GWU-Lasertechnik

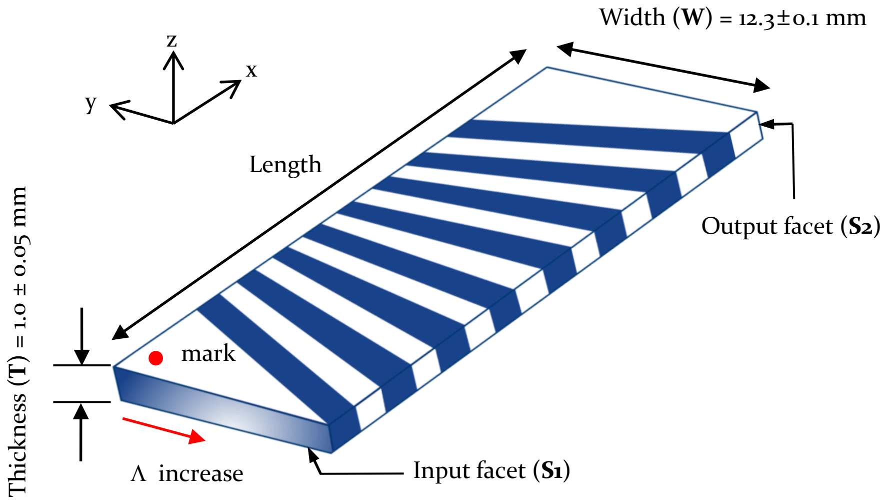
HCP
HC PHOTONICS CORP.

PPLN CHIPS

Product Specifications & Selection Guide

Periodically Poled Lithium Niobate (PPLN) Chip: DFMIR-FA

- Chip Lay-Out

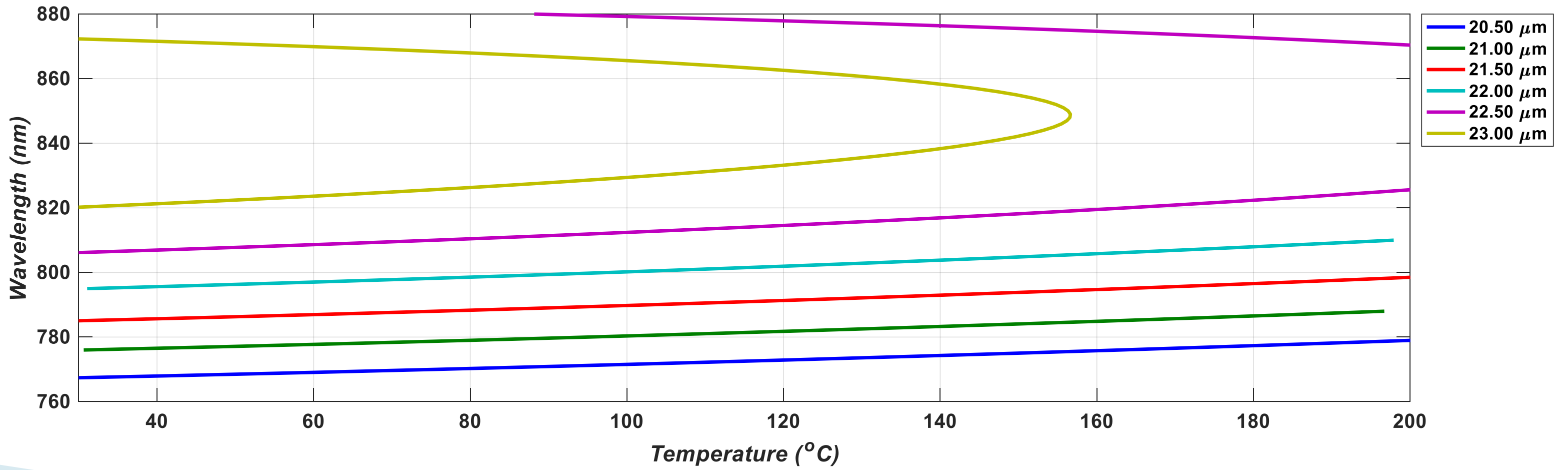


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	20.50~23.50	Microscope
Main Function	Difference Frequency Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @730~870(R<0.5%) /1064(R<0.5%) /2300~4800(R<5%) nm	Spectral Analyzer
Aperture Size	12.3 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25 ± 0.2 mm	Cutting Machine
Clear Aperture	≥80% (T), ≥ 10.9 mm (W) *1	NA

*1 Poled fan-out grating width = 10.9 mm.

- Phase Matching Tuning Curve



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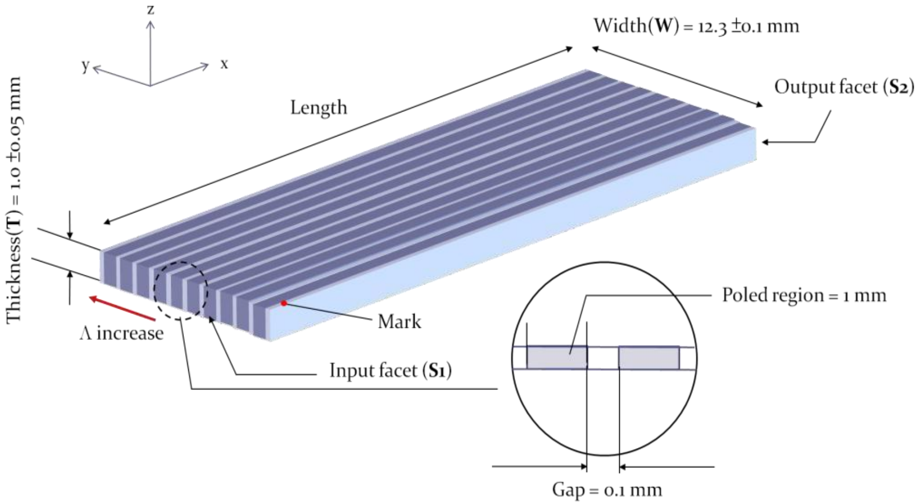
Periodically Poled Lithium Niobate (PPLN) Chip: DFMIR-MA

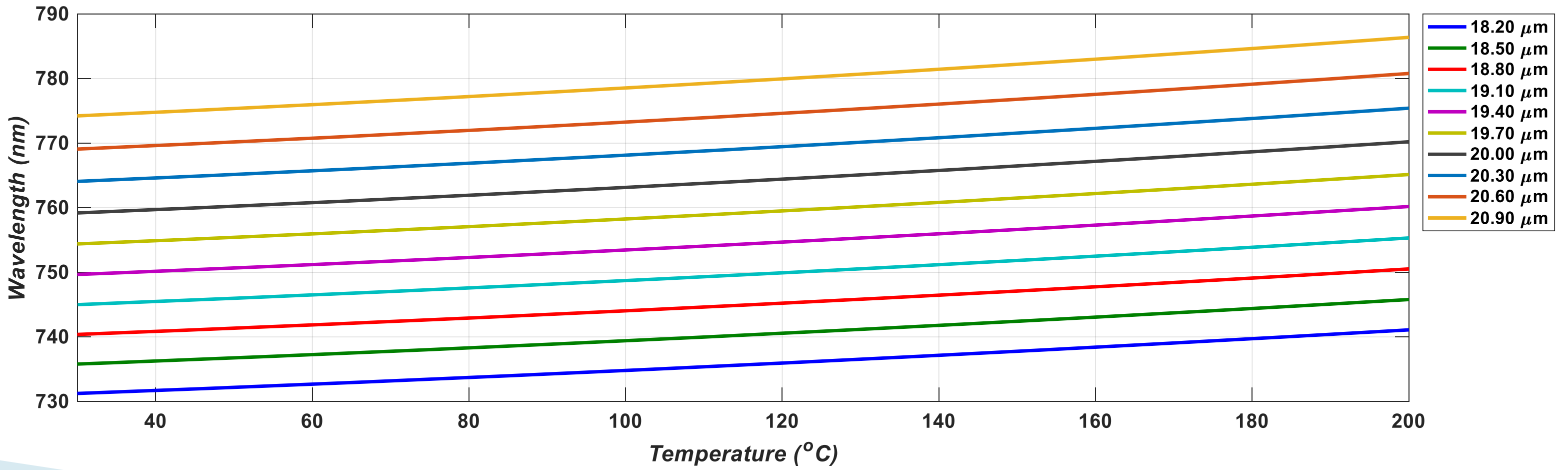
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	18.20, 18.50, 18.80, 19.10, 19.40, 19.70, 20.00, 20.30, 20.60, 20.90	Microscope
Main Function	Difference Frequency Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @730-870(R<0.5%)/ 1064(R<0.5%) / 2300-4800(R<5%) nm	Spectral Analyzer
Aperture Size	12.3 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25/50 ± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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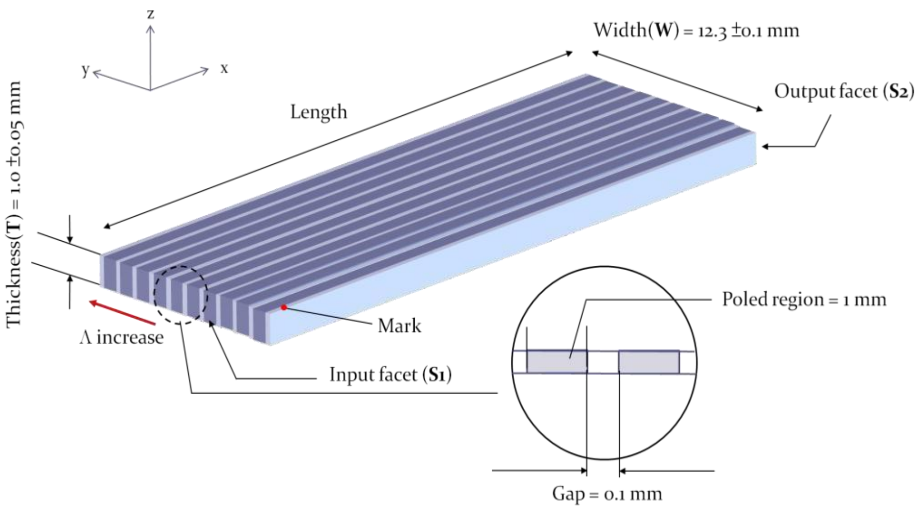
Periodically Poled Lithium Niobate (PPLN) Chip: DFMIR-MB

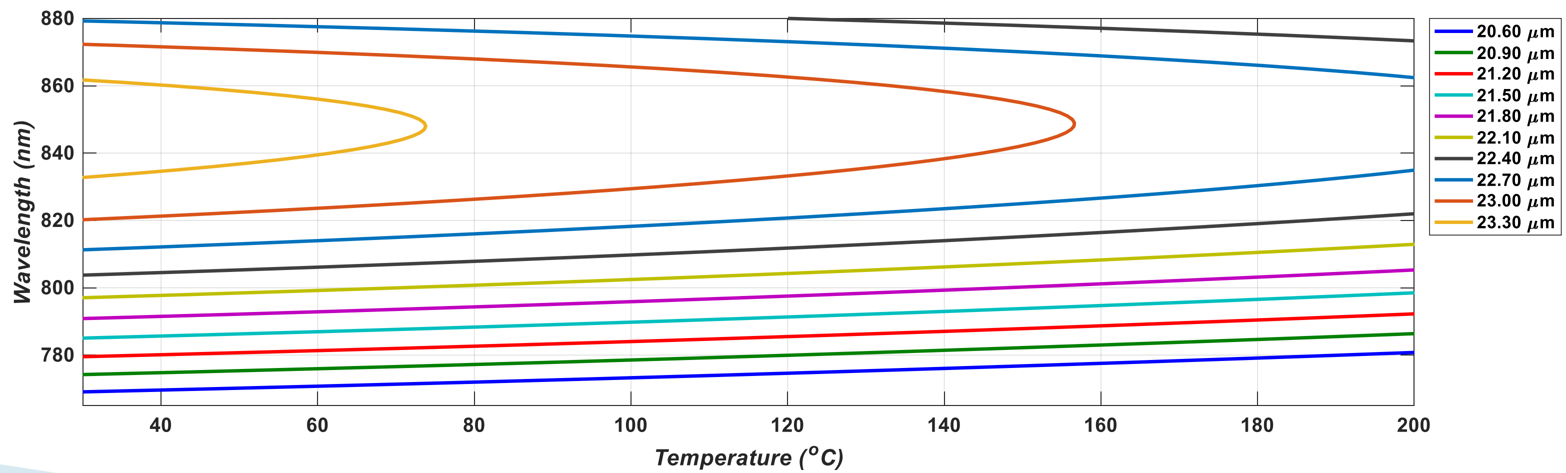
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	20.60, 20.90, 21.20, 21.50, 21.80, 22.10, 22.40, 22.70, 23.00, 23.30	Microscope
Main Function	Difference Frequency Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @730-870(R<0.5%)/ 1064(R<0.5%) / 2300-4800(R<5%) nm	Spectral Analyzer
Aperture Size	12.3 x 1.0 mm² (**W** x **T**)	Cutting Machine
Available Length	10/25/50 ± 0.2 mm	Cutting Machine
Channel Clear Aperture	≥80% (**T**), ≥90% (**W**)	NA

- Phase Matching Tuning Curve



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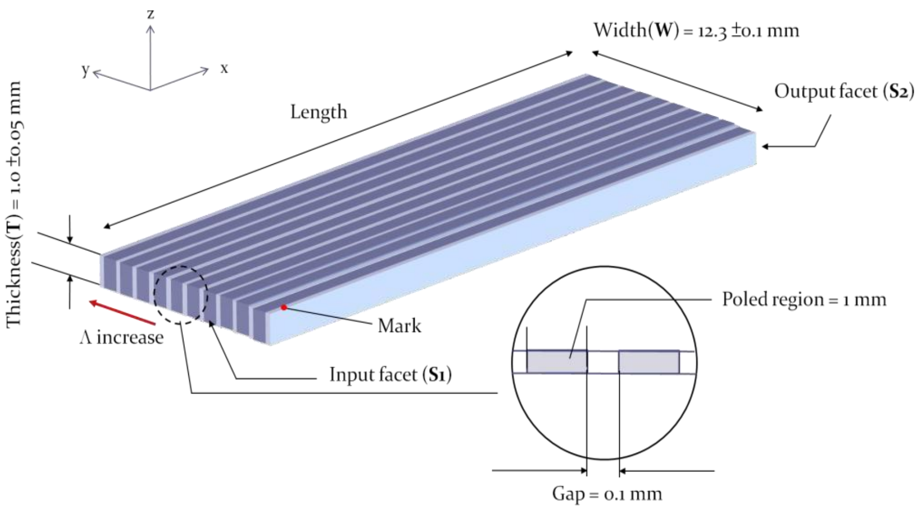
Periodically Poled Lithium Niobate (PPLN) Chip: DFMIR-MC

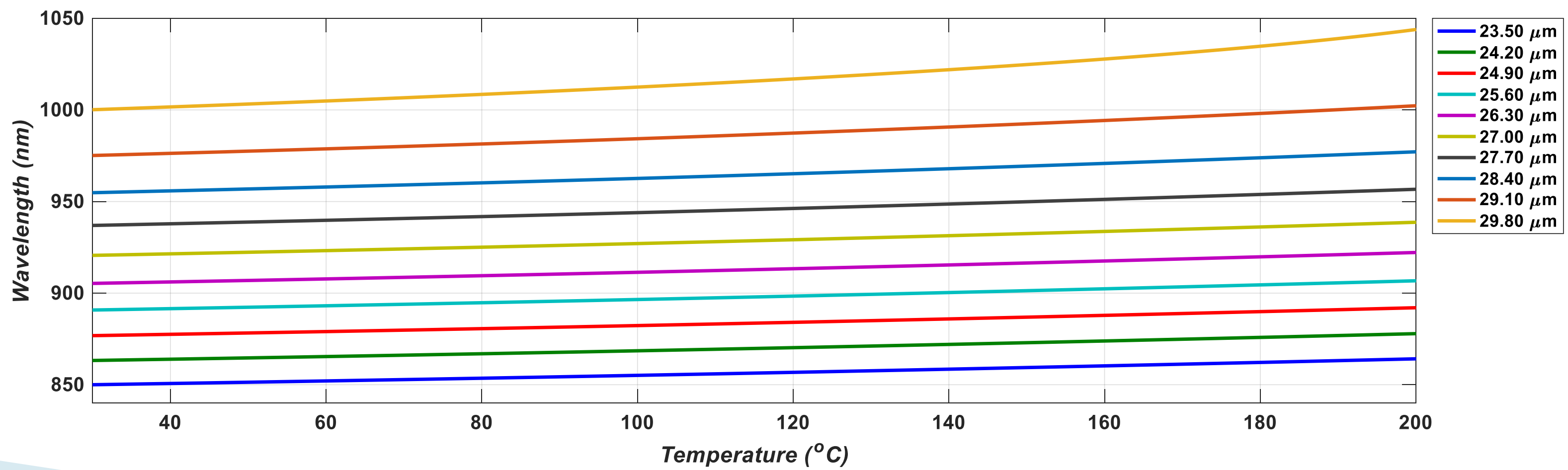
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	23.50, 24.20, 24.90, 25.60, 26.30, 27.00, 27.70, 28.40, 29.10, 29.80	Microscope
Main Function	Difference Frequency Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @850~1000(R<1%) /1500~1620(R<1%) /1800~2820(R<5%) nm	Spectral Analyzer
Aperture Size	12.3 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25/50 ± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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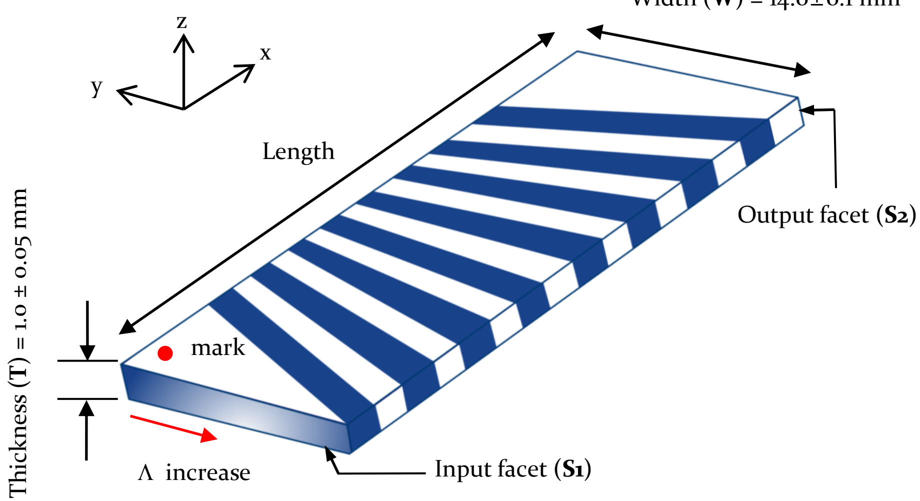
Periodically Poled Lithium Niobate (PPLN) Chip: FOPMIR -FA

- Chip Lay-Out

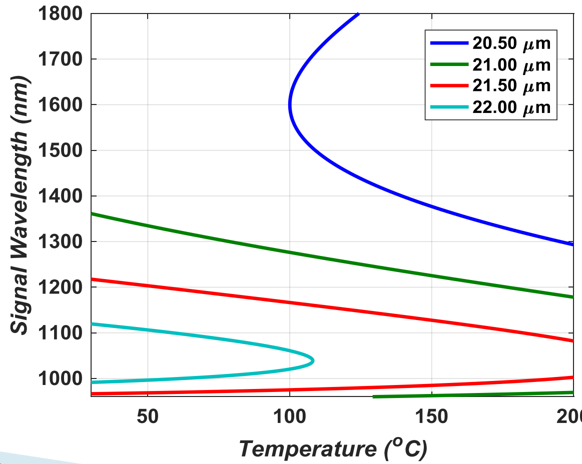


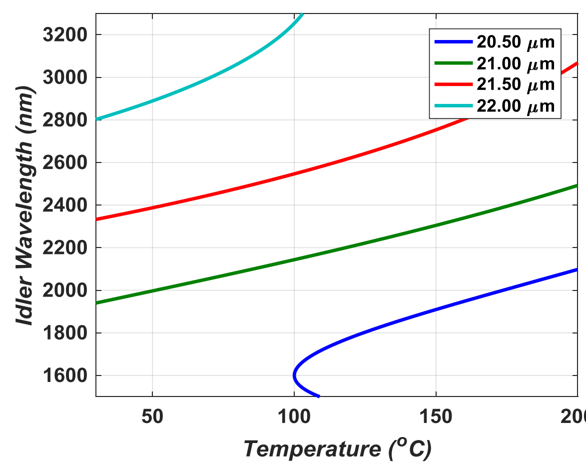
[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ, μm)	20.50~23.50	Microscope
Main Function	Optical Parametric Oscillator	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @800(R<0.5%) /1150~1500(R<0.5%) /1700~2650(R<5%) nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm^2 (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Clear Aperture *	≥80% (T), ≥ 10.9 mm (W) *1	NA

*1 Poled fan-out grating width =10.9mm

- Phase Matching Tuning Curve





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Periodically Poled Lithium Niobate (PPLN) Chip: FOPMIR -FB

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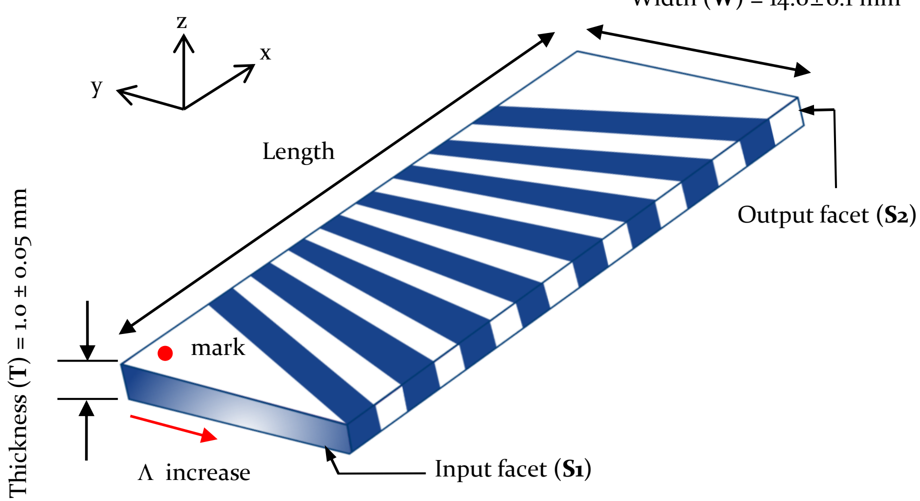
- Chip Lay-Out

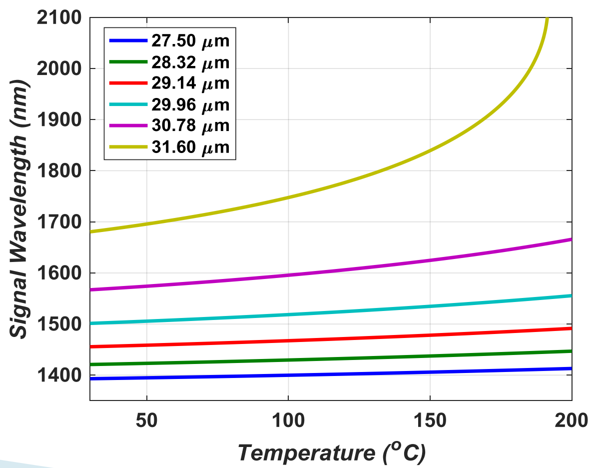


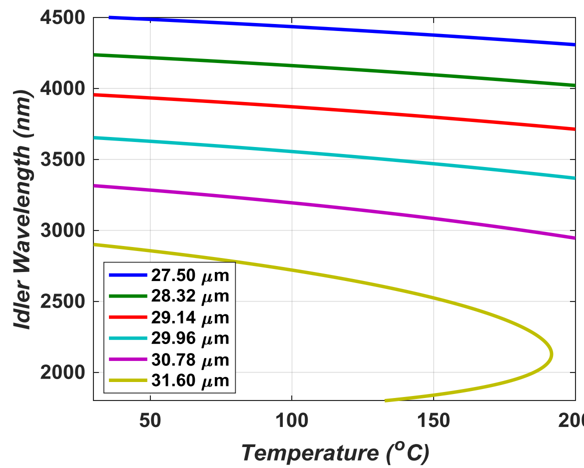
[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	27.50~31.60	Microscope
Main Function	Optical Parametric Oscillator	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @1030~1080 (R<1.0%) /1380~1800 (R<1.0%) /1800~4500(R<5%) nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Clear Aperture *	≥80% (T), ≥ 10.9 mm (W) *1	NA

*1 Poled fan-out grating width =10.9mm

- Phase Matching Tuning Curve





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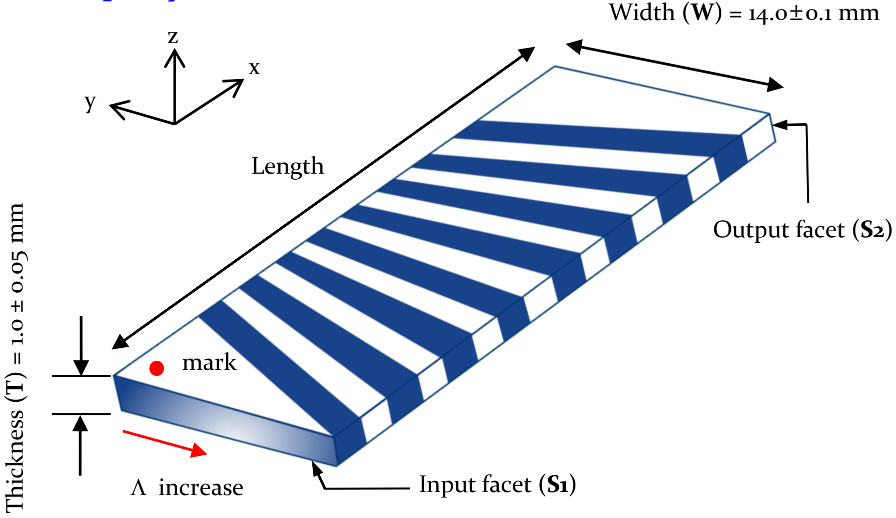
Periodically Poled Lithium Niobate (PPLN) Chip: FOPMIR-FA

- Chip Lay-Out

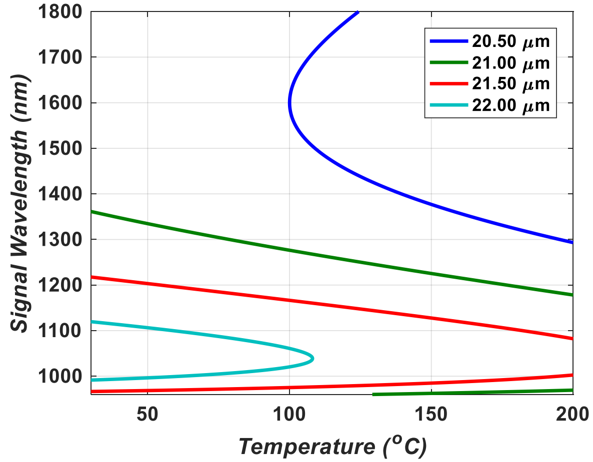


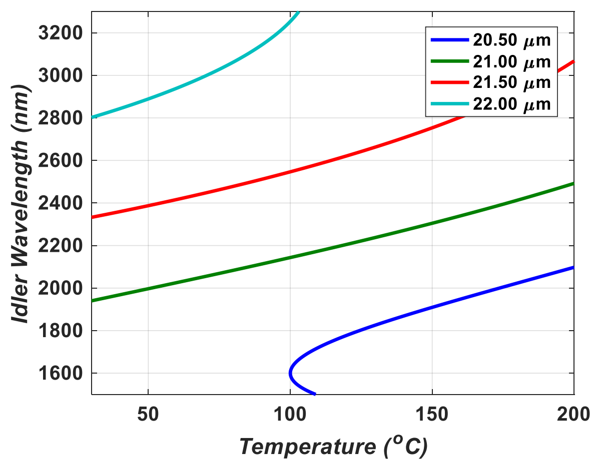
[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	20.50~23.50	Microscope
Main Function	Optical Parametric Oscillator	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @800(R<0.5%) /1150~1500(R<0.5%) /1700~2650(R<5%) nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Clear Aperture	≥80% (T), ≥ 10.9 mm (W) *1	NA

*1 Poled fan-out grating width = 10.9 mm.

