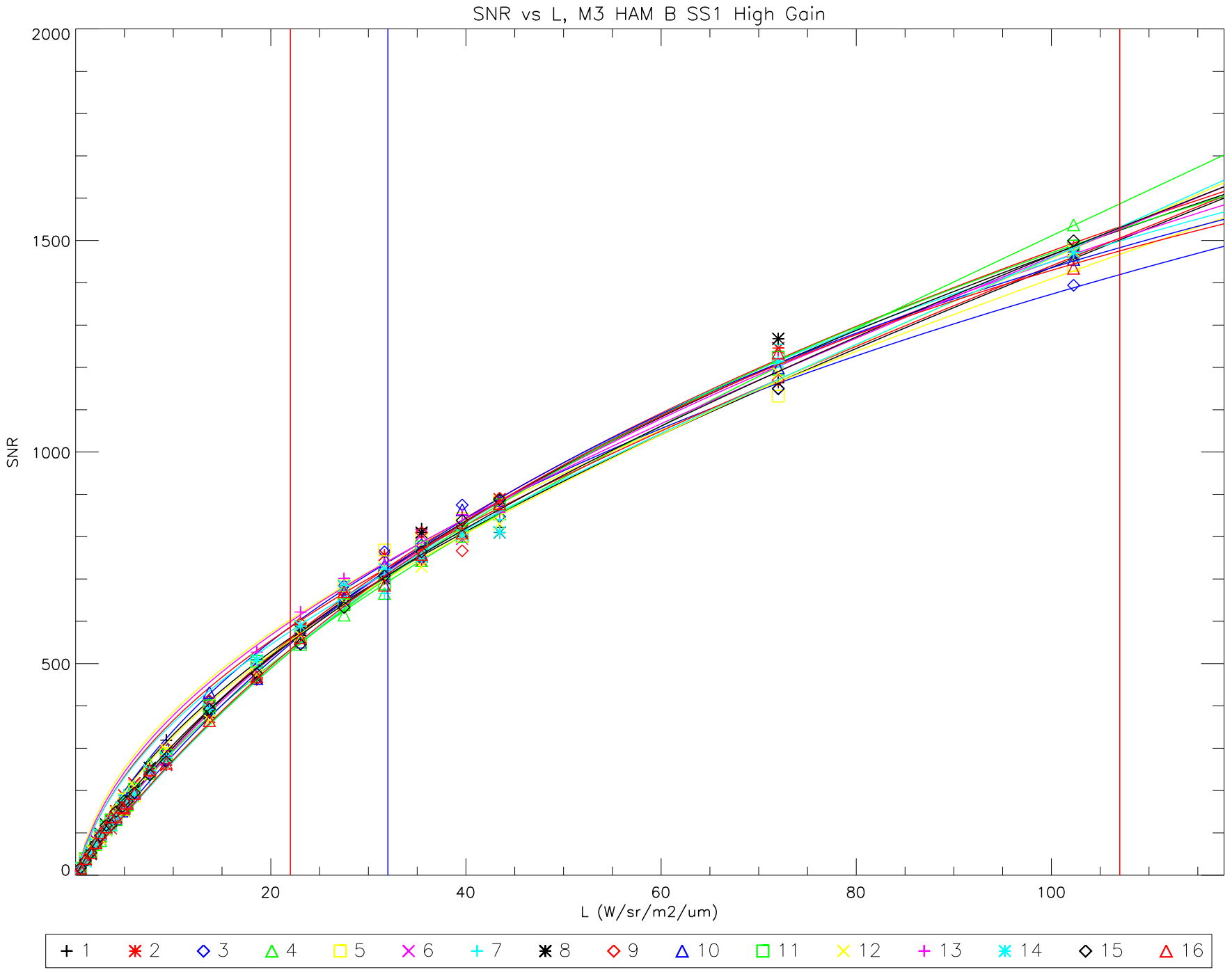

SNR vs dL, M2 HAM A SS1 High Gain
0.05
0.00
−0.05
−0.10
SNR residual
20
40
60
80
100
120
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

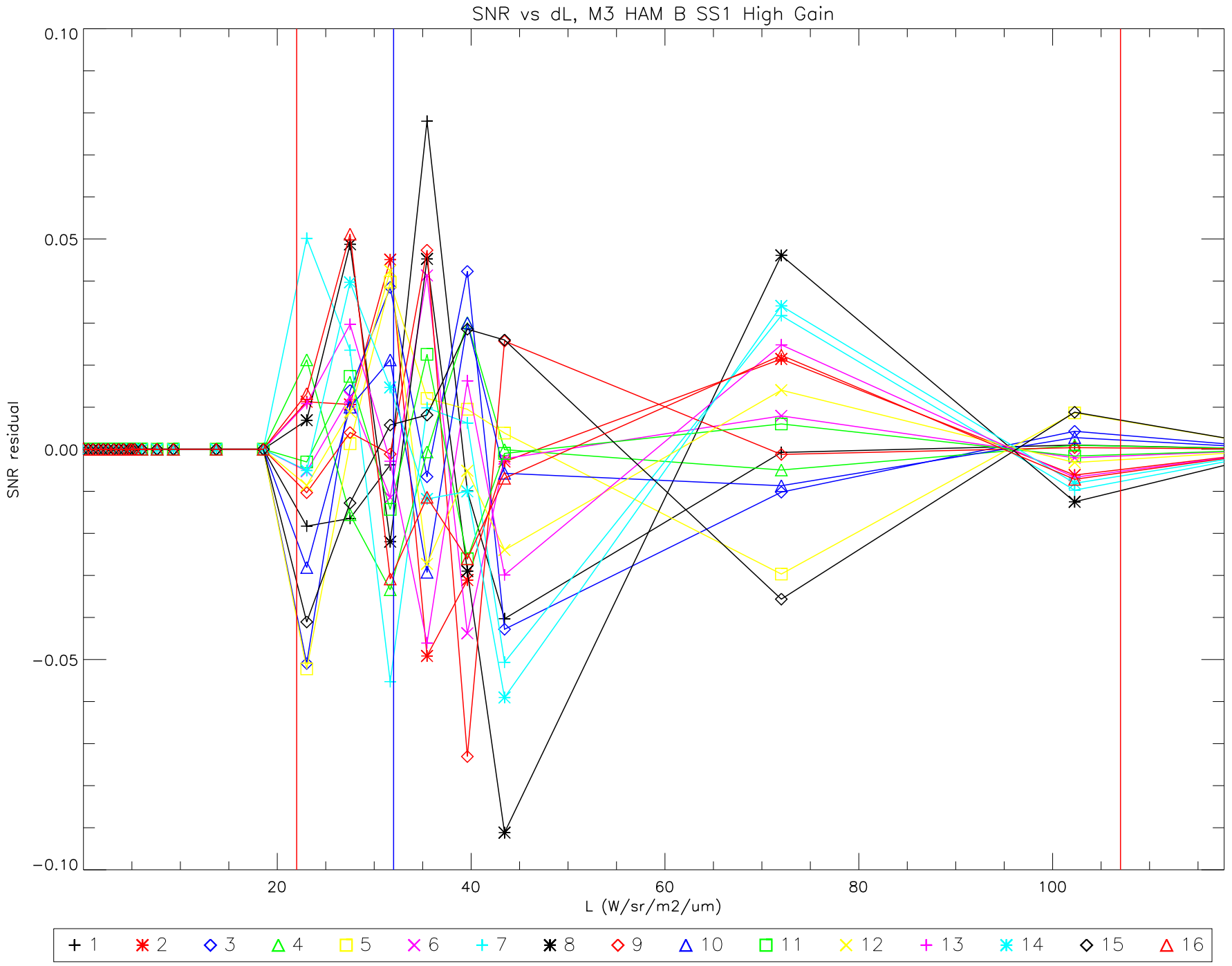

SNR vs L, M2 HAM B SS1 High Gain
SNR
L (W/sr/m2/um)
0
200
400
600
800
1000
1200
20
40
60
80
100
120
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

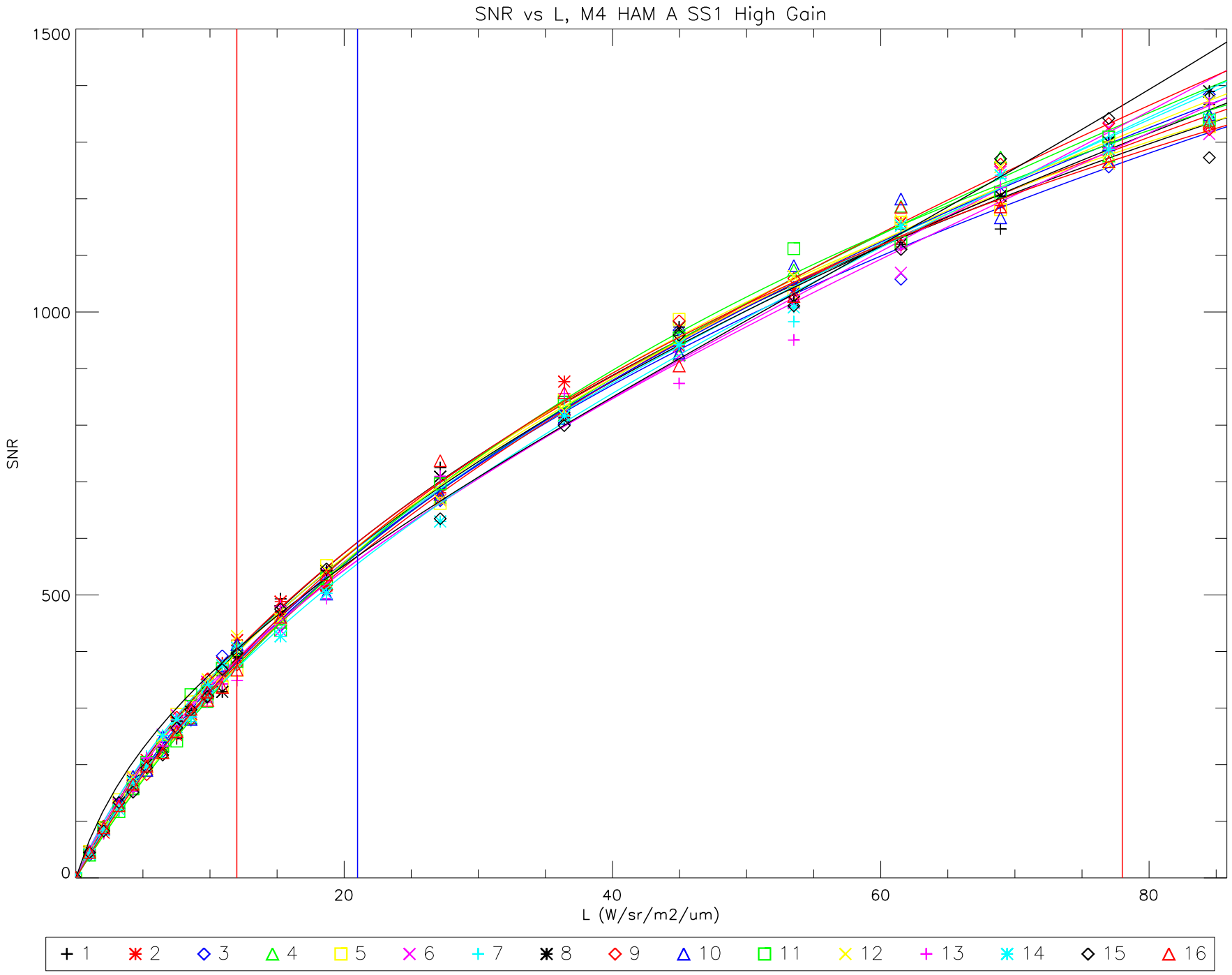

SNR vs dL, M2 HAM B SS1 High Gain
SNR residual
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
−0.08
20
40
60
80
100
120
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

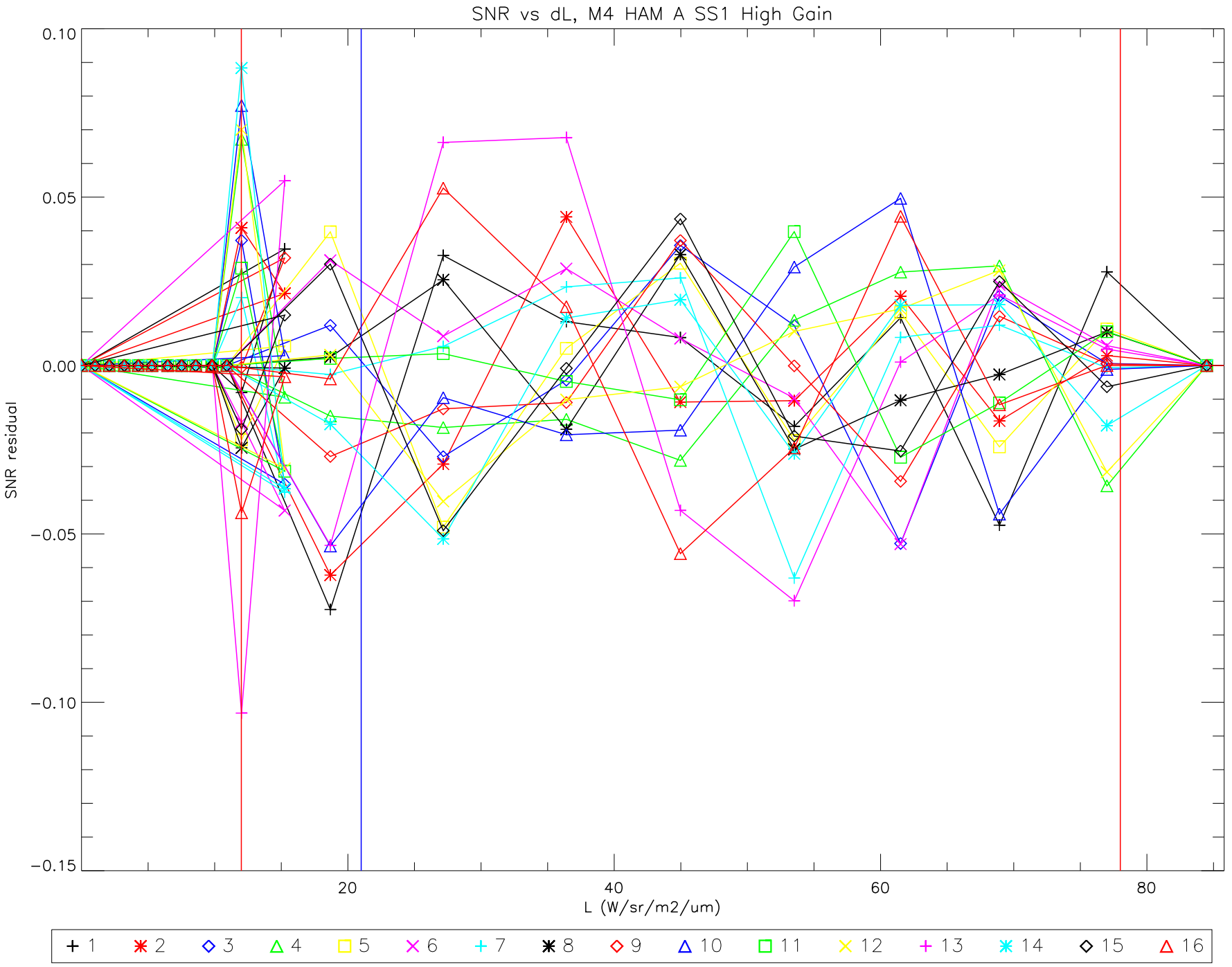

SNR vs L, M3 HAM A SS1 High Gain
SNR
2000
1500
1000
500
0
20
40
60
80
100
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

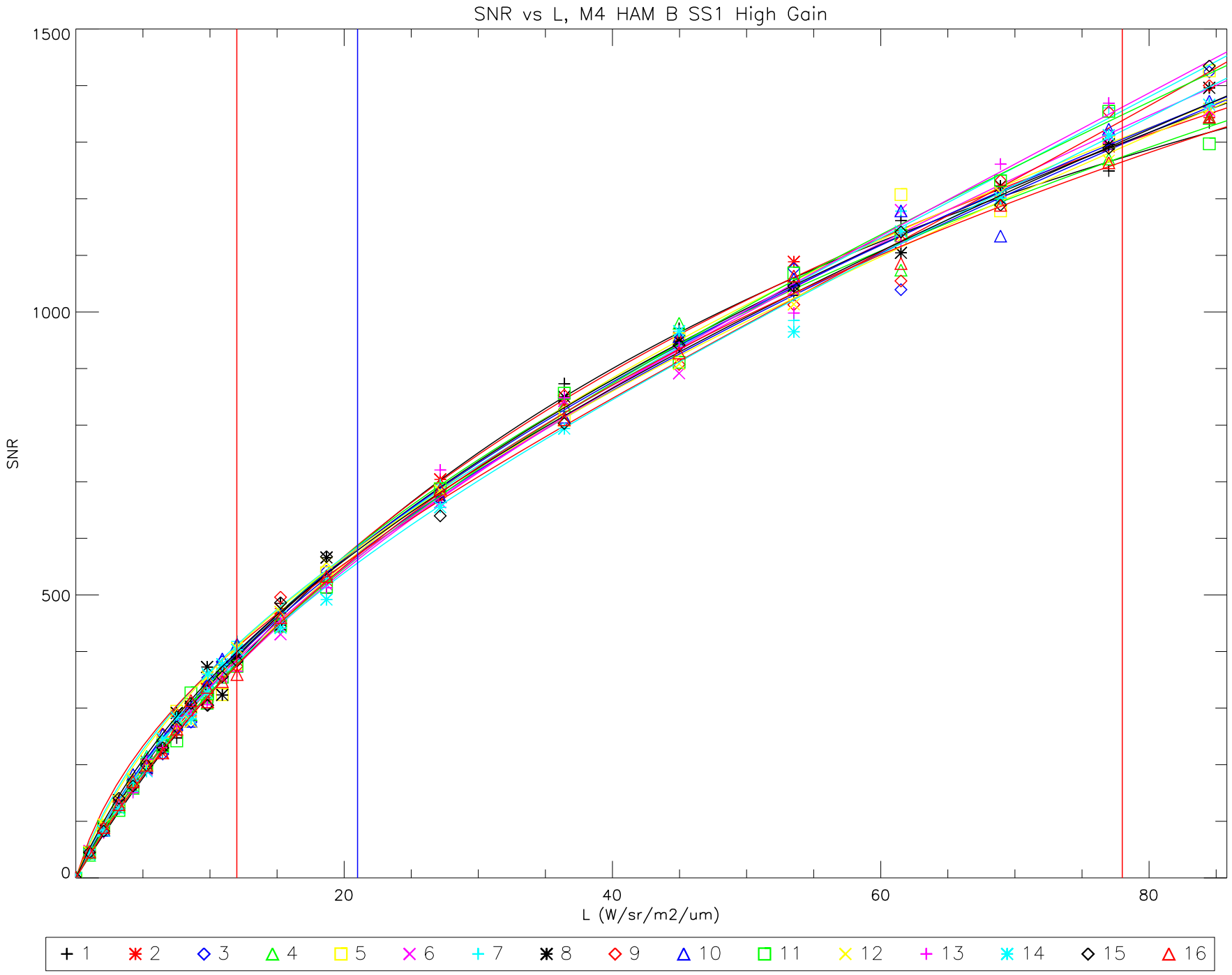

SNR vs dL, M3 HAM A SS1 High Gain
SNR residual
0.10
0.05
0.00
−0.05
−0.10
20
40
60
80
100
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

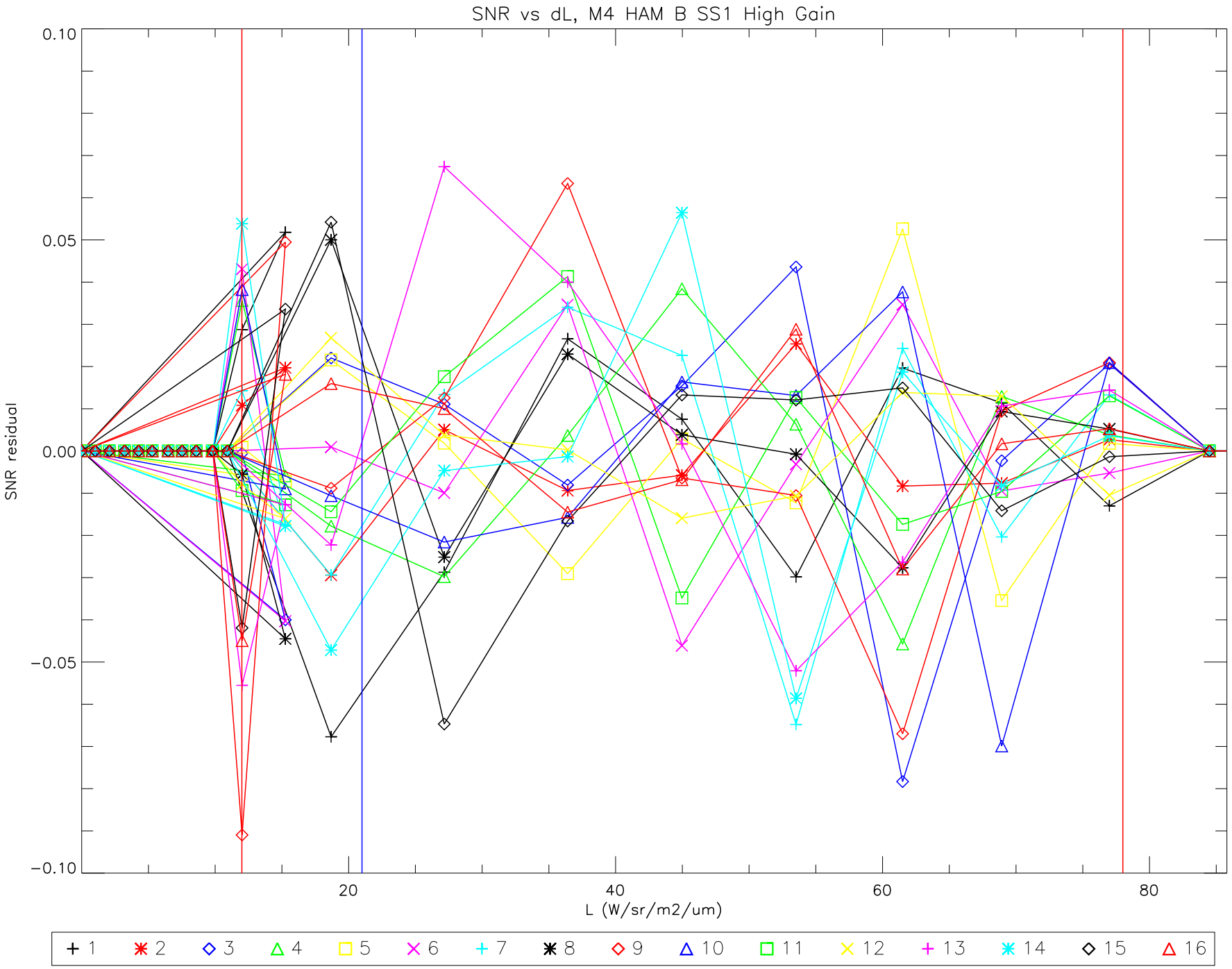

SNR vs L, M3 HAM B SS1 High Gain
SNR
L (W/sr/m2/um)
0
500
1000
1500
2000
20
40
60
80
100
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

