PPLN, PPLT waveguide chips provide conversion efficiency 2~3 orders of magnitudes higher than the conversion efficiency of the bulk chips. By combining the advantage of high intensity from channel waveguide (WG) structure and phase-matching/spectrum engineering from Quasi-phase-matching (QPM). Due to the tightly confinement of the waveguide structure, PPXX (PPLN, PPLT) waveguide chip is particularly suitable for high conversion efficiency applications, but normally with applicable power under sub-Watt level.

HCP can help you to design suitable QPM periods and QPM structures for selected RPE/Ridge materials to achieve desired phase-matching and spectrum at specified operation temperature with consideration of input & output power/energy as well as their spectrum/pulse properties.