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## Three-dimensional multichannel waveguide grating filters

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Fig. S1 | The collection of reflection spectrums of a third-order WG under different single-point exposure times, each with a laser-pulse energy of 300 nJ: (a) 0.5 ms, (b) 0.8 ms, (c) 1 ms, (d) 3 ms, (e) 5 ms, (f) 8 ms, (g) 10 ms, and (h) 20 ms on the BG reflection spectrum.



Fig. S2 | The collection of reflection spectrums of a third-order WG under various laser-pulse energies while maintaining a single-point exposure time of 1 ms: (a) 0 nJ, (b) 100 nJ, (c) 200 nJ, (d) 300 nJ, (e) 400 nJ, (f) 500 nJ, (g) 600 nJ, (h) 700 nJ, (i) 800 nJ, and (j) 900 nJ on the BG reflection spectrum.



**Fig. S3** | The collection of reflection spectrums under a single-point exposure time of 1 ms and laser-pulse energy of 300 nJ with varying grating orders: (a) 1<sup>st</sup> order, (b) 2<sup>nd</sup> order, (c) 3<sup>rd</sup> order, (d) 4<sup>th</sup> order, (e) 5<sup>th</sup> order, (f) 6<sup>th</sup> order, (g) 7<sup>th</sup> order, (h) 8<sup>th</sup> order, (i) 9<sup>th</sup> order, and (j) 10<sup>th</sup> order on the BG reflection spectrum.