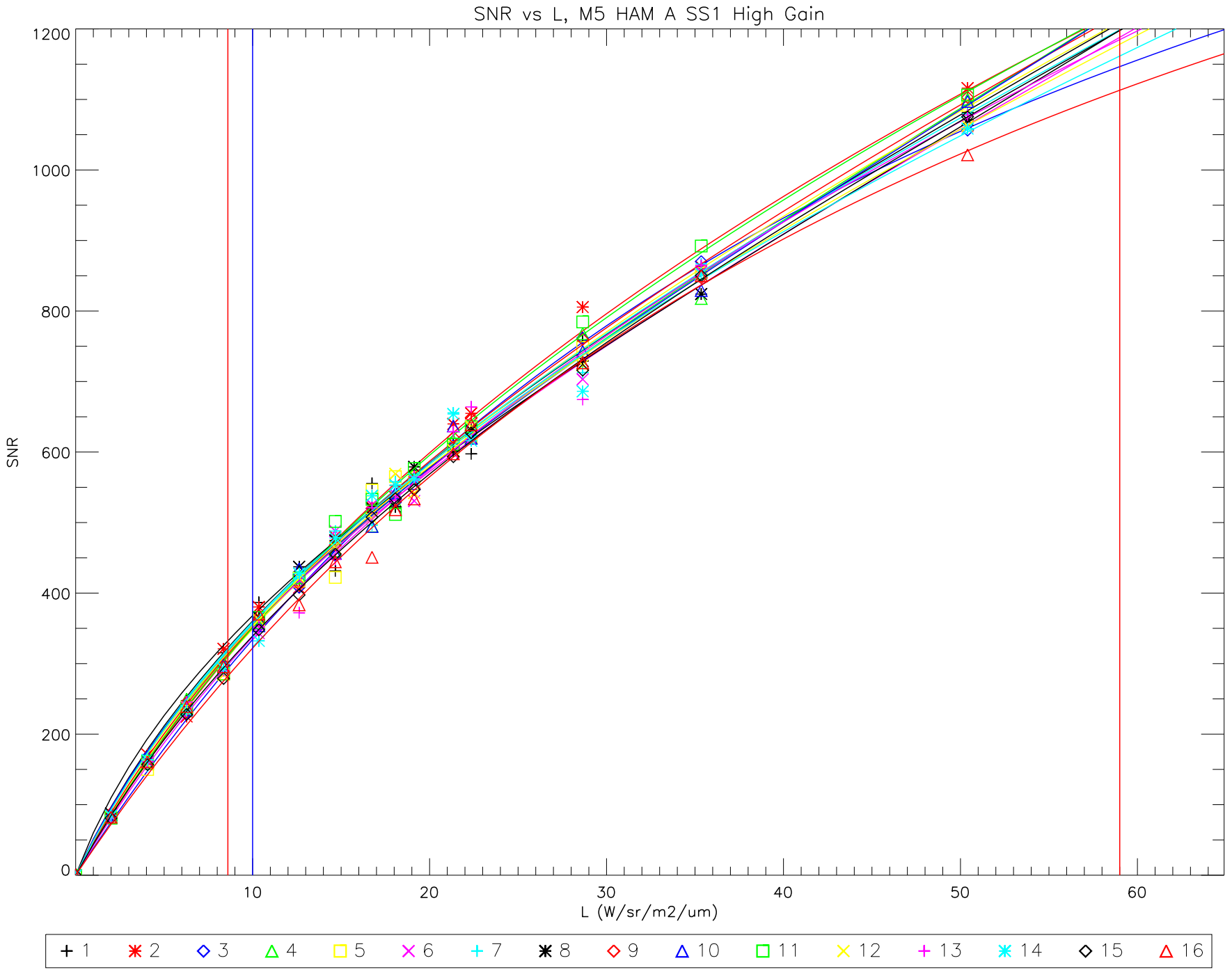

SNR vs dL, M3 HAM B SS1 High Gain
0.10
0.05
0.00
−0.05
−0.10
SNR residual
20
40
60
80
100
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

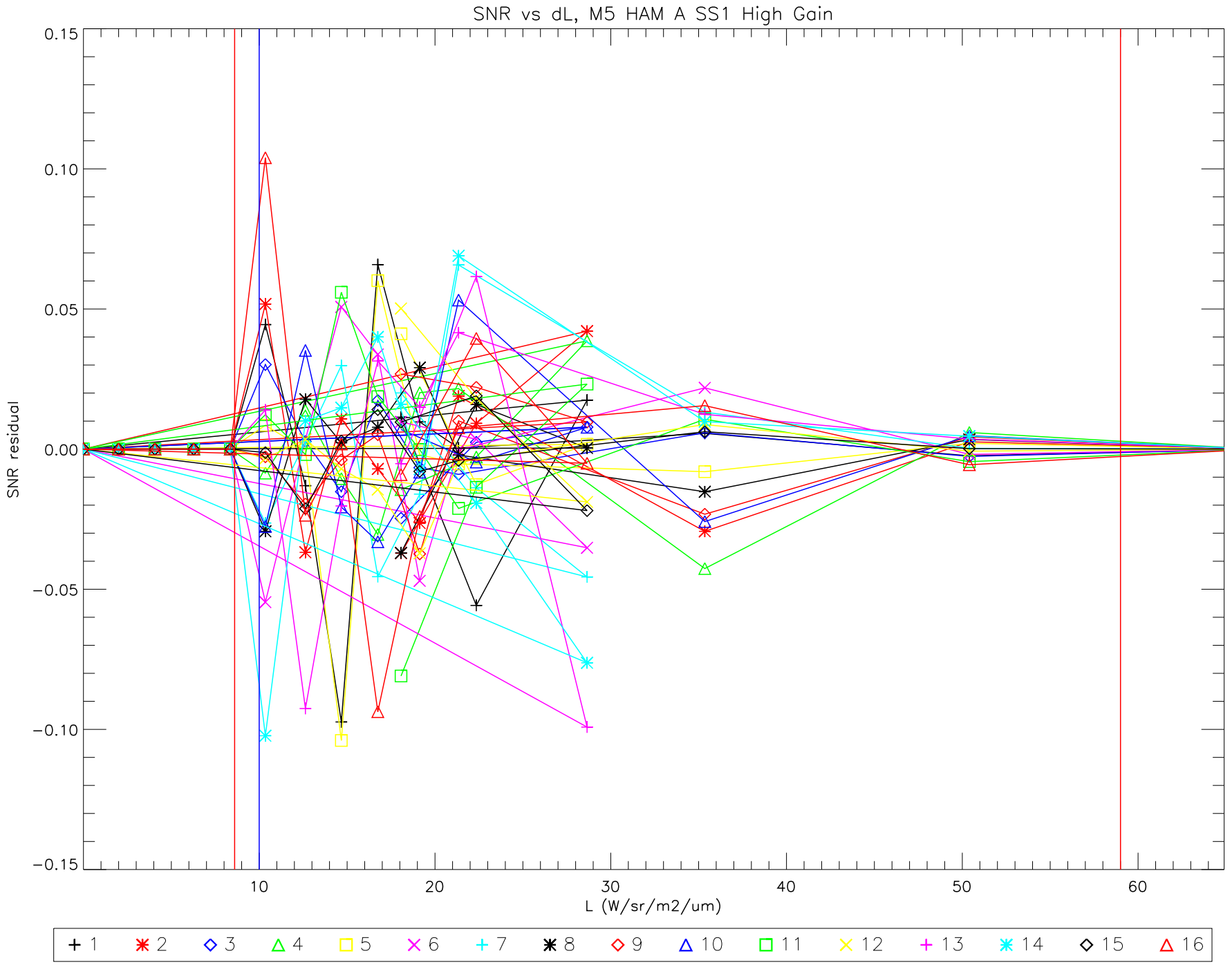

SNR vs L, M4 HAM A SS1 High Gain
SNR
L (W/sr/m2/um)
0
500
1000
1500
20
40
60
80
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

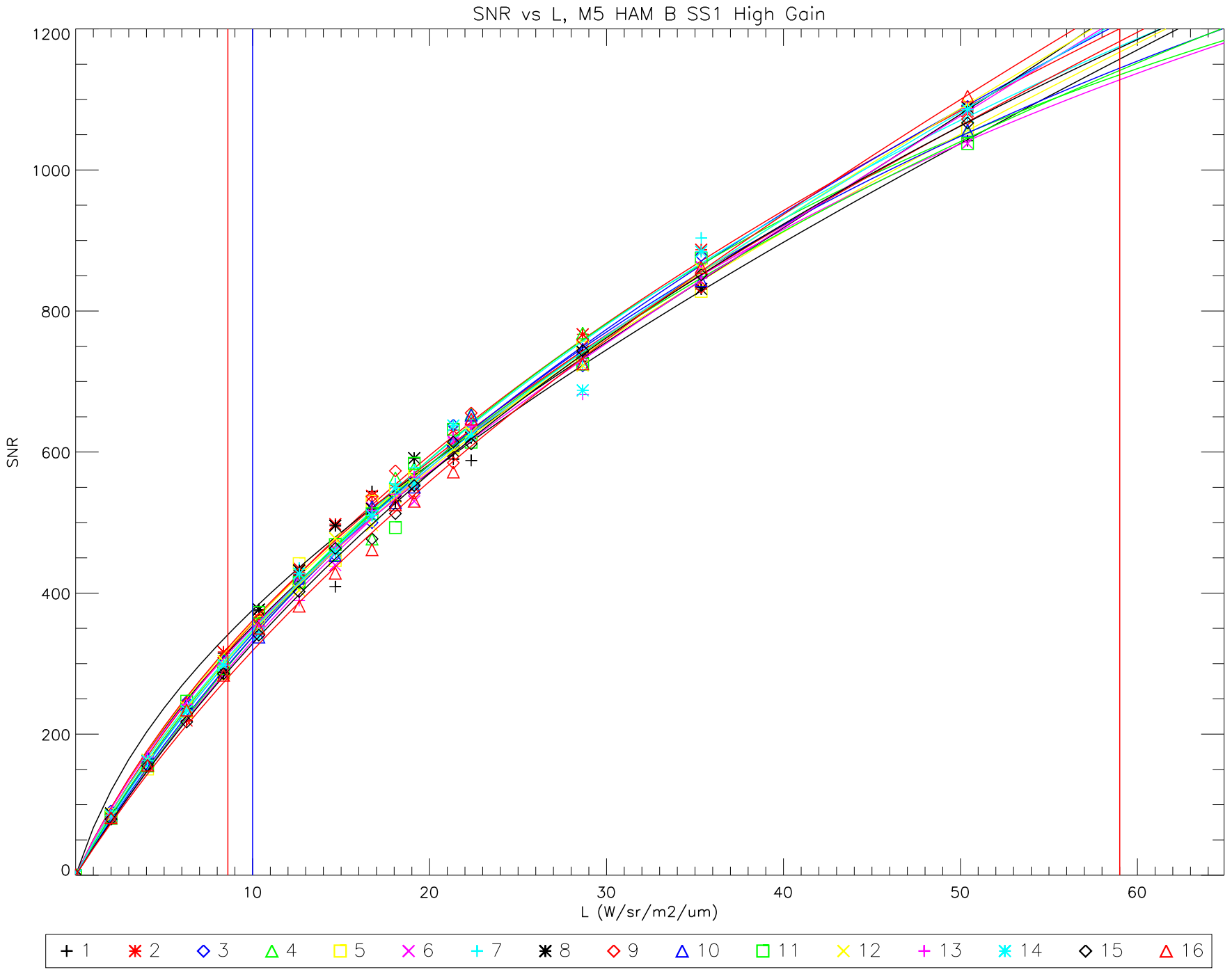

SNR vs dL, M4 HAM A SS1 High Gain
SNR residual
0.10
0.05
0.00
−0.05
−0.10
−0.15
20
40
60
80
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

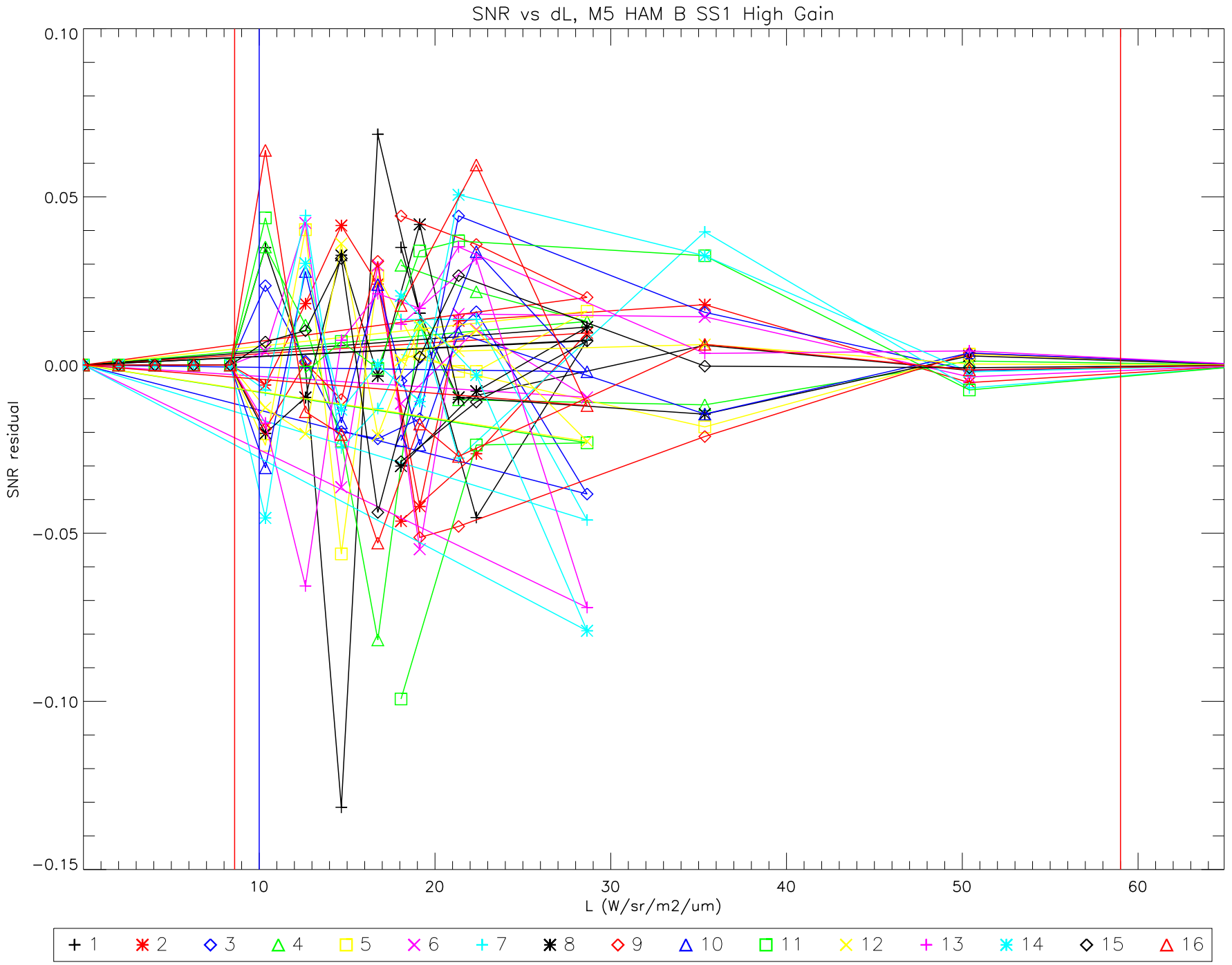

SNR vs L, M4 HAM B SS1 High Gain
SNR
1500
1000
500
0
20
40
60
80
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

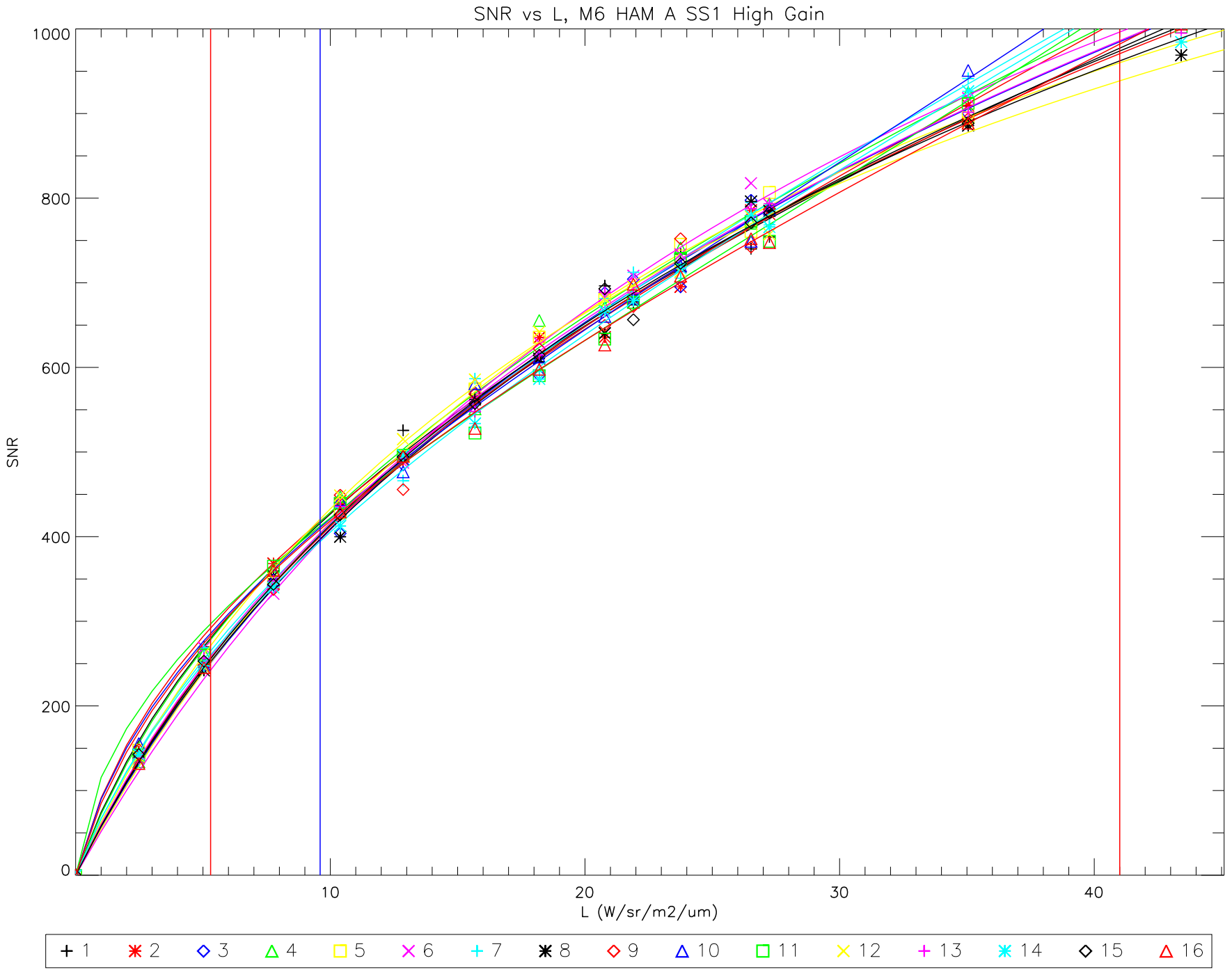

SNR vs dL, M4 HAM B SS1 High Gain
SNR residual
0.10
0.05
0.00
−0.05
−0.10
20
40
60
80
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

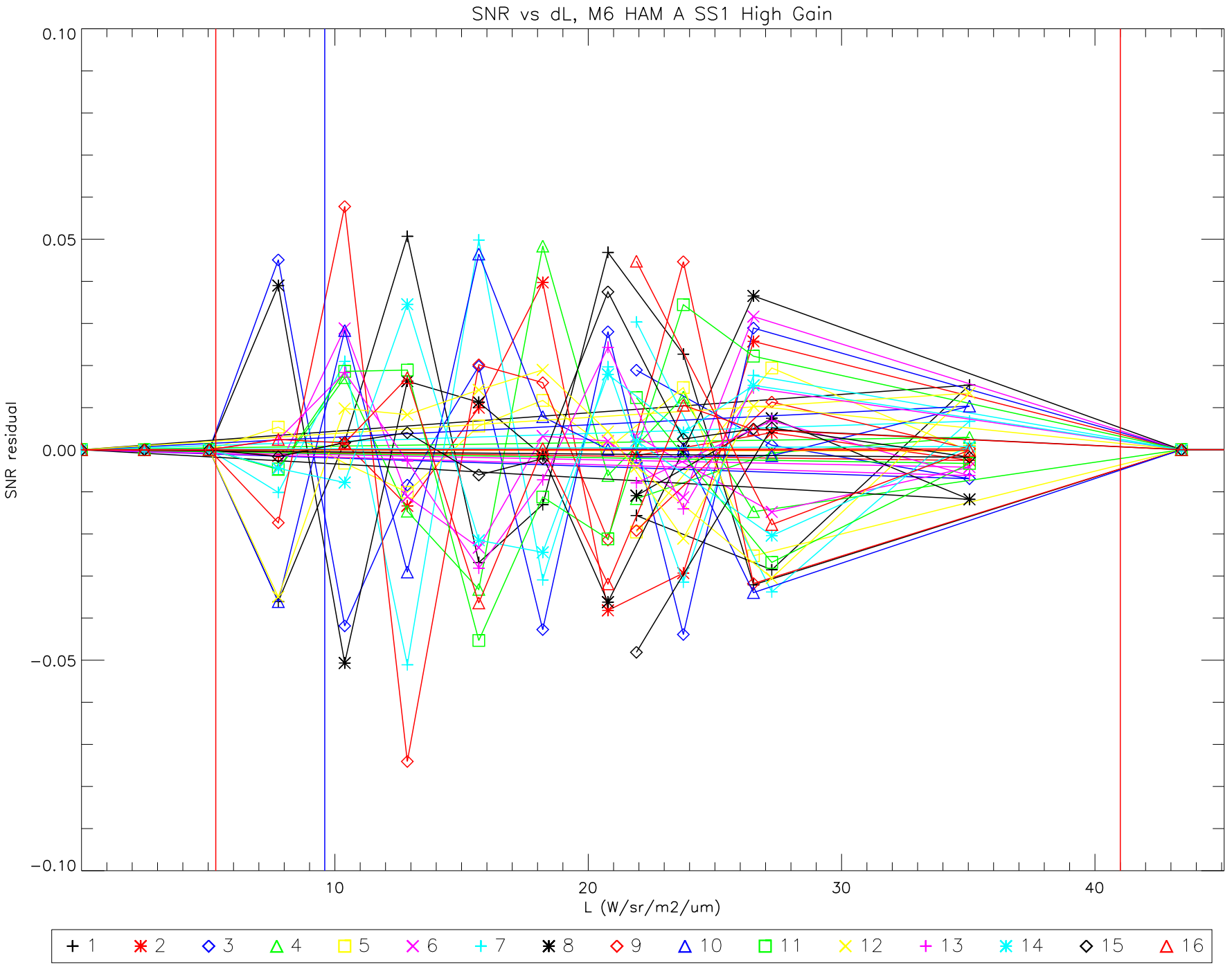

SNR vs L, M5 HAM A SS1 High Gain
SNR
L (W/sr/m2/um)
0
200
400
600
800
1000
1200
10
20
30
40
50
60
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

