**Pyramidal (L4) to Other Cell Types**

Pyramidal to PV

| **Source (L4)** | **Target Layer** | **Target Cell Type** | **Synaptic Weight** | **Delay (ms)** | **Target Sections** |
| --- | --- | --- | --- | --- | --- |
| Pyramidal | L2 | PV | 0.02 | 1.9 | ['somatic', 'basal'] |
| Pyramidal | L5 | PV | 0.02 | 1.1 | ['somatic', 'basal'] |
| Pyramidal | L6 | PV | 0.02 | 1.5 | ['somatic', 'basal'] |

Pyramidal to SST

| **Source (L4)** | **Target Layer** | **Target Cell Type** | **Synaptic Weight** | **Delay (ms)** | **Target Sections** |
| --- | --- | --- | --- | --- | --- |
| Pyramidal | L2 | SST | 0.015 | 2.2 | ['somatic', 'basal'] |
| Pyramidal | L5 | SST | 0.015 | 1.4 | ['somatic', 'basal'] |
| Pyramidal | L6 | SST | 0.015 | 1.8 | ['somatic', 'basal'] |

Pyramidal to VIP

| **Source (L4)** | **Target Layer** | **Target Cell Type** | **Synaptic Weight** | **Delay (ms)** | **Target Sections** |
| --- | --- | --- | --- | --- | --- |
| Pyramidal | L2 | VIP | 0.02 | 2.2 | ['somatic', 'basal'] |
| Pyramidal | L5 | VIP | 0.02 | 1.4 | ['somatic', 'basal'] |
| Pyramidal | L6 | VIP | 0.02 | 1.8 | ['somatic', 'basal'] |

**Pyramidal (L4) to Pyramidal (Other Layers)**

| **Source (L4)** | **Target Layer** | **Target Cell Type** | **Synaptic Weight** | **Delay (ms)** | **Target Sections** |
| --- | --- | --- | --- | --- | --- |
| Pyramidal | L2 | Pyramidal | 0.00035 \* EE\_L4\_L2 = 0.00035 \* 6 | 2.3 | ['basal', 'apical'] |
| Pyramidal | L5 | Pyramidal | 0.00035 \* EE\_L4\_L5 = 0.00035 \* 5 | 1.5 | ['basal', 'apical'] |
| Pyramidal | L6 | Pyramidal | 0.00035 \* EE\_L4\_L6 = 0.00035 \* 5 | 1.9 | ['basal', 'apical'] |

**PV (L4) to Other Cell Types**

PV to Pyramidal

| **Source (L4)** | **Target Layer** | **Target Cell Type** | **Synaptic Weight** | **Delay (ms)** | **Target Sections** |
| --- | --- | --- | --- | --- | --- |
| PV | L2 | Pyramidal | 0.0024 \* IE\_L4\_L2 = 0.0024 \* 2 | 1.6 | ['somatic', 'basal', 'apical'] |
| PV | L5 | Pyramidal | 0.0024 \* IE\_L4\_L5 = 0.0024 \* 1 | 0.8 | ['somatic', 'basal', 'apical'] |
| PV | L6 | Pyramidal | 0.0024 \* IE\_L4\_L6 = 0.0024 \* 1 | 1.2 | ['somatic', 'basal', 'apical'] |

PV to PV

| **Source (L4)** | **Target Layer** | **Target Cell Type** | **Synaptic Weight** | **Delay (ms)** | **Target Sections** |
| --- | --- | --- | --- | --- | --- |
| PV | L2 | PV | 0.0024 \* II\_L4\_L2 = 0.0024 \* 1 | 2.3 | ['somatic', 'basal'] |
| PV | L5 | PV | 0.0024 \* II\_L4\_L5 = 0.0024 \* 1 | 1.5 | ['somatic', 'basal'] |
| PV | L6 | PV | 0.0024 \* II\_L4\_L6 = 0.0024 \* 1 | 1.9 | ['somatic', 'basal'] |

PV to SST

| **Source (L4)** | **Target Layer** | **Target Cell Type** | **Synaptic Weight** | **Delay (ms)** | **Target Sections** |
| --- | --- | --- | --- | --- | --- |
| PV | L2 | SST | 0.0024 \* II\_L4\_L2 = 0.0024 \* 1 | 2.2 | ['basal'] |
| PV | L5 | SST | 0.0024 \* II\_L4\_L5 = 0.0024 \* 1 | 1.4 | ['basal'] |
| PV | L6 | SST | 0.0024 \* II\_L4\_L6 = 0.0024 \* 1 | 1.8 | ['basal'] |

