Supplementary Table 1

The statical power and effect sizes obtained in the present study using G*Power 3.1.9.7.

Results	ROI	Statistical measures	Statistical power	Effect sizes
Behavior Results				
Reaction time	N/A	stimulus size main effect	1.000	0.775
		ocular dominance in 5-degrees	0.342	0.146
		ocular dominance in 20-degrees	0.770	0.255
		ocular dominance in 30-degrees	0.117	0.071
Accuracy rates	N/A	stimulus size main effect	1.000	0.944
		ocular dominance in 5-degrees	1.000	0.763
		ocular dominance in 20-degrees	0.999	0.616
		ocular dominance in 30-degrees	0.999	0.594
ERO Results				
Theta power	VAN anterior area	ocular dominance in 5-degrees	0.999	0.616
		stimulus size in dominant eye	1.000	0.664
	VAN posterior area	stimulus size in dominant eye	1.000	0.710
		stimulus size in non-dominant eye	0.999	0.543
Low alpha power	VAN anterior area	stimulus size in dominant eye	0.998	0.407
	VAN posterior area	ocular dominance in 20-degrees	0.999	0.481
		stimulus size in dominant eye	1.000	0.708
	DAN anterior area	stimulus size in dominant eye	0.999	0.495
High alpha power	VAN posterior area	stimulus size in non-dominant eye	0.995	0.375
Low beta power	VAN anterior area	ocular dominance in 5-degrees	0.997	0.445
		ocular dominance in 30-degrees	0.993	0.417
	DAN anterior area	ocular dominance in 5-degrees	0.999	0.530
SPLV Results				
Theta SPLV	Left VAN	ocular dominance in 5-degrees	0.999	0.537
	Right VAN	ocular dominance in 5-degrees	0.999	0.469

	Left DAN	ocular dominance in 30-degrees	0.989	0.402
	Right DAN	ocular dominance in 20-degrees	0.998	0.462
		ocular dominance in 30-degrees	0.995	0.430
Low alpha SPLV	Left DAN	ocular dominance in 30-degrees	0.986	0.393
High alpha SPLV	Left DAN	ocular dominance in 30-degrees	0.999	0.492

ROI, region of interest, ERO, event-related oscillation, SPLV, standardized phase-locking value.

Supplementary Table 2

The mean value and comparisons of phase-locked power in theta, alpha and beta band under the target and the standard condition.

Frequency bands	ROI	Target condition Mean (S.D.)	Standard condition Mean (S.D.)	F	P value	Partial η^2
Theta band	DAN anterior area	4.08 (0.30)	2.61 (0.12)	19.272	0.000	0.246
	DAN posterior area	3.82 (0.23)	2.38 (0.15)	29.478	0.000	0.333
	VAN anterior area	4.13 (0.37)	3.27 (0.21)	4.423	0.040	0.070
	VAN posterior area	3.96 (0.16)	3.26 (0.18)	12.552	0.001	0.175
Low alpha band	DAN anterior area	4.64 (0.60)	3.24 (0.30)	4.591	0.036	0.072
	DAN posterior area	4.90 (0.52)	3.11 (0.32)	12.549	0.001	0.175
	VAN anterior area	6.44 (0.78)	4.16 (0.46)	9.184	0.004	0.135
	VAN posterior area	6.50 (0.76)	4.84 (0.39)	4.138	0.046	0.066
High alpha band	DAN anterior area	3.72 (0.57)	2.48 (0.25)	4.017	0.050	0.064
	DAN posterior area	2.95 (0.37)	2.58 (0.26)	0.845	0.362	0.014
	VAN anterior area	4.34 (0.66)	2.36 (0.19)	8.375	0.005	0.124
	VAN posterior area	3.67 (0.48)	2.64 (0.21)	4.592	0.036	0.072
Low beta band	DAN anterior area	3.23 (0.28)	2.65 (0.23)	3.499	0.066	0.056
	DAN posterior area	2.86 (0.29)	2.27 (0.17)	3.582	0.063	0.057
	VAN anterior area	3.49 (0.37)	2.58 (0.23)	3.804	0.056	0.061
	VAN posterior area	4.03 (0.50)	2.49 (0.20)	7.318	0.009	0.110
High beta band	DAN anterior area	2.80 (0.29)	2.34 (0.28)	2.734	0.104	0.044
	DAN posterior area	2.35 (0.34)	1.83 (0.14)	2.319	0.133	0.038
	VAN anterior area	2.73 (0.31)	2.18 (0.19)	3.707	0.059	0.059
	VAN posterior area	2.58 (0.25)	1.91 (0.16)	5.651	0.021	0.087

ROI, region of interest, DAN, dorsal attention network, VAN, ventral attention network, S.D., standard deviation.