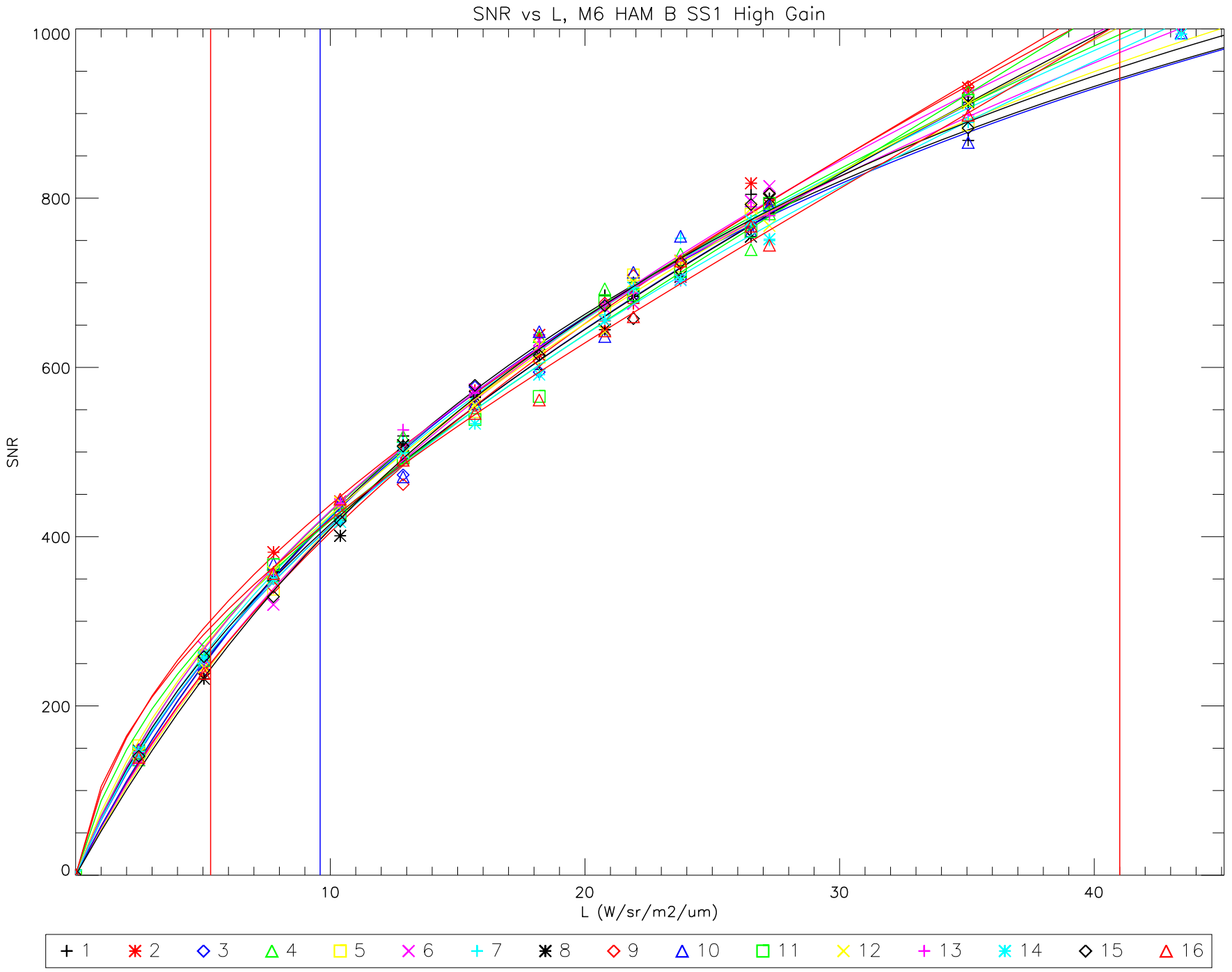

SNR vs dL, M5 HAM A SS1 High Gain
SNR residual
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
10
20
30
40
50
60
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

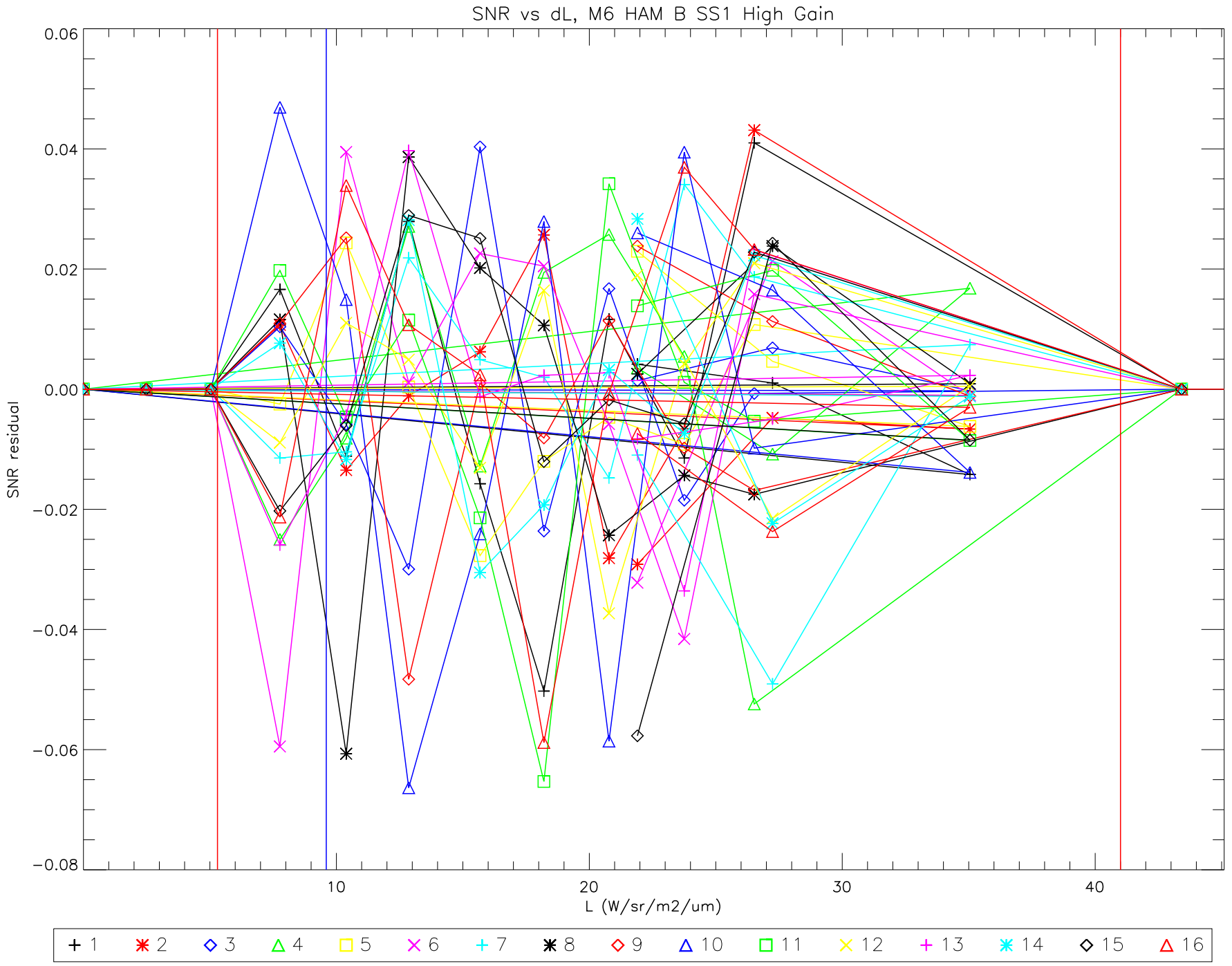

SNR vs L, M5 HAM B SS1 High Gain
SNR
L (W/sr/m2/um)
0
200
400
600
800
1000
1200
10
20
30
40
50
60
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

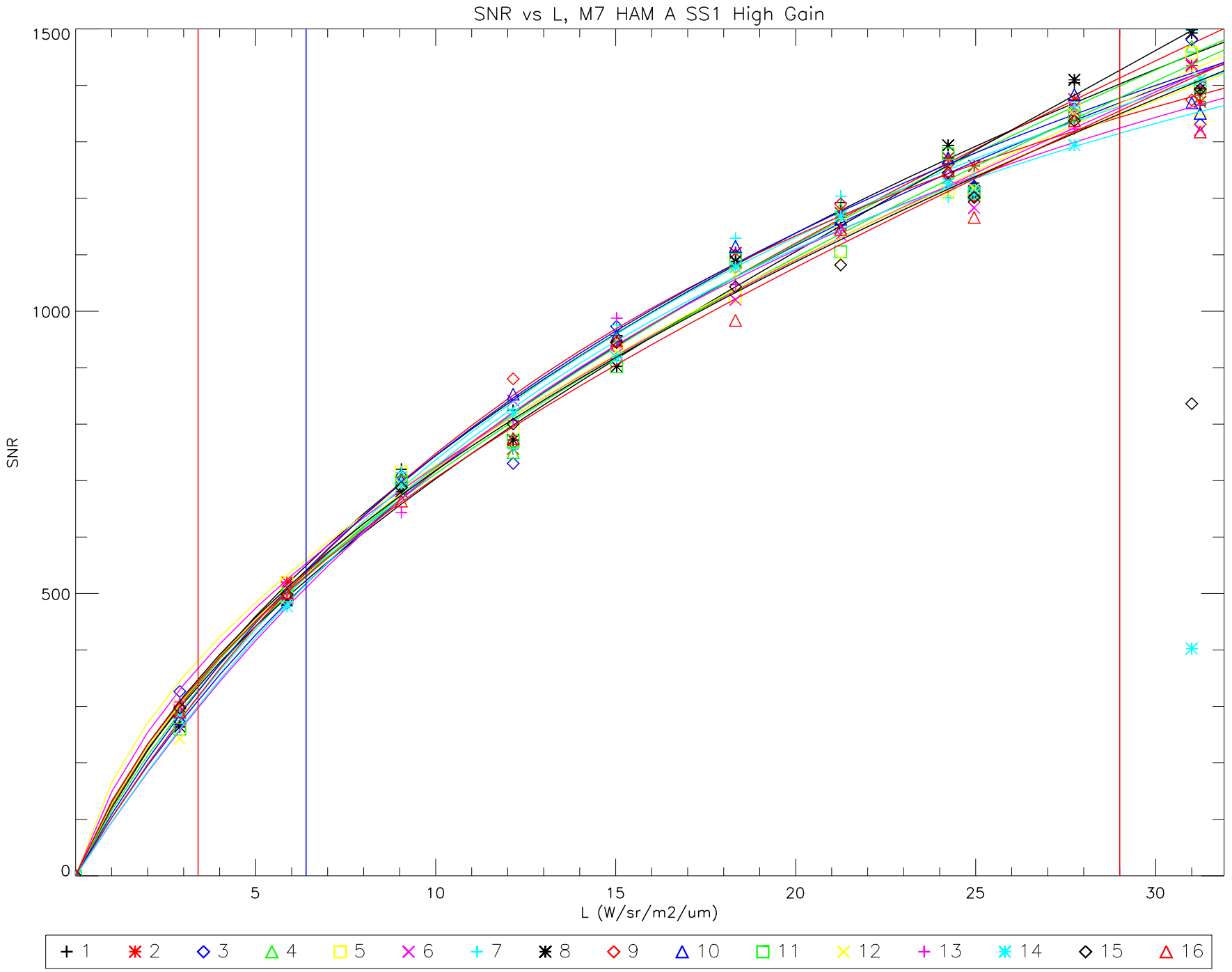

SNR vs dL, M5 HAM B SS1 High Gain
SNR residual
0.10
0.05
0.00
−0.05
−0.10
−0.15
10
20
30
40
50
60
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

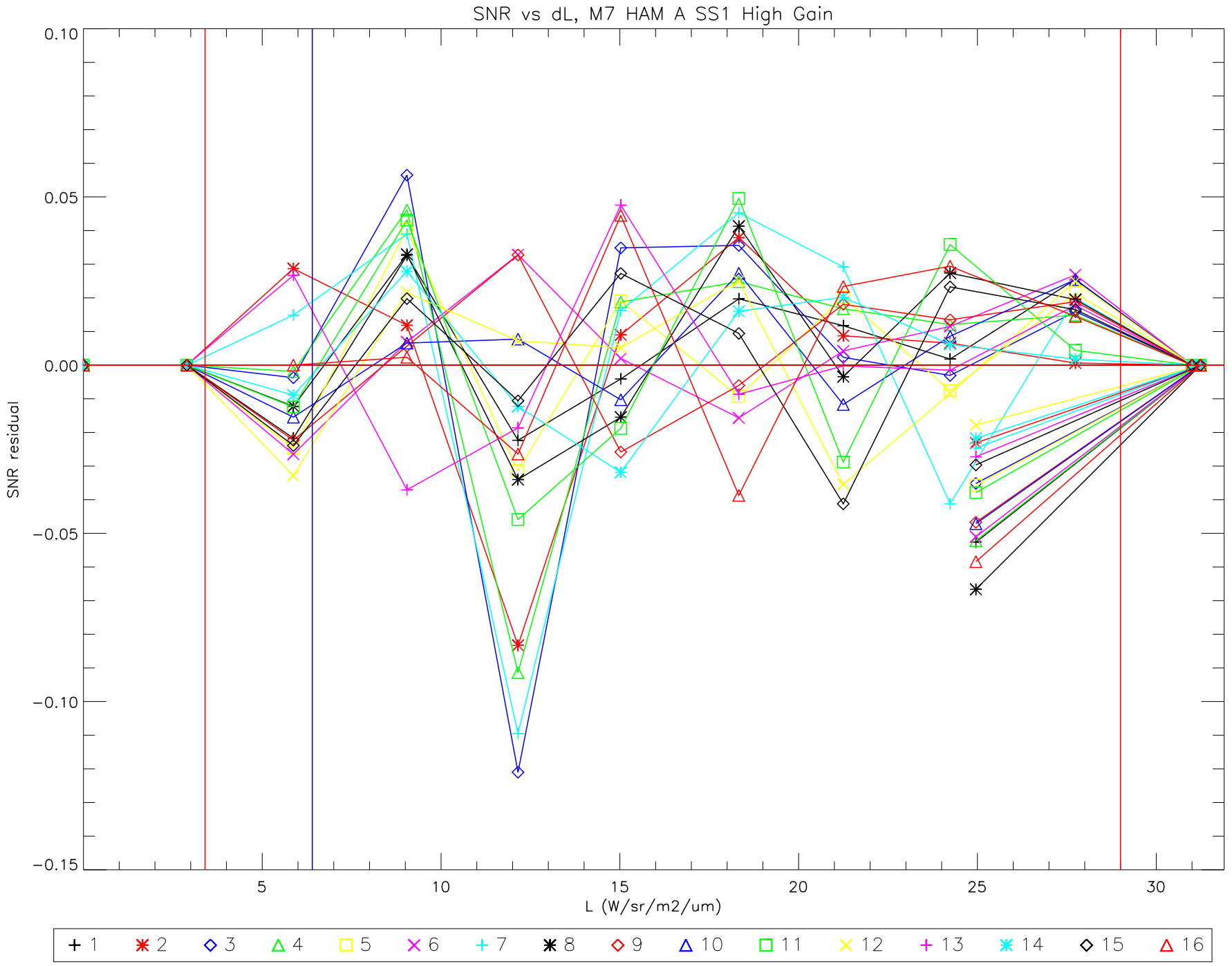

SNR vs L, M6 HAM A SS1 High Gain
SNR
L (W/sr/m2/um)
0
200
400
600
800
1000
10
20
30
40
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

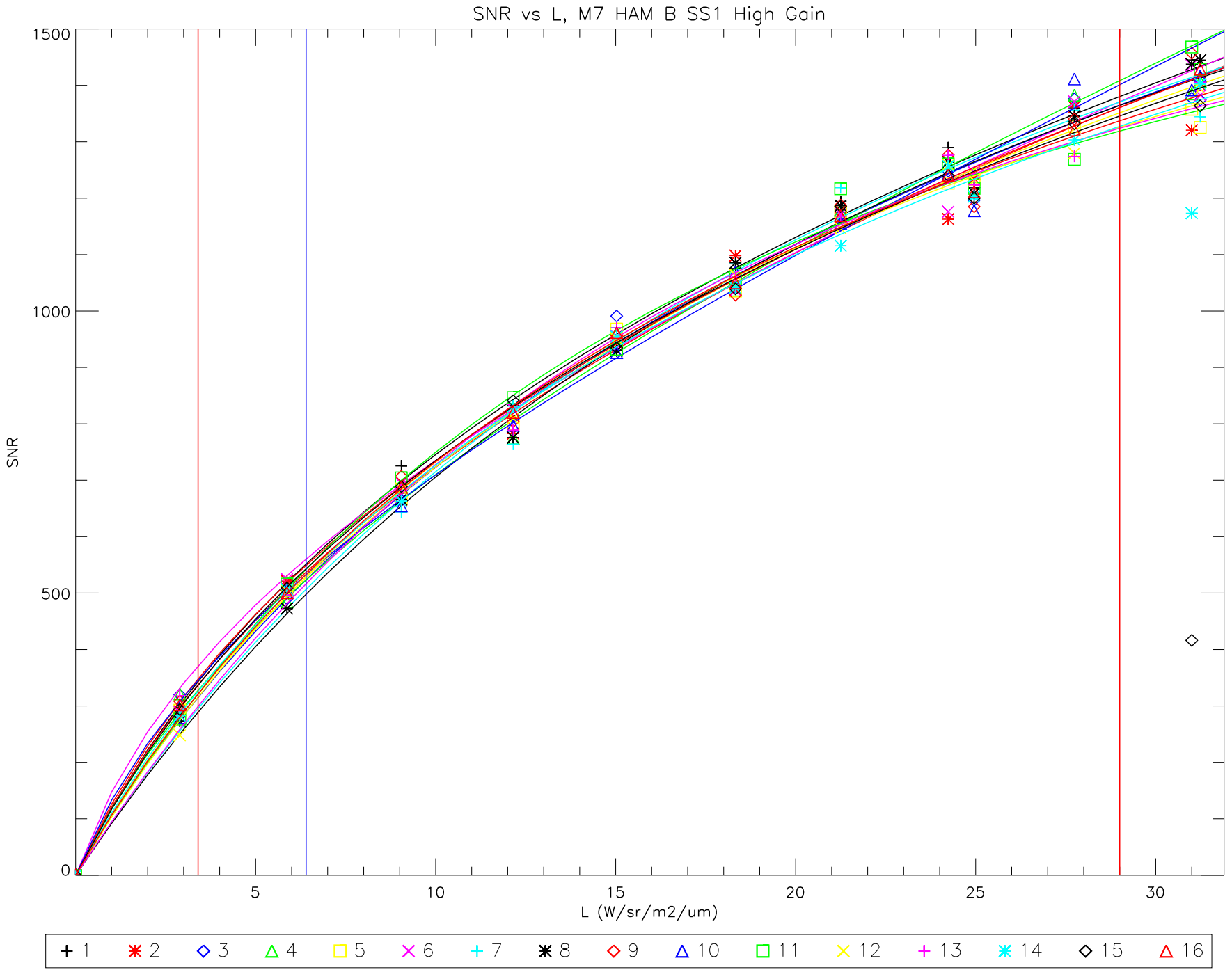

SNR vs dL, M6 HAM A SS1 High Gain
0.10
0.05
0.00
−0.05
−0.10
SNR residual
10
20
30
40
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

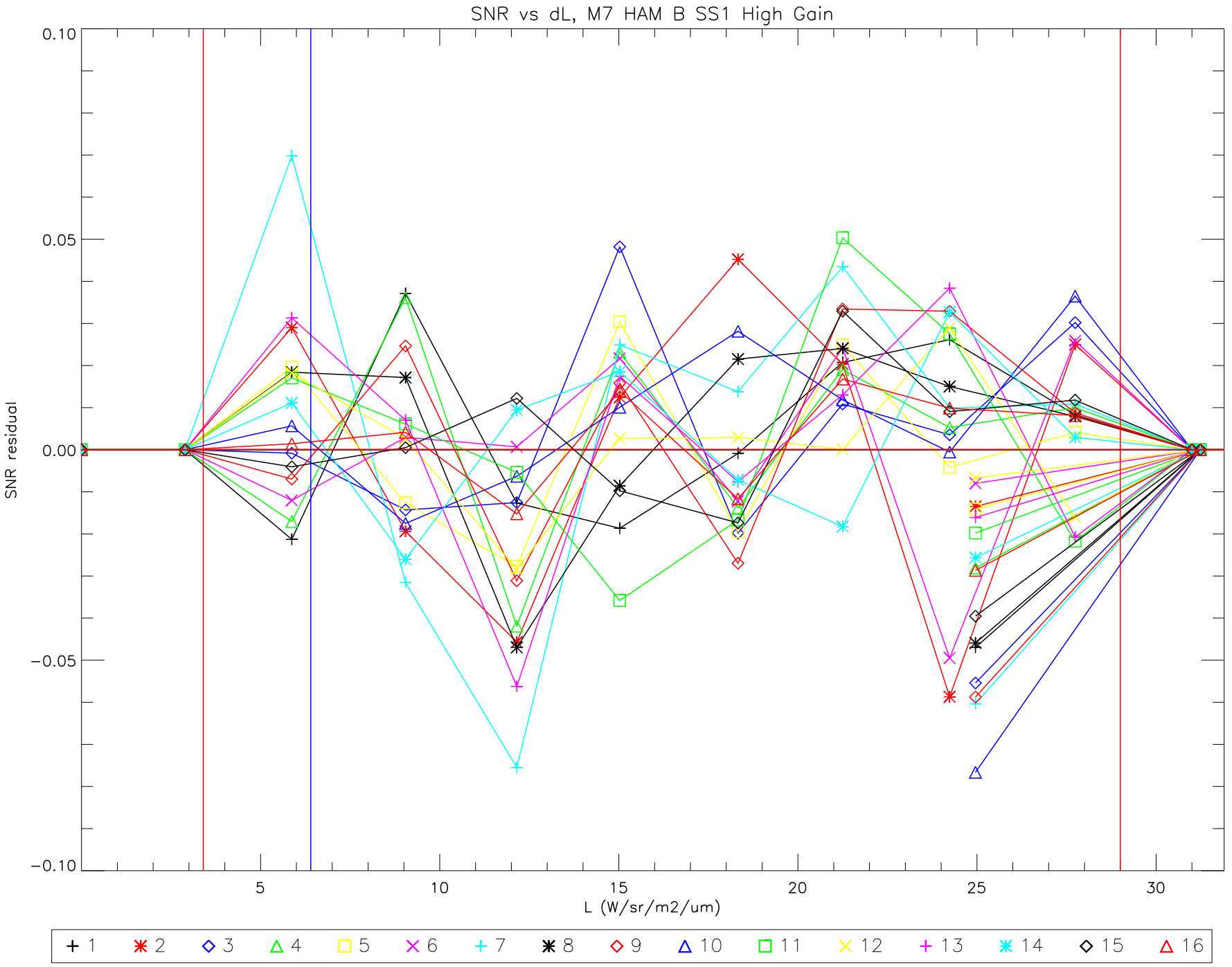

SNR vs L, M6 HAM B SS1 High Gain
SNR
L (W/sr/m2/um)
0
200
400
600
800
1000
10
20
30
40
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