PV to VIP

| **Source (L4)** | **Target Layer** | **Target Cell Type** | **Synaptic Weight** | **Delay (ms)** | **Target Sections** |
| --- | --- | --- | --- | --- | --- |
| PV | L2 | VIP | 0.0024 \* II\_L4\_L2 = 0.0024 \* 1 | 2.6 | ['somatic', 'basal'] |
| PV | L5 | VIP | 0.0024 \* II\_L4\_L5 = 0.0024 \* 1 | 1.1 | ['somatic', 'basal'] |
| PV | L6 | VIP | 0.0024 \* II\_L4\_L6 = 0.0024 \* 1 | 1.5 | ['somatic', 'basal'] |

**SST (L4) to Other Cell Types**

SST to Pyramidal

| **Source (L4)** | **Target Layer** | **Target Cell Type** | **Synaptic Weight** | **Delay (ms)** | **Target Sections** |
| --- | --- | --- | --- | --- | --- |
| SST | L2 | Pyramidal | 0.0024 \* 1 = 0.0024 | 2.2 | ['basal', 'apical'] |
| SST | L5 | Pyramidal | 0.0024 \* 1 = 0.0024 | 1.4 | ['basal', 'apical'] |
| SST | L6 | Pyramidal | 0.0024 \* 1 = 0.0024 | 1.8 | ['basal', 'apical'] |

SST to PV

| **Source (L4)** | **Target Layer** | **Target Cell Type** | **Synaptic Weight** | **Delay (ms)** | **Target Sections** |
| --- | --- | --- | --- | --- | --- |
| SST | L2 | PV | 0.0024 \* 0.33 = 0.000792 | 2.2 | ['basal'] |
| SST | L5 | PV | 0.0024 \* 0.33 = 0.000792 | 1.4 | ['basal'] |
| SST | L6 | PV | 0.0024 \* 0.33 = 0.000792 | 1.8 | ['basal'] |

SST to VIP

| **Source (L4)** | **Target Layer** | **Target Cell Type** | **Synaptic Weight** | **Delay (ms)** | **Target Sections** |
| --- | --- | --- | --- | --- | --- |
| SST | L2 | VIP | 0.0024 \* 0.77 = 0.001848 | 2.2 | ['basal'] |
| SST | L5 | VIP | 0.0024 \* 0.77 = 0.001848 | 1.4 | ['basal'] |
| SST | L6 | VIP | 0.0024 \* 0.77 = 0.001848 | 1.8 | ['basal'] |

**VIP (L4) to Other Cell Types**

VIP to Pyramidal

| **Source (L4)** | **Target Layer** | **Target Cell Type** | **Synaptic Weight** | **Delay (ms)** | **Target Sections** |
| --- | --- | --- | --- | --- | --- |
| VIP | L2 | Pyramidal | 0.0024 \* 0.02 = 0.000048 | 2.2 | ['basal', 'apical'] |
| VIP | L5 | Pyramidal | 0.0024 \* 0.02 = 0.000048 | 1.4 | ['basal', 'apical'] |
| VIP | L6 | Pyramidal | 0.0024 \* 0.02 = 0.000048 | 1.8 | ['basal', 'apical'] |

VIP to PV

| **Source (L4)** | **Target Layer** | **Target Cell Type** | **Synaptic Weight** | **Delay (ms)** | **Target Sections** |
| --- | --- | --- | --- | --- | --- |
| VIP | L2 | PV | 0.0024 \* 0.22 = 0.000528 | 2.6 | ['somatic', 'basal'] |
| VIP | L5 | PV | 0.0024 \* 0.22 = 0.000528 | 1.1 | ['somatic', 'basal'] |
| VIP | L6 | PV | 0.0024 \* 0.22 = 0.000528 | 1.5 | ['somatic', 'basal'] |

VIP to SST

| **Source (L4)** | **Target Layer** | **Target Cell Type** | **Synaptic Weight** | **Delay (ms)** | **Target Sections** |
| --- | --- | --- | --- | --- | --- |
| VIP | L2 | SST | 0.0024 \* 20 = 0.048 | 2.2 | ['basal'] |
| VIP | L5 | SST | 0.0024 \* 20 = 0.048 | 1.4 | ['basal'] |
| VIP | L6 | SST | 0.0024 \* 20 = 0.048 | 1.8 | ['basal'] |