- Phase Matching Tuning Curve





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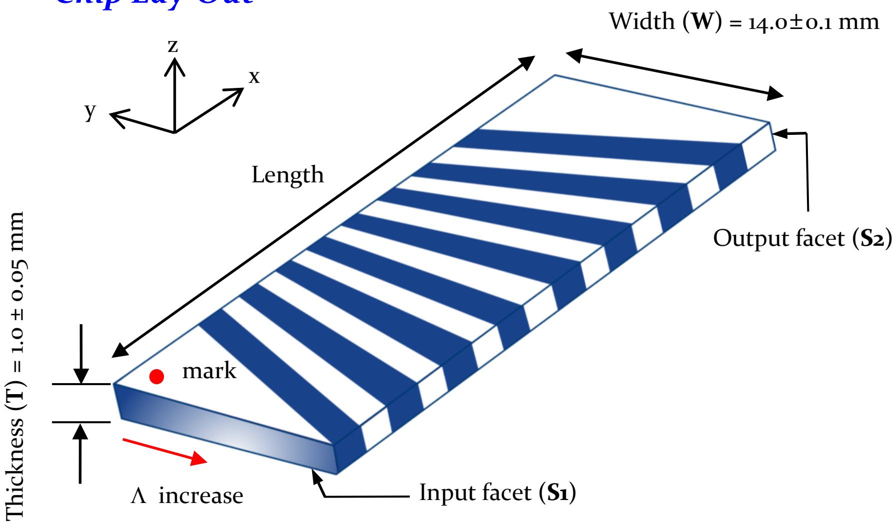
Periodically Poled Lithium Niobate (PPLN) Chip: FOPMIR-FB

- Chip Lay-Out

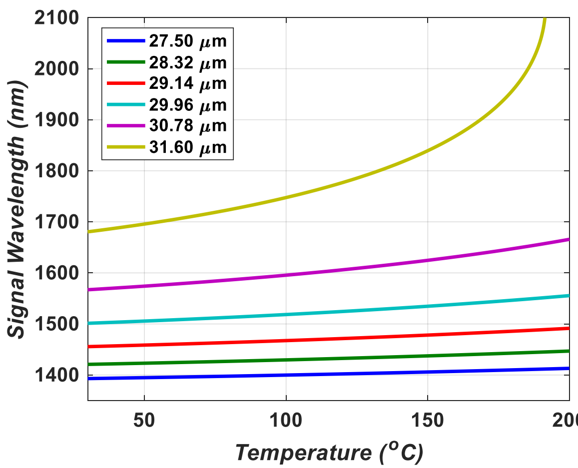


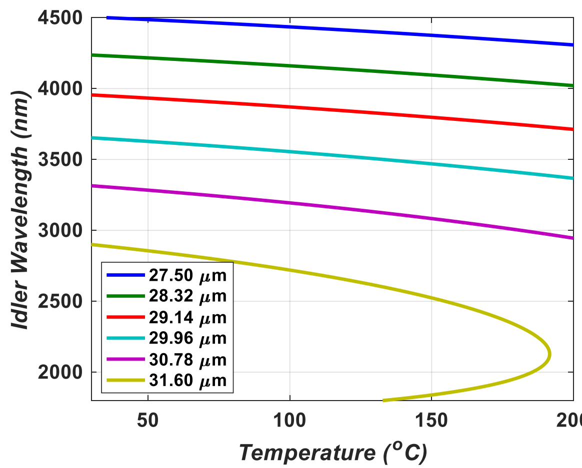
[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	27.50~31.60	Microscope
Main Function	Optical Parametric Oscillator	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @1030~1080 (R<1%) /1380~1800 (R<1%) /1800~4500(R<5%) nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Clear Aperture	≥80% (T), ≥ 10.9 mm (W) *1	NA

*1 Poled fan-out grating width = 10.9 mm.

- Phase Matching Tuning Curve





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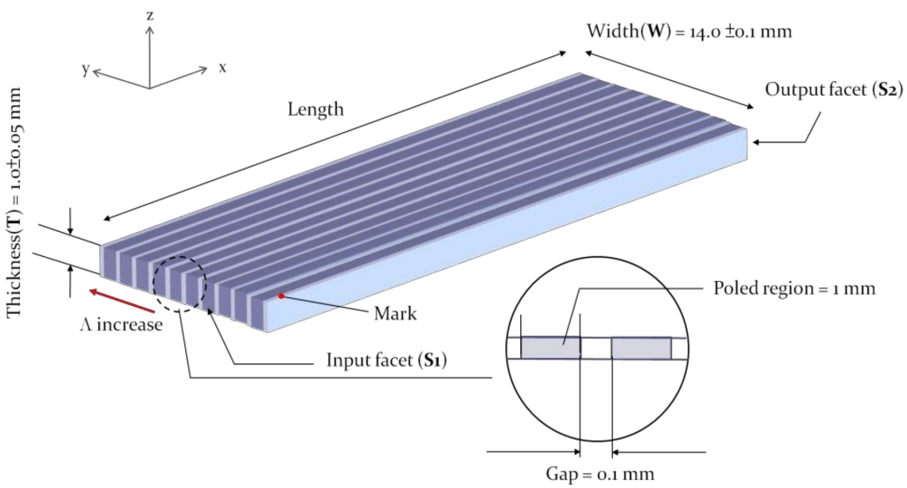
Periodically Poled Lithium Niobate (PPLN) Chip: FOPMIR-MA

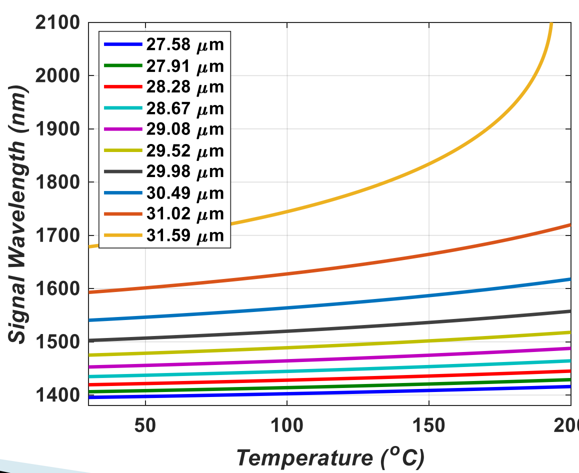
- Chip Lay-Out

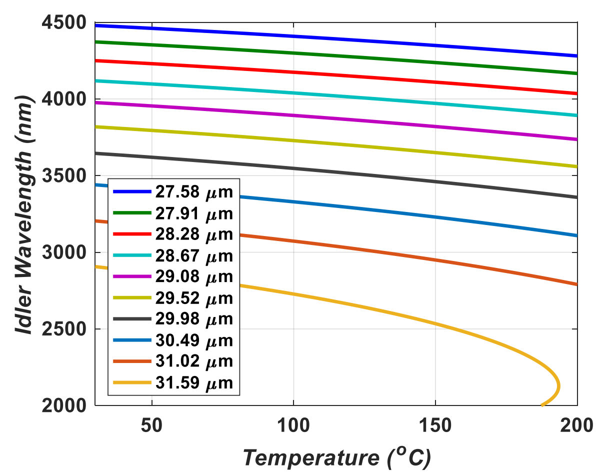


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	27.58, 27.91, 28.28, 28.67, 29.08, 29.52, 29.98, 30.49, 31.02, 31.59	Microscope
Main Function	Optical Parametric Oscillator	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @1030-1080 (R<1%) /1380~1800 (R<1%) /1800~4500(R<5%) nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve





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Periodically Poled Lithium Niobate (PPLN) Chip: FOPMIR-MA-C

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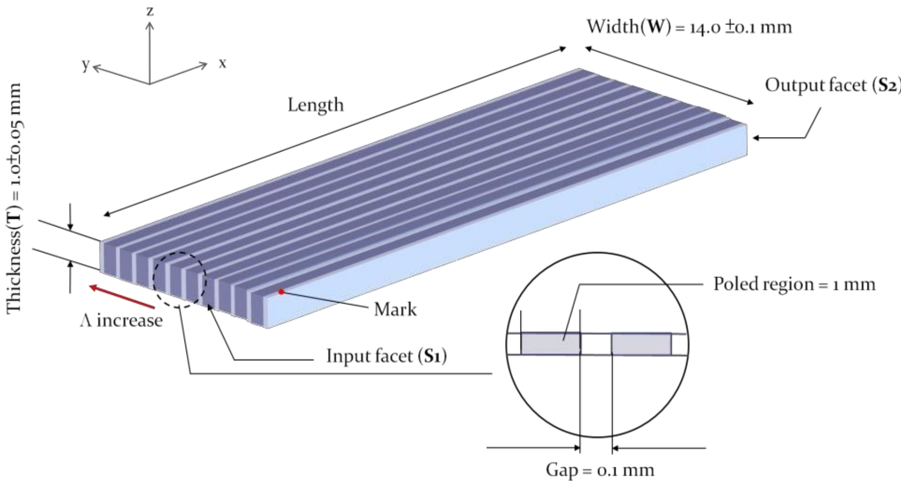
- Chip Lay-Out

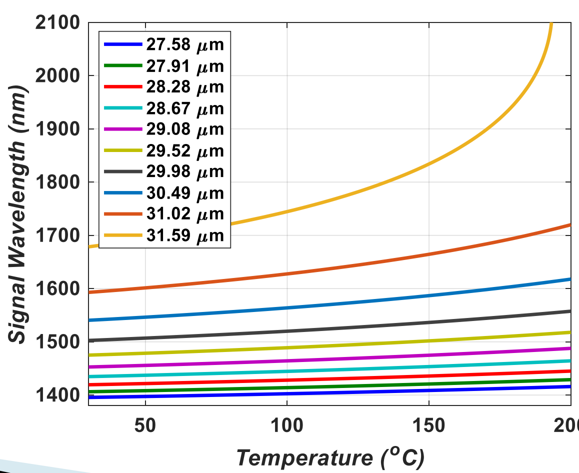


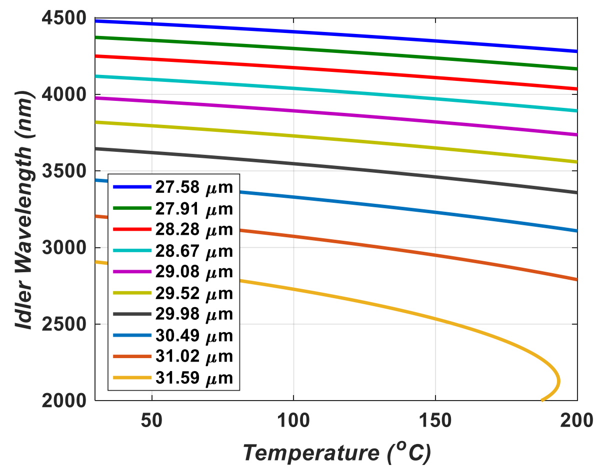
[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	27.58, 27.91, 28.28, 28.67, 29.08, 29.52, 29.98, 30.49, 31.02, 31.59	Microscope
Main Function	Optical Parametric Oscillator	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @1030~1080 (R<1%) /1380~1800 (R<1%) /1800~4500(R<5%) nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve





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Periodically Poled Lithium Niobate (PPLN) Chip: FSFVIS-MA

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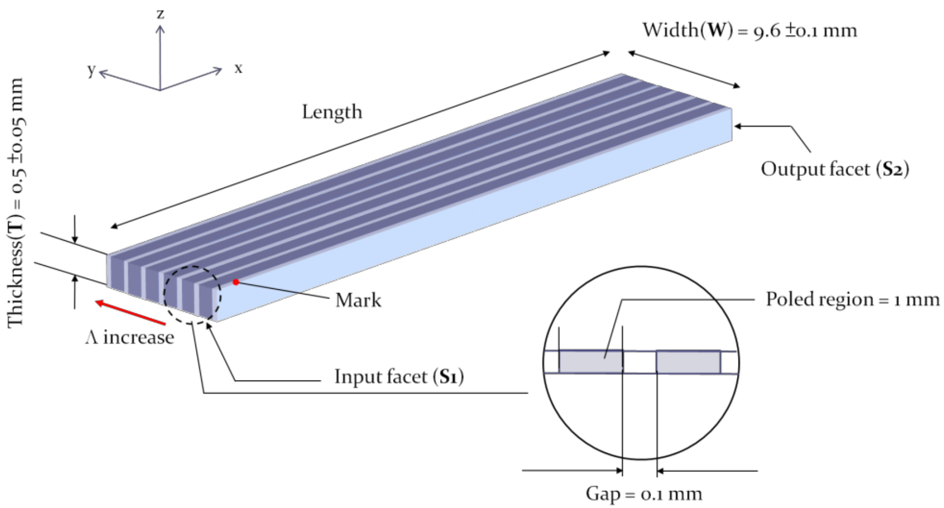
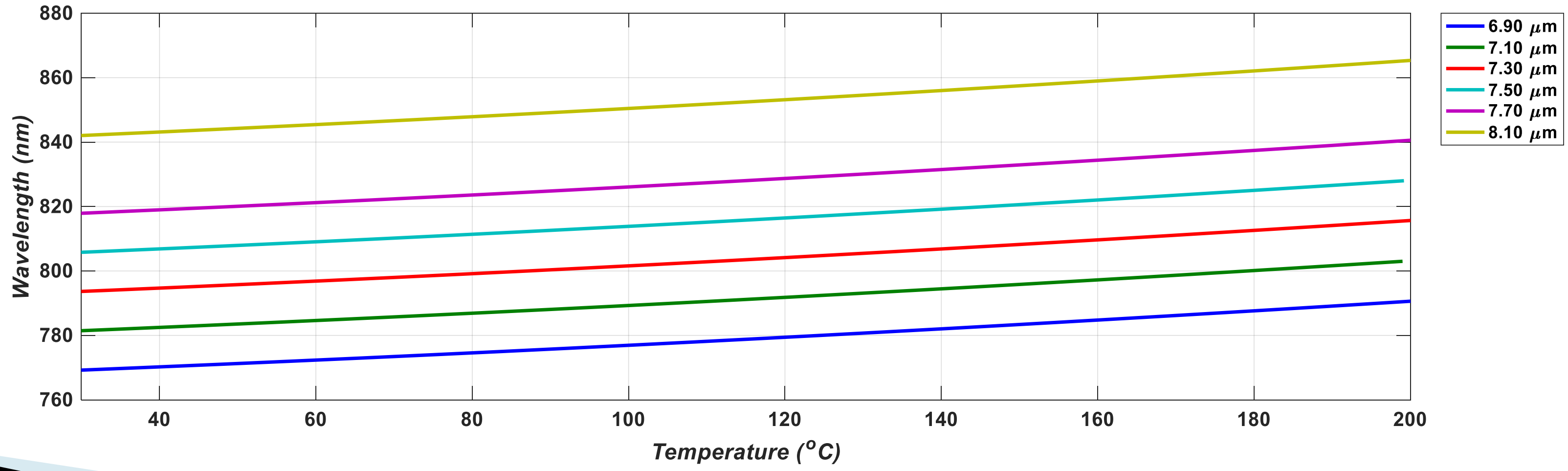
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	6.90, 7.10, 7.30, 7.50, 7.70, 8.10	Microscope
Main Function	Sum-Frequency Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2@470~550/720~850 /1480~1590 (R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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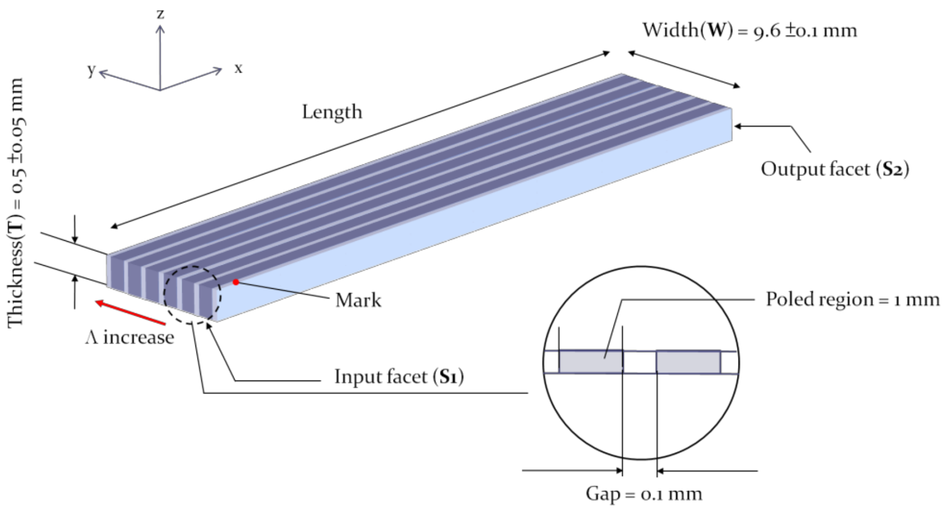
Periodically Poled Lithium Niobate (PPLN) Chip: FSFVIS-MA-C

- Chip Lay-Out

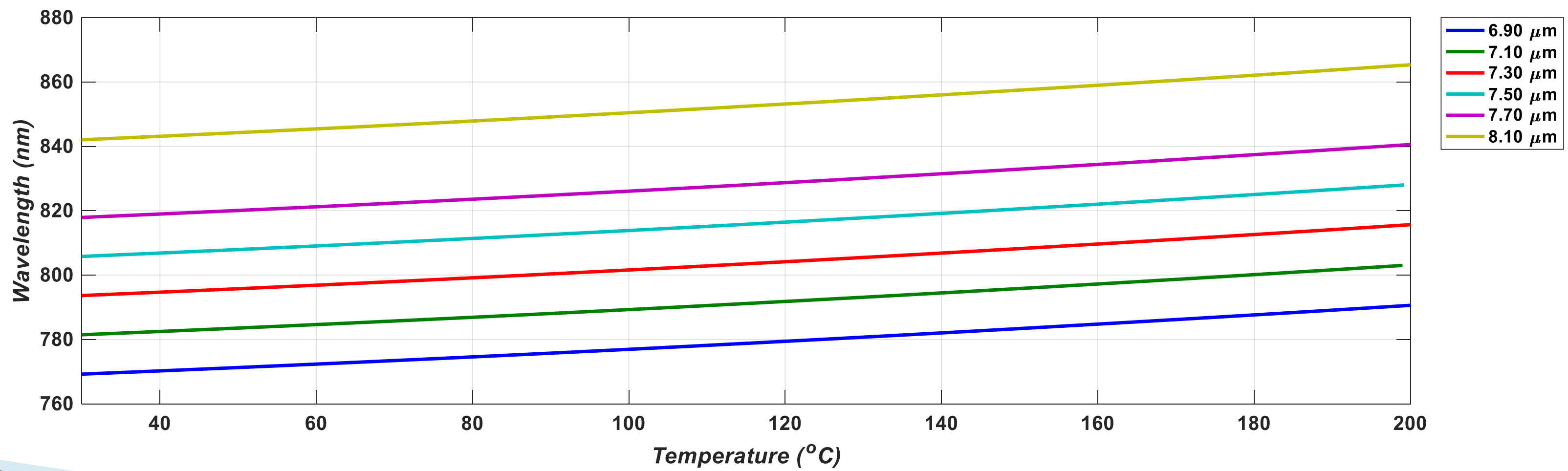


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	6.90, 7.10, 7.30, 7.50, 7.70, 8.10	Microscope
Main Function	Sum-Frequency Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2@470~550/720~850 /1480~1590 (R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

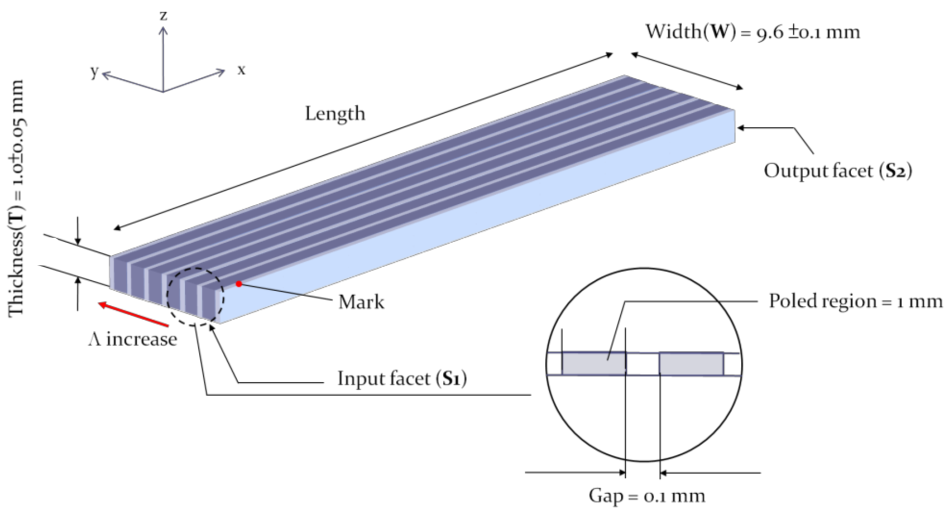
*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



Periodically Poled Lithium Niobate (PPLN) Chip: FSFVIS-MB

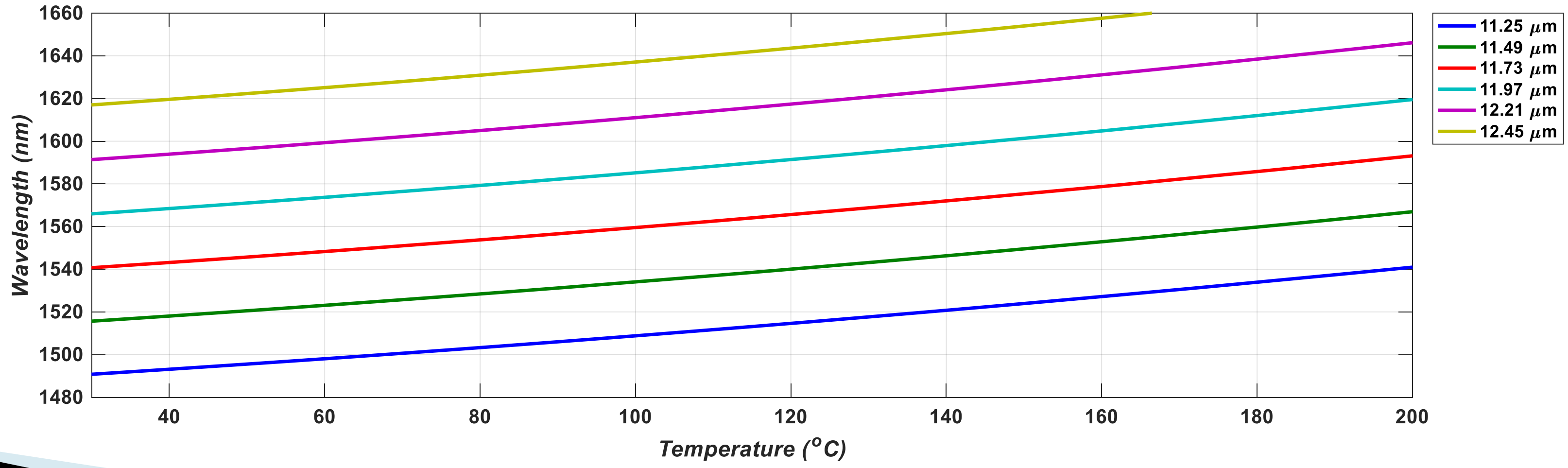
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ, μm)	11.25, 11.49, 11.73, 11.97, 12.21, 12.45	Microscope
Main Function	Sum-Frequency Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2@625~642/1020~1080 /1520~1620 (R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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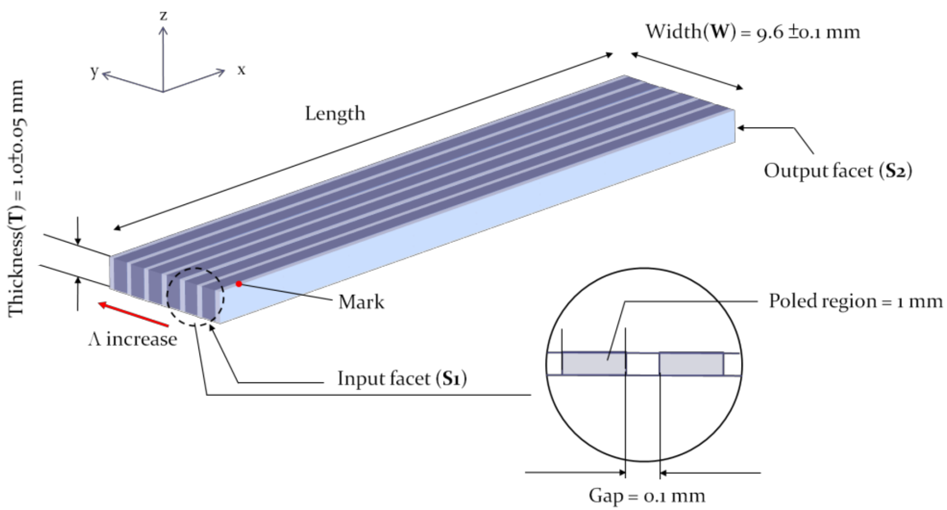
Periodically Poled Lithium Niobate (PPLN) Chip: FSFVIS-MB-C

- Chip Lay-Out

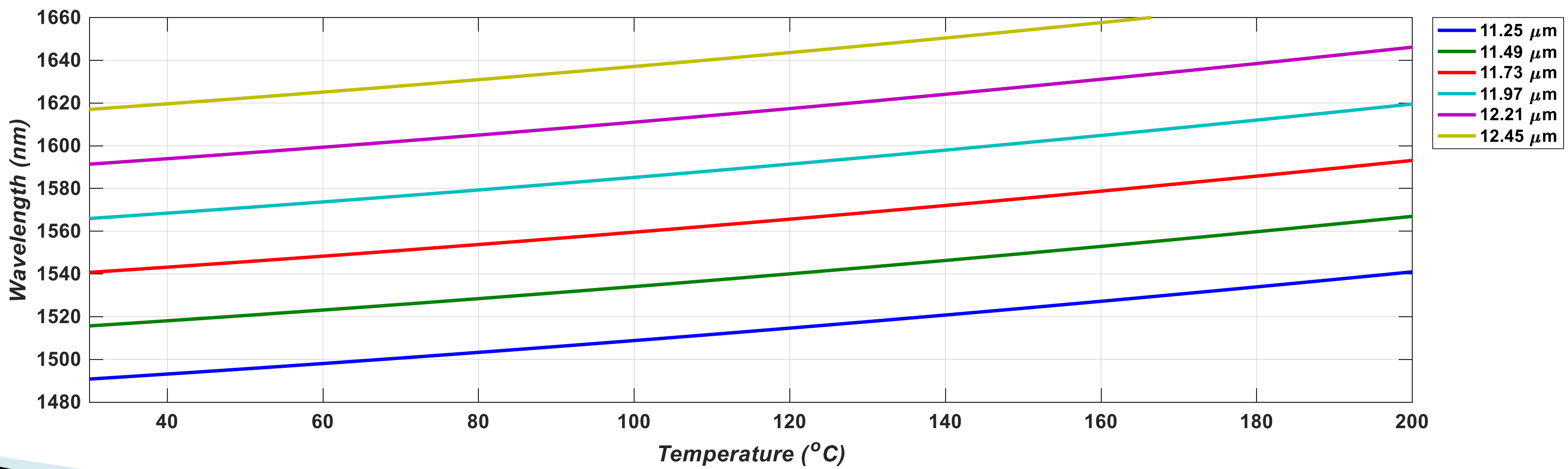


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ, μm)	11.25, 11.49, 11.73, 11.97, 12.21, 12.45	Microscope
Main Function	Sum-Frequency Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2@625~642/1020~1080 /1520~1620 (R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



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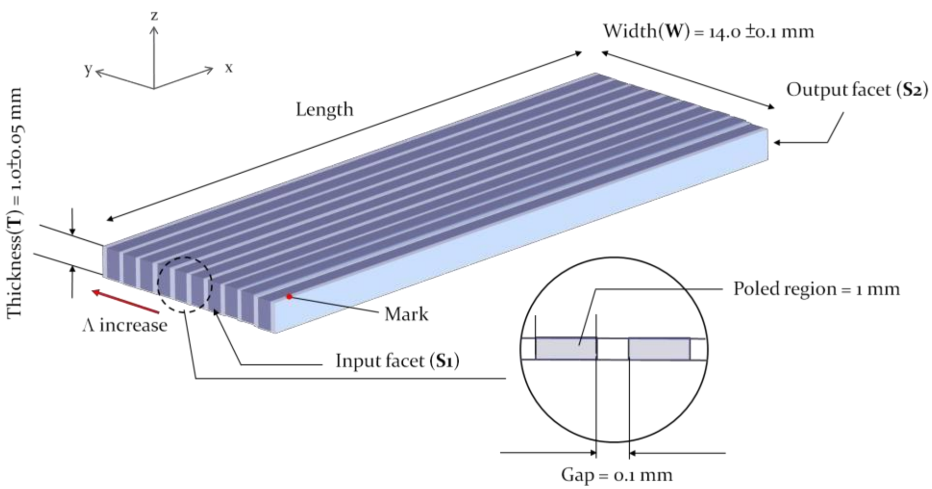
Periodically Poled Lithium Niobate (PPLN) Chip: FSFVIS-MC