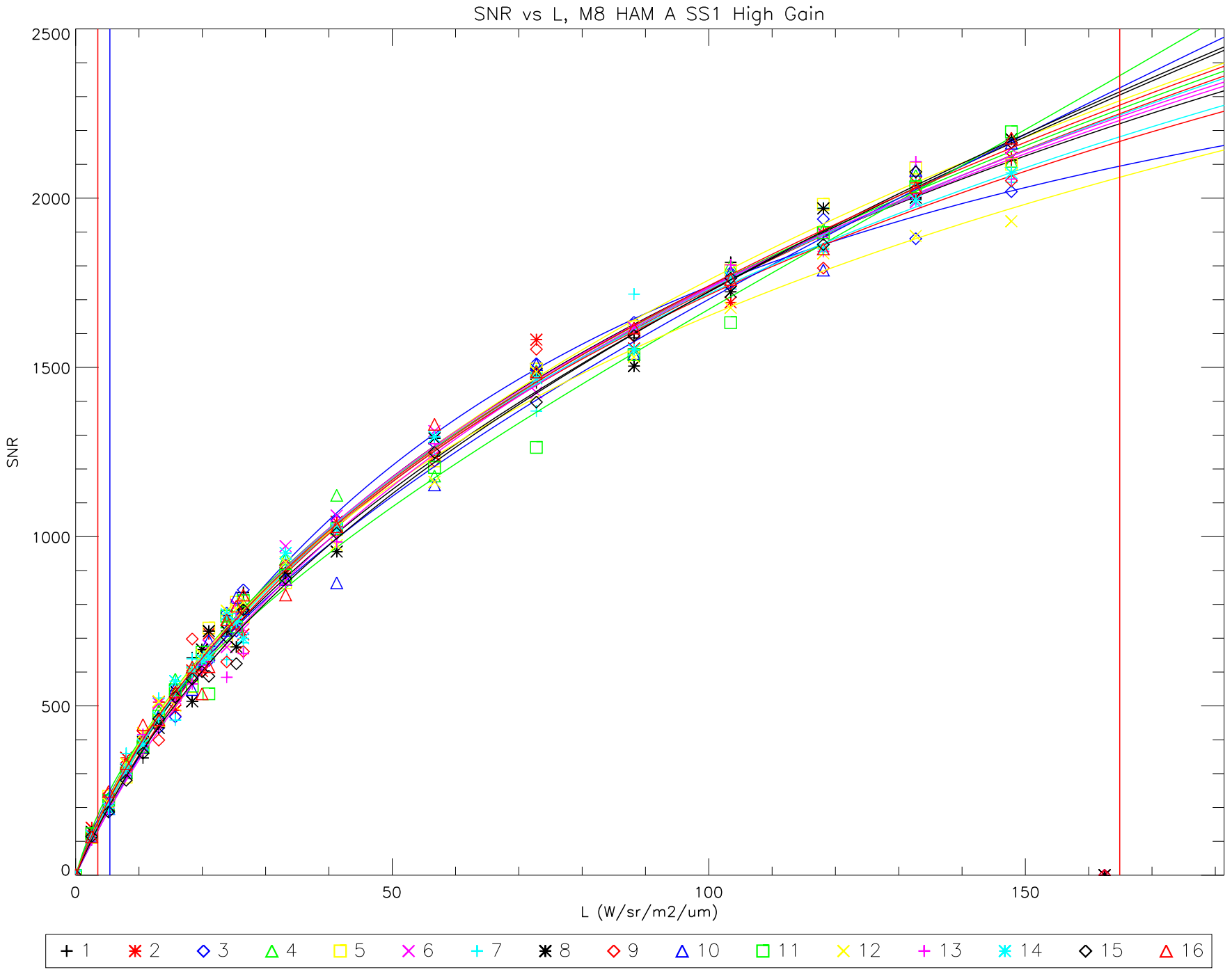

SNR vs dL, M6 HAM B SS1 High Gain
SNR residual
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
−0.08
10
20
30
40
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

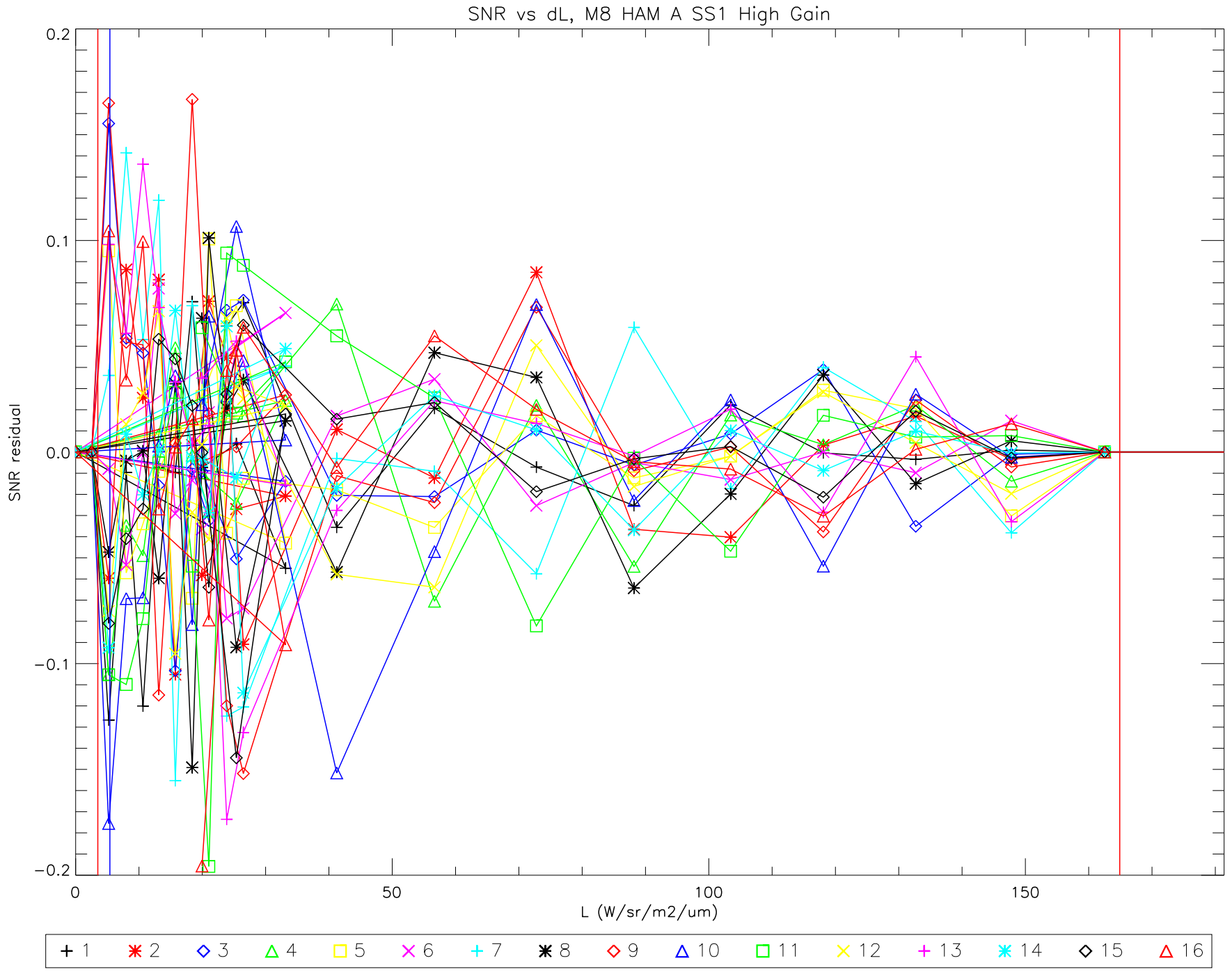

SNR vs L, M7 HAM A SS1 High Gain
SNR
L (W/sr/m2/um)
0
500
1000
1500
5
10
15
20
25
30
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

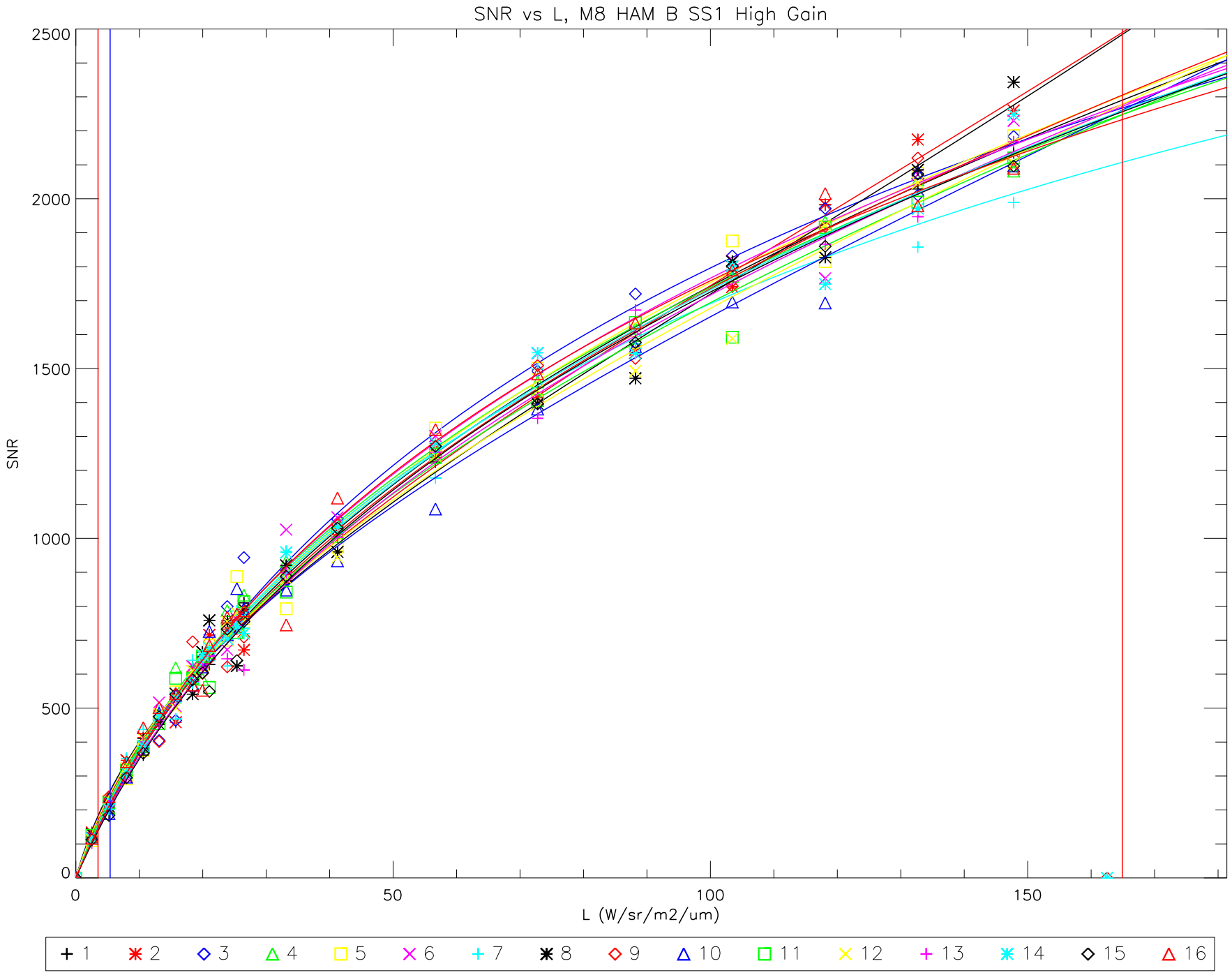

SNR vs dL, M7 HAM A SS1 High Gain
SNR residual
0.10
0.05
0.00
−0.05
−0.10
−0.15
5
10
15
20
25
30
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

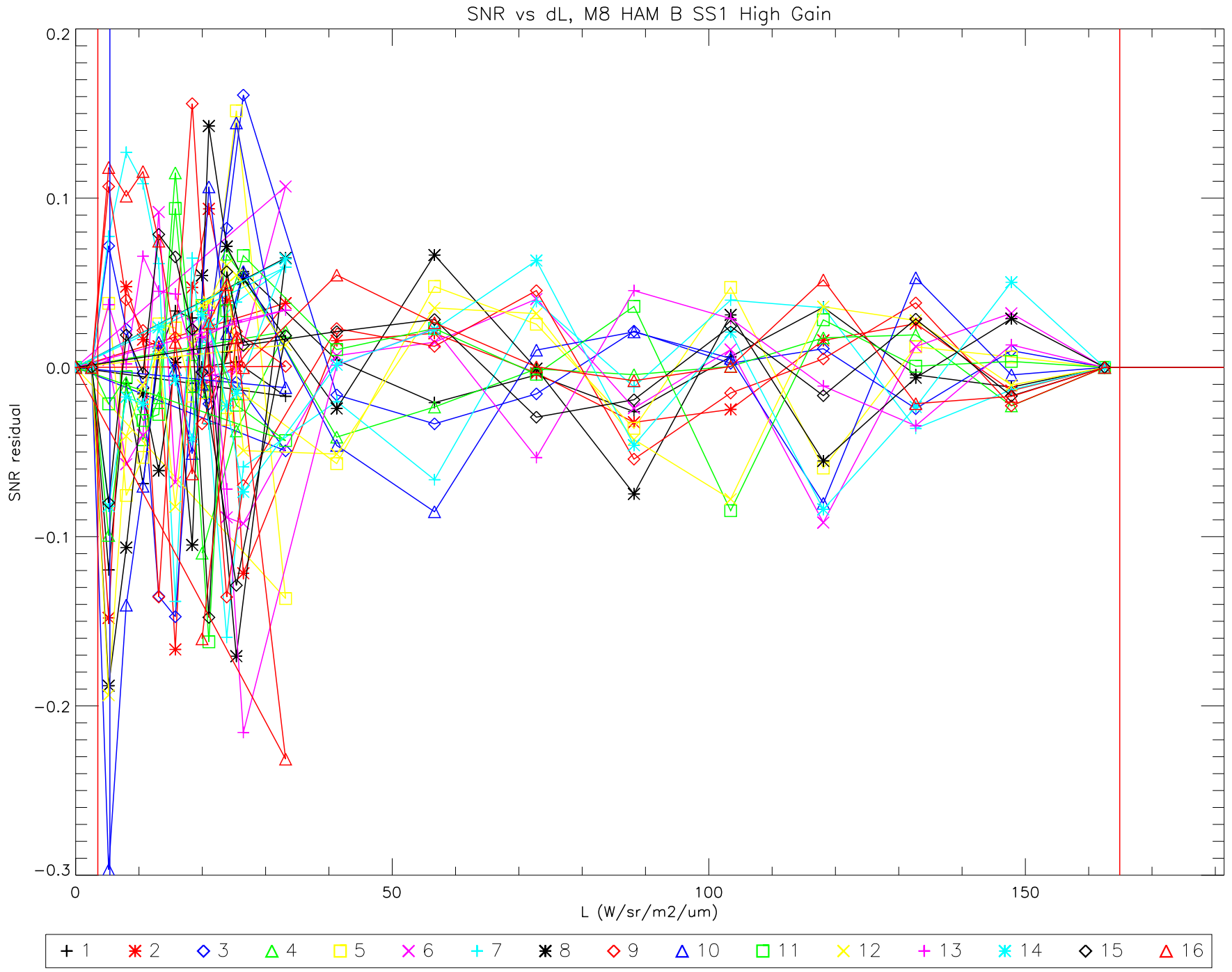

SNR vs L, M7 HAM B SS1 High Gain
SNR
L (W/sr/m2/um)
0
500
1000
1500
5
10
15
20
25
30
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

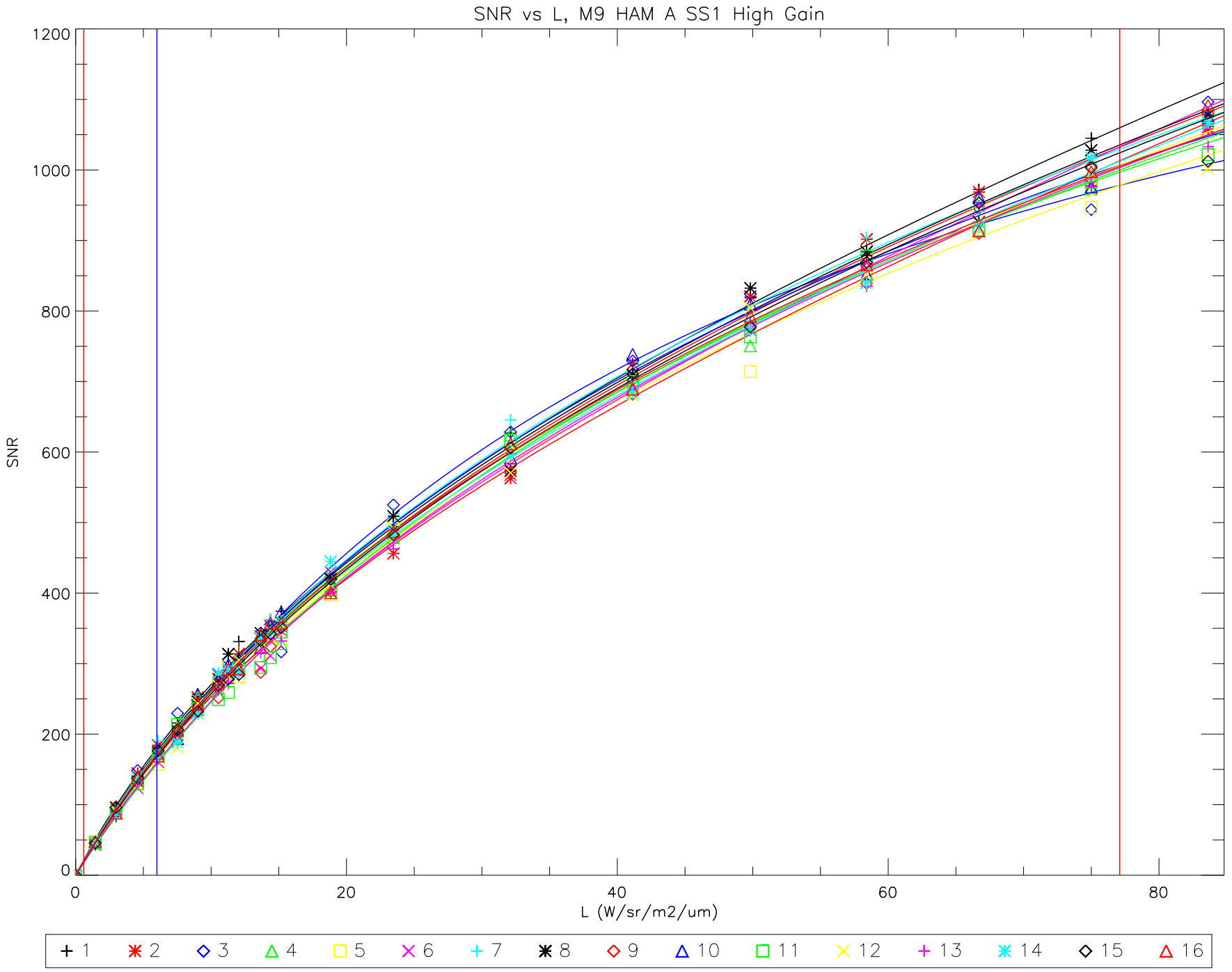

SNR vs dL, M7 HAM B SS1 High Gain
SNR residual
0.10
0.05
0.00
−0.05
−0.10
5
10
15
20
25
30
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

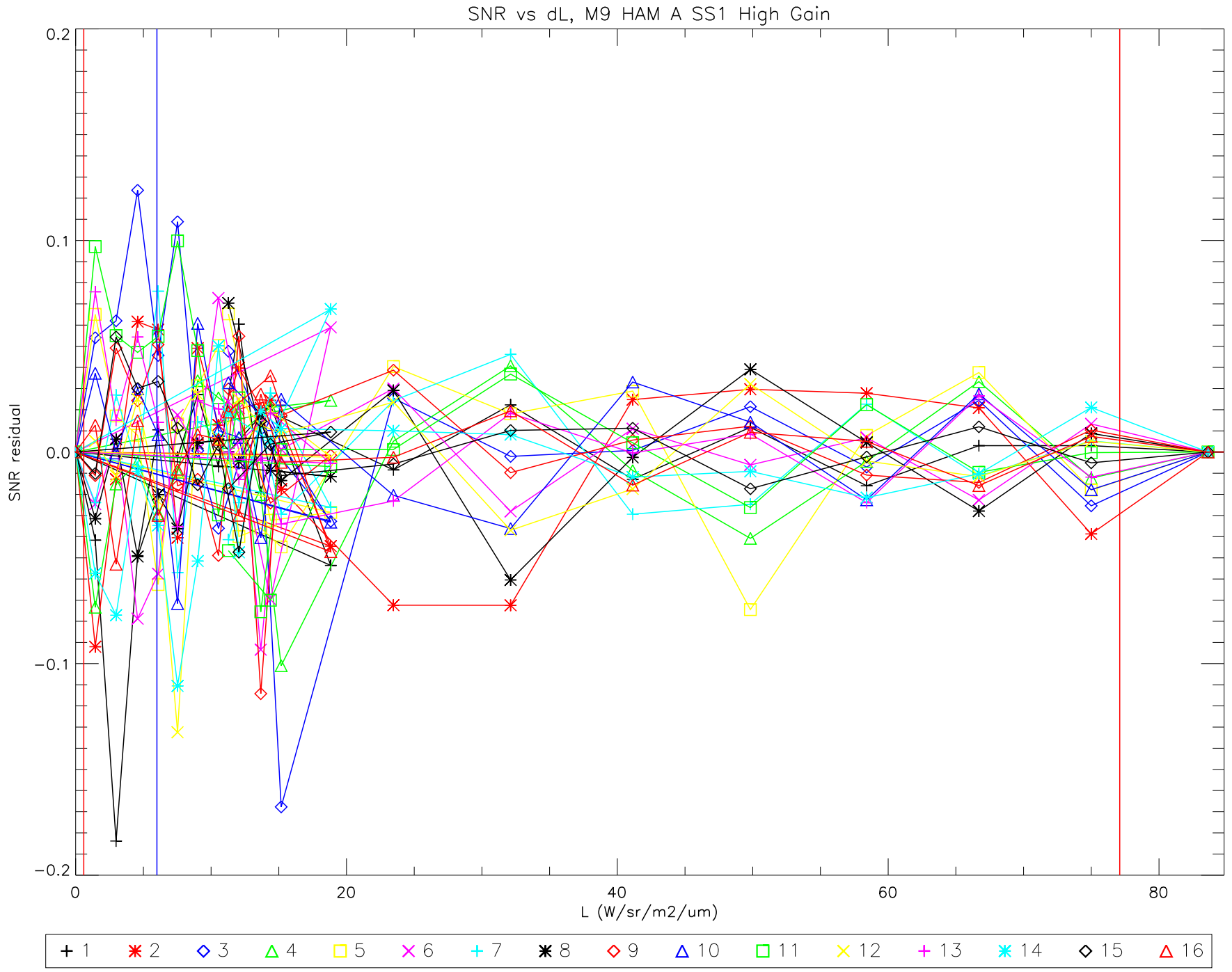

SNR vs L, M8 HAM A SS1 High Gain
SNR
L (W/sr/m2/um)
0
500
1000
1500
2000
2500
0
50
100
150
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

