

Supplementary Data Table 1 | Parameter values of the multiple-exponential equation (5) used to simulate the time course of synaptic conductances.

		ratio to AMPA direct	n	τ_r (ms)	d1 (%)	$\tau d1$ (ms)	d2 (%)	$\tau d2$ (ms)	d3 (%)	$\tau d3$ (ms)
AMPA direct	G1		1.94	0.13	89.38	0.27	9.57	1	1.05	0.1
	G2		1.94	0.13	89.38	0.32	9.57	1.5	1.05	0.2
	G3		1.94	0.13	89.38	0.32	9.57	1.73	1.05	10
	G4		1.94	0.13	89.38	0.32	9.57	1.73	1.05	10
	G5		1.94	0.16	89.38	0.32	9.57	1.73	1.05	20
AMPA Spillover	G1	0.34	1.74	0.3	68	0.4	70	1	30	10
	G2	0.34	1.74	0.38	68	0.7	50	3	30	20
	G3	0.34	1.74	0.38	80	0.7	55	5	30	20
	G4	0.34	1.74	0.38	80	0.7	55	5	30	20
	G5	0.34	1.74	0.38	80	0.7	55	6	40	30.86
NMDA	G1	0.1	1	1.14	61.41	8.1	35.88	37		
	G2	0.1	1	1.14	61.41	8.1	35.88	37		
	G3	0.1	1	1.14	61.41	8.1	35.88	37		
	G4	0.1	1	1.14	61.41	8.1	35.88	37		
	G5	0.1	1	1.14	61.41	8.1	35.88	37		

Supplementary Data Table 2 | Parameter values used to simulate the short-term plasticity of synaptic conductances.

		D	τ_D (ms)	F	Fmax	τ_F (ms)
AMPA direct	G1	0.4	50			
	G2	0.7	50			
	G3	0.75	50			
	G4	0.85	50			
	G5	0.75	50	2.2	2.2	30
AMPA Spillover	G1	0.6	50			
	G2	0.7	50			
	G3	0.85	50			
	G4	0.95	50			
	G5	0.95	50			
NMDA	G1	0.6	70			
	G2	0.85	70			
	G3	0.9	70	1.7	3.5	3.5
	G4	0.9	70	2	4.5	30
	G5	0.9	70	2.5	5	30