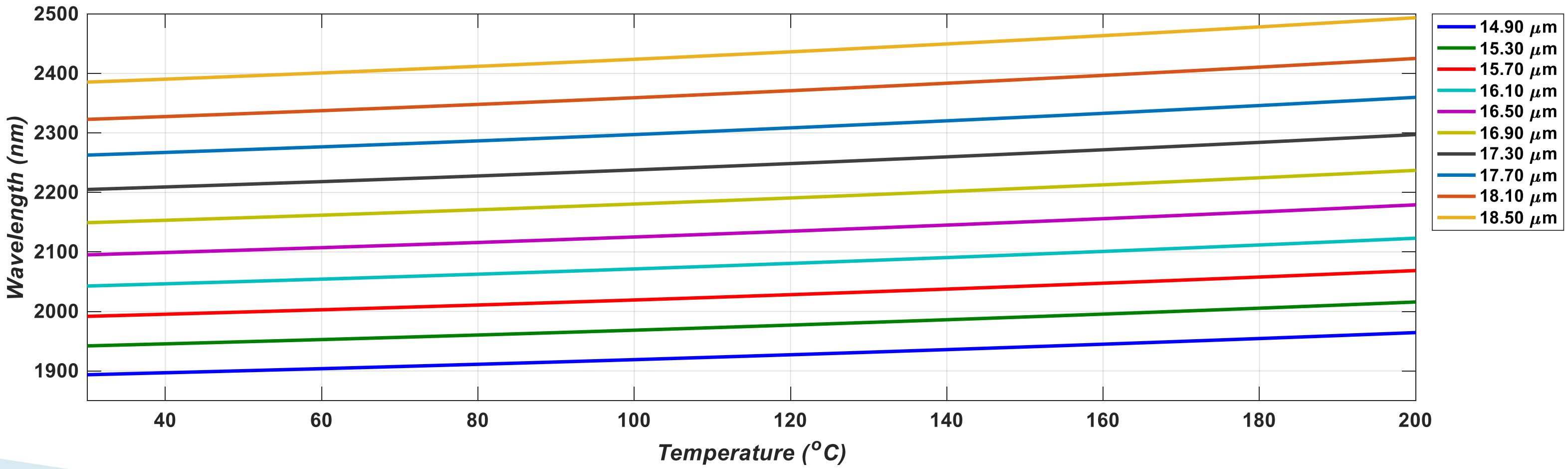
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	14.90, 15.30, 15.70, 16.10, 16.50, 16.90, 17.30, 17.70, 18.10, 18.50	Microscope
Main Function	Sum-Frequency Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @680~740(R<0.5%) /1030~1080(R<0.5%) /1900~2400(R<1%)nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm^2 (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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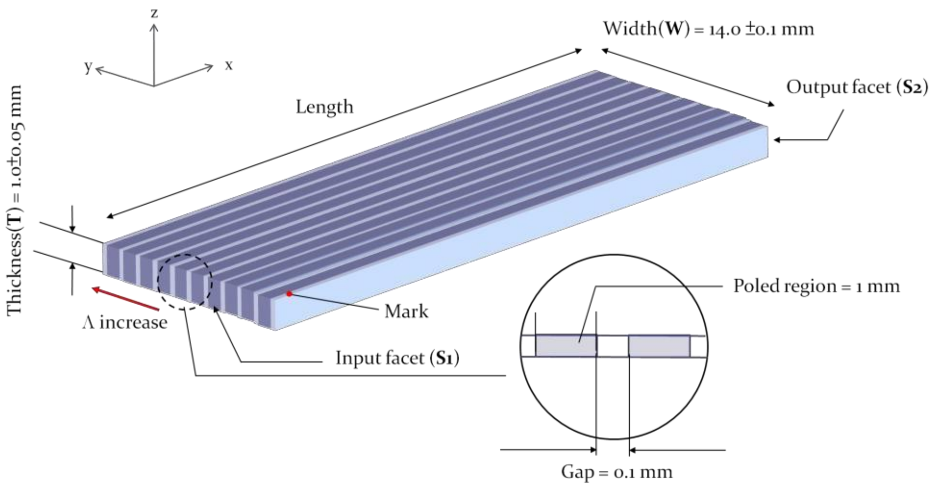
Periodically Poled Lithium Niobate (PPLN) Chip: FSFVIS-MC-C

- Chip Lay-Out

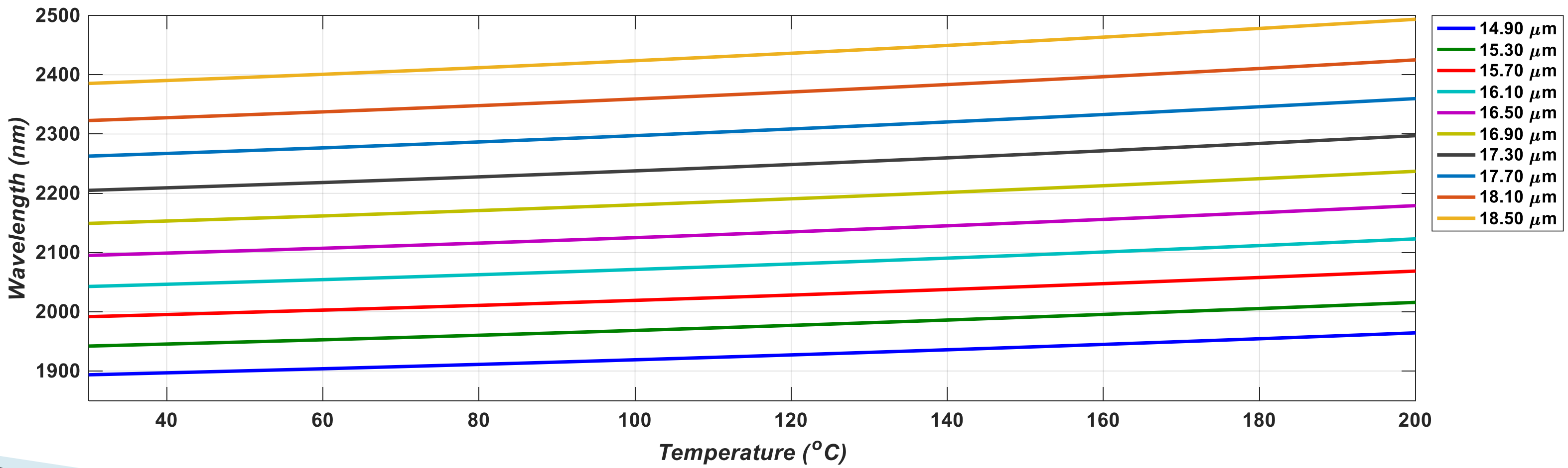


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	14.90, 15.30, 15.70, 16.10, 16.50, 16.90, 17.30, 17.70, 18.10, 18.50	Microscope
Main Function	Sum-Frequency Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @680~740(R<0.5%) /1030~1080(R<0.5%) /1900~2400(R<1%)nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

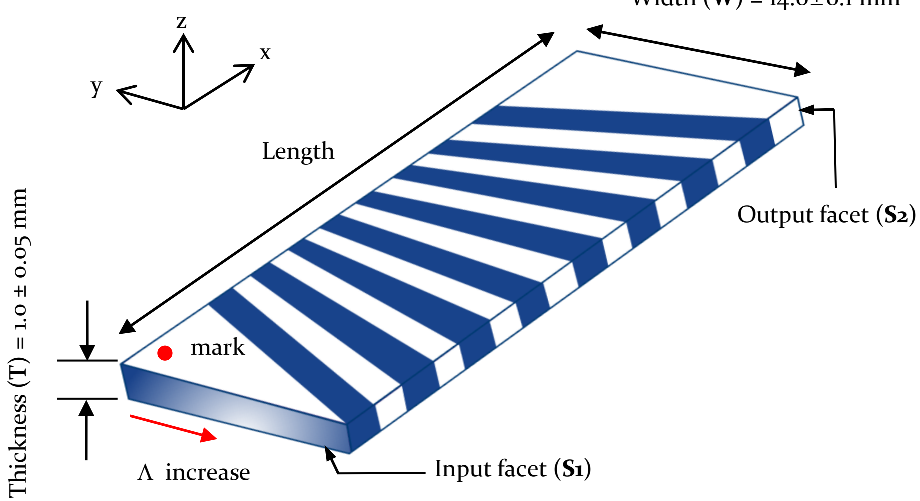
*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



Periodically Poled Lithium Niobate (PPLN) Chip: FSHNIR -FA

- Chip Lay-Out

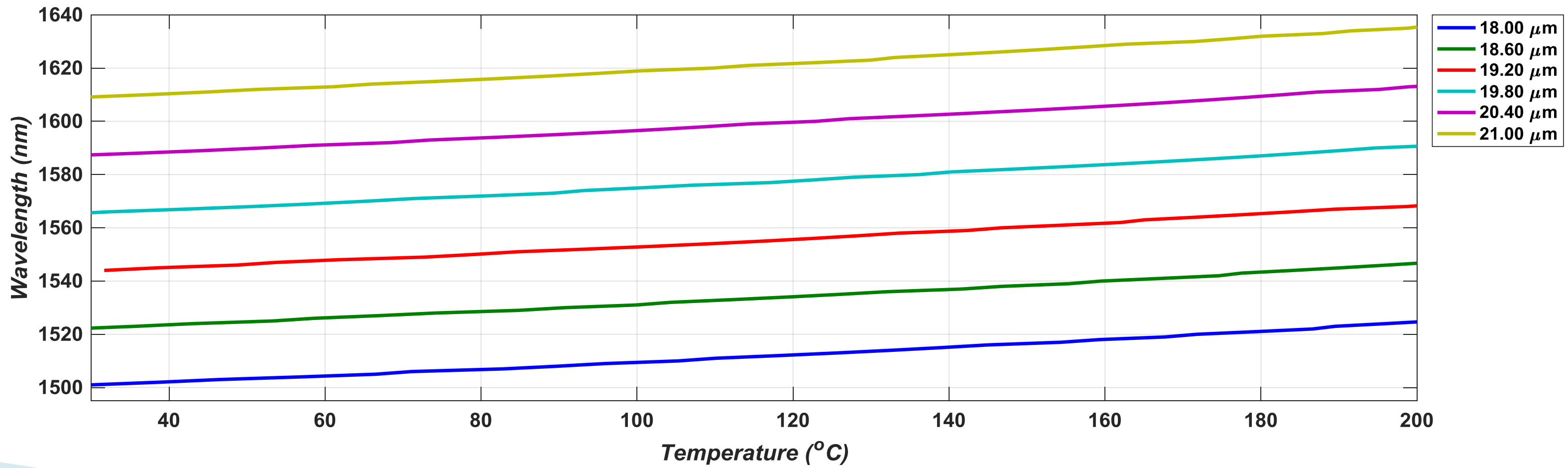


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	18.00~21.00	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @750~810(R<0.5%) /1500~1620(R<0.5%) nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	Cutting Machine
Clear Aperture *	≥80% (T), ≥ 10.9 mm (W) *1	NA

*1 Poled fan-out grating width =10.9mm

- Phase Matching Tuning Curve



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Periodically Poled Lithium Niobate (PPLN) Chip: FSHNIR -FB

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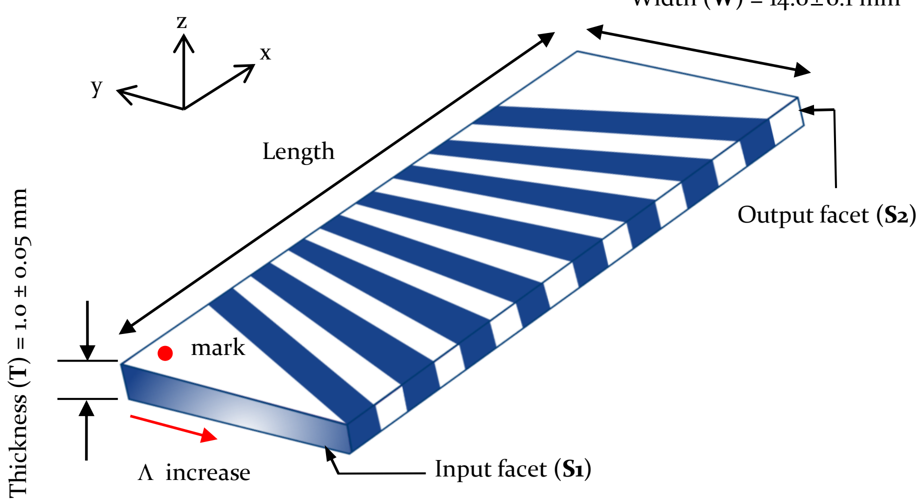
- Chip Lay-Out

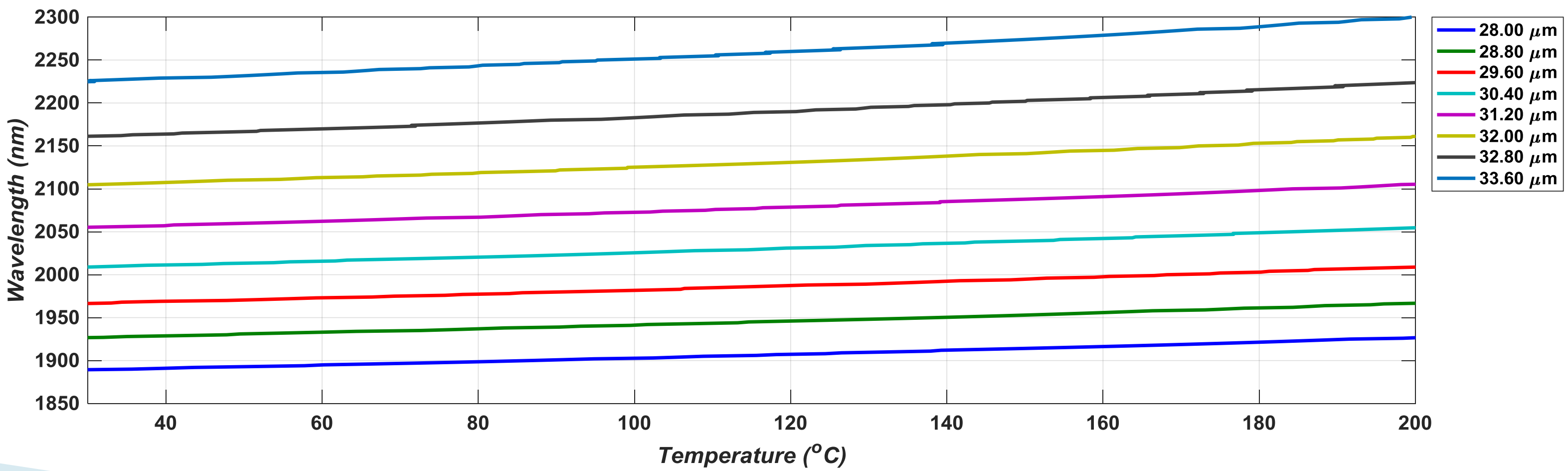


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ, μm)	28.0~33.6	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @960~1150(R<0.5%) /1925~2300(R<0.5%) nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Clear Aperture *	≥80% (T), ≥ 10.9 mm (W) *1	NA

*1 Poled fan-out grating width =10.9mm

- Phase Matching Tuning Curve



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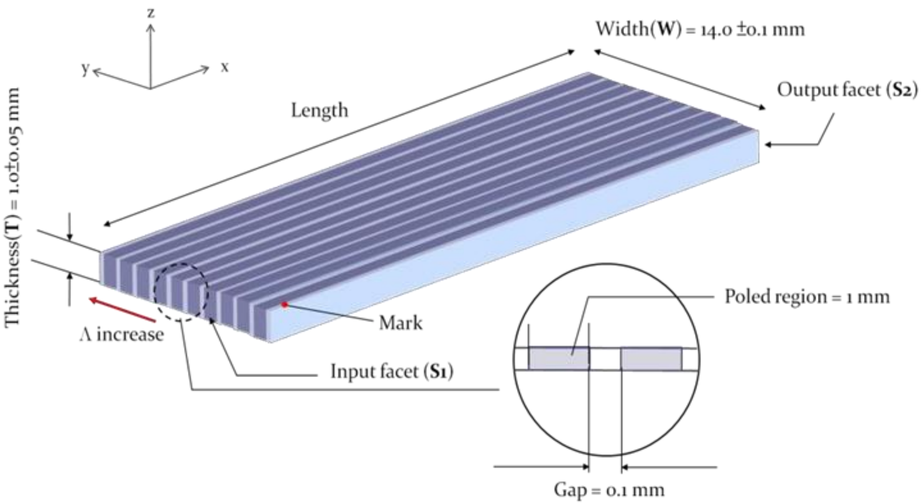
Periodically Poled Lithium Niobate (PPLN) Chip: FSHNIR-ER

- Chip Lay-Out

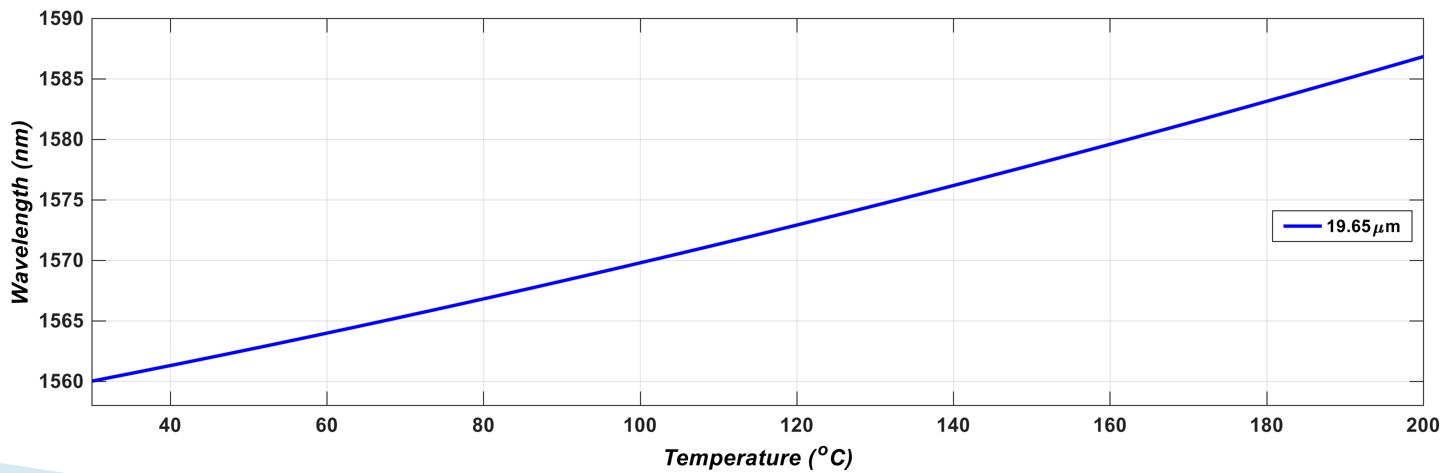


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	19.65~19.65	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @750~810(R<0.5%) /1500~1620(R<0.5%)nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length*1	Poled length(L_{poled}) from 0.1mm to 1mm and step 0.1mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to length of periodically poled. Physical length is 1.0±0.1mm.

- Phase Matching Tuning Curve



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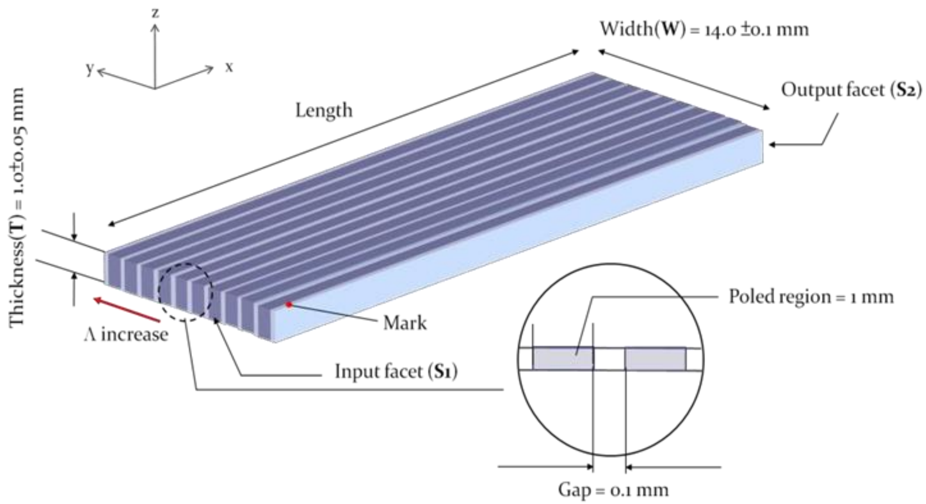
Periodically Poled Lithium Niobate (PPLN) Chip: FSHNIR-ER2

- Chip Lay-Out

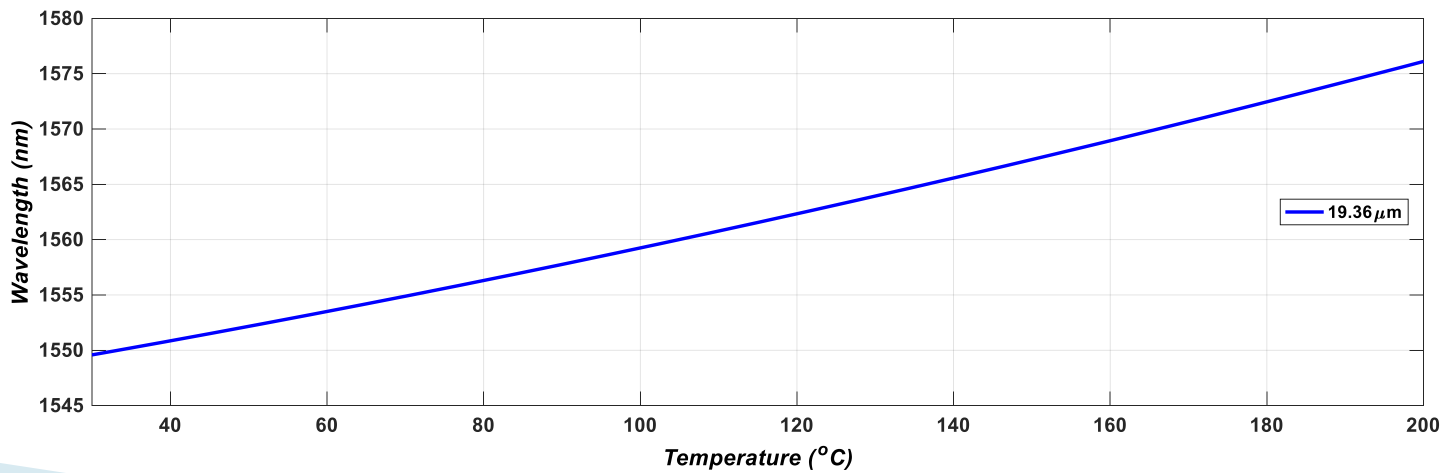


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	19.36~19.36	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @750~810(R<0.5%) /1500~1620(R<0.5%)nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length*1	Poled length(L_{poled}) from 0.1mm to 1mm and step 0.1mm	Cutting Machine
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to length of periodically poled. Physical length is 1.0±0.1mm.

- Phase Matching Tuning Curve



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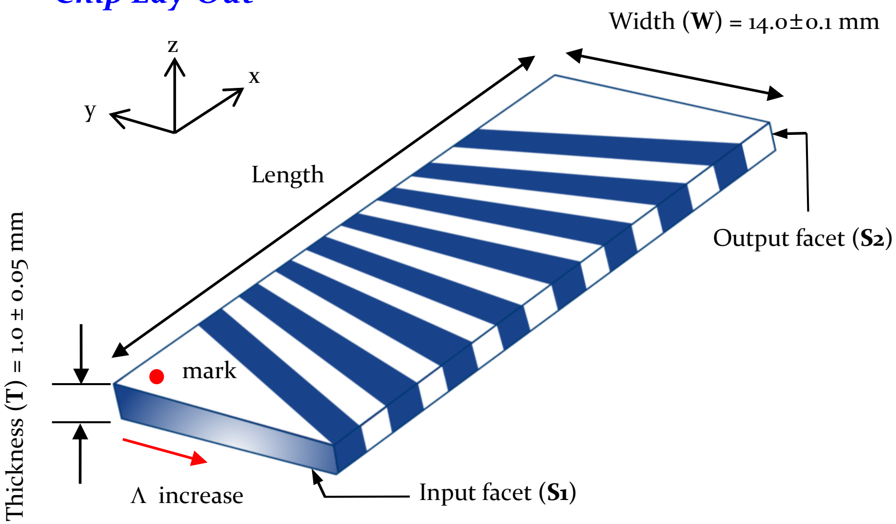
Periodically Poled Lithium Niobate (PPLN) Chip: FSHNIR -FA

- Chip Lay-Out

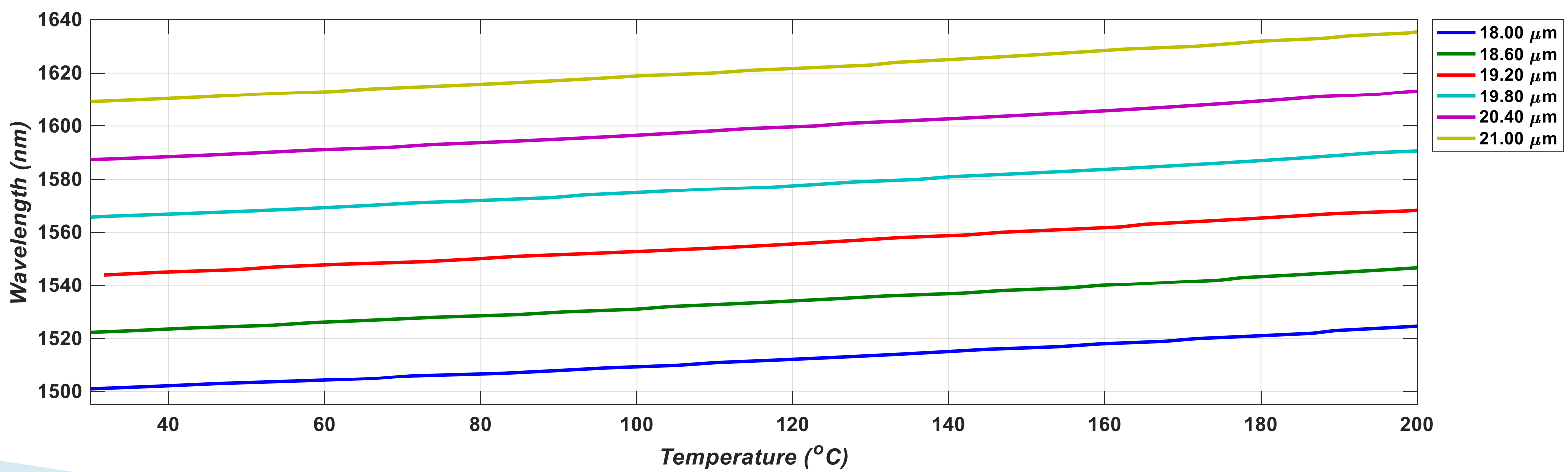


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	18.00~21.00	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @750~810(R<0.5%) /1500~1620(R<0.5%) nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (**W** x **T**)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Clear Aperture	≥80% (**T**), ≥ 10.9 mm (**W**) *1	NA

*1 Poled fan-out grating width = 10.9 mm.