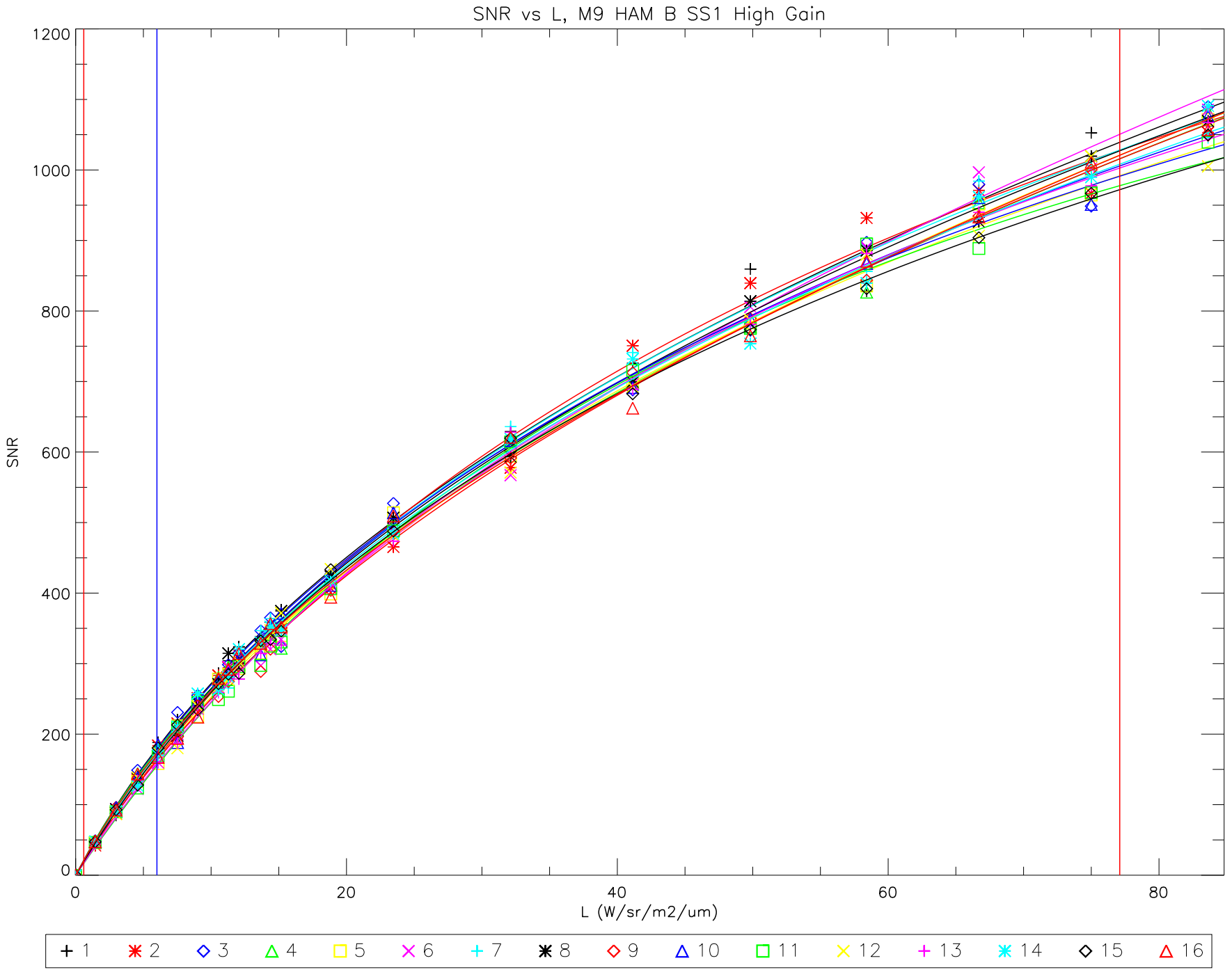

SNR vs dL, M8 HAM A SS1 High Gain
SNR residual
0.2
0.1
0.0
−0.1
−0.2
0
50
100
150
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

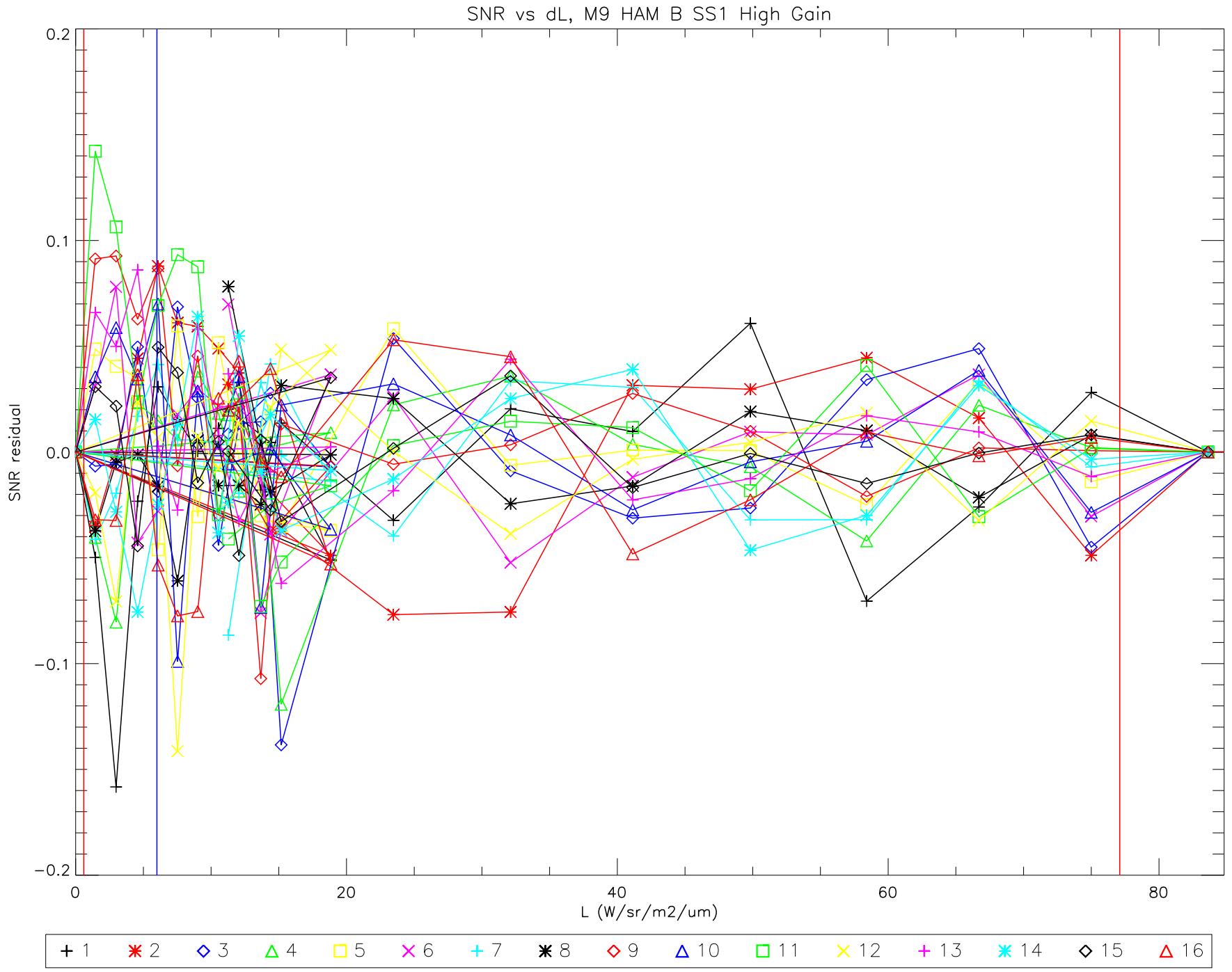

SNR vs L, M8 HAM B SS1 High Gain
SNR
L (W/sr/m2/um)
0
500
1000
1500
2000
2500
0
50
100
150
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

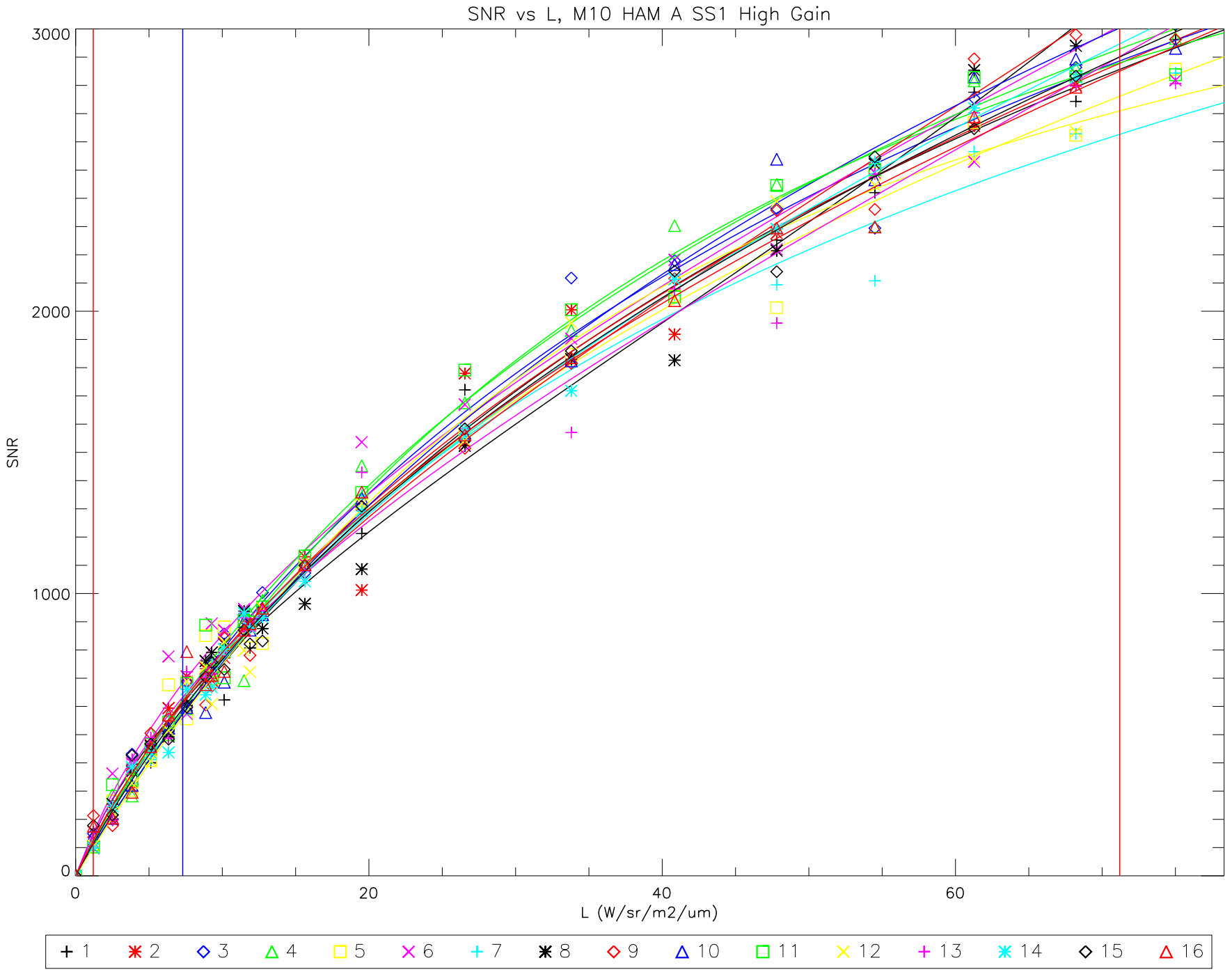

SNR vs dL, M8 HAM B SS1 High Gain
SNR residual
L (W/sr/m2/um)
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
50
100
150
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

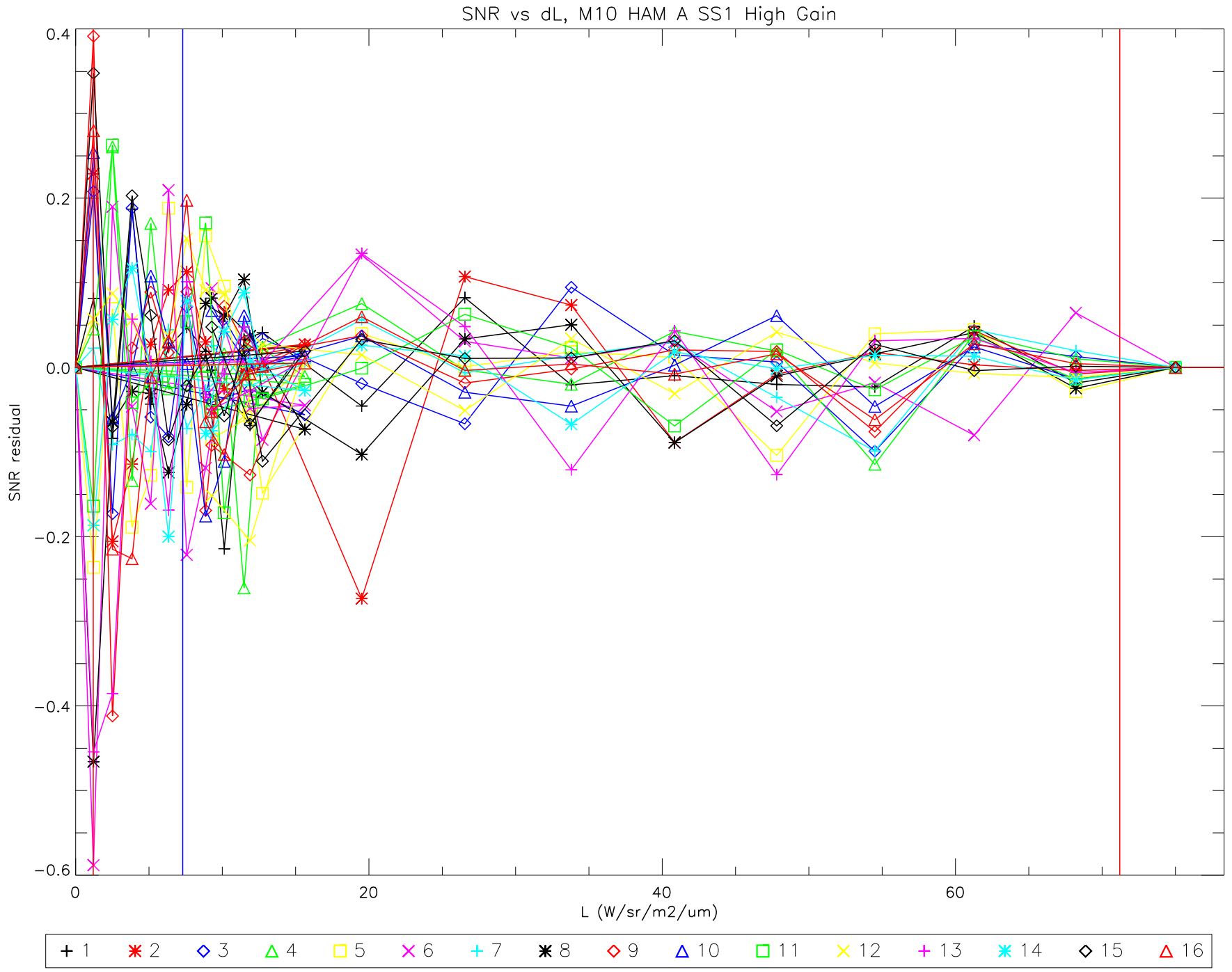

SNR vs L, M9 HAM A SS1 High Gain
SNR
L (W/sr/m2/um)
0
200
400
600
800
1000
1200
0
20
40
60
80
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

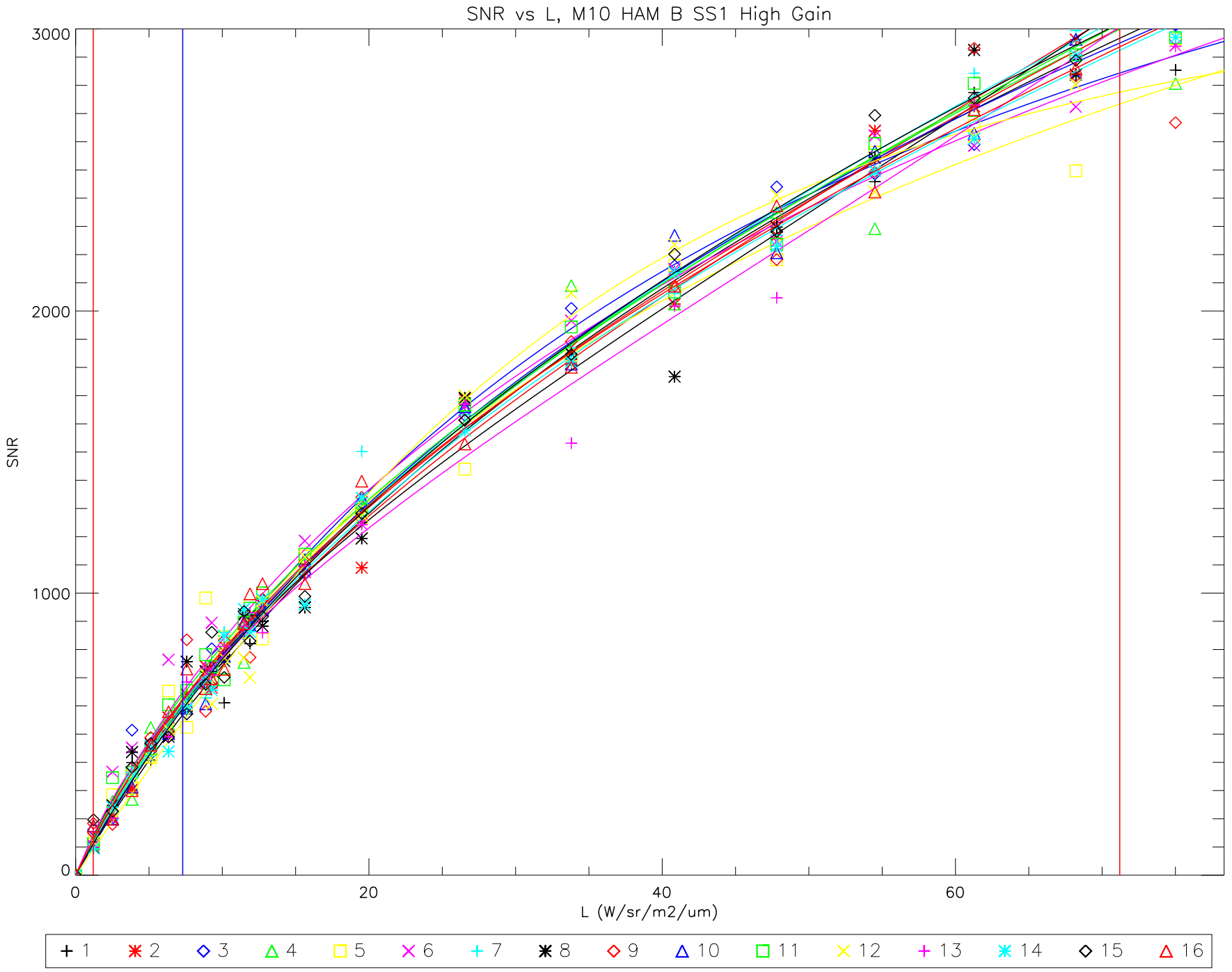

SNR vs dL, M9 HAM A SS1 High Gain
SNR residual
0.2
0.1
0.0
−0.1
−0.2
0
20
40
60
80
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

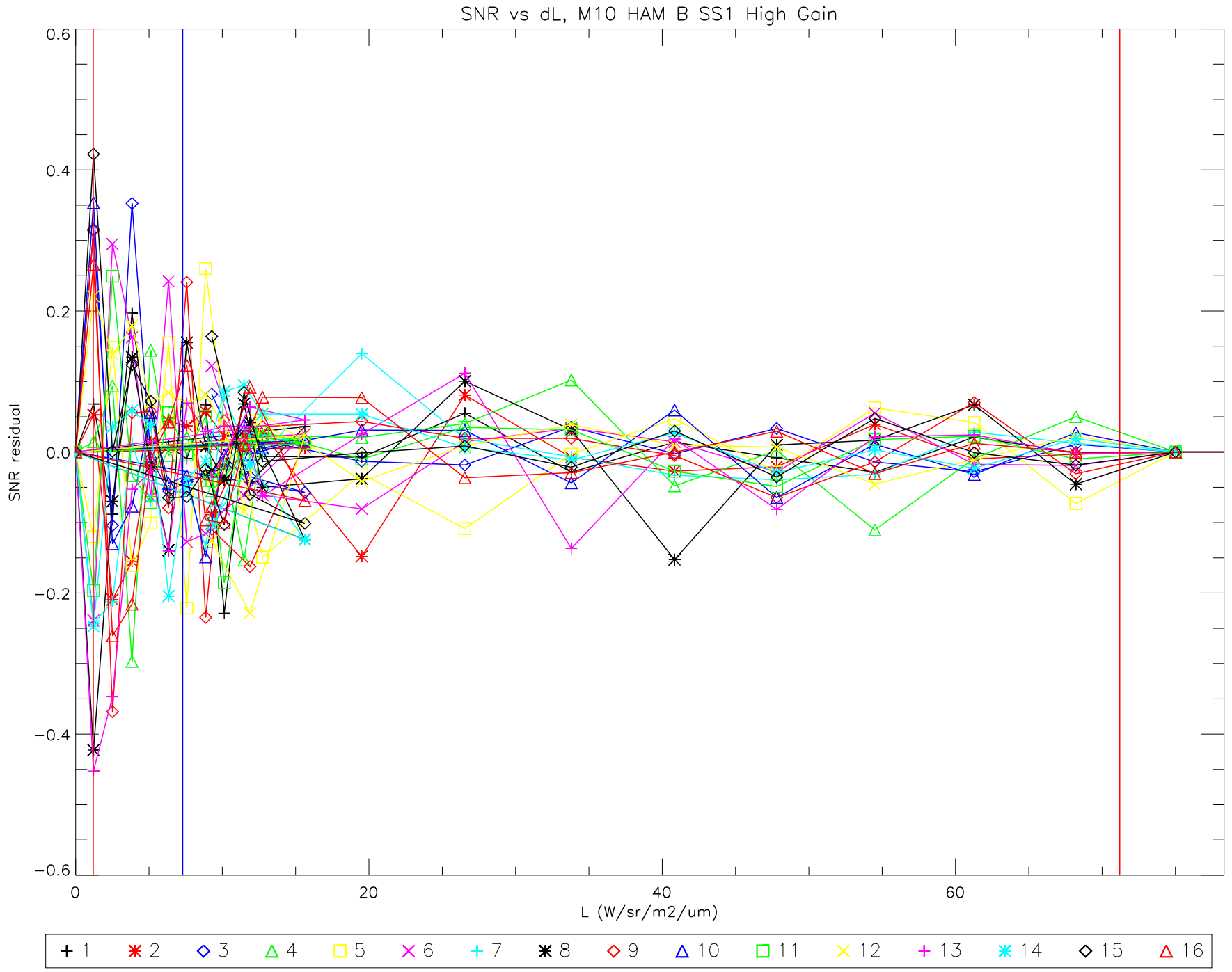

SNR vs L, M9 HAM B SS1 High Gain
SNR
L (W/sr/m2/um)
0
200
400
600
800
1000
1200
0
20
40
60
80
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

