To Reviewer 2

Comment:

The authors have proposed electromagnetic brain-computer-metasurface (EBCM) that can achieve the information communication and EM wavefront controls through human's mind collected in non-invasive fashion. The text transmission between two EBCM operators is first experimentally realized. Furthermore, various flexible wave manipulations modulated by the human mind are further demonstrated based on the similar platform. This work is very interesting and well organized, which will have significant impacts on many potential applications. Therefore, I strongly support its publication in eLight. Some minor issues are provided to the authors:

1) In Fig. 2, the transmitted information is collected by the microstrip antenna embedded beside the metasurface 2. However, I don't understand the functionality of the second metasurface. It seems that a single antenna is enough to collect the beam intensity emitted by the first metasurface, which carries two different states, i.e., '1' (high amplitude) and '0' (low amplitude). Some related information should be added in the new version.

Our Response:

Thank you very much for your good comment. In the communication system of EBCM, the metasurface belongs to the transmitting channel, while MSA is the receiving channel, and both can work at the same time. When metasurface 1 sends a signal, MSA next to metasurface 2 is responsible for receiving and demodulating it. Similarly, when metasurface 2 sends a signal, MSA next to metasurface 1 is responsible for receiving and demodulating it. These processes can be performed simultaneously. To clearly express the above information, we have modified the following sentences.

The modified sentence:

The presented process is unidirectional but the communication system of EBCM is bidirectional since the transmitting and receiving fronts are respectively the metasurface and MSA, as illustrated in Fig. 3b, which enables simultaneous transmissions and receptions of EBCMs by the same operator. When one metasurface sends a signal, MSA next to the other metasurface receives and demodulates it. A similar process can also be performed in reverse simultaneously.

Comment:

2) In Fig. 4a, there are two EEG signals both representing the character of L (i.e., the 3rd and 4th sub-figures). However, the target signals are totally different.

Our Response:

Thank you very much for your good comment. Under normal circumstances, the EEG signals of the same testing subject at different time and in different states are different. Therefore, the signal waveforms are not the same even when testing the same letter. The EEG detection based on P300 is aimed at making the testing subject have a clear peak at 300ms after being stimulated, to prove that the corresponding key is triggered. To point out this natural characteristic of EEG signals, we have supplemented the following sentence.

The supplemented sentence:
We remark that the EEG signal waveforms of the same testing subject at different time and in different states are not the same even when testing the same letter. The EEG detection based on P300 is aimed at making the testing subject have a clear peak at 300ms after being stimulated, to prove that the corresponding key is triggered.

Comment:
3) In P. 9, the authors indicated that: "We design a beam-scanning GUI in Fig. 2e, and the detailed descriptions are provided in Supplementary Note S4 with a sky background." However, it seems that Fig. 2e is wrongly cited here.

Our Response:
Thank you very much for your good comment. We have revised the related sentence as below.

The modified sentence:
We design a beam-scanning GUI with a sky background in Fig. S7, and the detailed descriptions are provided in Supplementary Note S4.