- Phase Matching Tuning Curve



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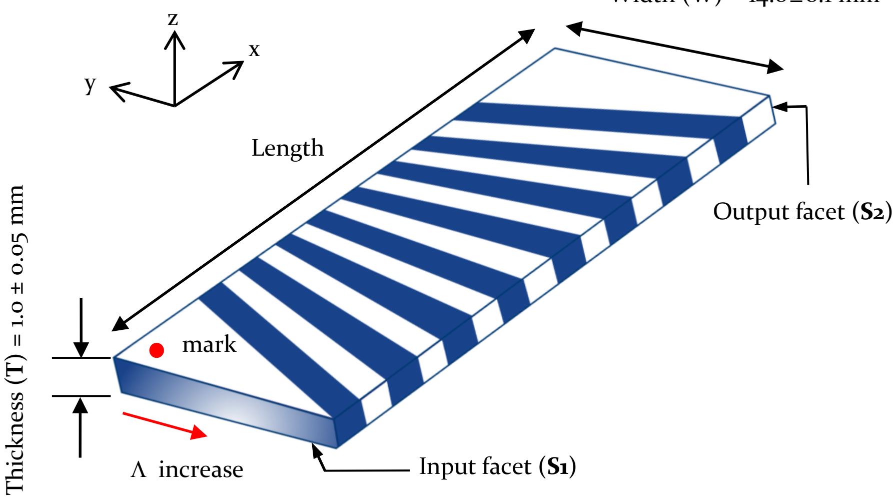
Periodically Poled Lithium Niobate (PPLN) Chip: FSHNIR -FB

- Chip Lay-Out

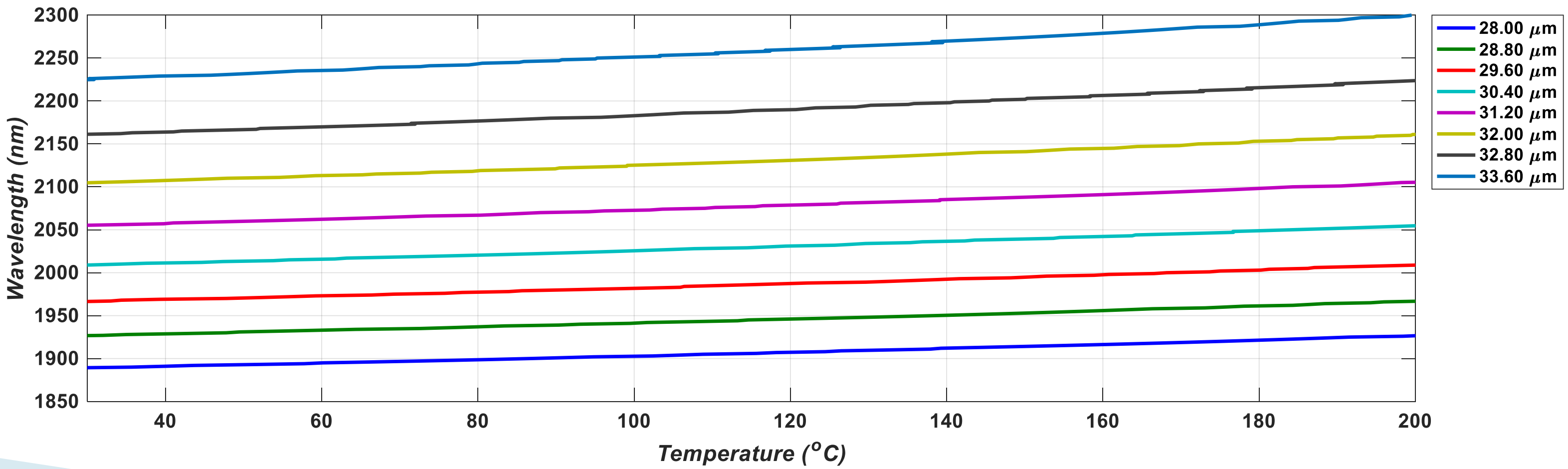


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	28.0~33.6	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @960~1150(R<0.5%) /1925~2300(R<0.5%) nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm^2 (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Clear Aperture	≥80% (T), ≥ 10.9 mm (W) *1	NA

*1 Poled fan-out grating width = 10.9 mm.

- Phase Matching Tuning Curve



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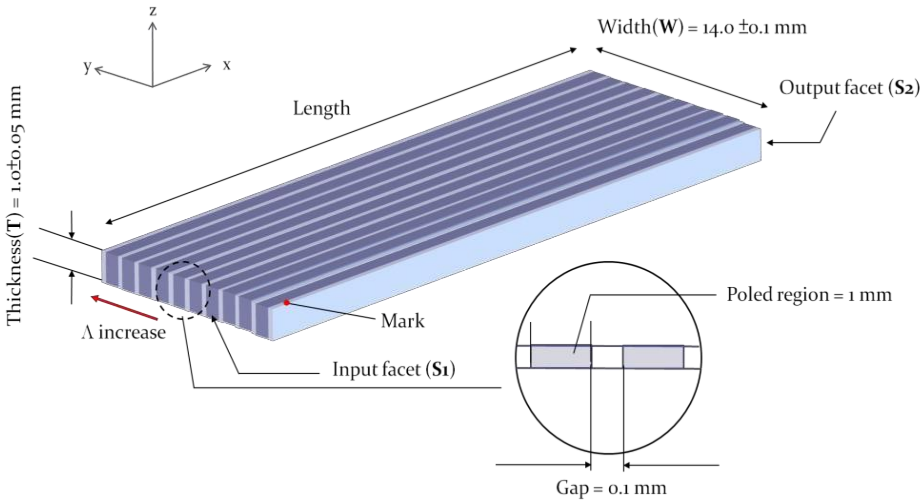
Periodically Poled Lithium Niobate (PPLN) Chip: FSHNIR-MA

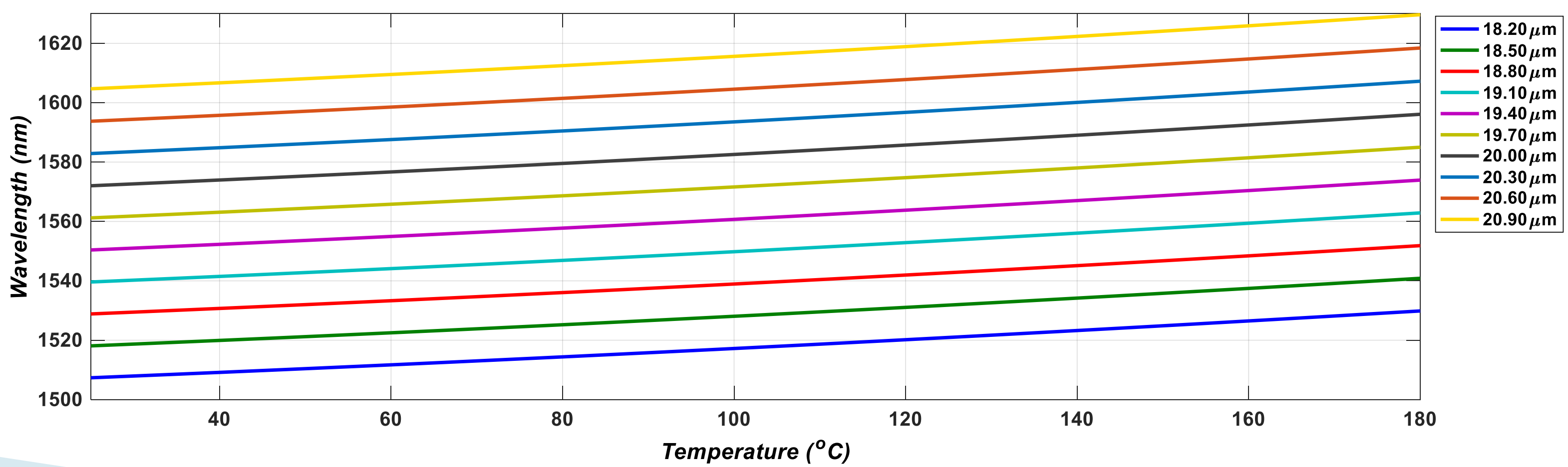
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	18.20, 18.50, 18.80, 19.10, 19.40, 19.70, 20.00, 20.30, 20.60, 20.90	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2@750~810(R<0.5%) /1500~1620 (R<0.5%) nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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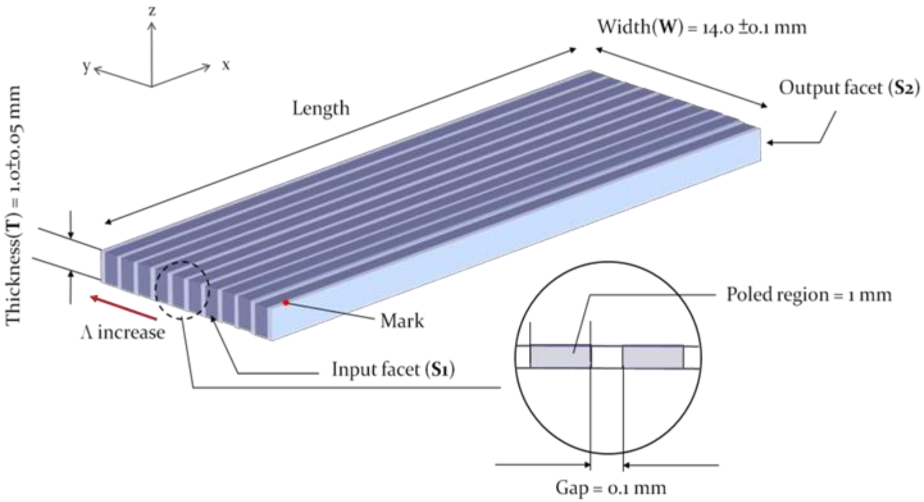
Periodically Poled Lithium Niobate (PPLN) Chip: FSHNIR-MA-C

- Chip Lay-Out

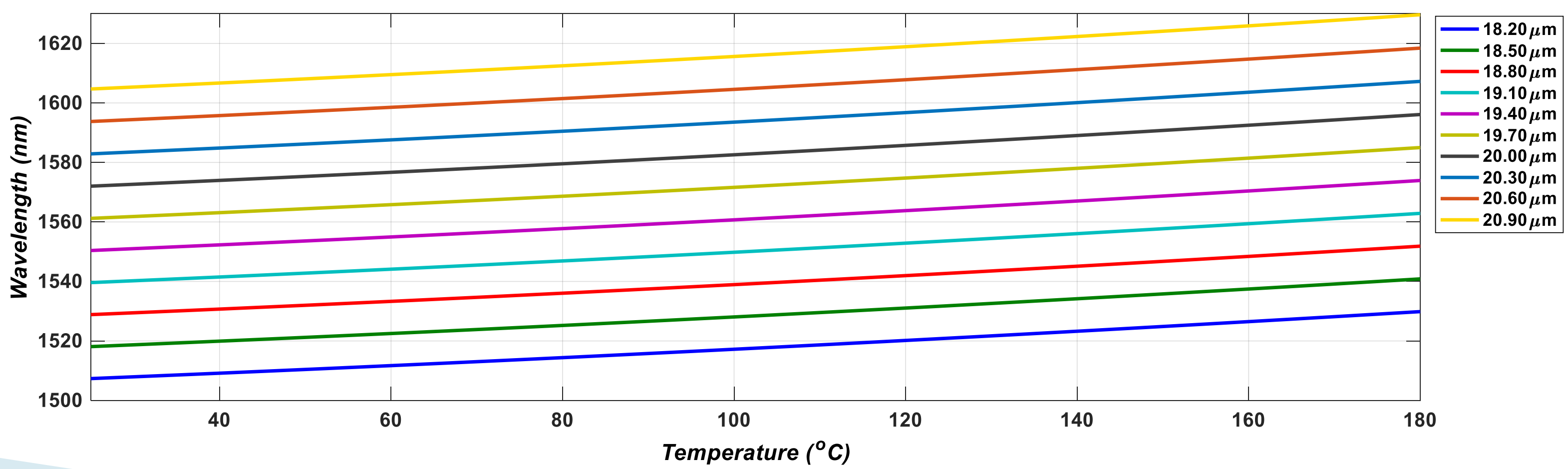


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	18.20, 18.50, 18.80, 19.10, 19.40, 19.70, 20.00, 20.30, 20.60, 20.90	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2@750~810(R<0.5%) /1500~1620 (R<0.5%) nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



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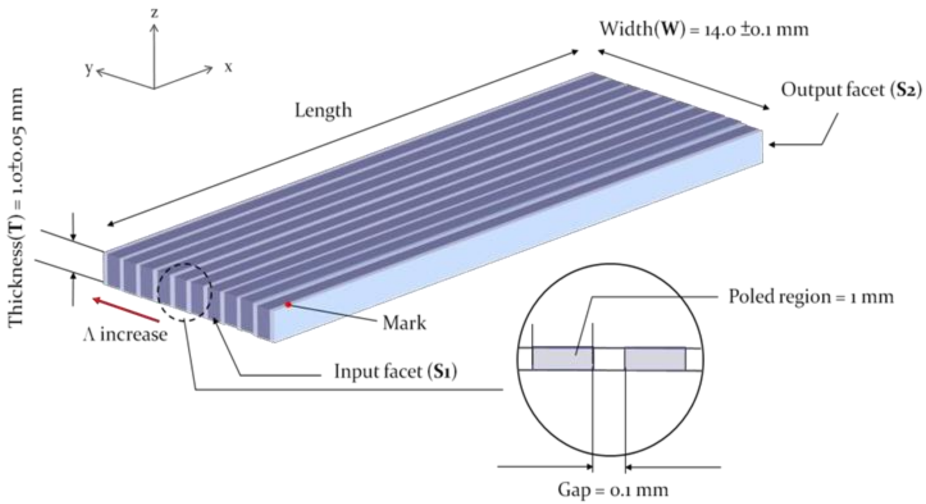
Periodically Poled Lithium Niobate (PPLN) Chip: FSHNIR-MB

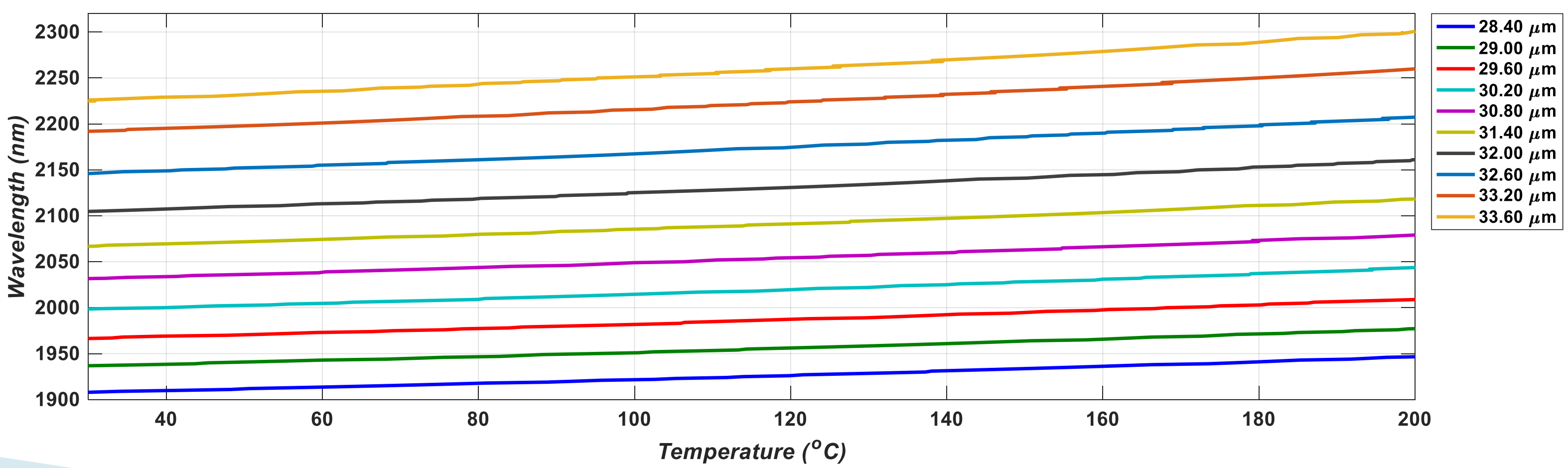
- Chip Lay-Out



[Image for reference only. Not for scale.]

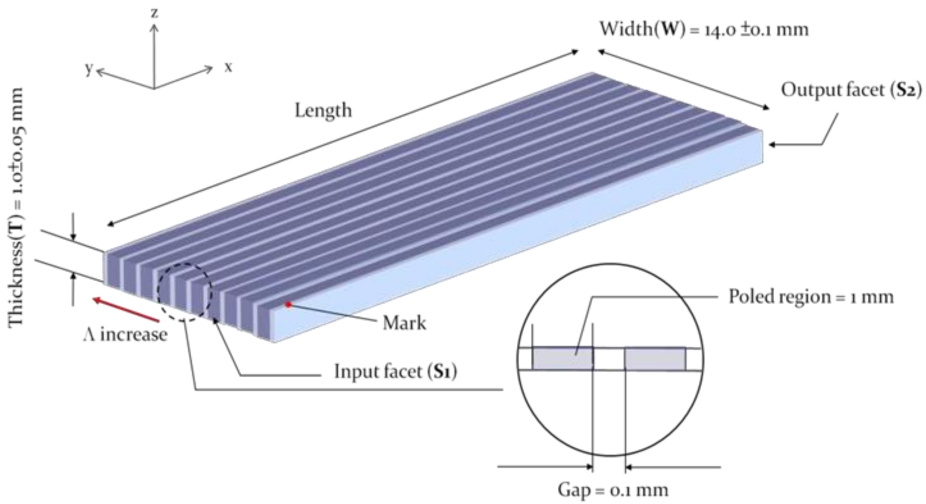
Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	28.40, 29.00, 29.60, 30.20, 30.80, 31.40, 32.00, 32.60, 33.20, 33.60	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2@960~1150(R<0.5%) /1925~2300 (R<0.5%) nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



Periodically Poled Lithium Niobate (PPLN) Chip: FSHNIR-MB-C

- Chip Lay-Out

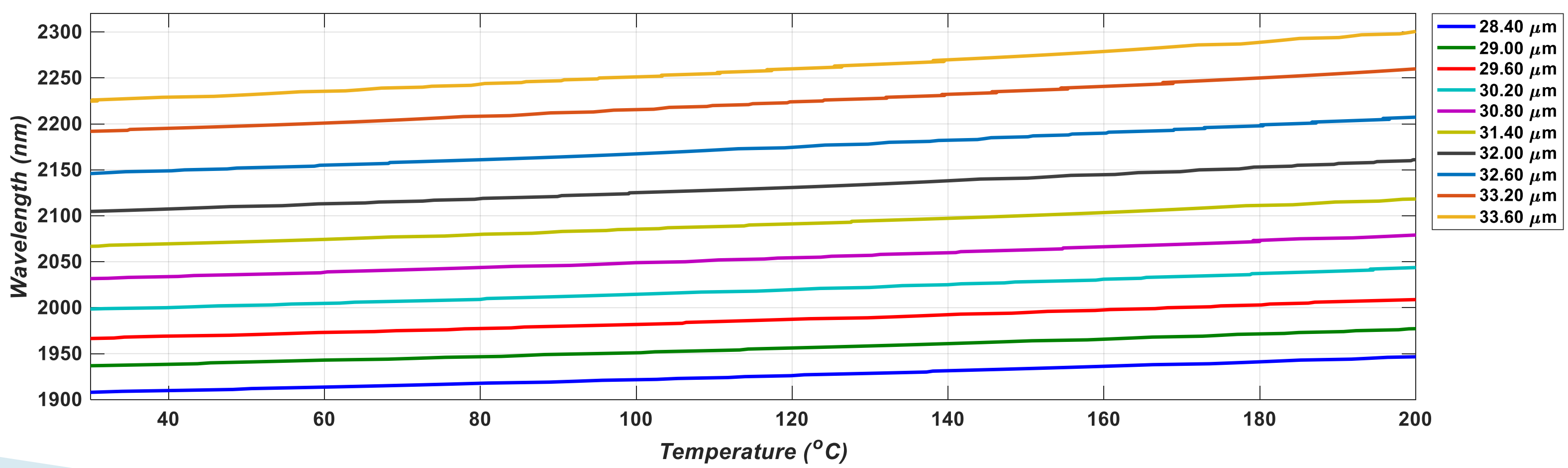


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	28.40, 29.00, 29.60, 30.20, 30.80, 31.40, 32.00, 32.60, 33.20, 33.60	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2@960~1150(R<0.5%) /1925~2300 (R<0.5%) nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



Periodically Poled Lithium Niobate (PPLN) Chip: FSHNIR-MC

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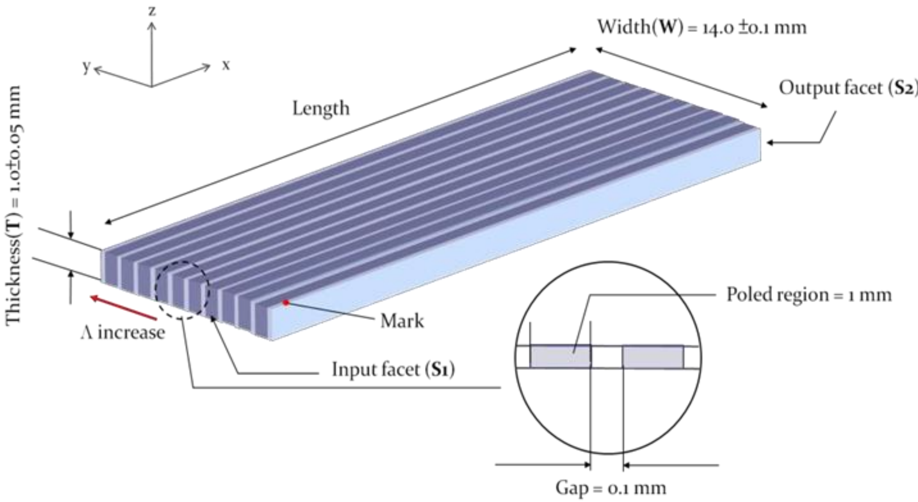
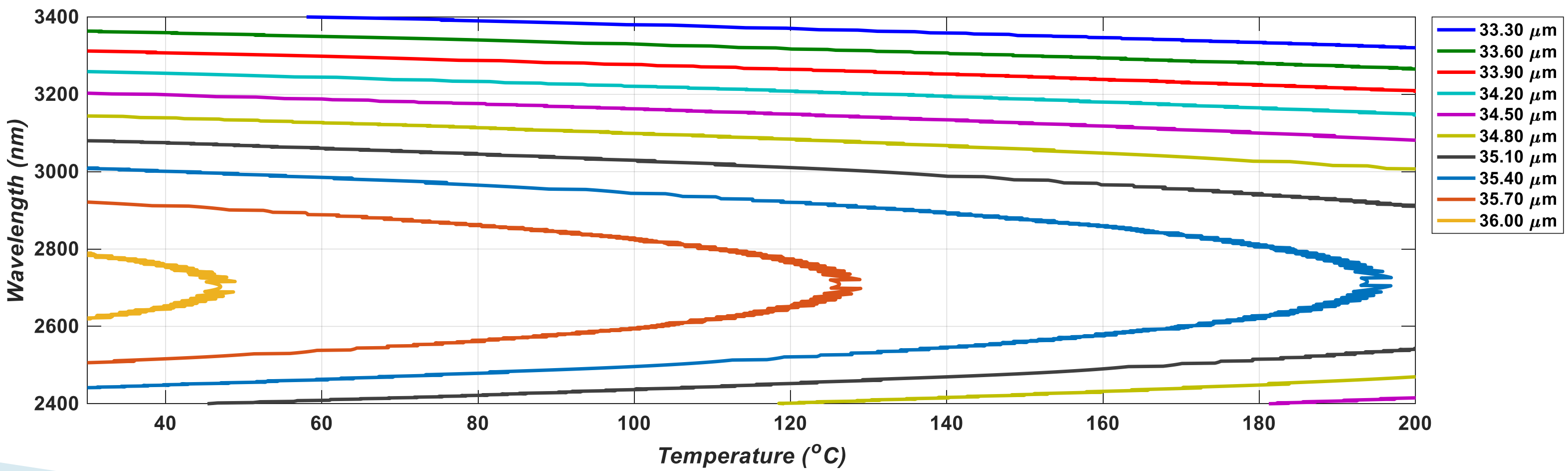
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	33.30, 33.60, 33.90, 34.20, 34.50, 34.80, 35.10, 35.40, 35.70, 36.00	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @1200~1700(R<1%) /2400~3400(R<5%)nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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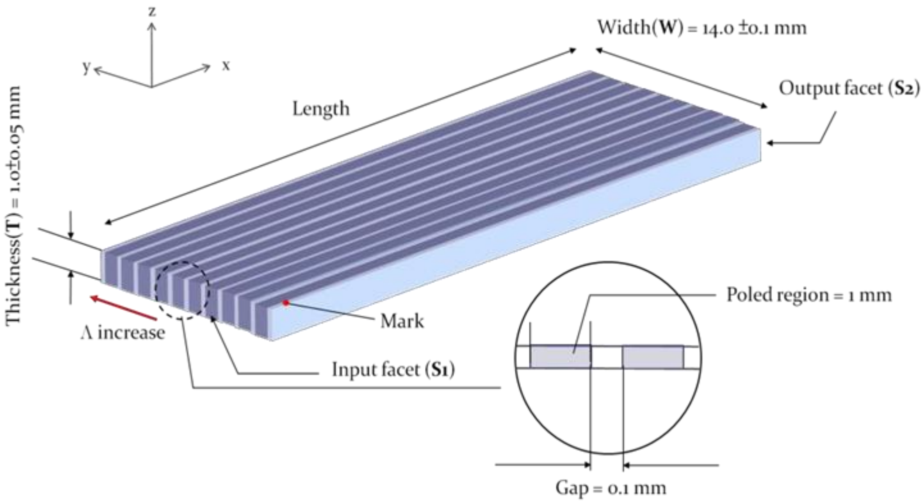
Periodically Poled Lithium Niobate (PPLN) Chip: FSHNIR-MC-C

- Chip Lay-Out

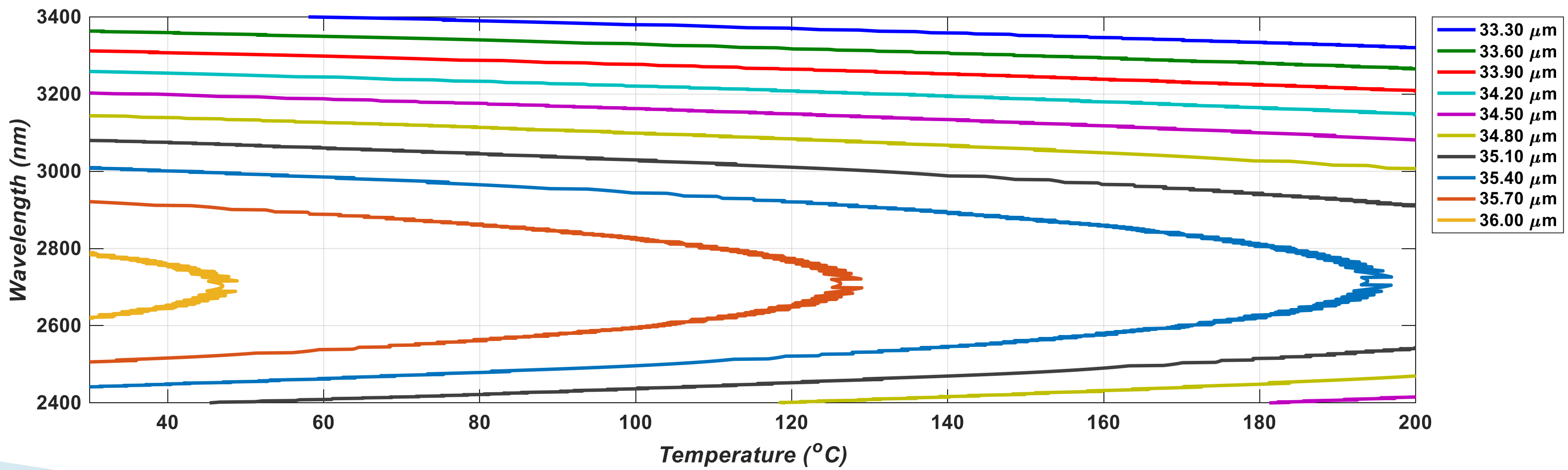


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	33.30, 33.60, 33.90, 34.20, 34.50, 34.80, 35.10, 35.40, 35.70, 36.00	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @1200~1700(R<1%) /2400~3400(R<5%)nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

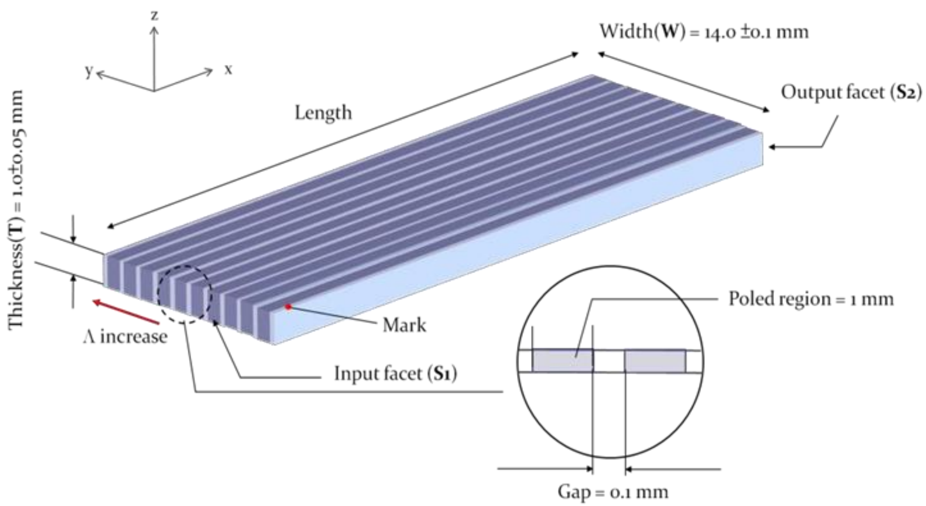
*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



Periodically Poled Lithium Niobate (PPLN) Chip: FSHNIR-MD

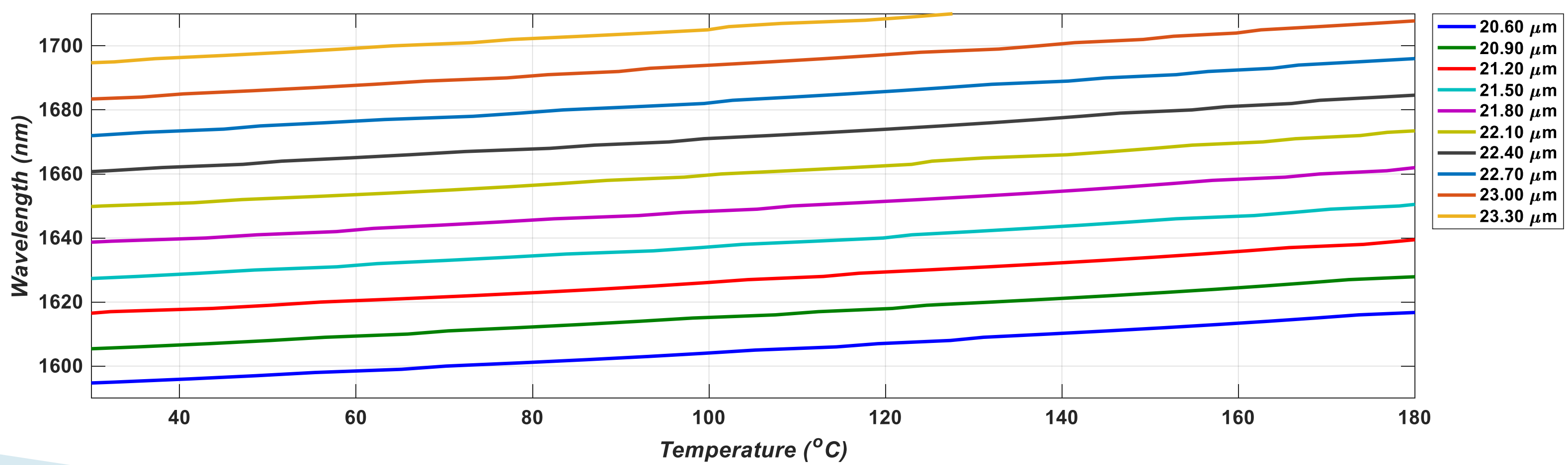
- Chip Lay-Out



[Image for reference only. Not for scale.]