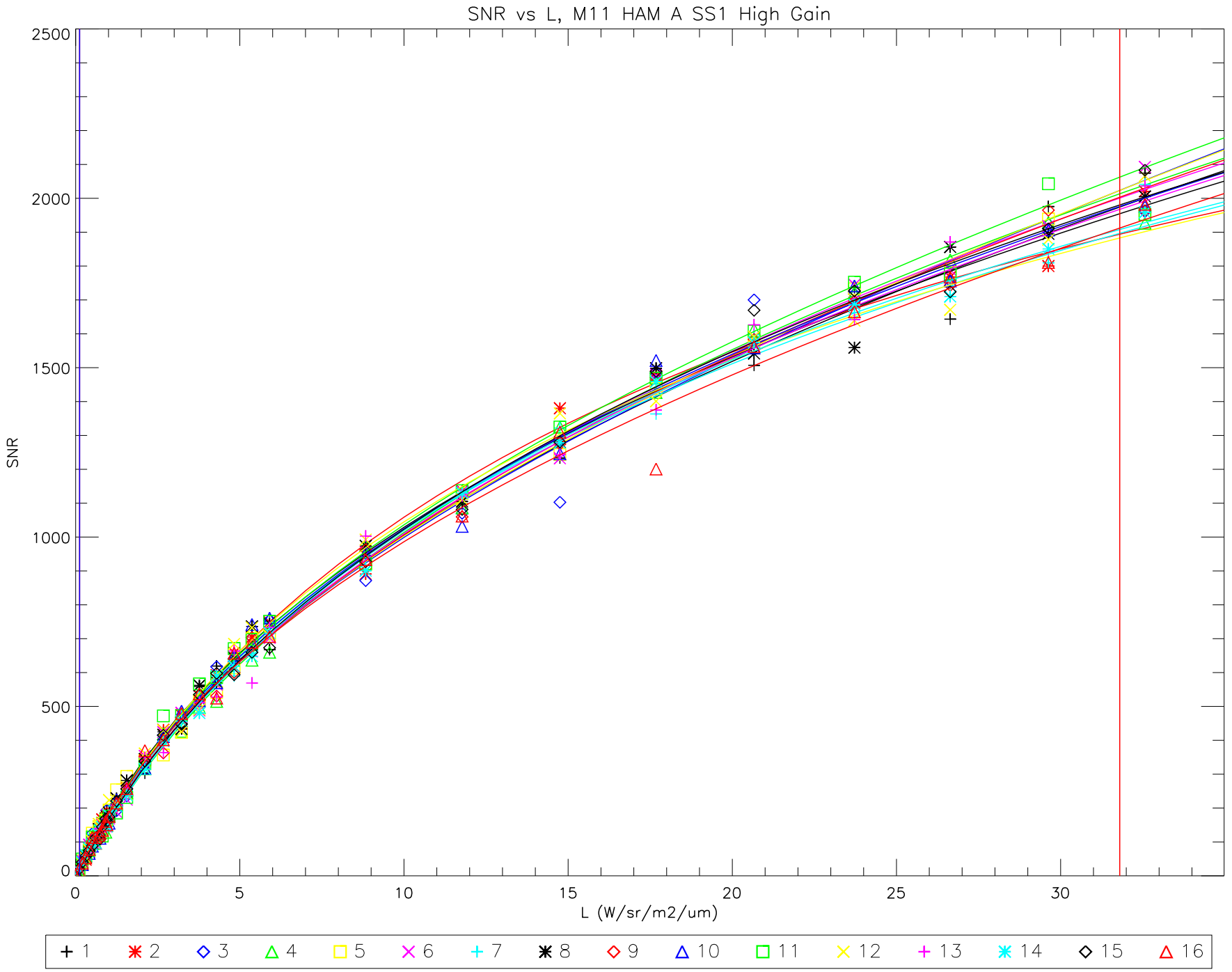

SNR vs dL, M9 HAM B SS1 High Gain
SNR residual
0.2
0.1
0.0
−0.1
−0.2
0
20
40
60
80
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

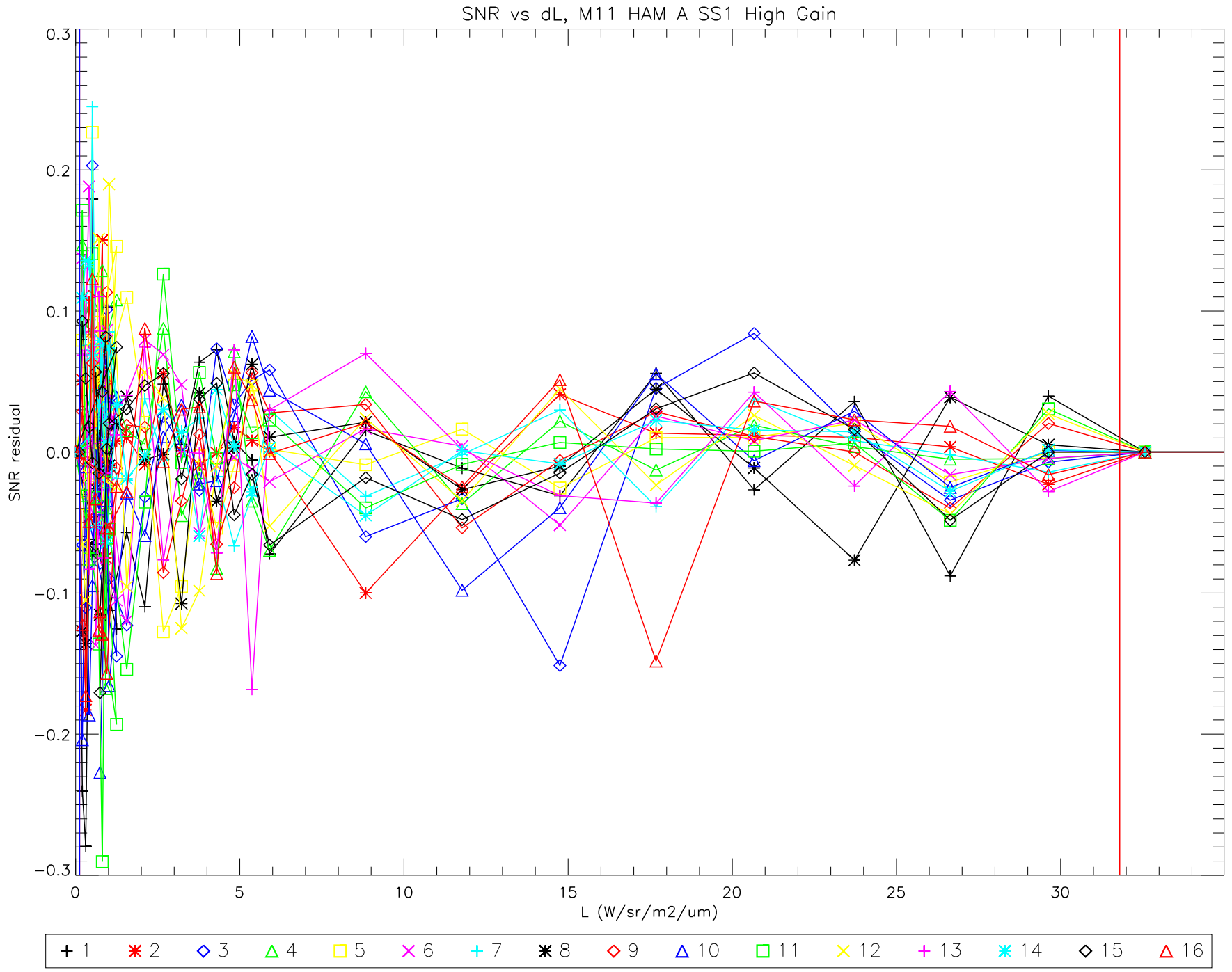

SNR vs L, M10 HAM A SS1 High Gain
SNR
L (W/sr/m2/um)
0
1000
2000
3000
0
20
40
60
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

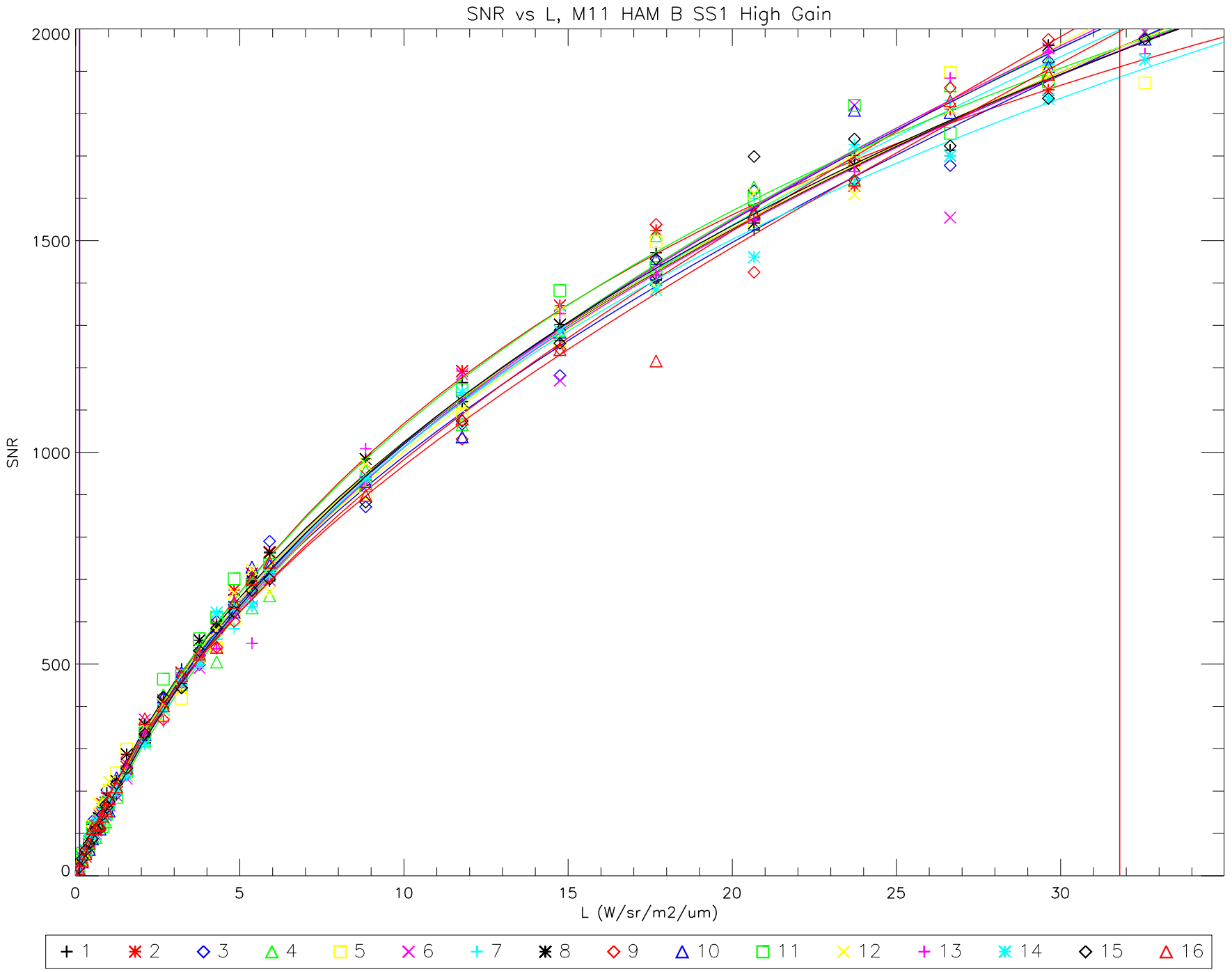

SNR vs dL, M10 HAM A SS1 High Gain
SNR residual
L (W/sr/m2/um)
0.4
0.2
0.0
−0.2
−0.4
−0.6
0
20
40
60
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

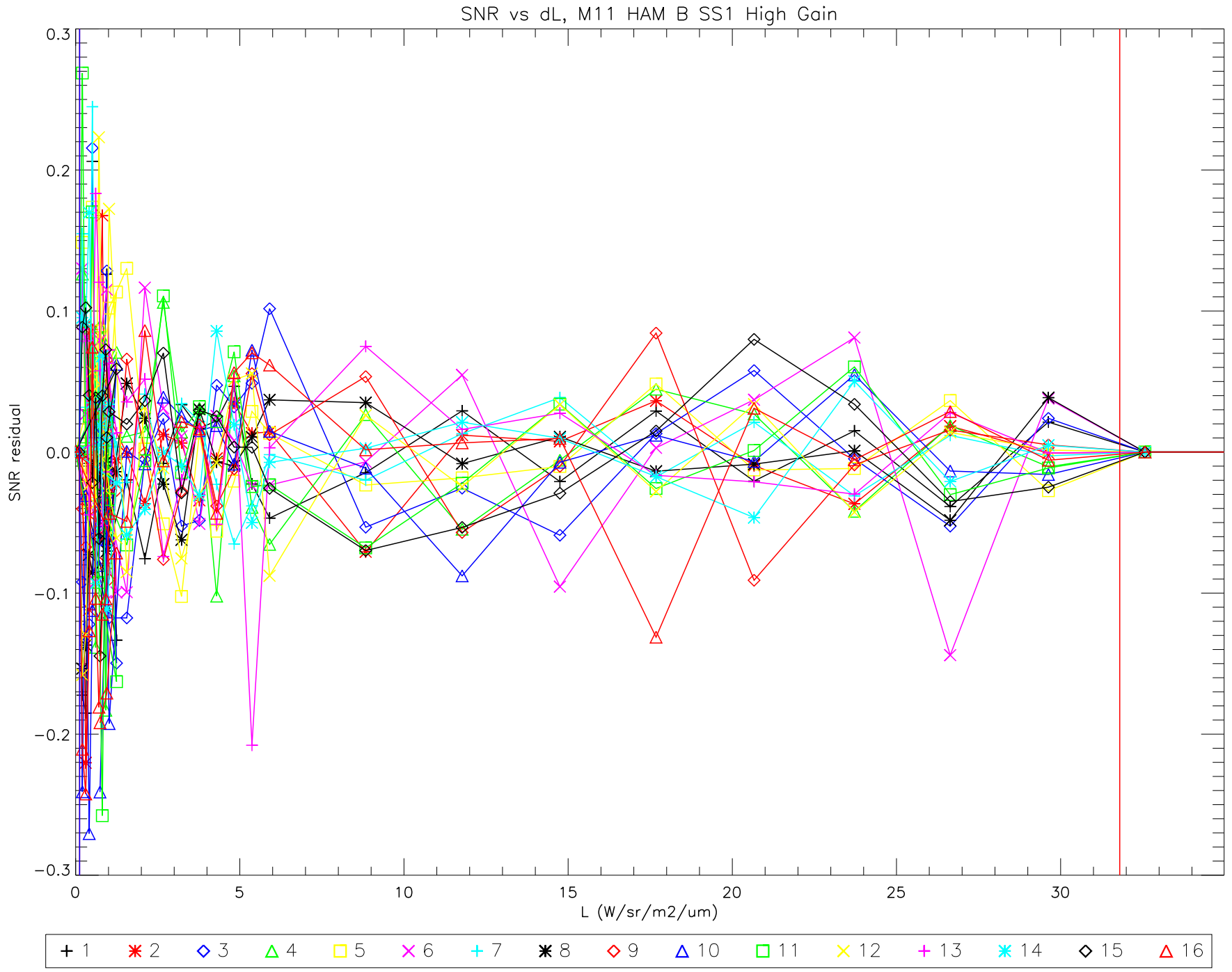

SNR vs L, M10 HAM B SS1 High Gain
SNR
L (W/sr/m2/um)
0
1000
2000
3000
0
20
40
60
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

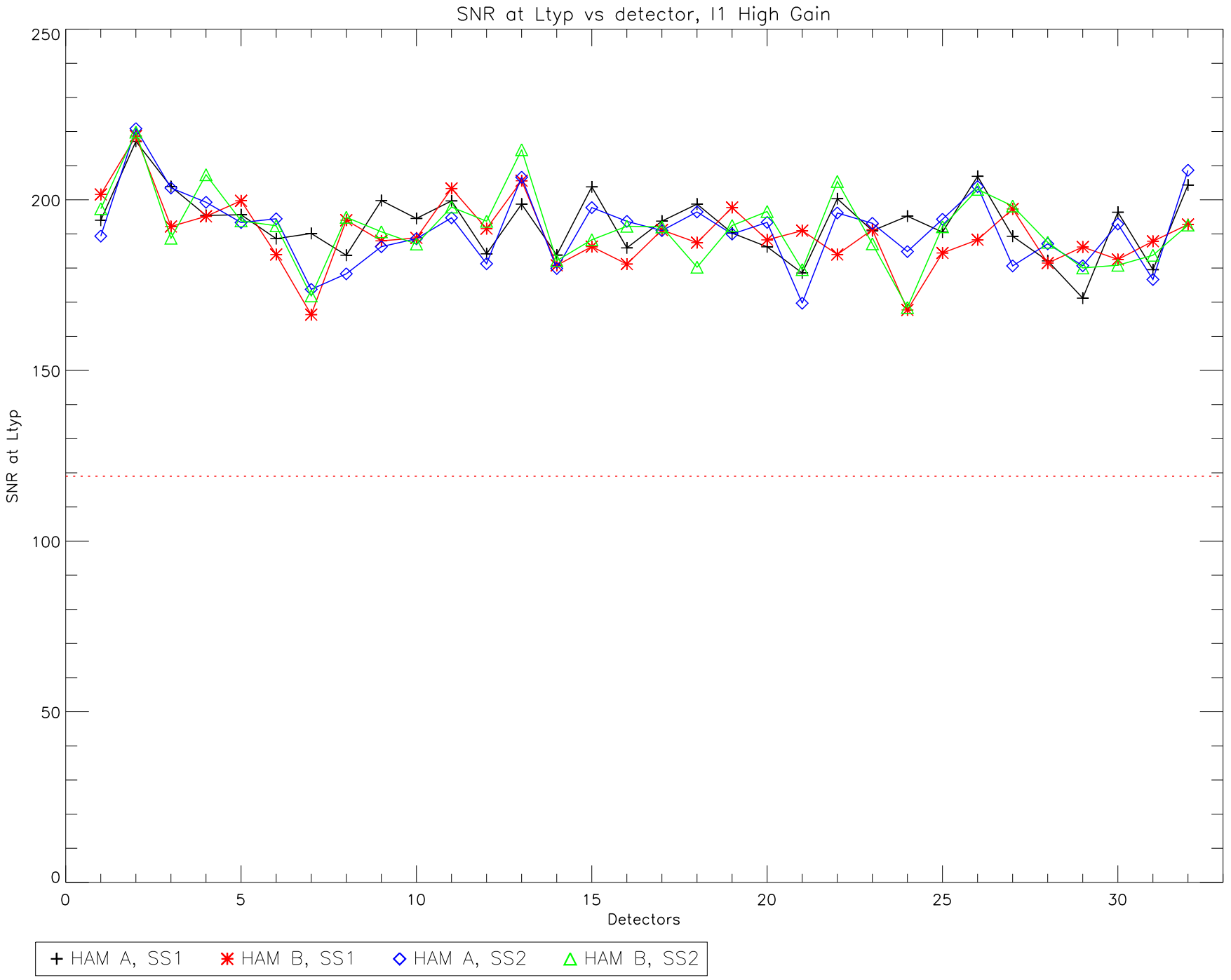

SNR vs dL, M10 HAM B SS1 High Gain
SNR residual
L (W/sr/m2/um)
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6
0
20
40
60
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

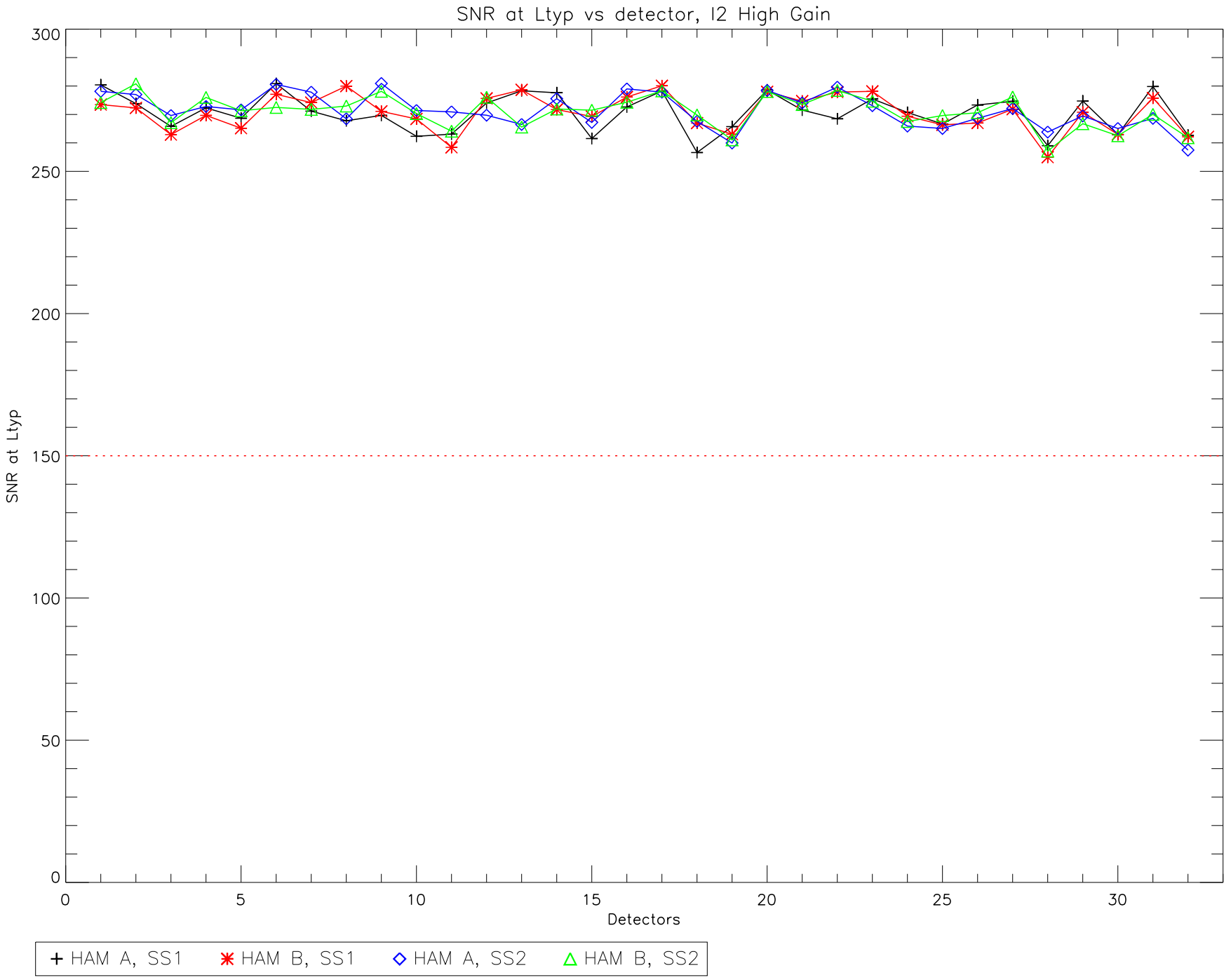

SNR vs L, M11 HAM A SS1 High Gain
SNR
L (W/sr/m2/um)
0
500
1000
1500
2000
2500
0
5
10
15
20
25
30
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