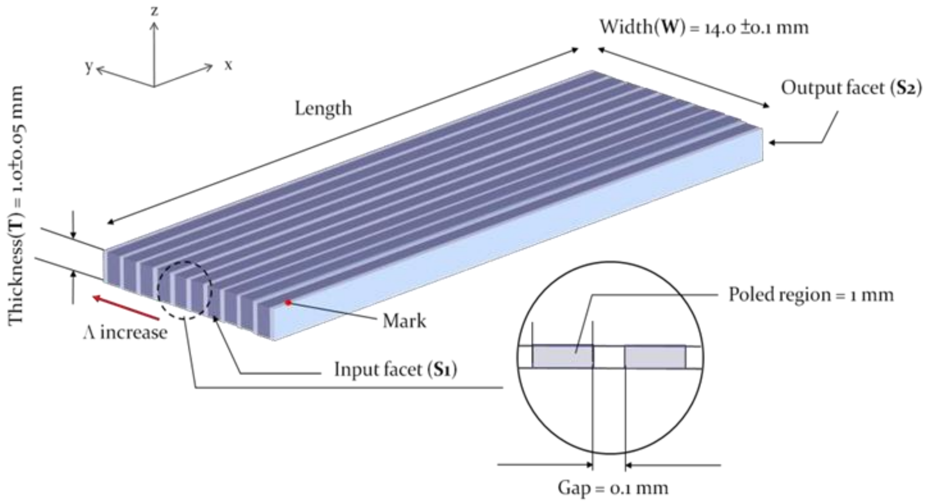
Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	20.60, 20.90, 21.20, 21.50, 21.80, 22.10, 22.40, 22.70, 23.00, 23.30	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @795~855(R<0.5%) /1590~1710(R<0.5%)nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



Periodically Poled Lithium Niobate (PPLN) Chip: FSHNIR-MD-C

- Chip Lay-Out

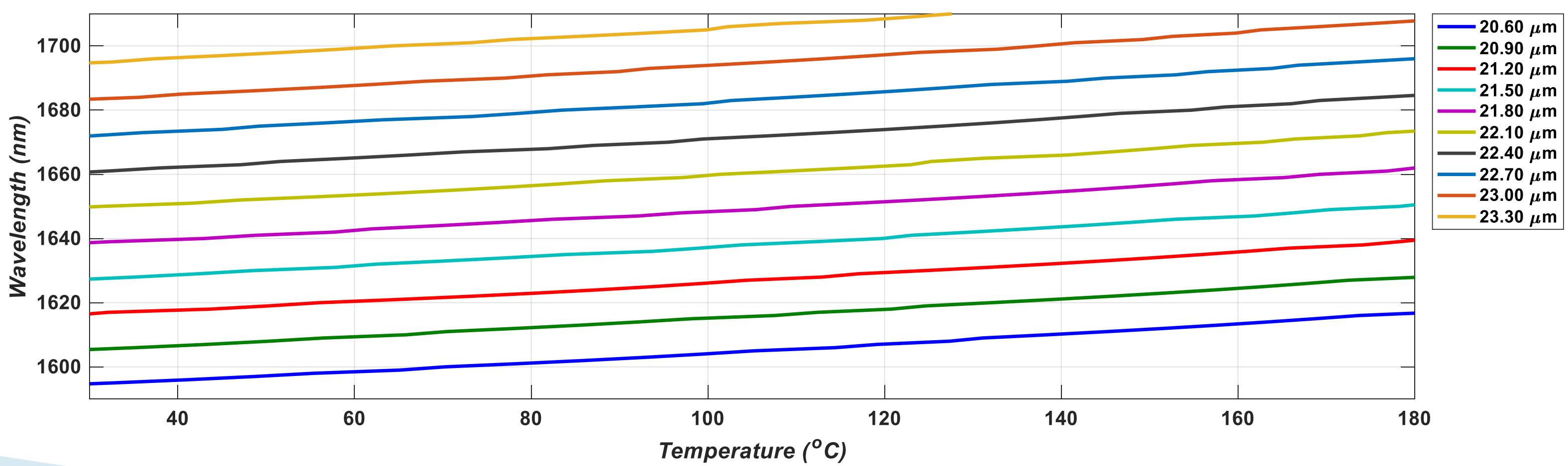


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	20.60, 20.90, 21.20, 21.50, 21.80, 22.10, 22.40, 22.70, 23.00, 23.30	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @795~855(R<0.5%) /1590~1710(R<0.5%)nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm[*1]	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

[*1] Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



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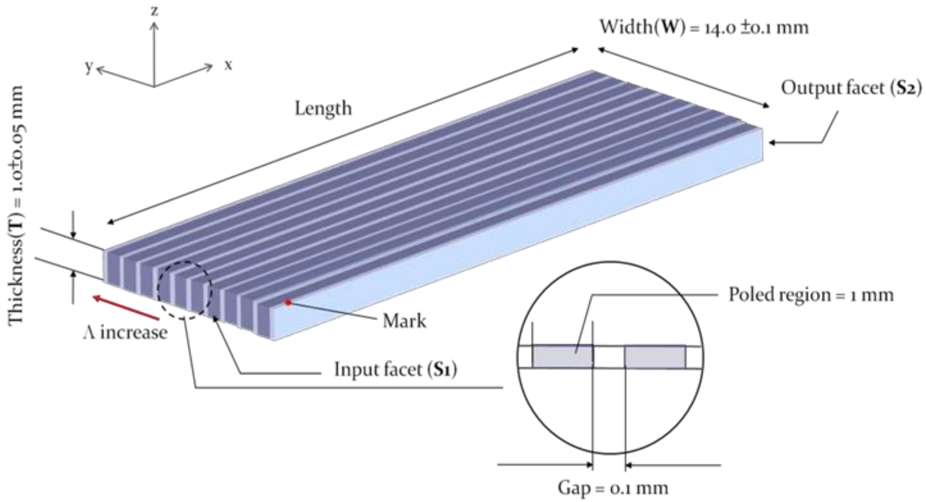
Periodically Poled Lithium Niobate (PPLN) Chip: FSHNIR-ME

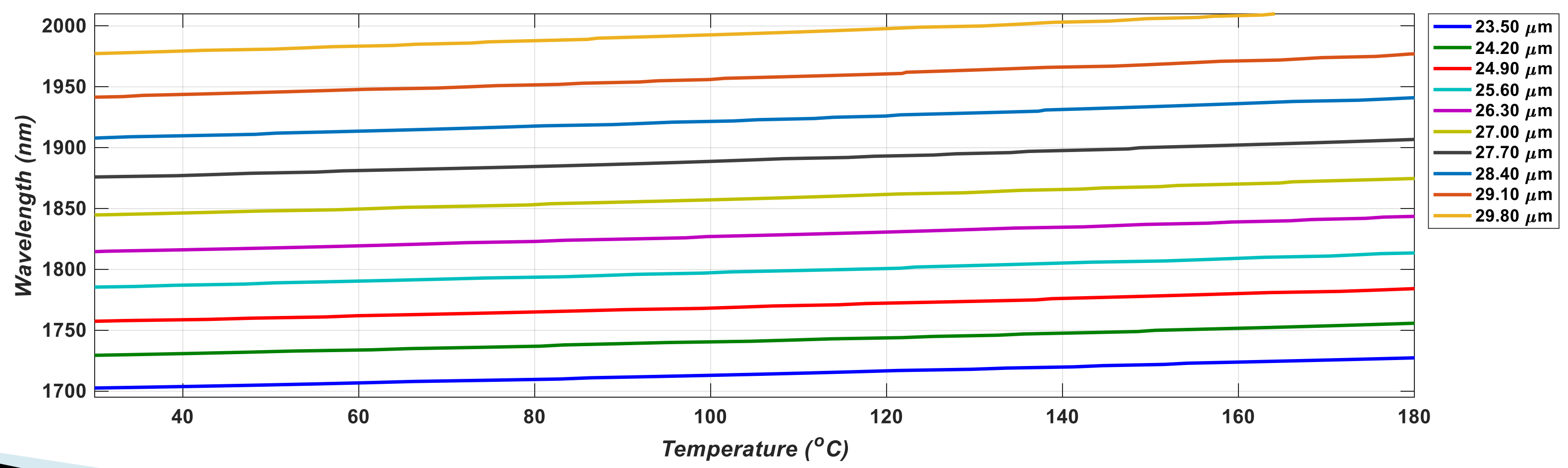
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	23.50, 24.20, 24.90, 25.60, 26.30, 27.00, 27.70, 28.40, 29.10, 29.80	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @850~1000(R<0.5%) /1700~2000(R<0.5%)nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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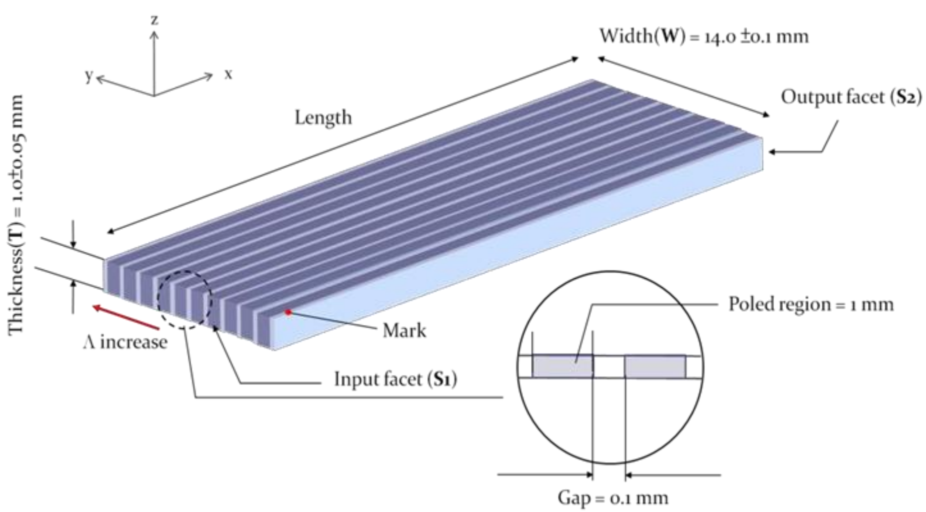
Periodically Poled Lithium Niobate (PPLN) Chip: FSHNIR-ME-C

- Chip Lay-Out

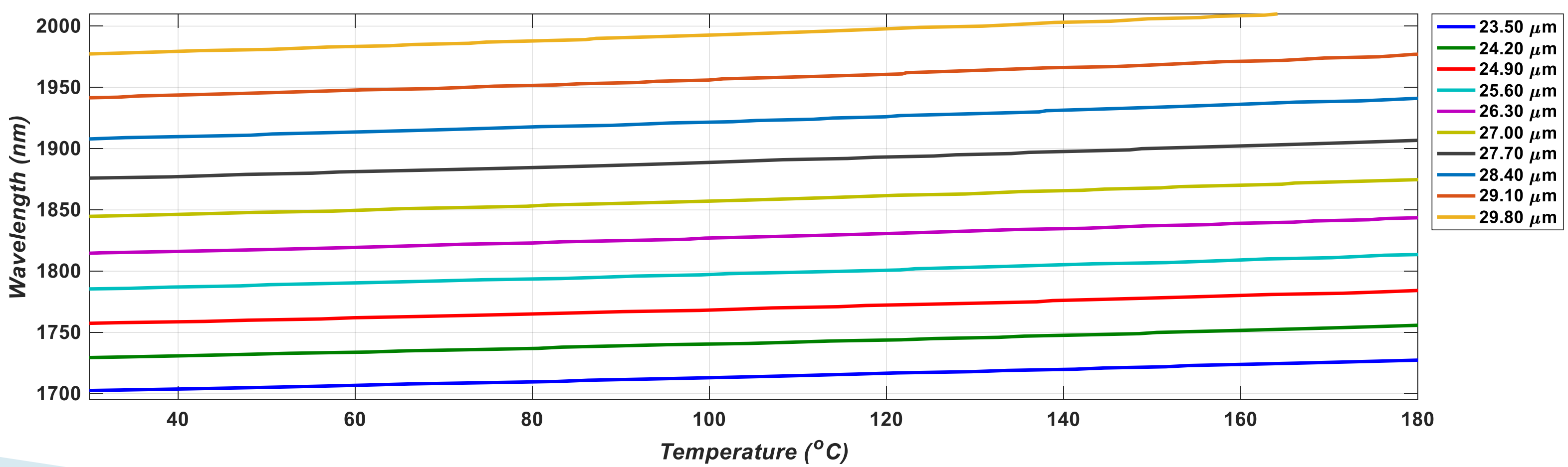


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	23.50, 24.20, 24.90, 25.60, 26.30, 27.00, 27.70, 28.40, 29.10, 29.80	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @850~1000(R<0.5%) /1700~2000(R<0.5%)nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



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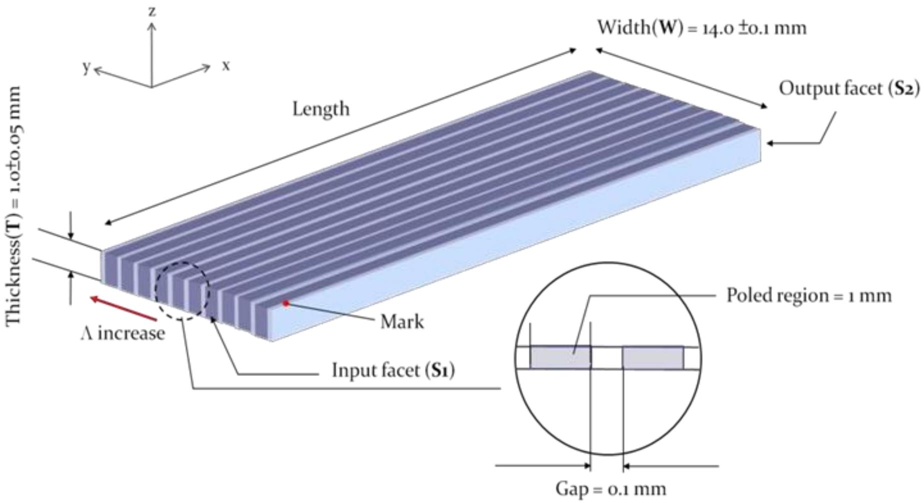
Periodically Poled Lithium Niobate (PPLN) Chip: FSHNIR-TM

- Chip Lay-Out

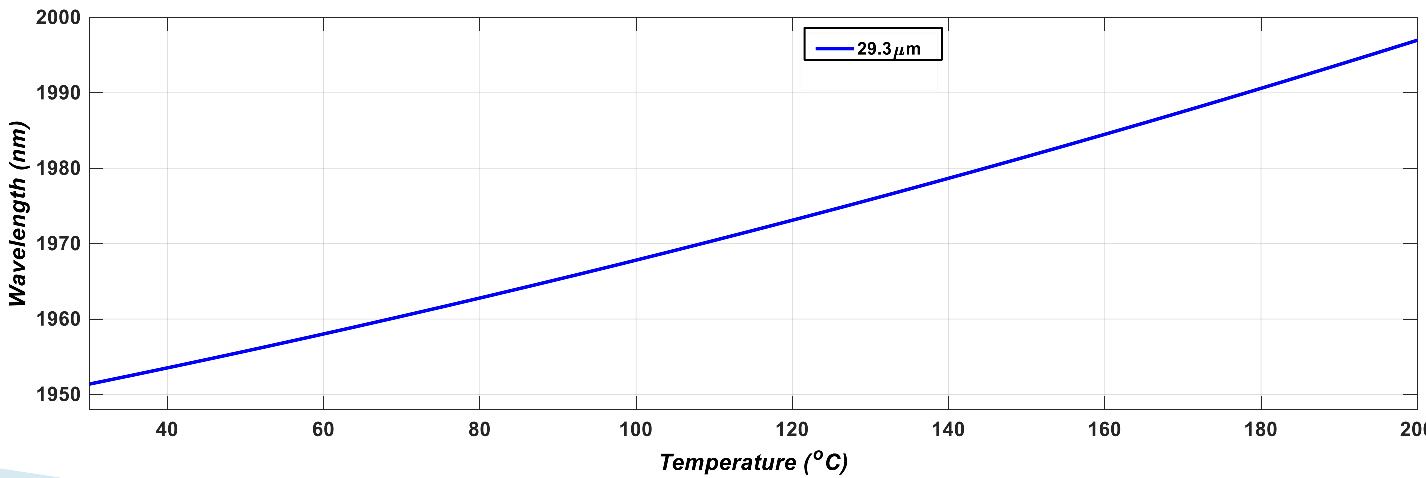


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	29.30~29.30	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @960~1150(R<0.5%) /1925~2300(R<0.5%)nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length*1	Poled length(L_{poled}) from 0.1mm to 1mm and step 0.1mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to length of periodically poled. Physical length is 1.0±0.1mm.

- Phase Matching Tuning Curve



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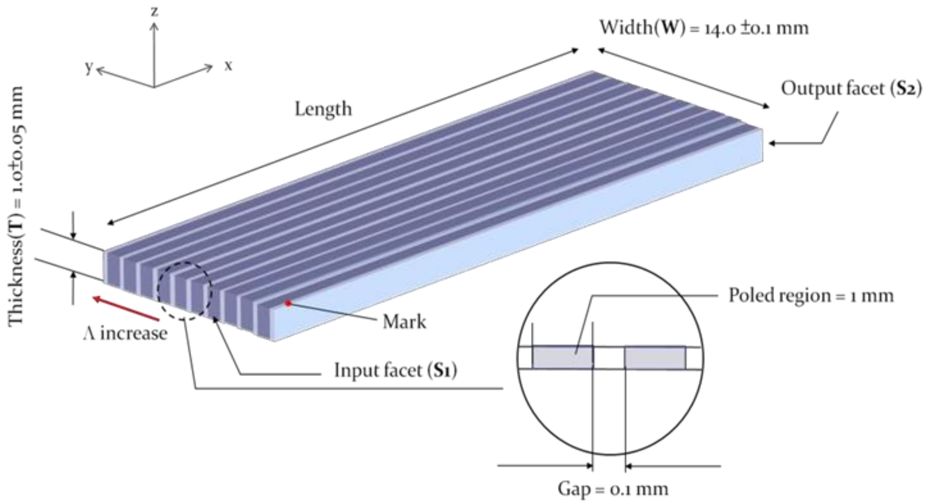
Periodically Poled Lithium Niobate (PPLN) Chip: FSHNIR-TM2

- Chip Lay-Out

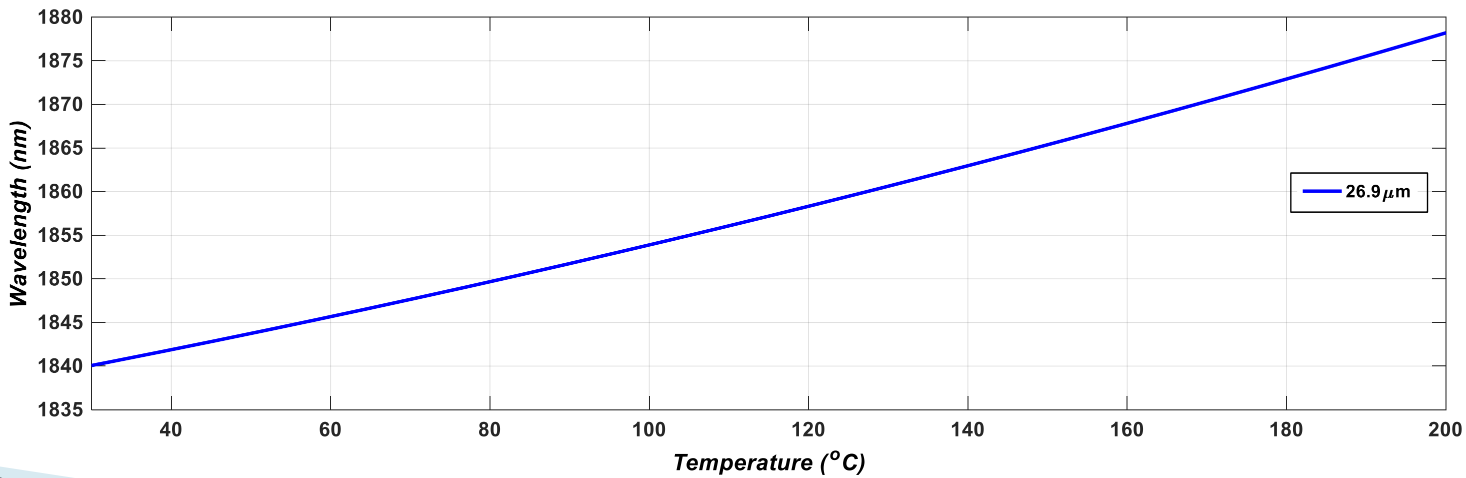


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	26.90~26.90	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @850~1000(R<0.5%) /1700~2000(R<0.5%)nm	Spectral Analyzer
Aperture Size	14.0 x 1.0 mm² (W x T)	Cutting Machine
Available Length*1	Poled length(L_{poled}) from 0.1mm to 1mm and step 0.1mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

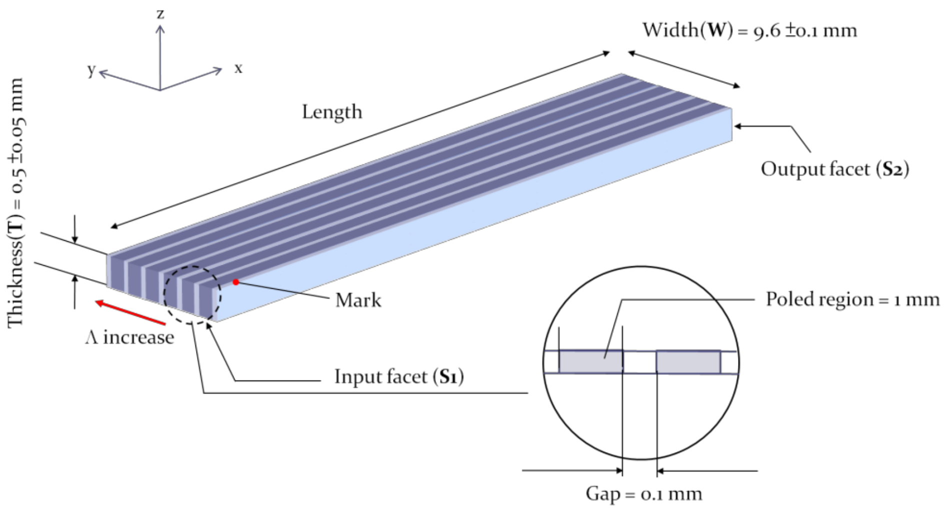
*1 Refer to length of periodically poled. Physical length is 1.0±0.1mm.

- Phase Matching Tuning Curve



Periodically Poled Lithium Niobate (PPLN) Chip: FSHRED-MA

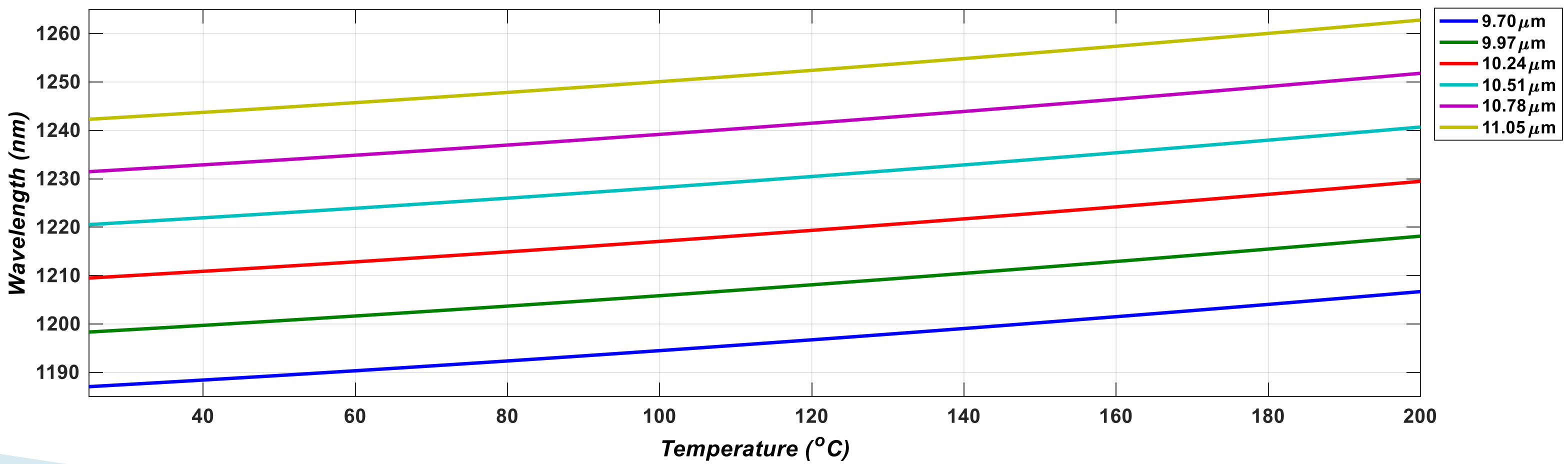
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ, μm)	9.70, 9.97, 10.24, 10.51, 10.78, 11.05	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @590~680(R<0.5%) /1180~1360(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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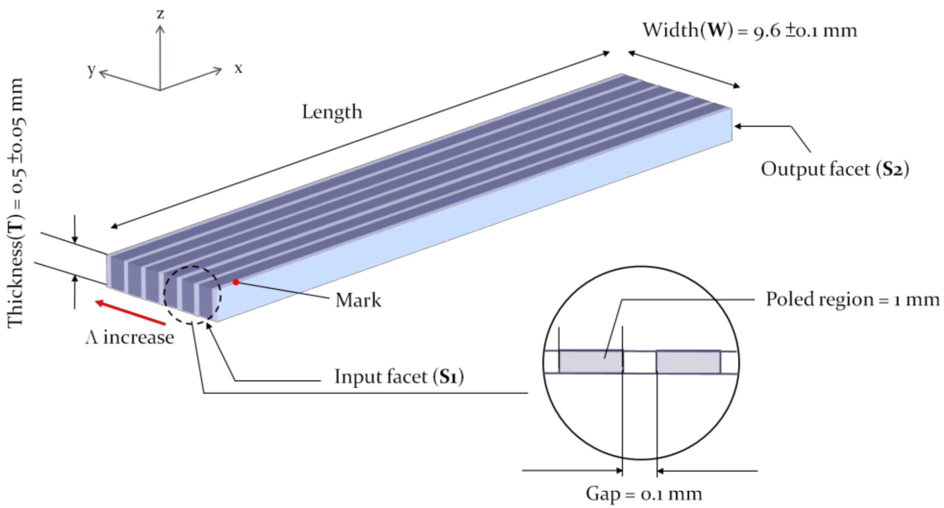
Periodically Poled Lithium Niobate (PPLN) Chip: FSHRED-MA-C

- Chip Lay-Out

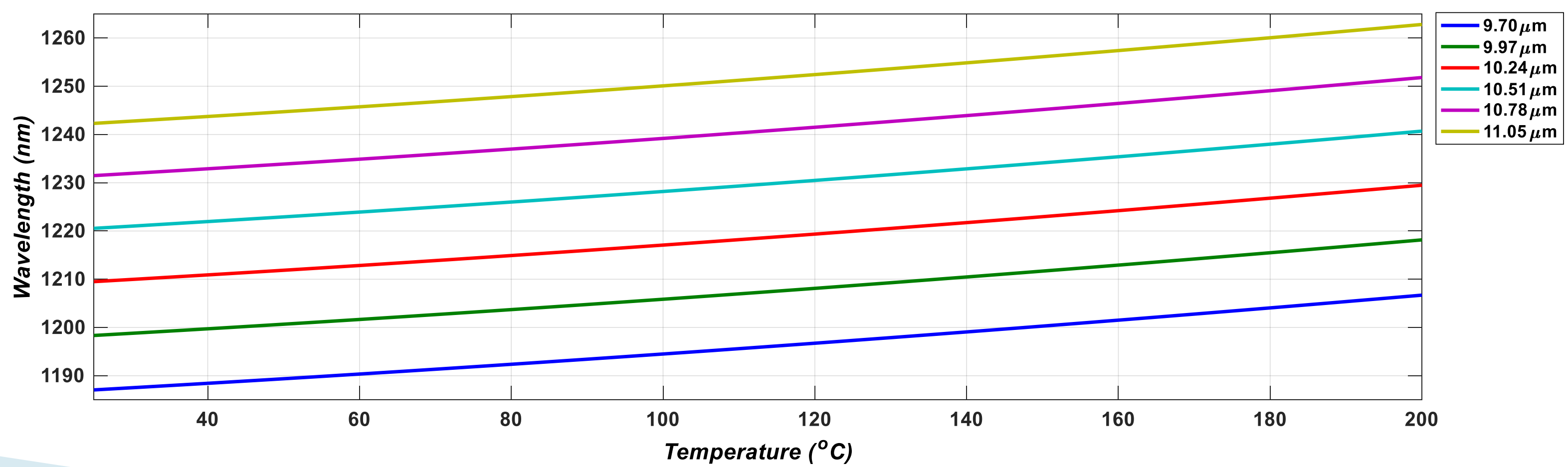


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ, µm)	9.70, 9.97, 10.24, 10.51, 10.78, 11.05	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @590~680(R<0.5%) /1180~1360(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



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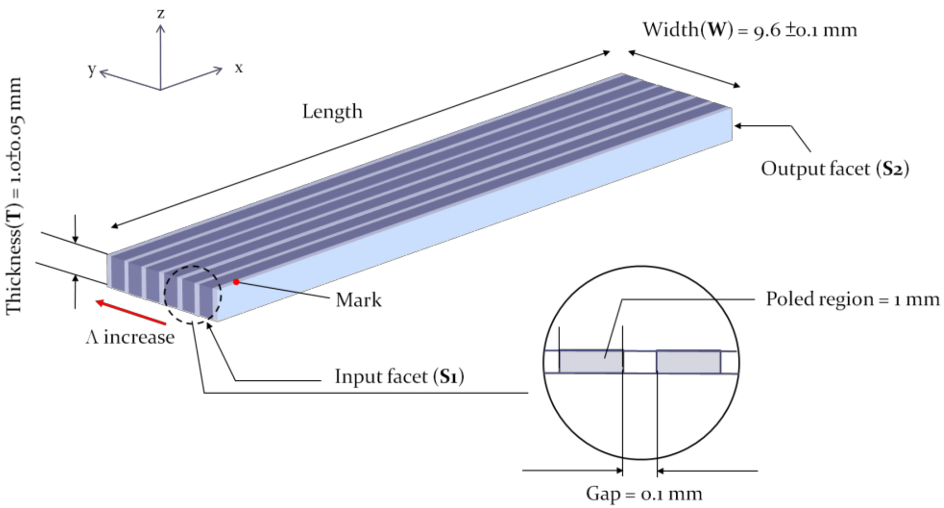
Periodically Poled Lithium Niobate (PPLN) Chip: FSHRED-MB

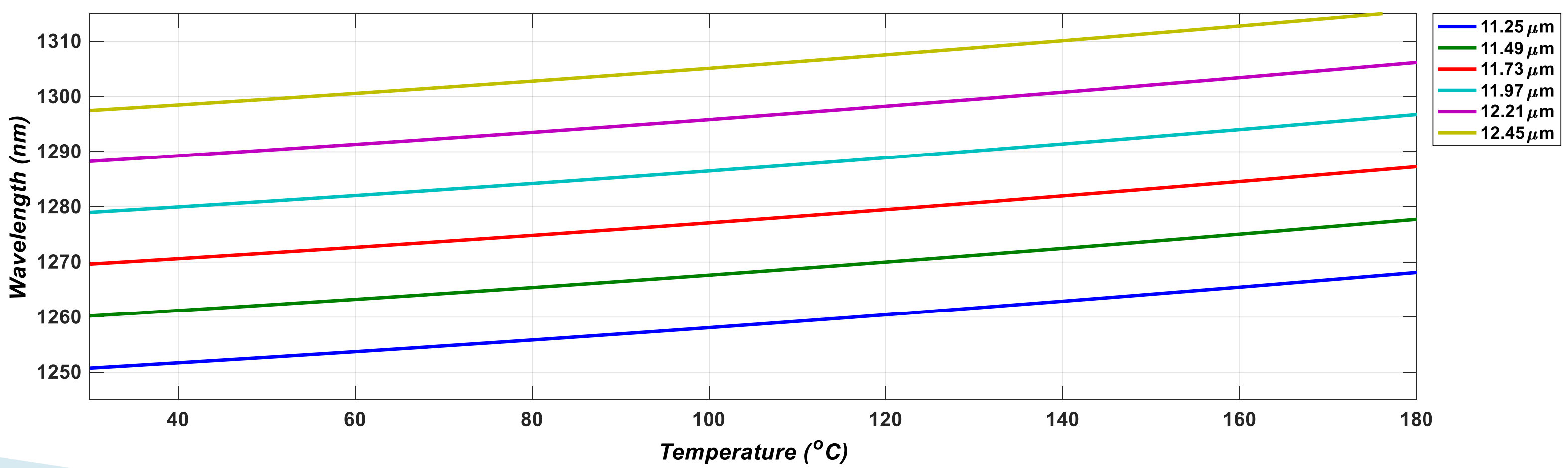
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ, μm)	11.25, 11.49, 11.73, 11.97, 12.21, 12.45	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @590~680(R<0.5%) /1180~1360(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 1.0 mm² (**W** x **T**)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (**T**), ≥90% (**W**)	NA

- Phase Matching Tuning Curve



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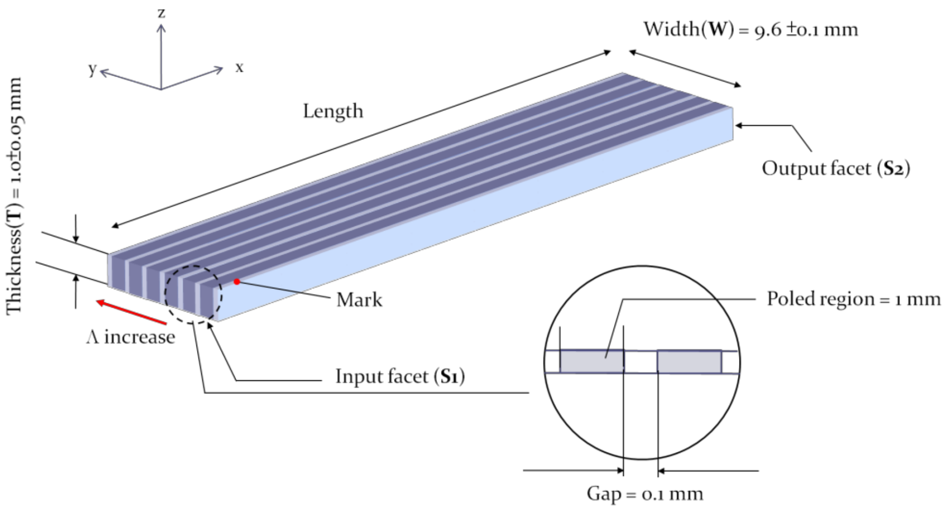
Periodically Poled Lithium Niobate (PPLN) Chip: FSHRED-MB-C

- Chip Lay-Out

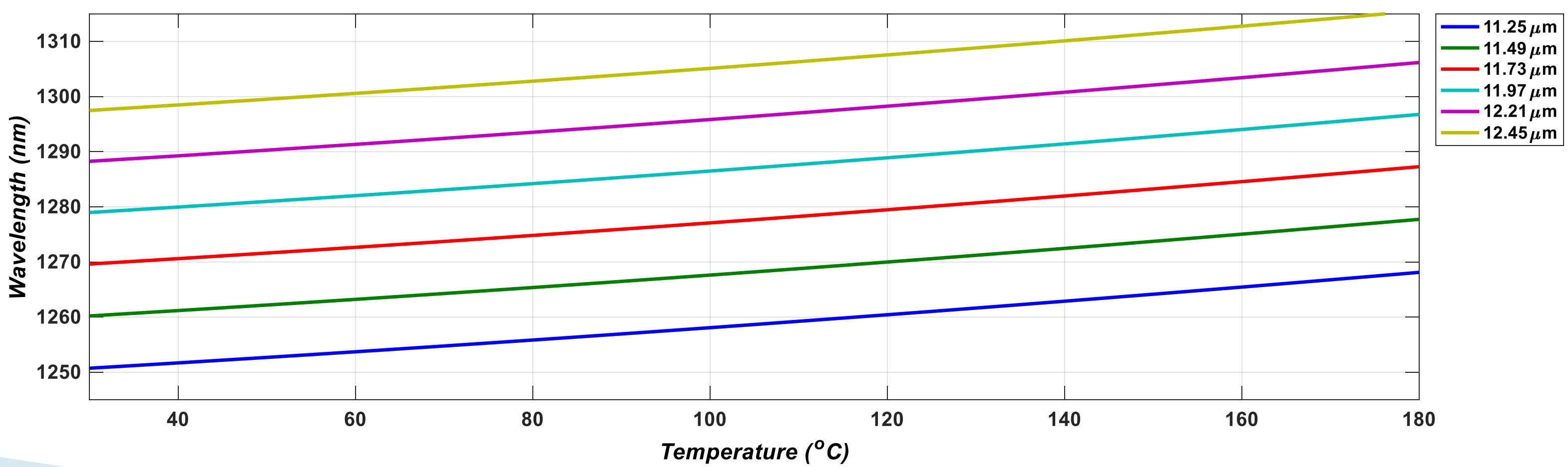


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ, μm)	11.25, 11.49, 11.73, 11.97, 12.21, 12.45	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @590~680(R<0.5%) /1180~1360(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



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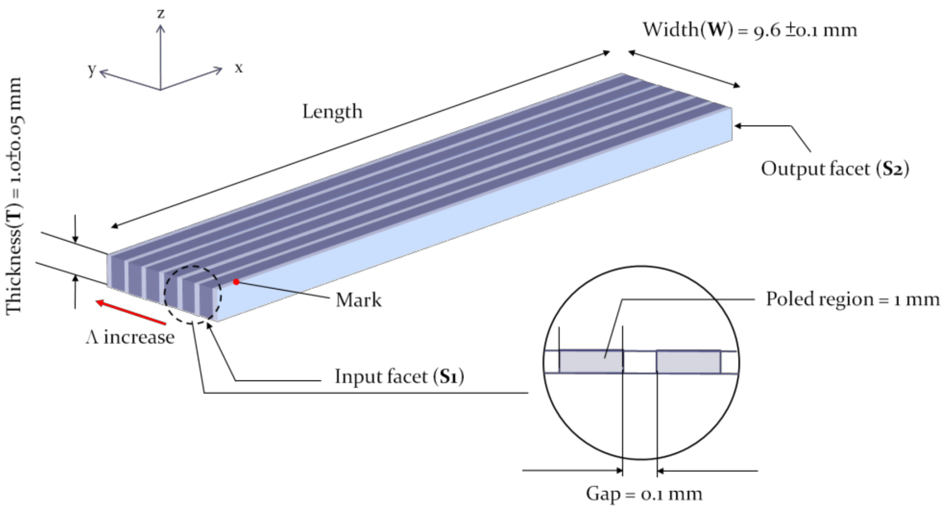
Periodically Poled Lithium Niobate (PPLN) Chip: FSHRED-MC

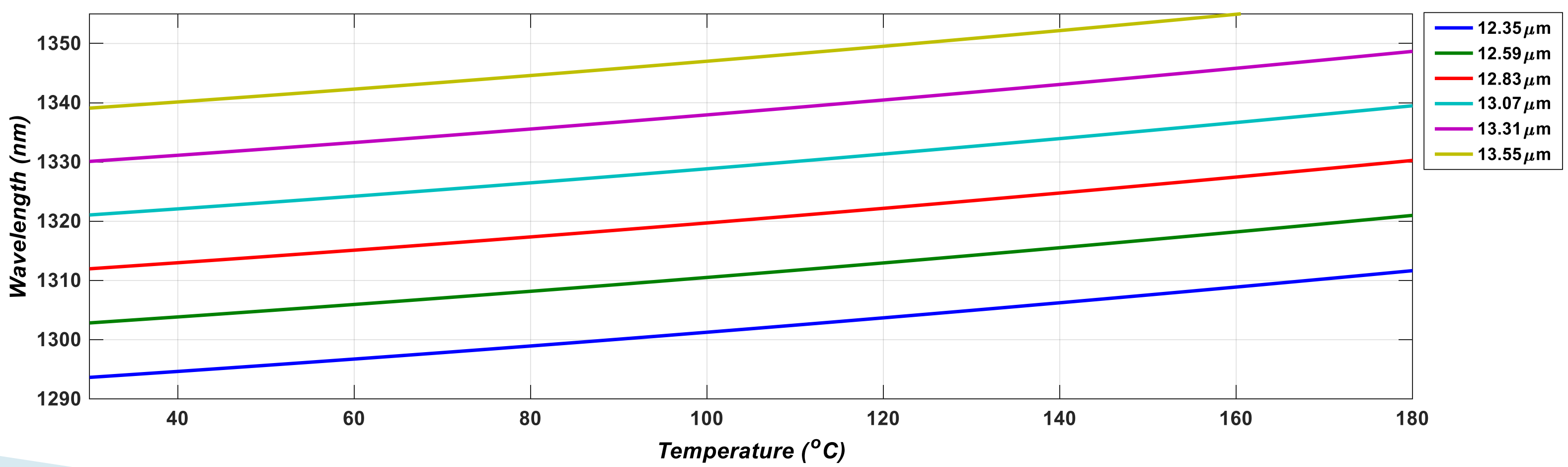
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	12.35, 12.59, 12.83, 13.07, 13.31, 13.55	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @590~680(R<0.5%) /1180~1360(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 1.0 mm² (**W** x **T**)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (**T**), ≥90% (**W**)	NA

- Phase Matching Tuning Curve



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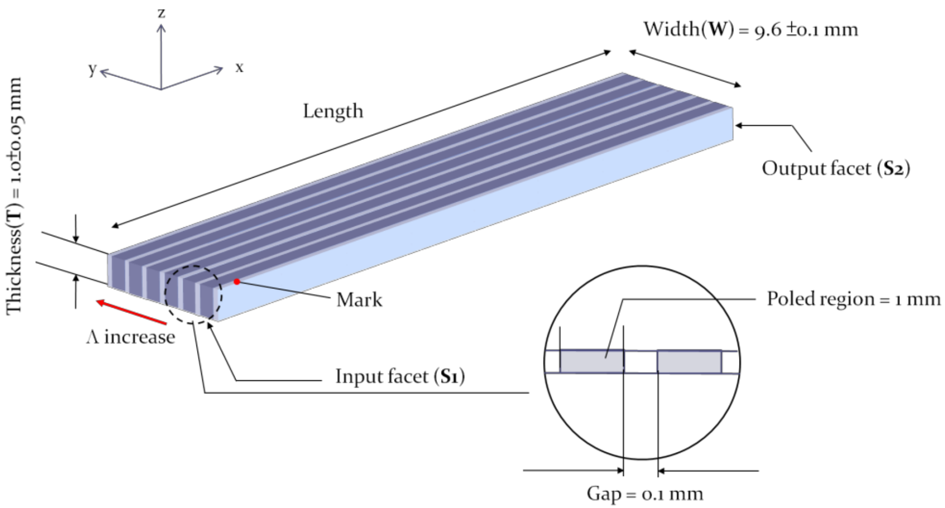
Periodically Poled Lithium Niobate (PPLN) Chip: FSHRED-MC-C

- Chip Lay-Out

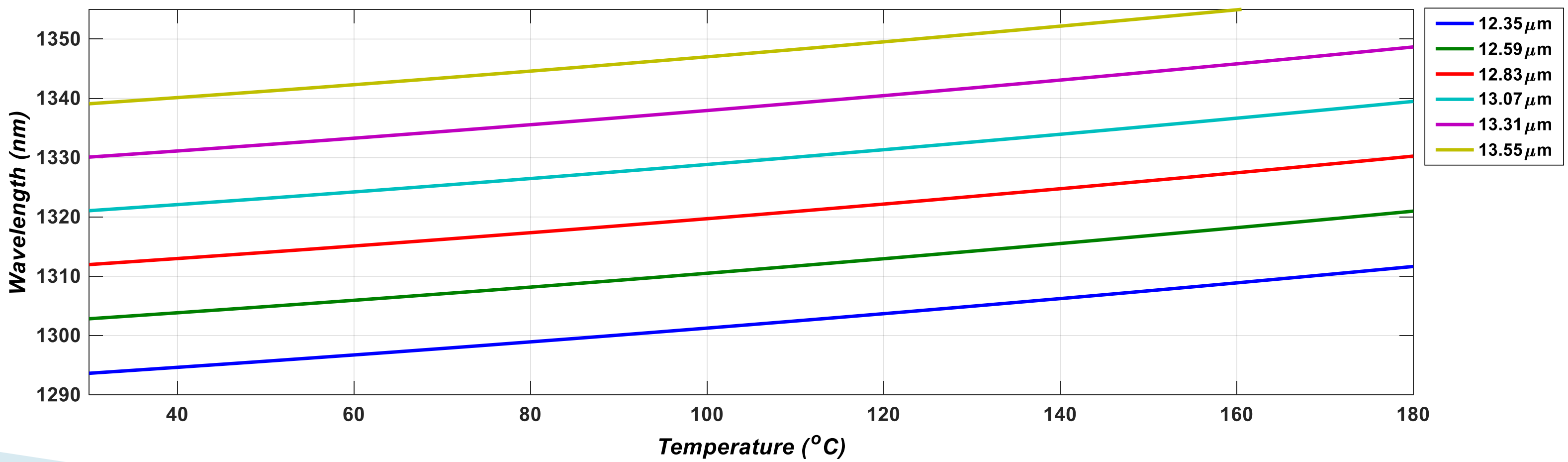


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ, μm)	12.35, 12.59, 12.83, 13.07, 13.31, 13.55	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @590~680(R<0.5%) /1180~1360(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



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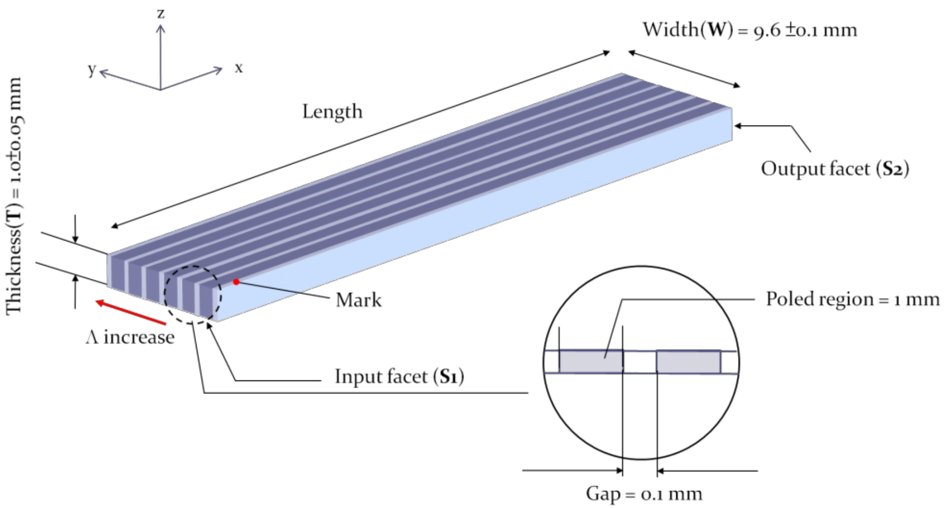
Periodically Poled Lithium Niobate (PPLN) Chip: FSHRED-MD

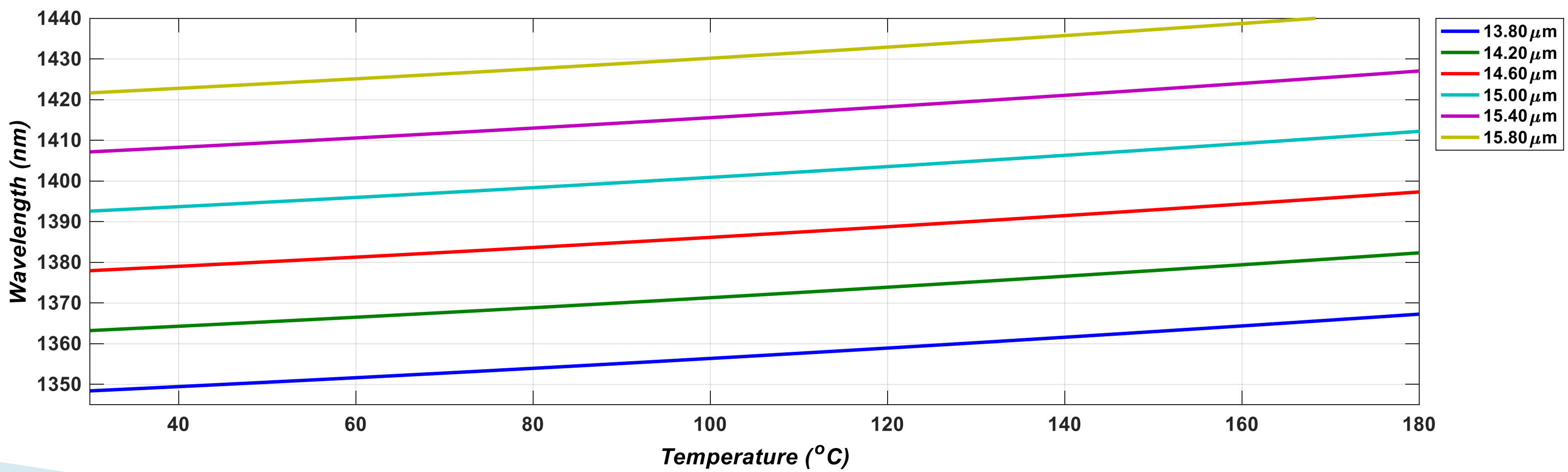
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	13.80, 14.20, 14.60, 15.00, 15.40, 15.80	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @670~730(R<0.5%) /1350~1450(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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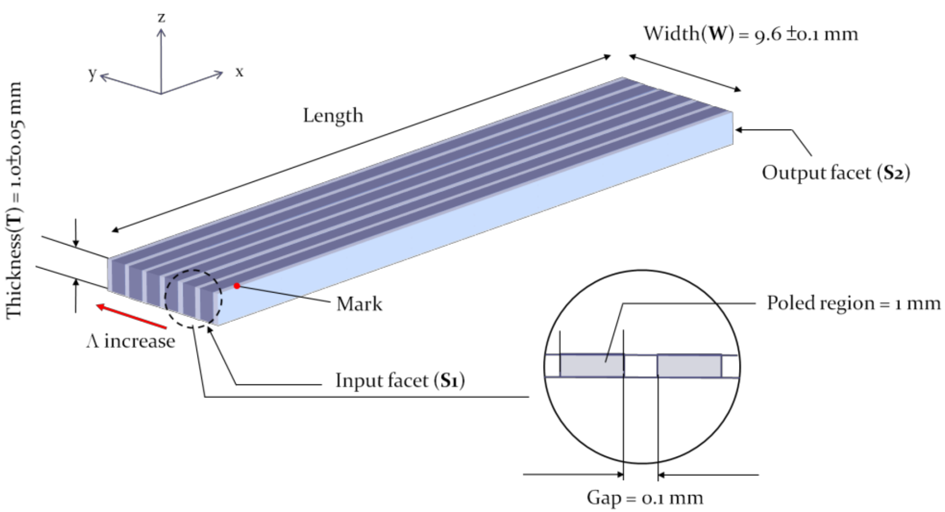
Periodically Poled Lithium Niobate (PPLN) Chip: FSHRED-MD-C

- Chip Lay-Out

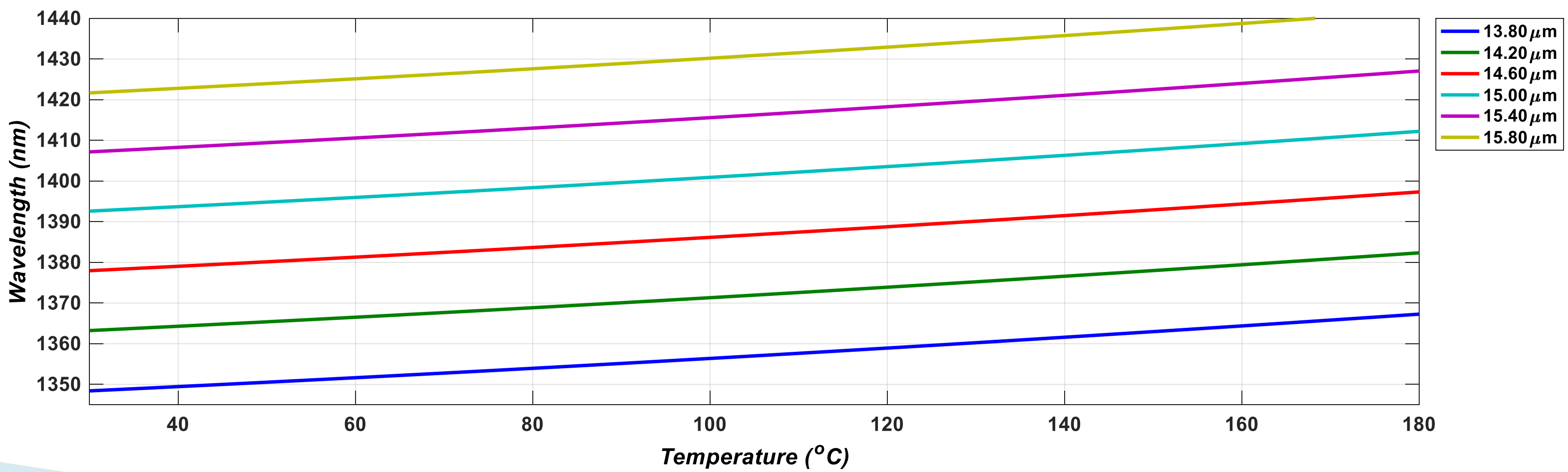


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	13.80, 14.20, 14.60, 15.00, 15.40, 15.80	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @670~730(R<0.5%) /1350~1450(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

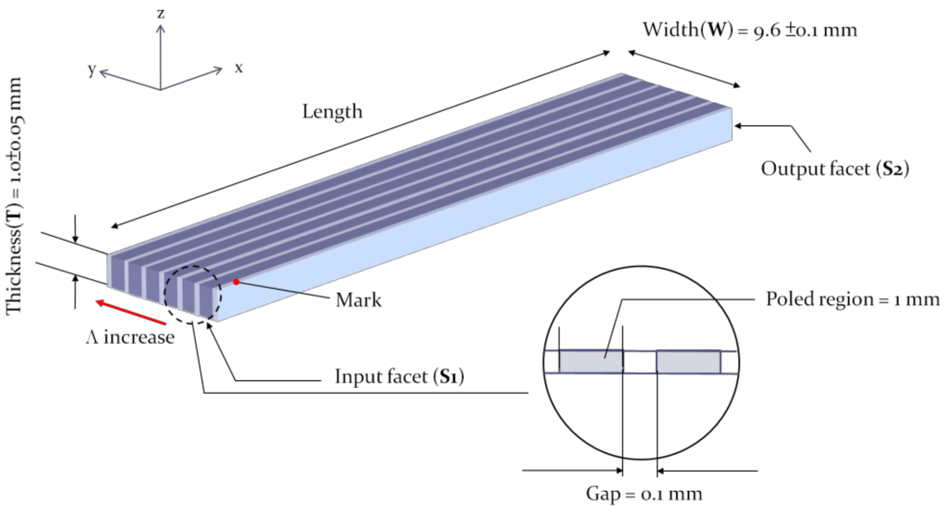
*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