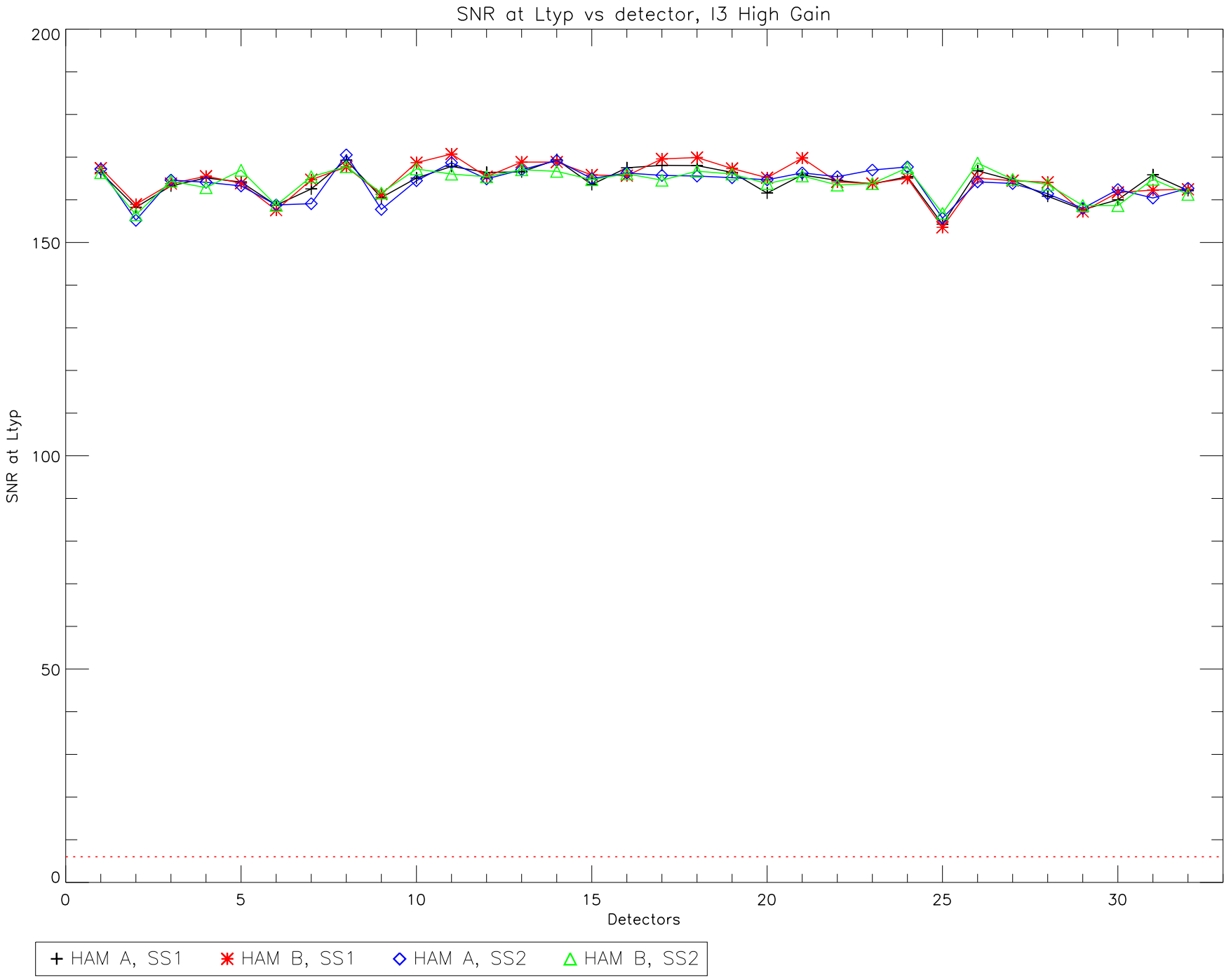

SNR vs dL, M11 HAM A SS1 High Gain
SNR residual
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
5
10
15
20
25
30
L (W/sr/m2/um)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

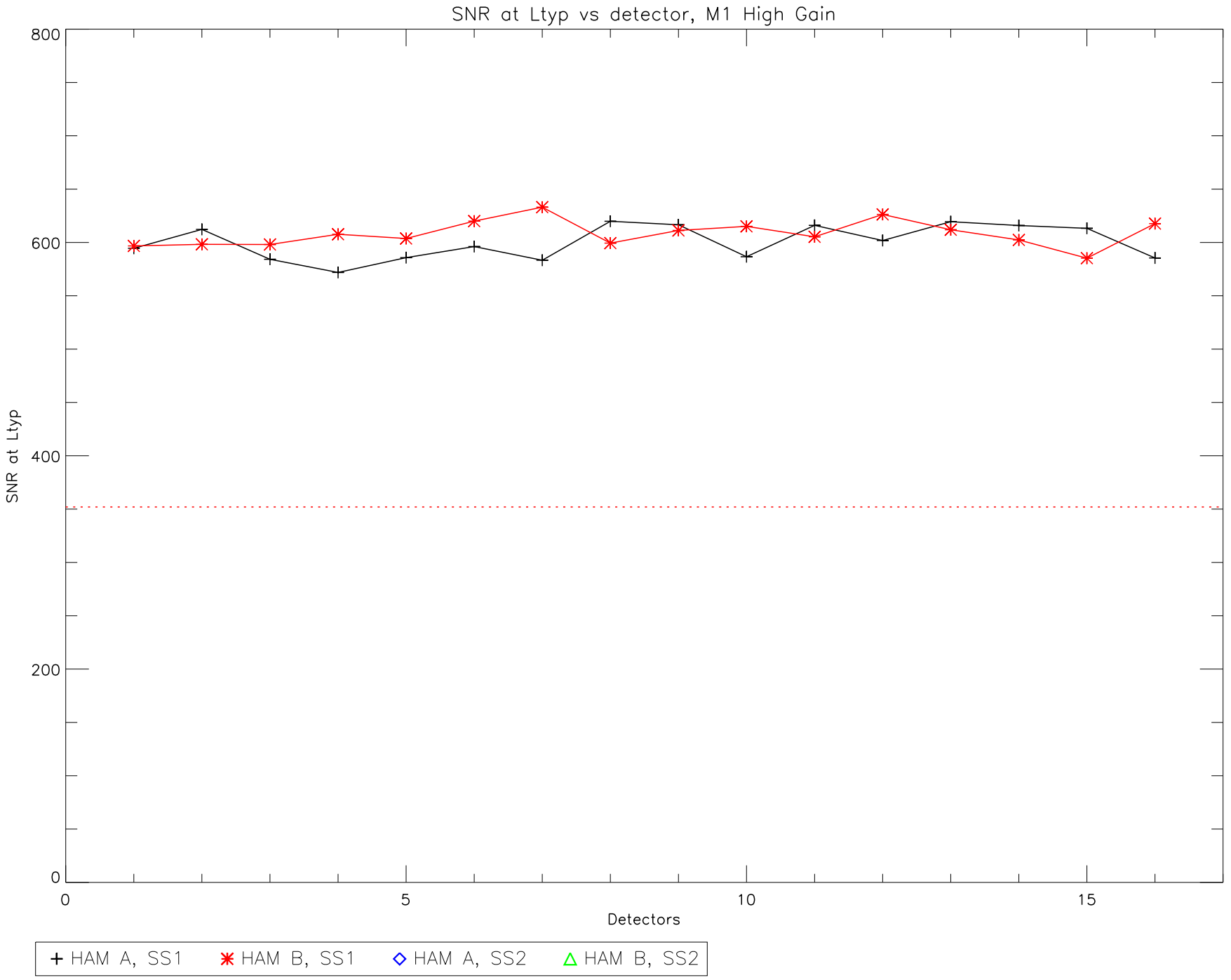

SNR vs L, M11 HAM B SS1 High Gain
SNR
L (W/sr/m2/um)
0
500
1000
1500
2000
0
5
10
15
20
25
30
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

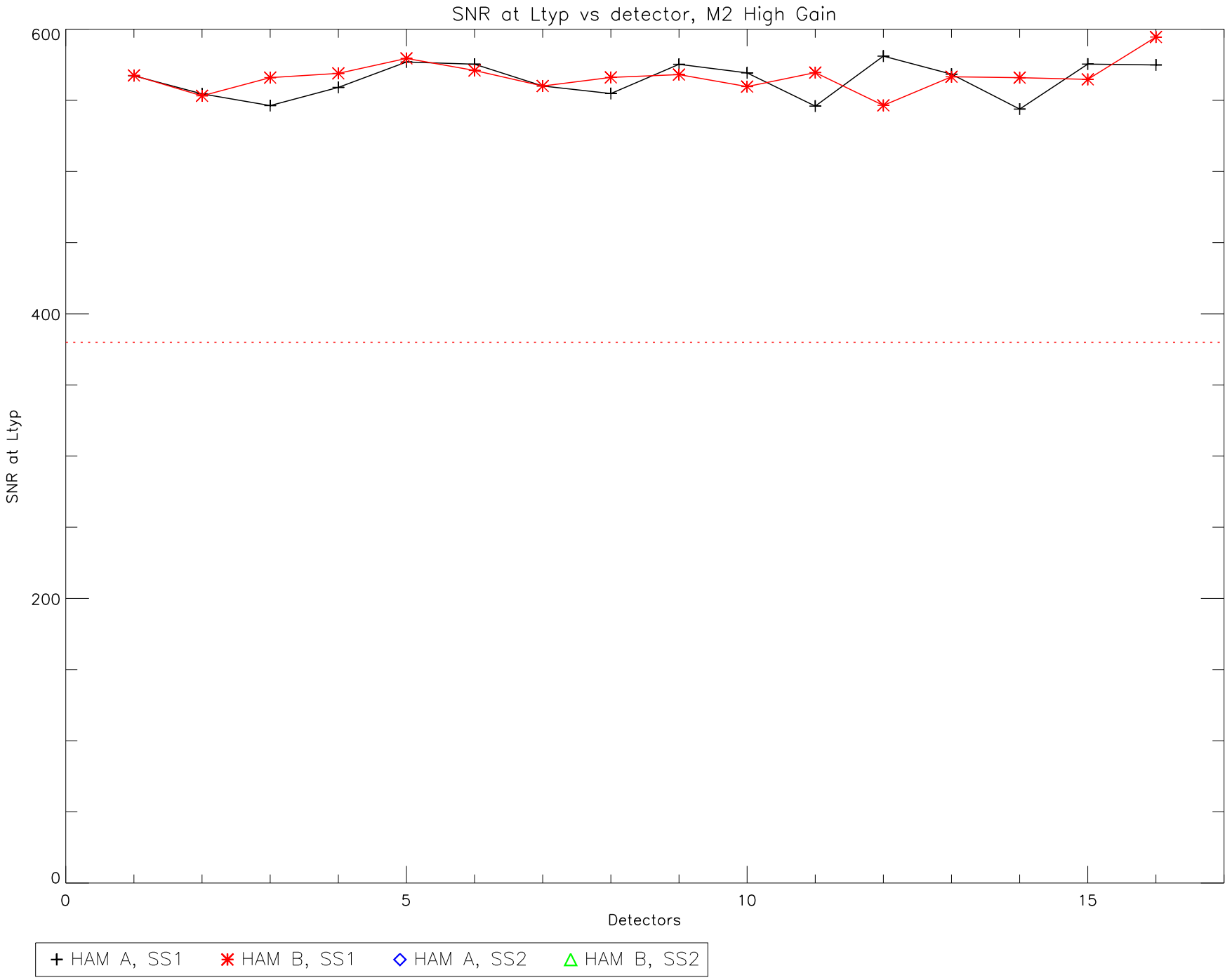

SNR vs dL, M11 HAM B SS1 High Gain
SNR residual
L (W/sr/m2/um)
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
5
10
15
20
25
30
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

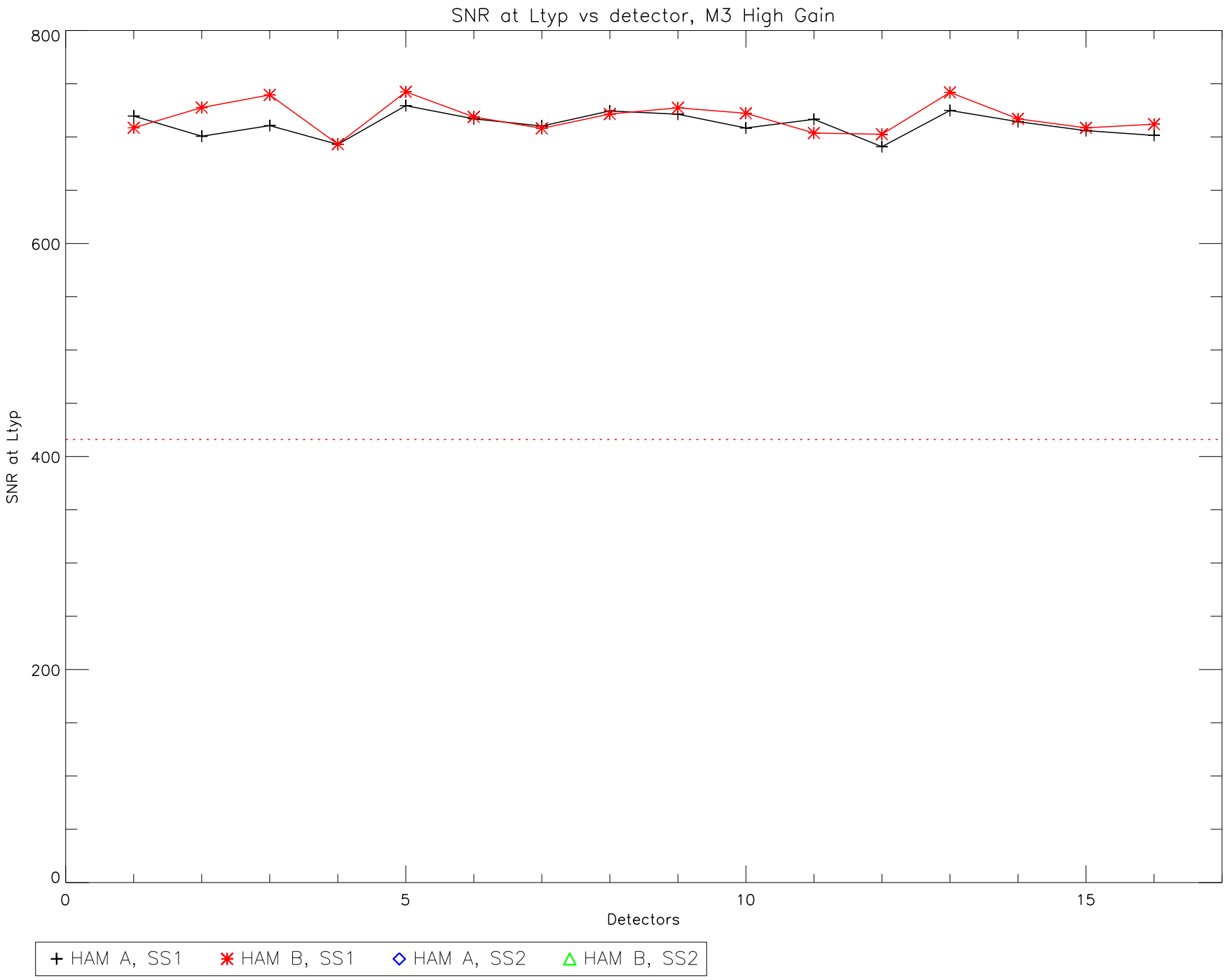

SNR at Ltyp vs detector, I1 High Gain
250
200
150
100
50
0
SNR at Ltyp
0
5
10
15
20
25
30
Detectors
HAM A, SS1
HAM B, SS1
HAM A, SS2
HAM B, SS2

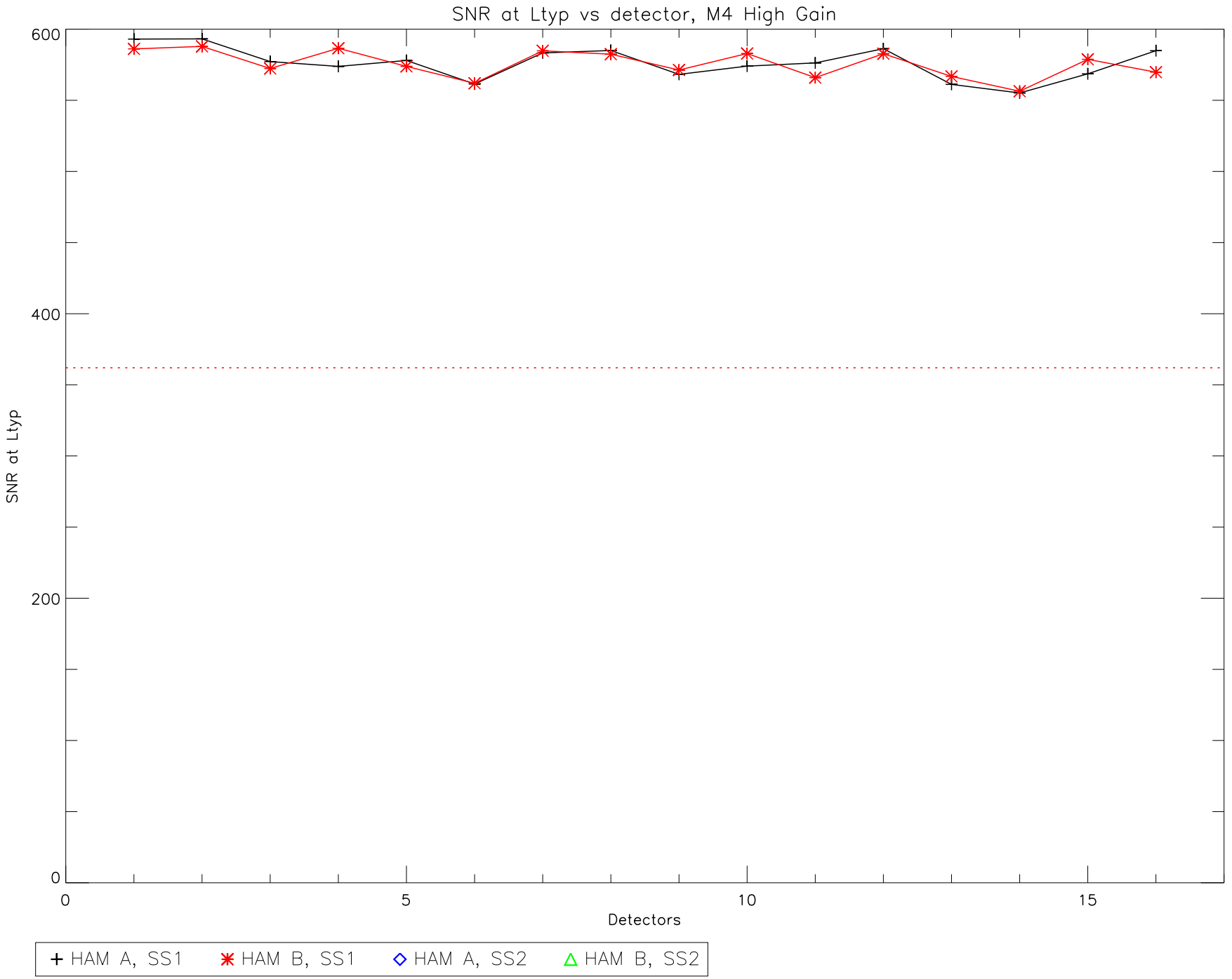

SNR at Ltyp vs detector, I2 High Gain
SNR at Ltyp
300
250
200
150
100
50
0
0
5
10
15
20
25
30
Detectors
HAM A, SS1
HAM B, SS1
HAM A, SS2
HAM B, SS2

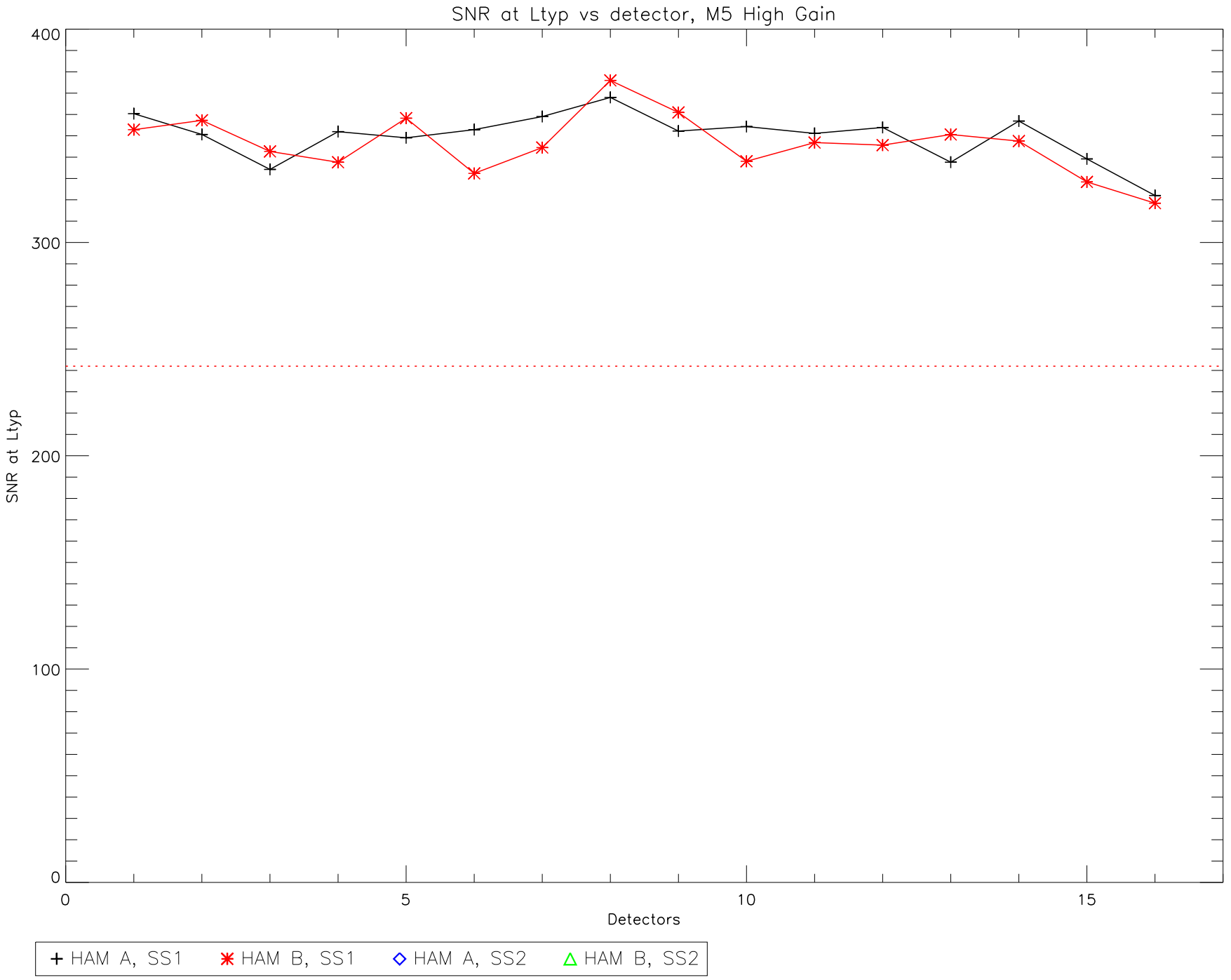

SNR at Ltyp vs detector, I3 High Gain
SNR at Ltyp
200
150
100
50
0
0
5
10
15
20
25
30
Detectors
HAM A, SS1
HAM B, SS1
HAM A, SS2
HAM B, SS2