Periodically Poled Lithium Niobate (PPLN) Chip: FSHRED-ME

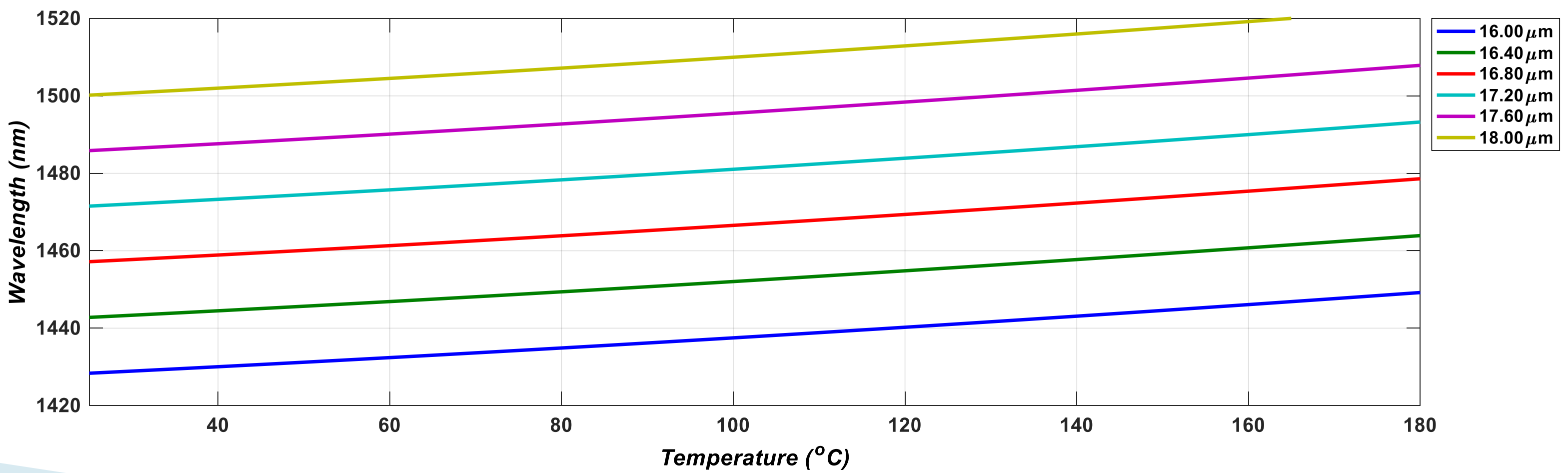
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	16.00, 16.40, 16.80, 17.20, 17.60, 18.00	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @710~760(R<0.5%) /1420~1520(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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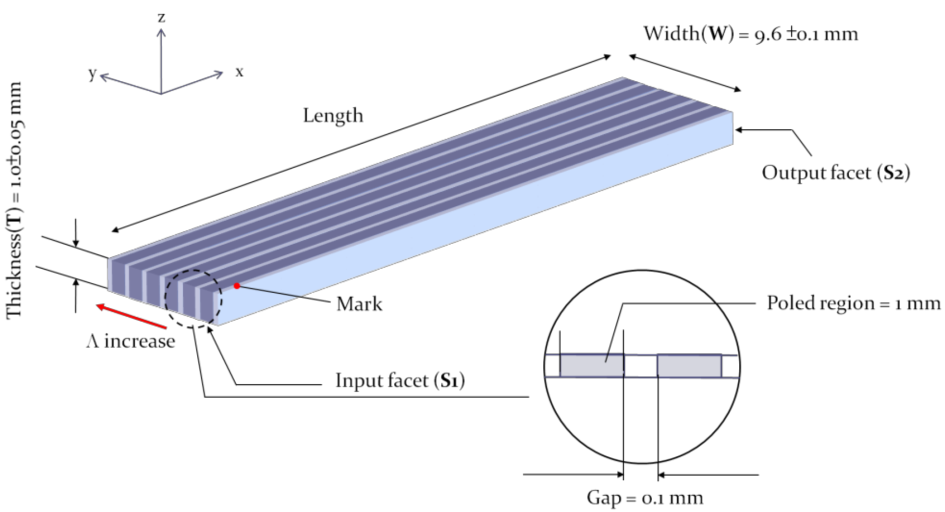
Periodically Poled Lithium Niobate (PPLN) Chip: FSHRED-ME-C

- Chip Lay-Out

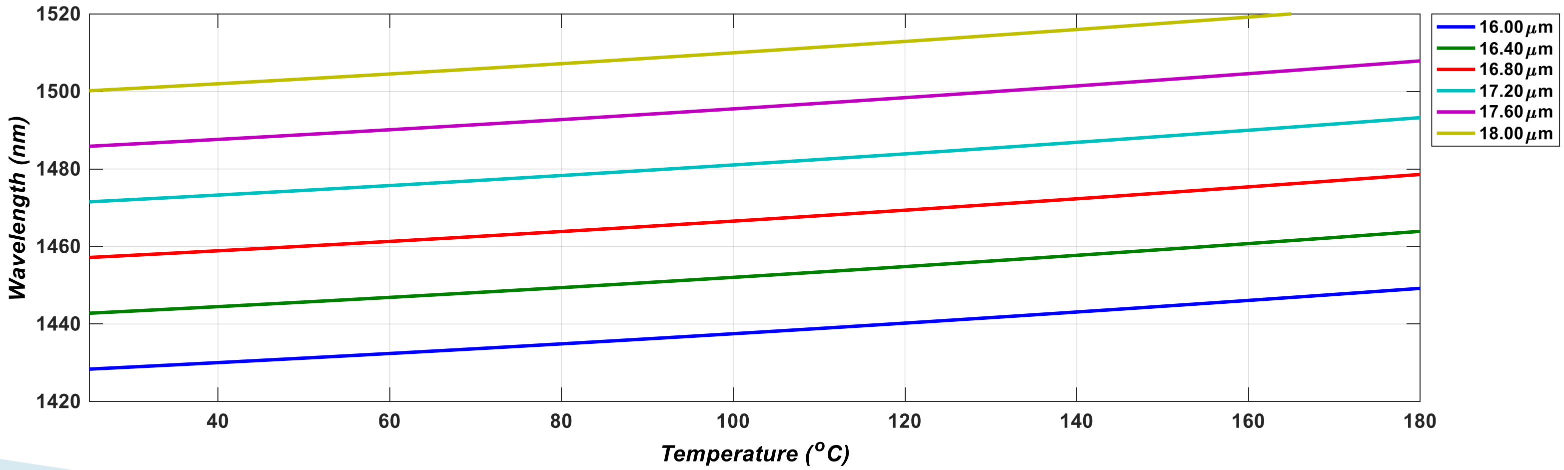


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	16.00, 16.40, 16.80, 17.20, 17.60, 18.00	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @710~760(R<0.5%) /1420~1520(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 1.0 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



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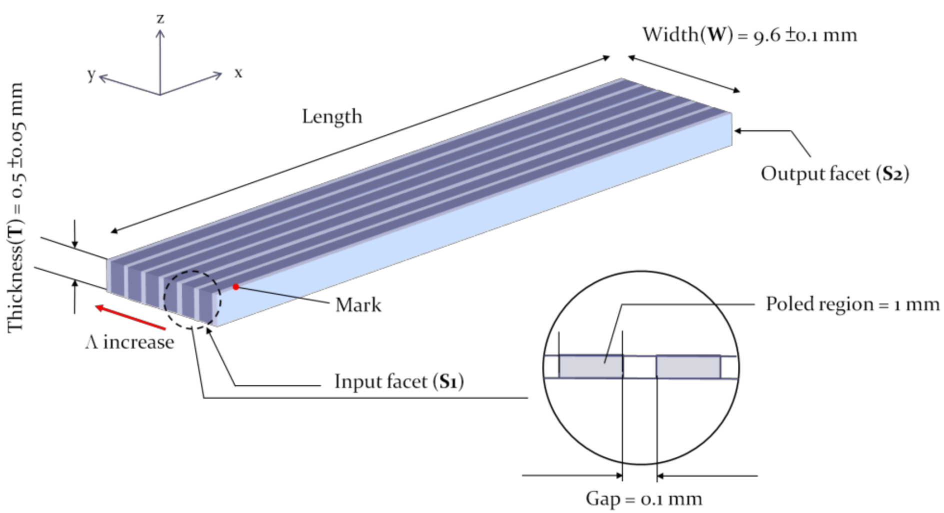
Periodically Poled Lithium Niobate (PPLN) Chip: FSHRED-MF

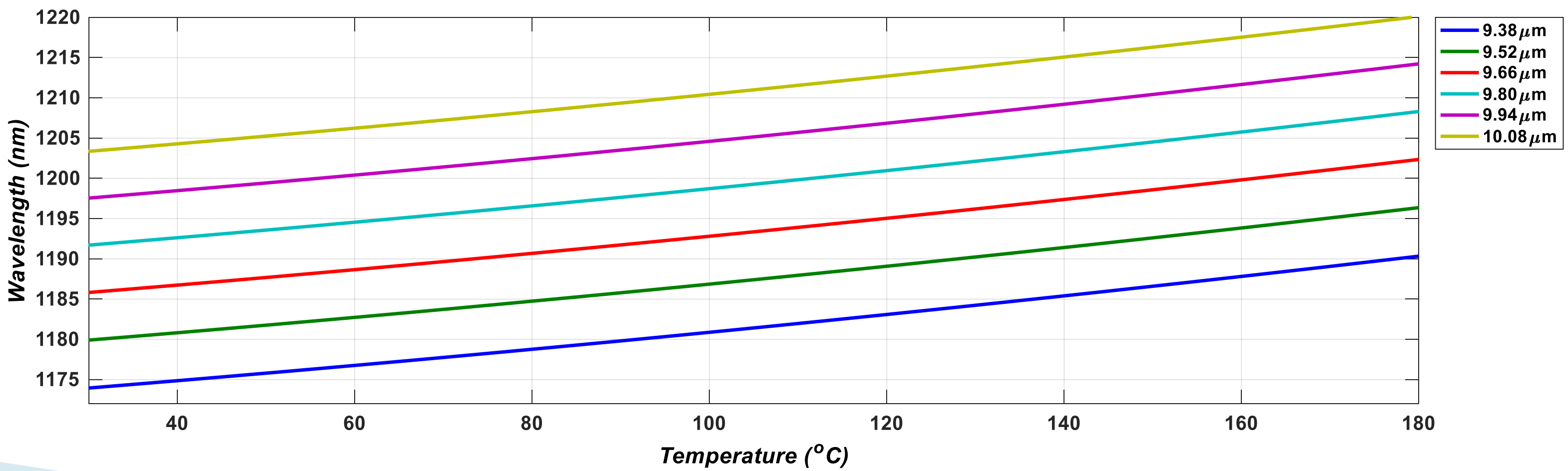
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	9.38 , 9.52, 9.66 , 9.80 , 9.94 , 10.08	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @590~680(R<0.5%) /1180~1360(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (**W** x **T**)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (**T**), ≥90% (**W**)	NA

- Phase Matching Tuning Curve



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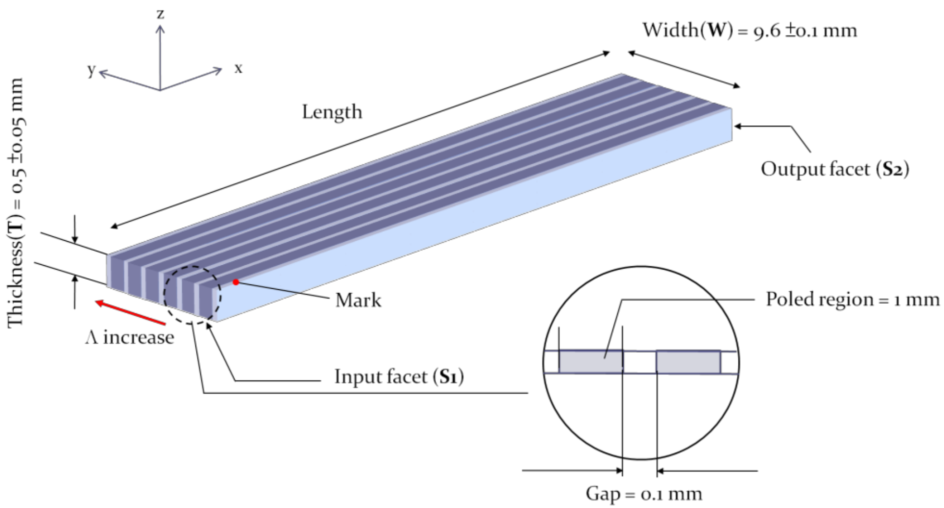
Periodically Poled Lithium Niobate (PPLN) Chip: FSHRED-MF-C

- Chip Lay-Out

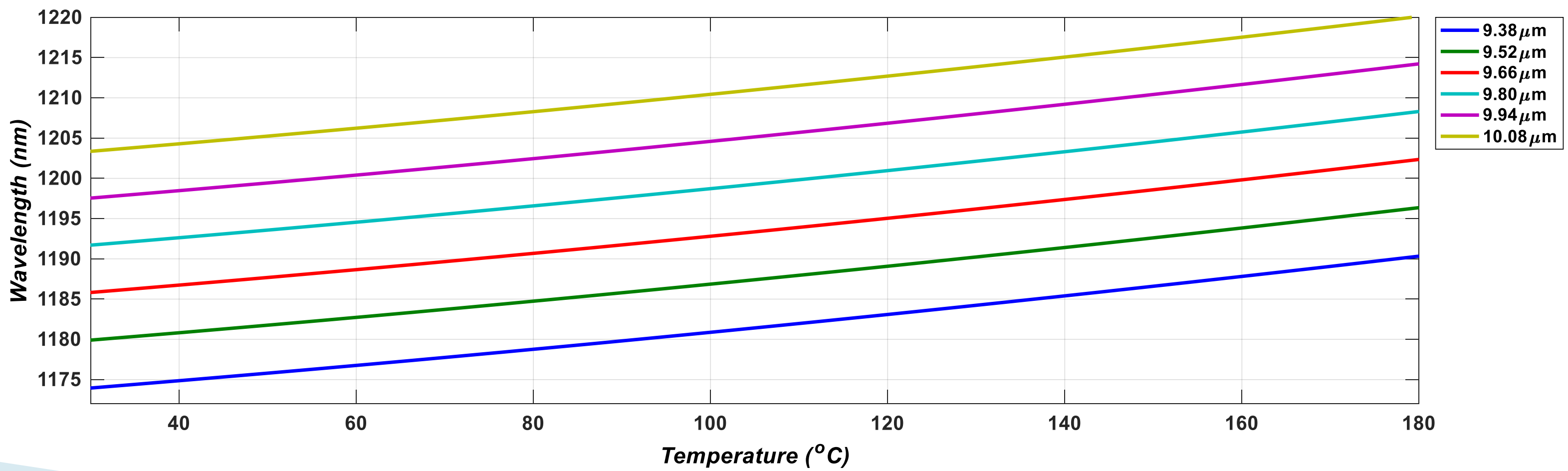


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	9.38 , 9.52, 9.66 , 9.80 , 9.94 , 10.08	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @590~680(R<0.5%) /1180~1360(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

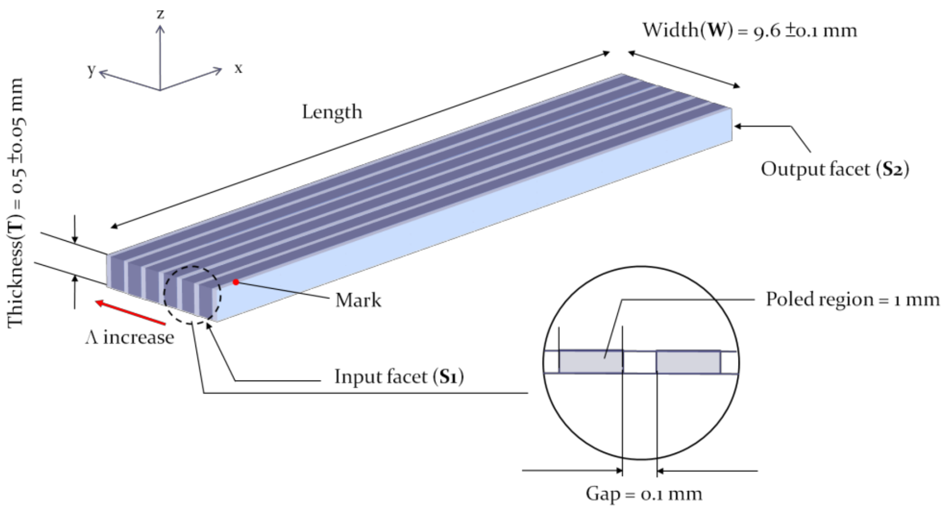
*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-MA

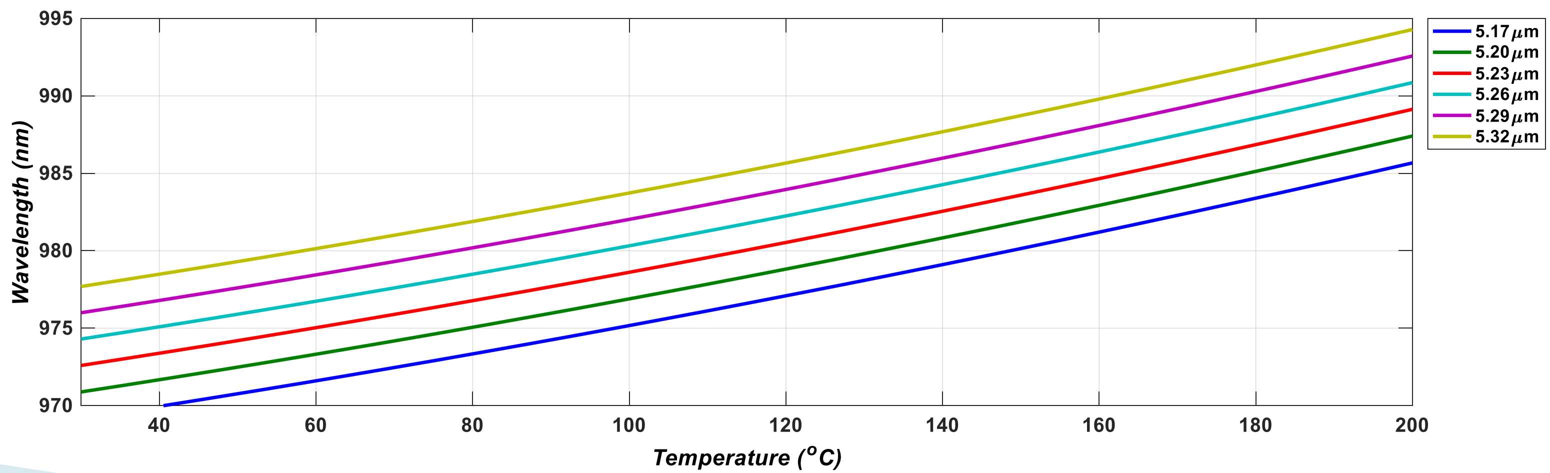
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	5.17, 5.20, 5.23, 5.26, 5.29, 5.32	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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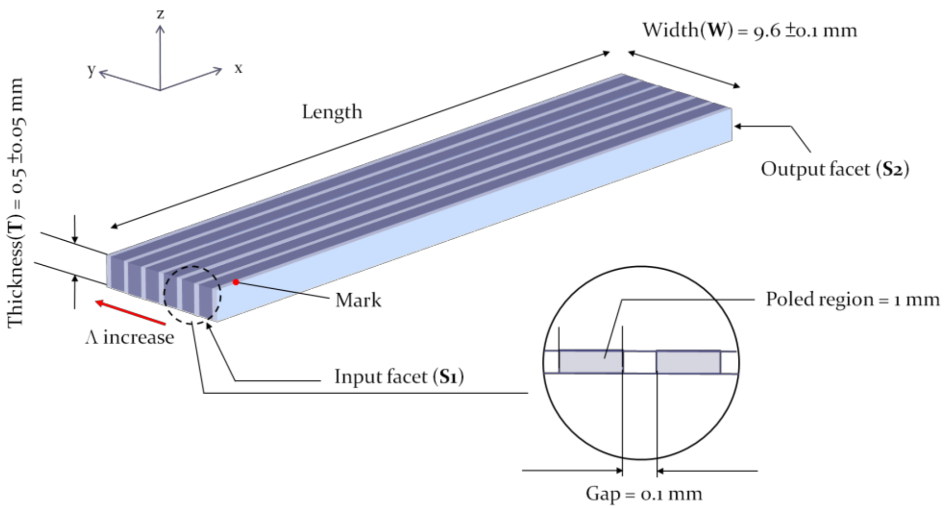
Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-MA-C

- Chip Lay-Out

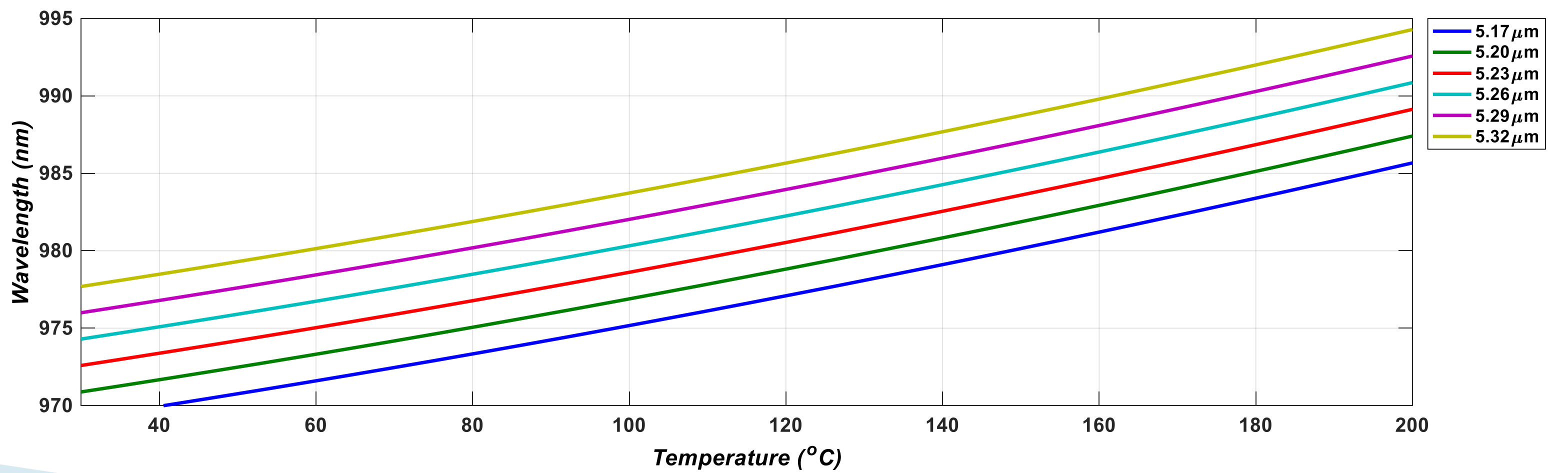


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	5.17, 5.20, 5.23, 5.26, 5.29, 5.32	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm^2 (W x T)	Cutting Machine
Available Length	0.3/0.5 mm[*1]	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

[*1] Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



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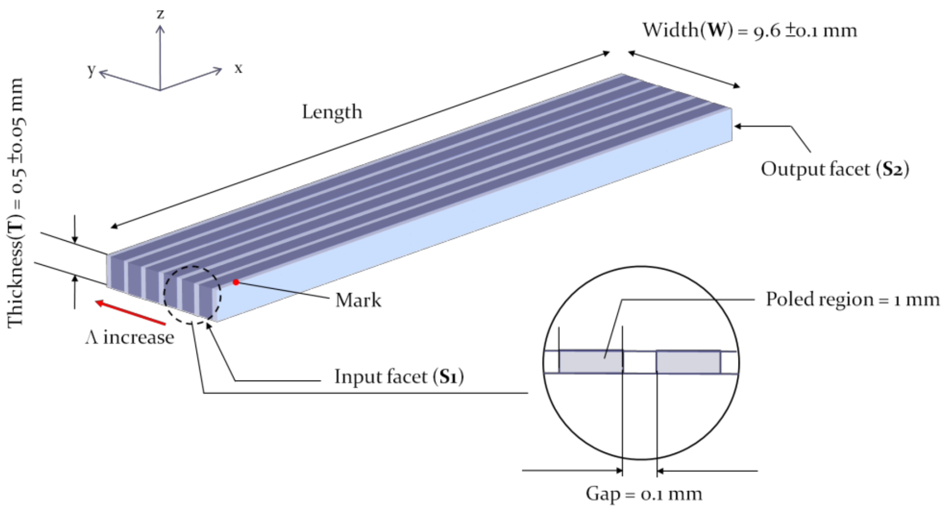
Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-MB

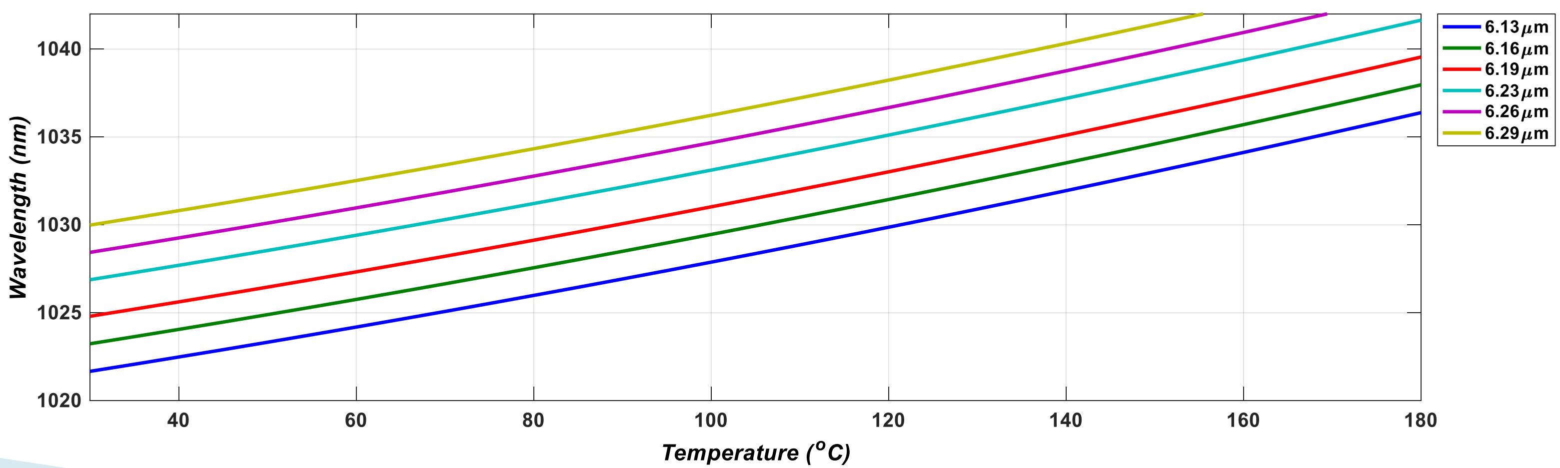
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ, μm)	6.13, 6.16, 6.19, 6.23, 6.26, 6.29	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm^2 (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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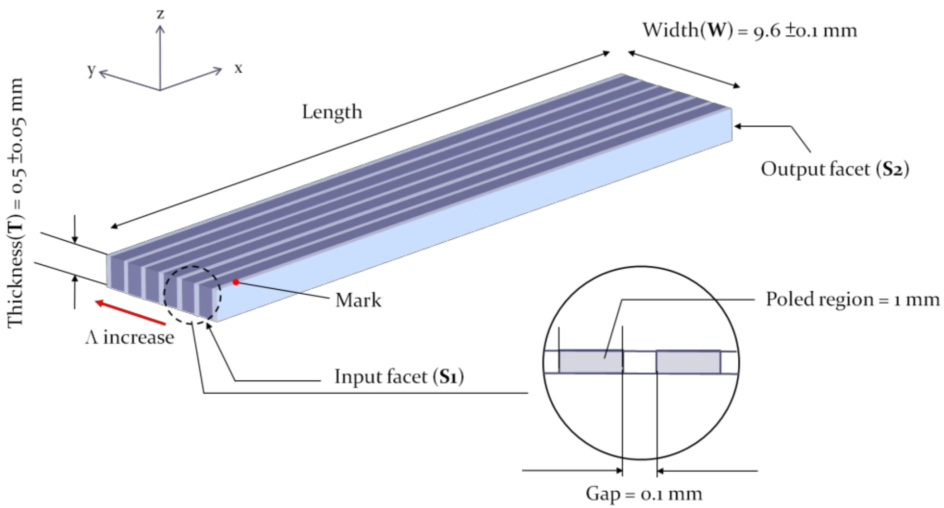
Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-MB-C