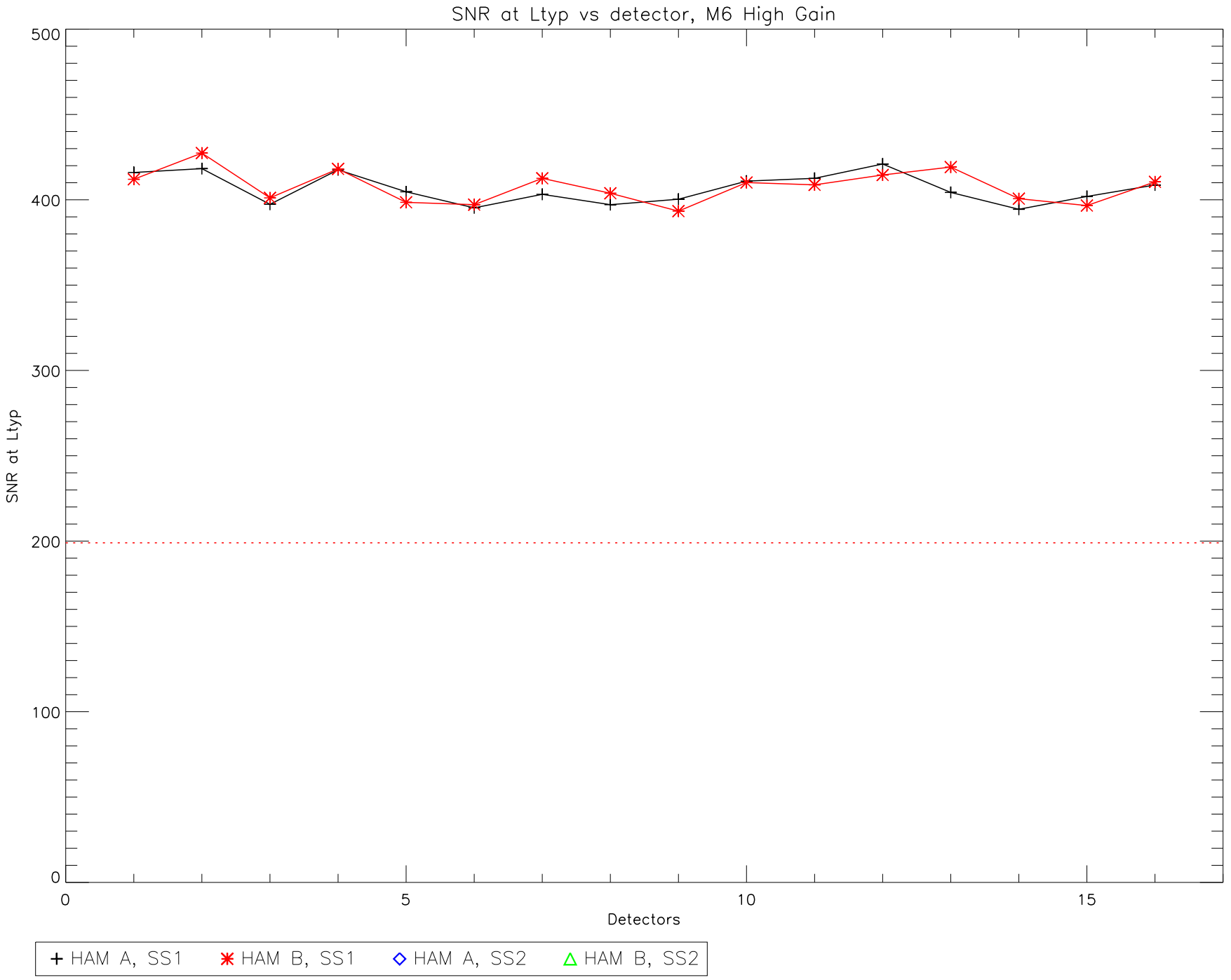

SNR at Ltyp vs detector, M1 High Gain
800
600
400
200
0
SNR at Ltyp
0
5
10
15
Detectors
HAM A, SS1
HAM B, SS1
HAM A, SS2
HAM B, SS2

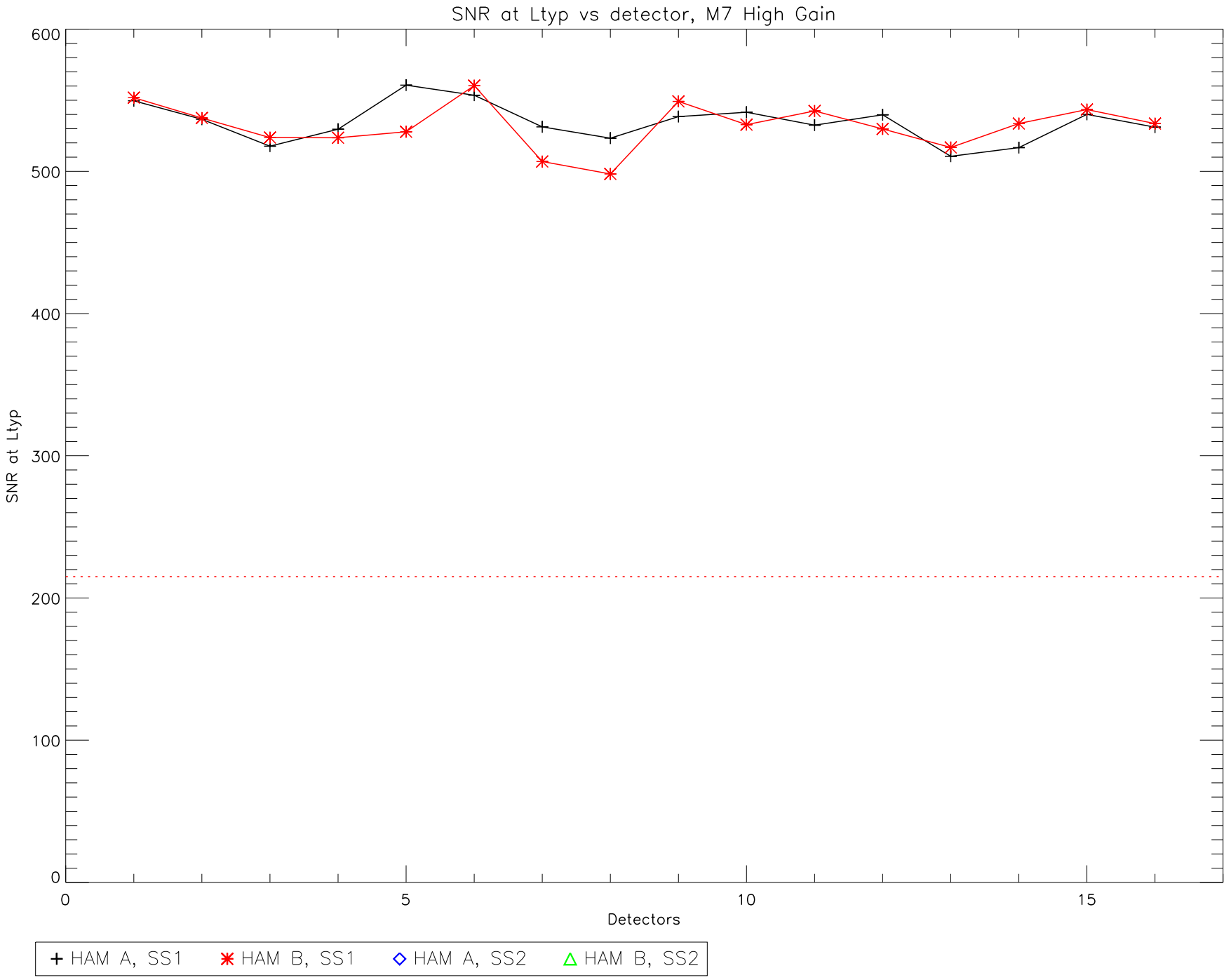

SNR at Ltyp vs detector, M2 High Gain
600
400
200
0
SNR at Ltyp
0
5
10
15
Detectors
HAM A, SS1
HAM B, SS1
HAM A, SS2
HAM B, SS2

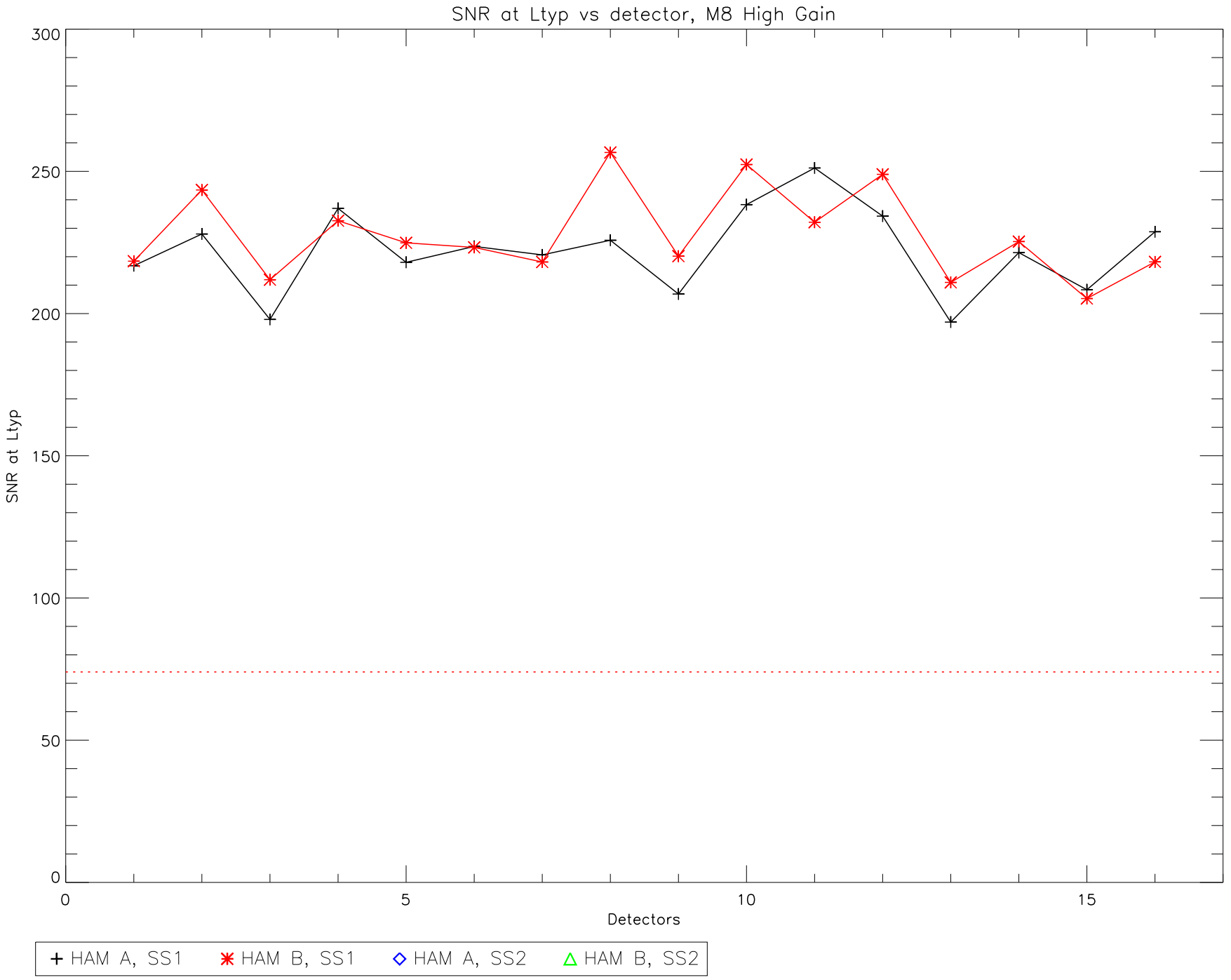

SNR at Ltyp vs detector, M3 High Gain
800
600
400
200
0
SNR at Ltyp
0
5
10
15
Detectors
HAM A, SS1
HAM B, SS1
HAM A, SS2
HAM B, SS2

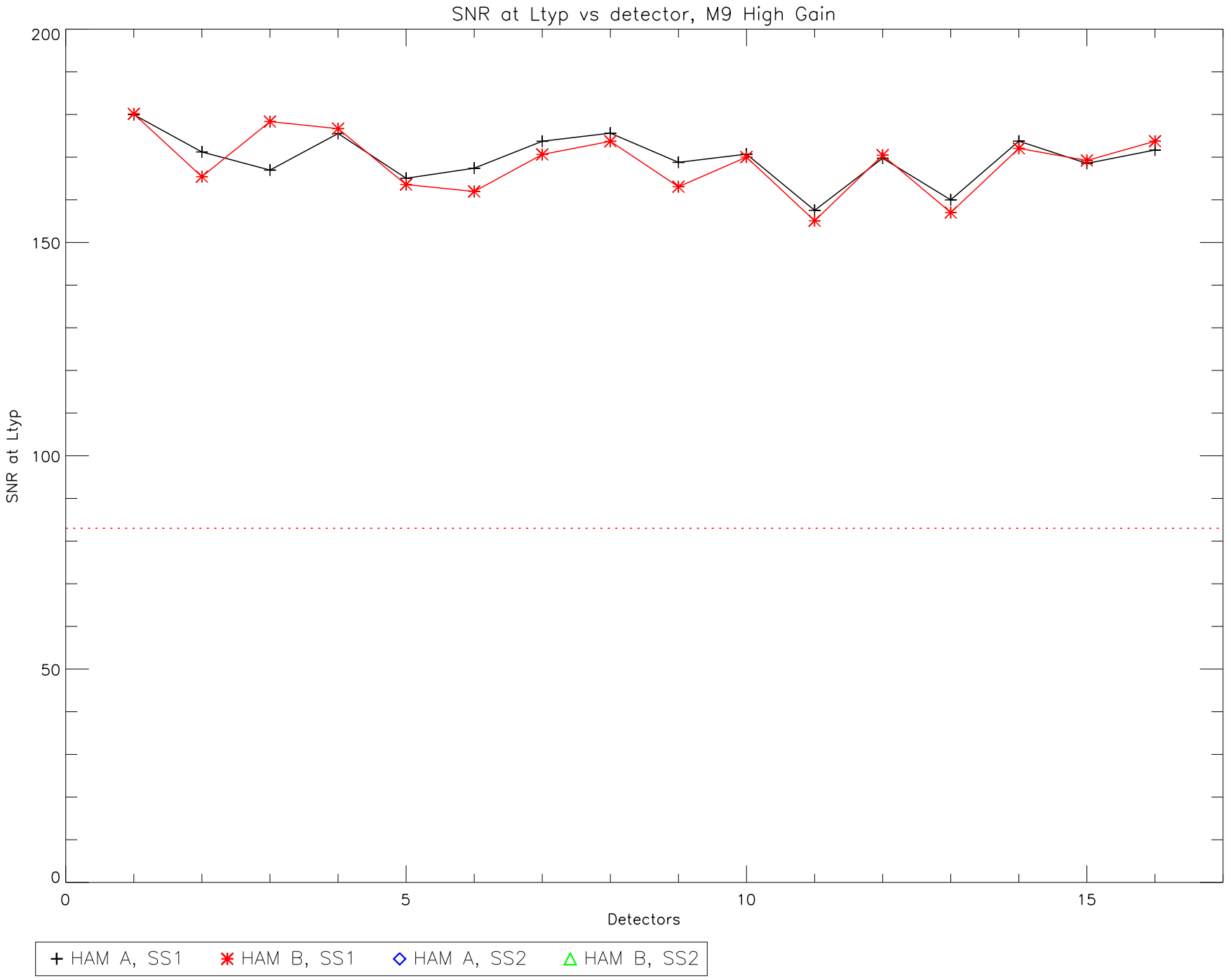

SNR at Ltyp vs detector, M4 High Gain
600
400
200
0
SNR at Ltyp
0
5
10
15
Detectors
HAM A, SS1
HAM B, SS1
HAM A, SS2
HAM B, SS2

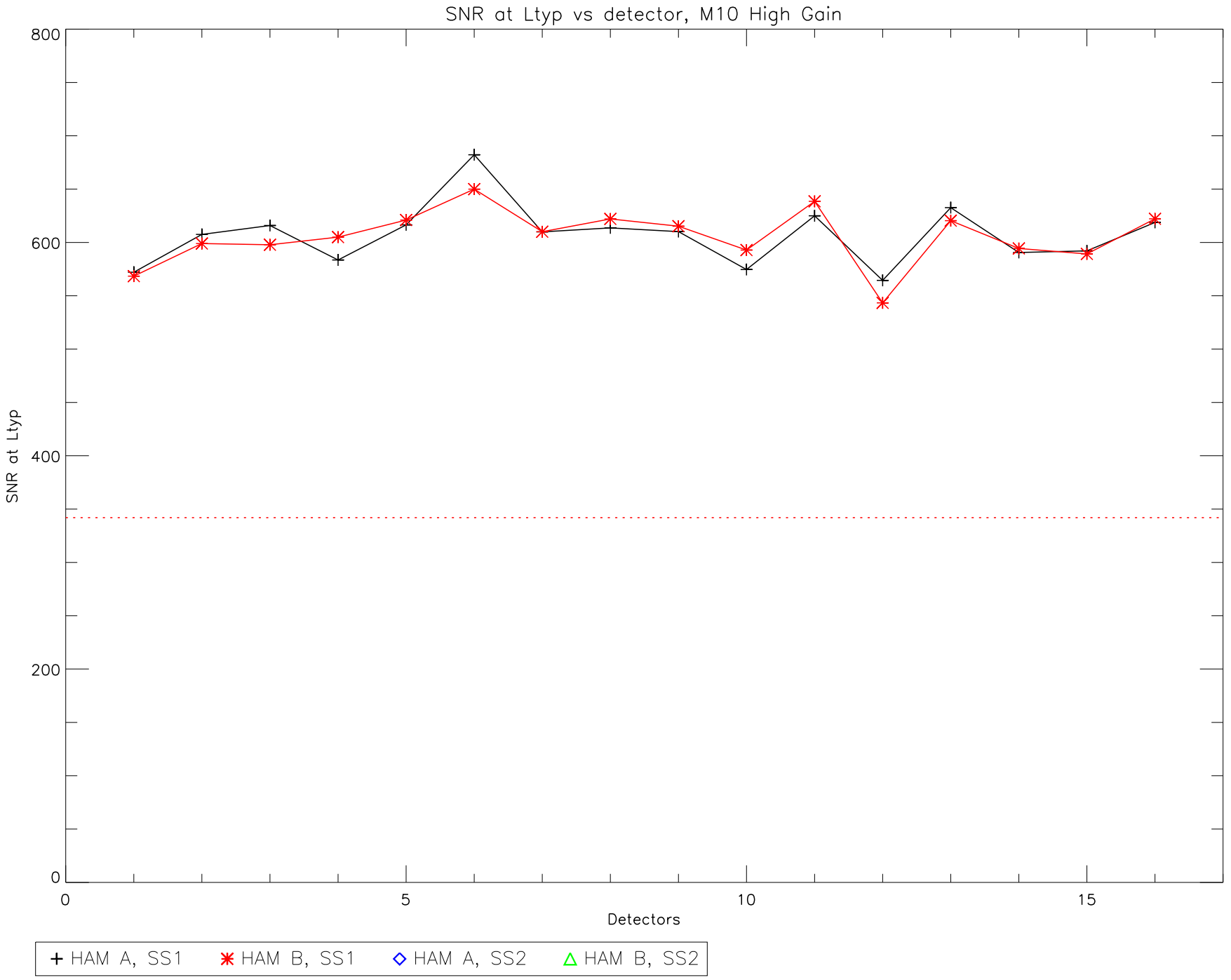

SNR at Ltyp vs detector, M5 High Gain
400
300
200
100
0
SNR at Ltyp
0
5
10
15
Detectors
HAM A, SS1
HAM B, SS1
HAM A, SS2
HAM B, SS2

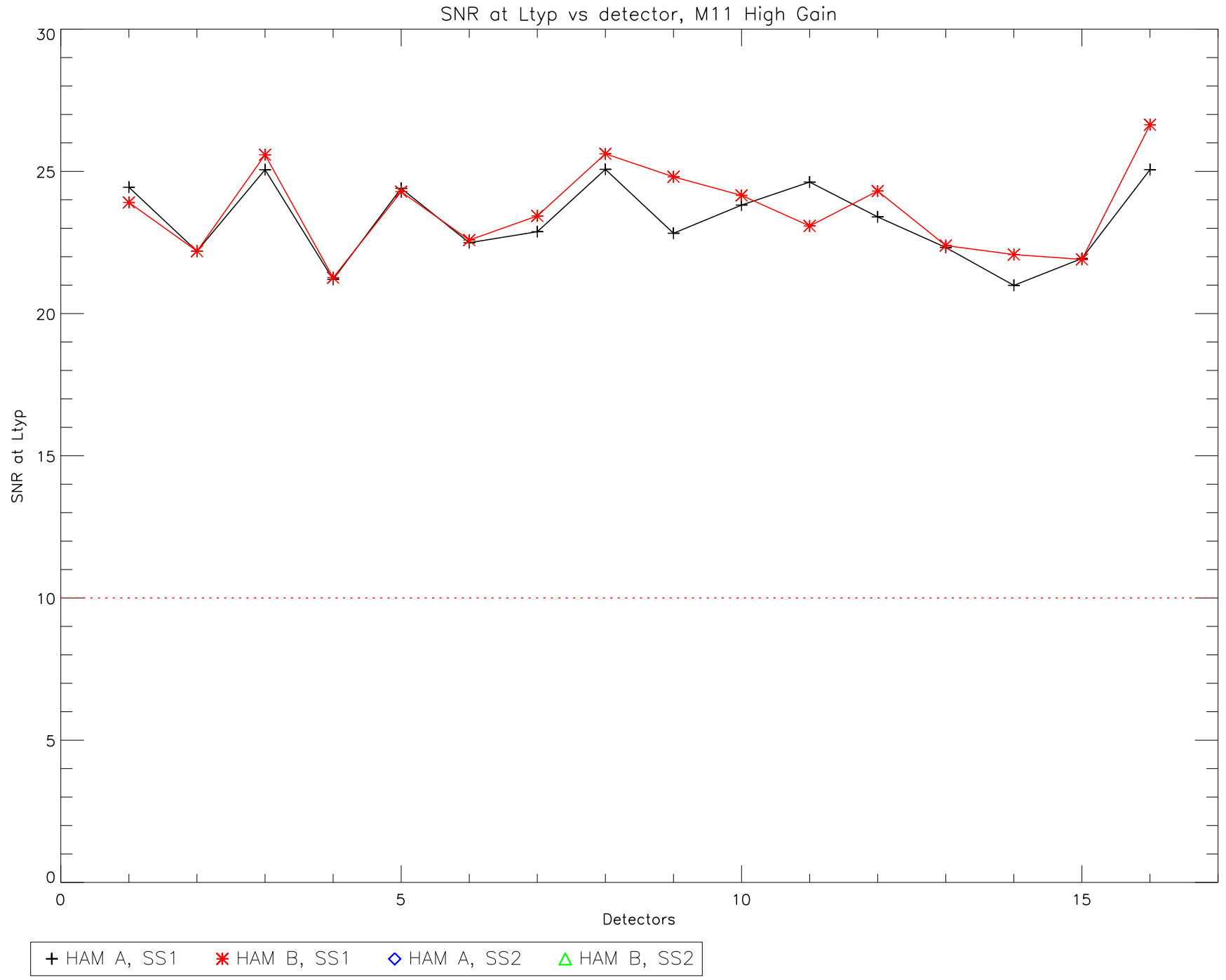

SNR at Ltyp vs detector, M6 High Gain
500
400
300
200
100
0
SNR at Ltyp
0
5
10
15
Detectors
HAM A, SS1
HAM B, SS1
HAM A, SS2
HAM B, SS2


SNR at Ltyp vs detector, M7 High Gain
SNR at Ltyp
600
500
400
300
200
100
0
0
5
10
15
Detectors
HAM A, SS1
HAM B, SS1
HAM A, SS2
HAM B, SS2


SNR at Ltyp vs detector, M8 High Gain
300
250
200
150
100
50
0
SNR at Ltyp
0
5
10
15
Detectors
HAM A, SS1
HAM B, SS1
HAM A, SS2
HAM B, SS2


SNR at Ltyp vs detector, M9 High Gain
200
150
100
50
0
SNR at Ltyp
0
5
10
15
Detectors
HAM A, SS1
HAM B, SS1
HAM A, SS2
HAM B, SS2


SNR at Ltyp vs detector, M10 High Gain
800
600
400
200
0
SNR at Ltyp
0
5
10
15
Detectors
HAM A, SS1
HAM B, SS1
HAM A, SS2
HAM B, SS2


SNR at Ltyp vs detector, M11 High Gain
SNR at Ltyp
Detectors
0
5
10
15
20
25
30
HAM A, SS1
HAM B, SS1
HAM A, SS2
HAM B, SS2