- Chip Lay-Out

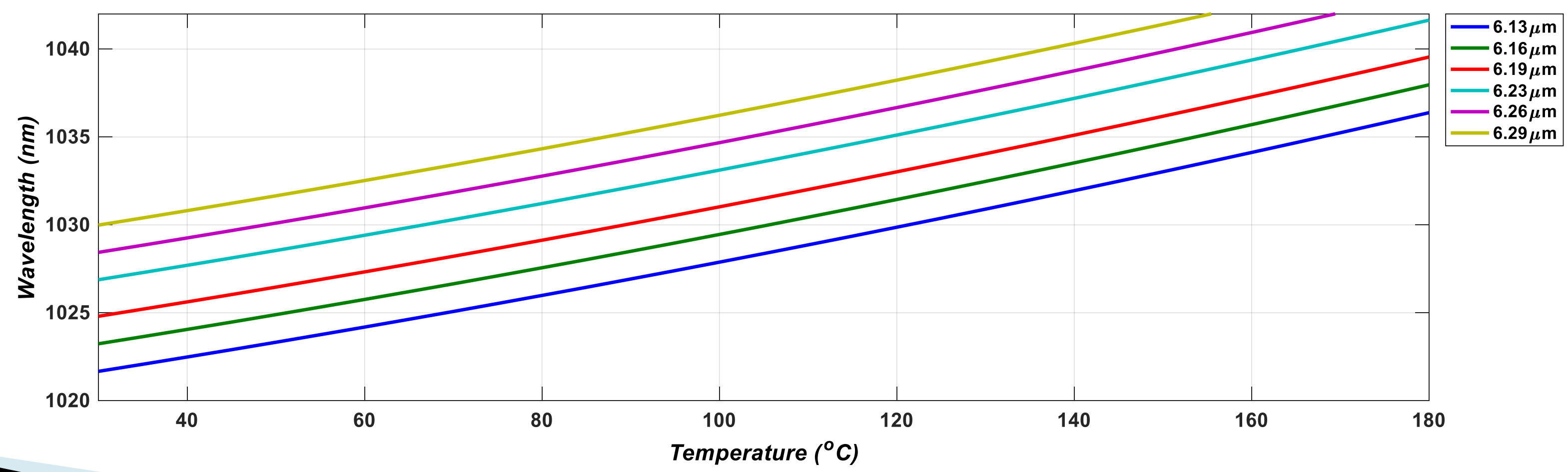


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	6.13, 6.16, 6.19, 6.23, 6.26, 6.29	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

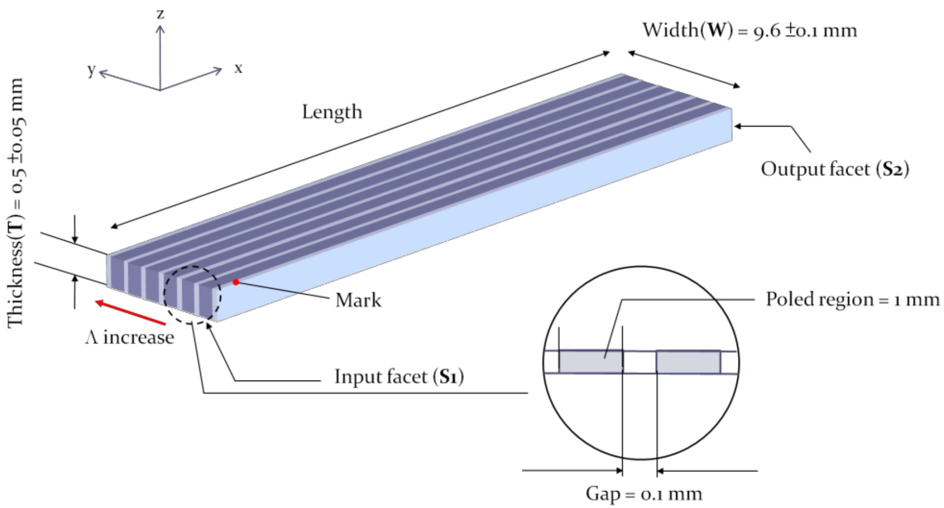
*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-MC

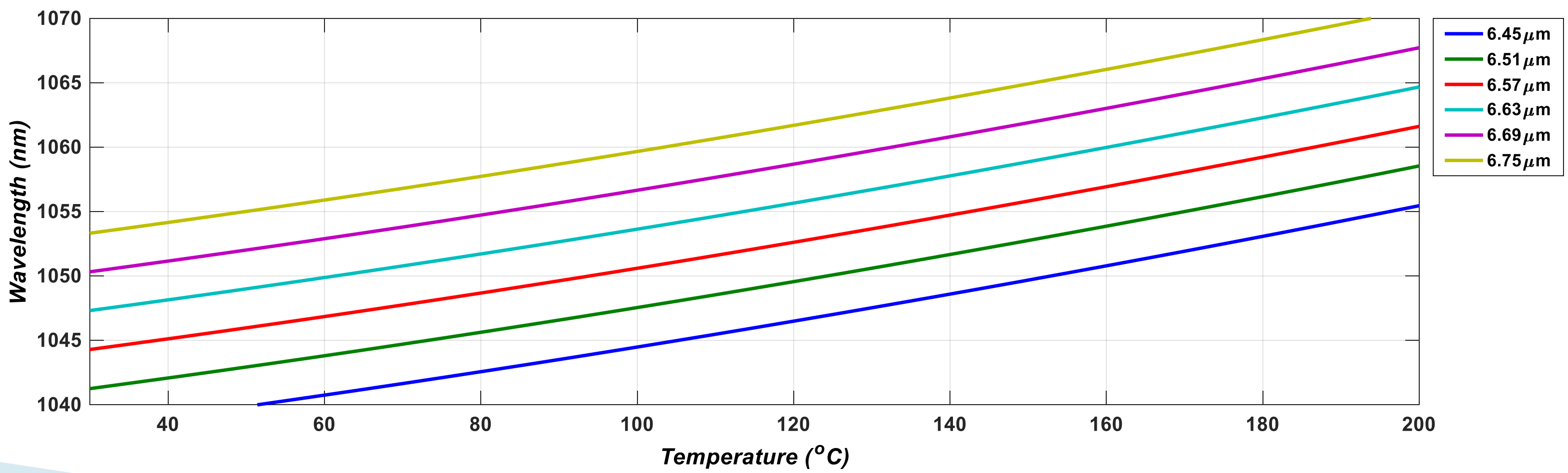
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	6.45, 6.51, 6.57, 6.63, 6.69, 6.75	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (**W** x **T**)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (**T**), ≥90% (**W**)	NA

- Phase Matching Tuning Curve



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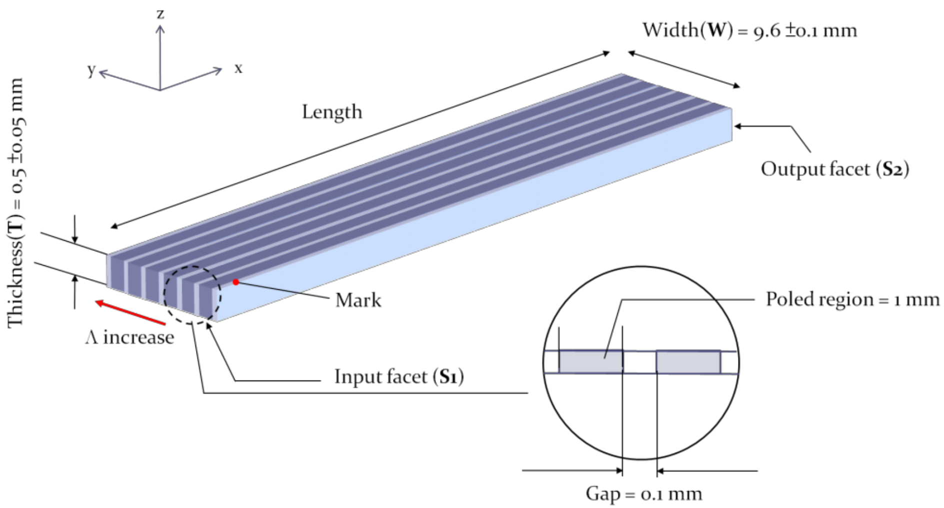
Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-MC-C

- Chip Lay-Out

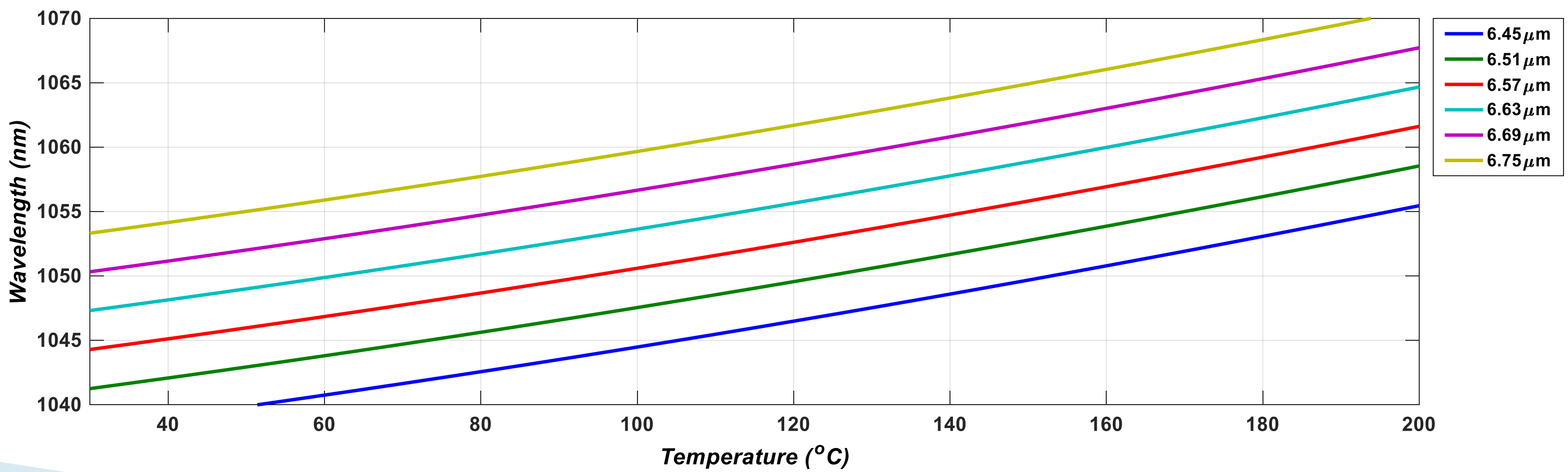


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	6.45, 6.51, 6.57, 6.63, 6.69, 6.75	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm^2 (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

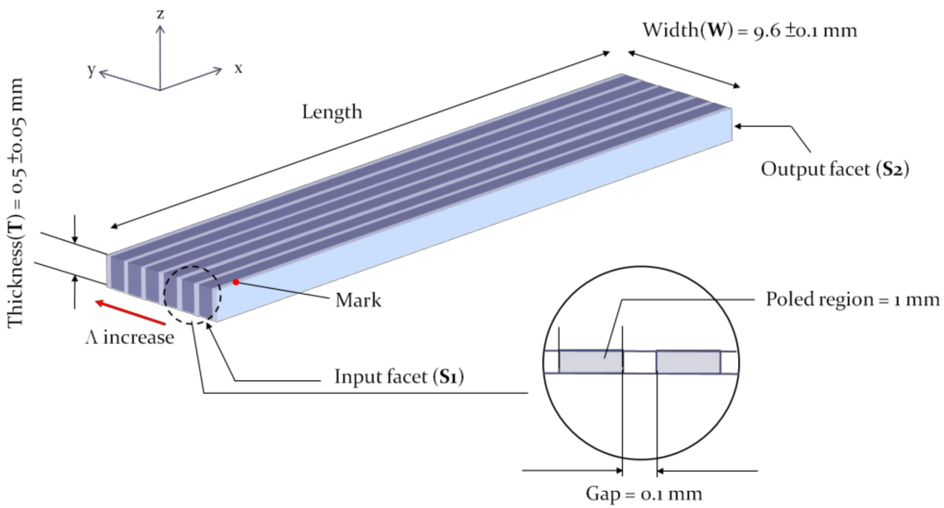
- Phase Matching Tuning Curve



Version: Jan., 2021

Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-MD

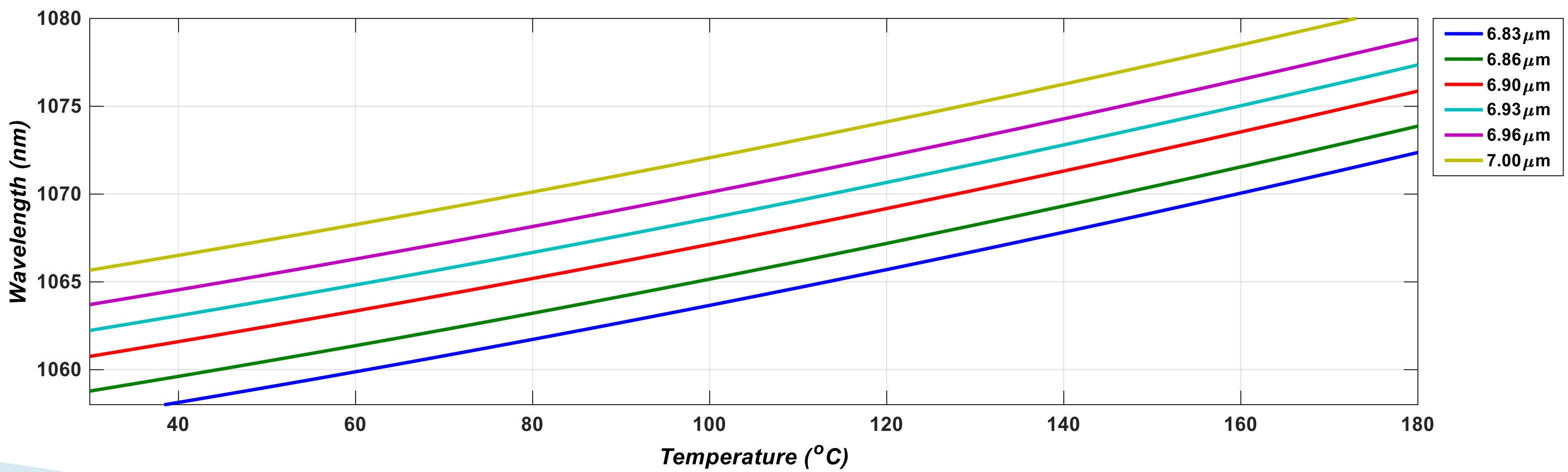
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	6.83, 6.86, 6.90, 6.93, 6.96,7.00	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (**W** x **T**)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (**T**), ≥90% (**W**)	NA

- Phase Matching Tuning Curve



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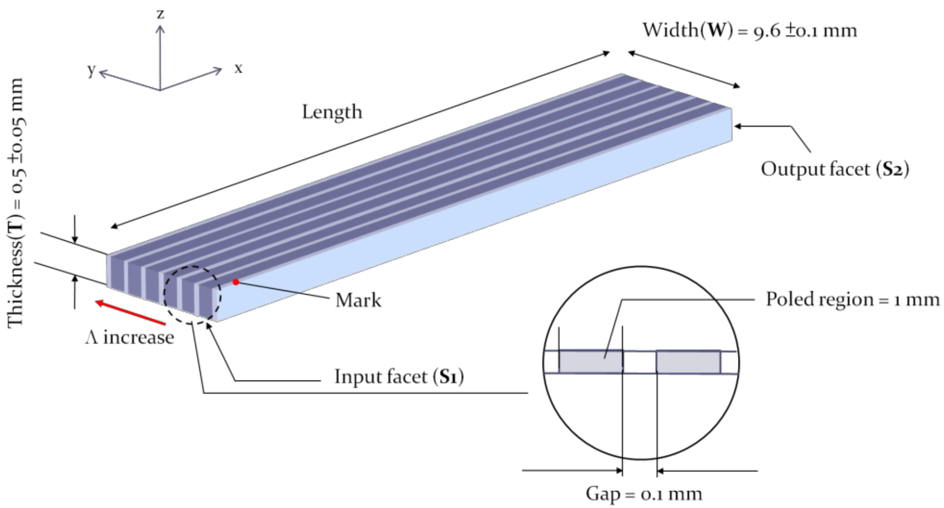
Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-MD-C

- Chip Lay-Out

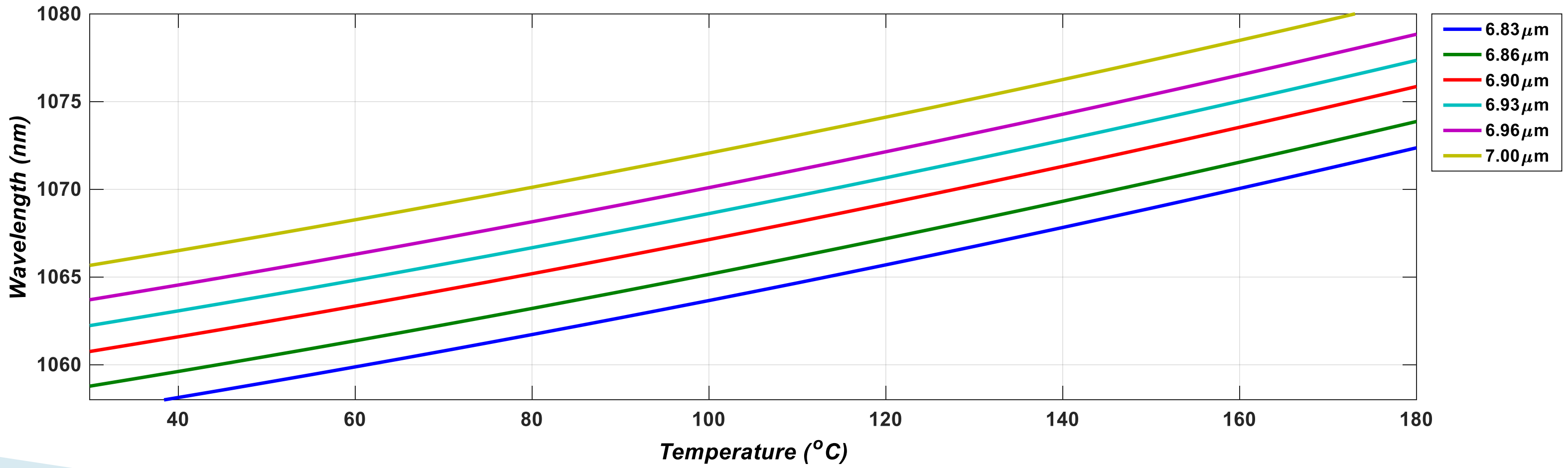


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	6.83, 6.86, 6.90, 6.93, 6.96,7.00	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



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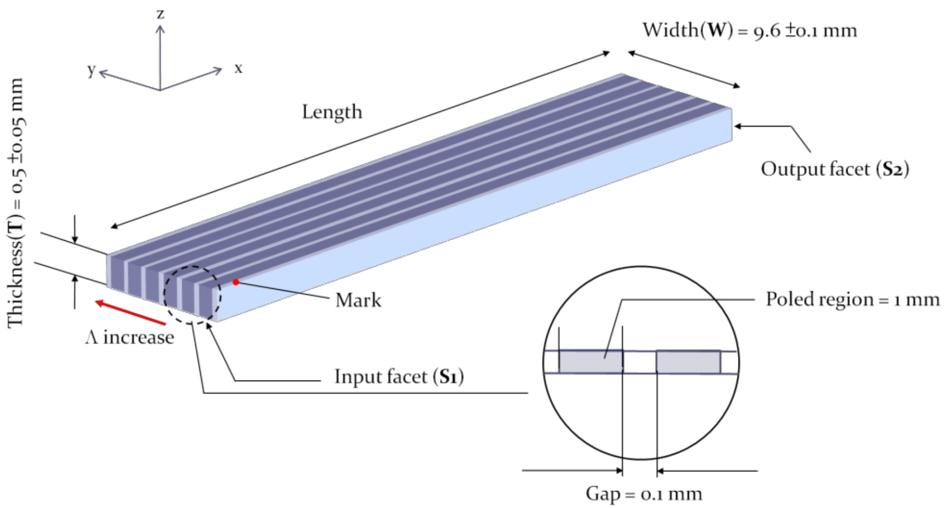
Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-ME

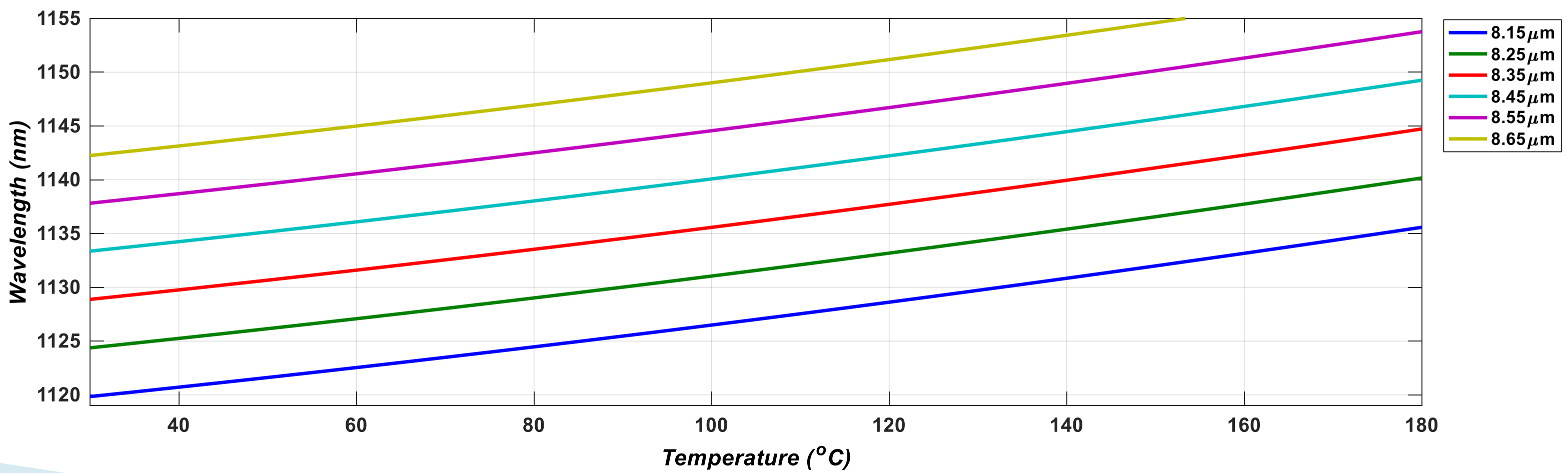
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	8.15, 8.25, 8.35, 8.45, 8.55, 8.65	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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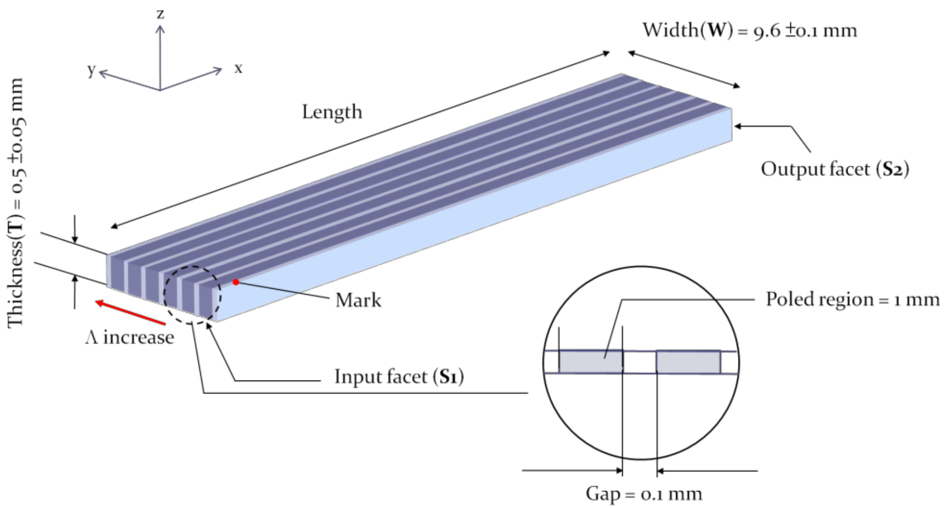
Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-ME-C

- Chip Lay-Out

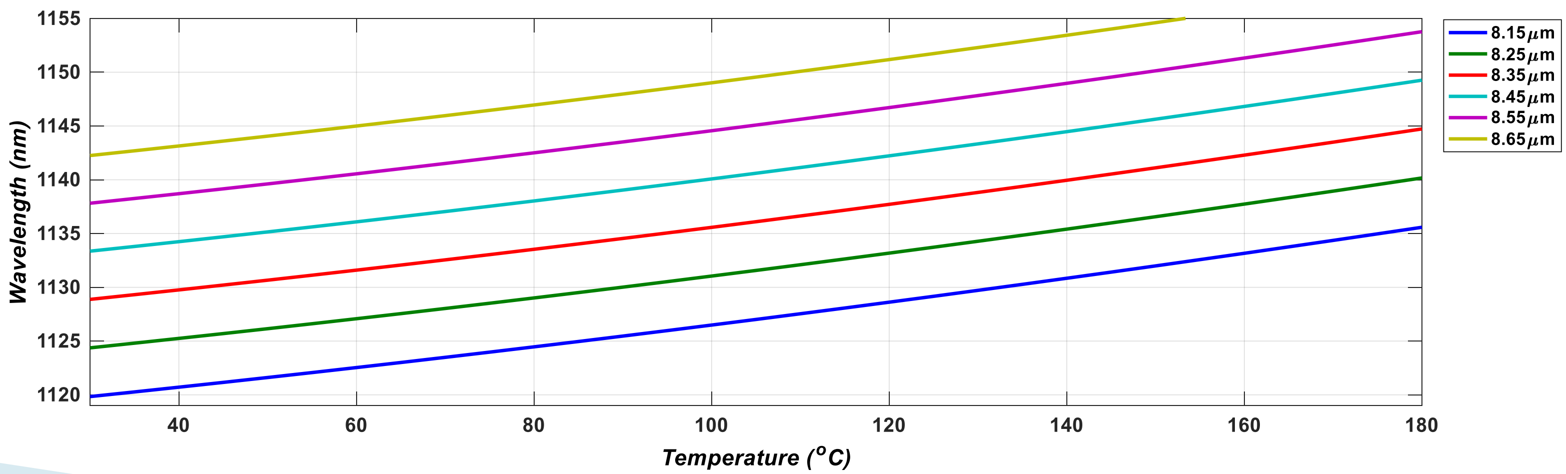


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	8.15, 8.25, 8.35, 8.45, 8.55, 8.65	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



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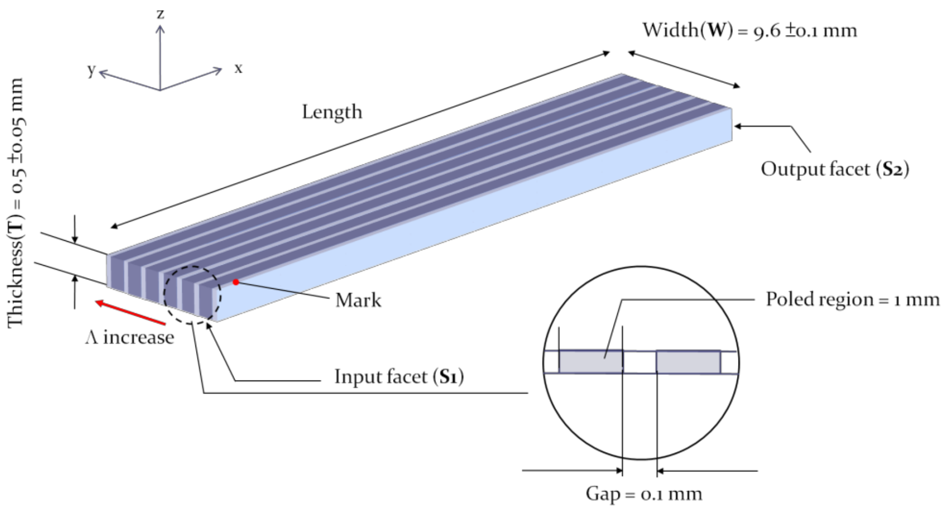
Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-MF

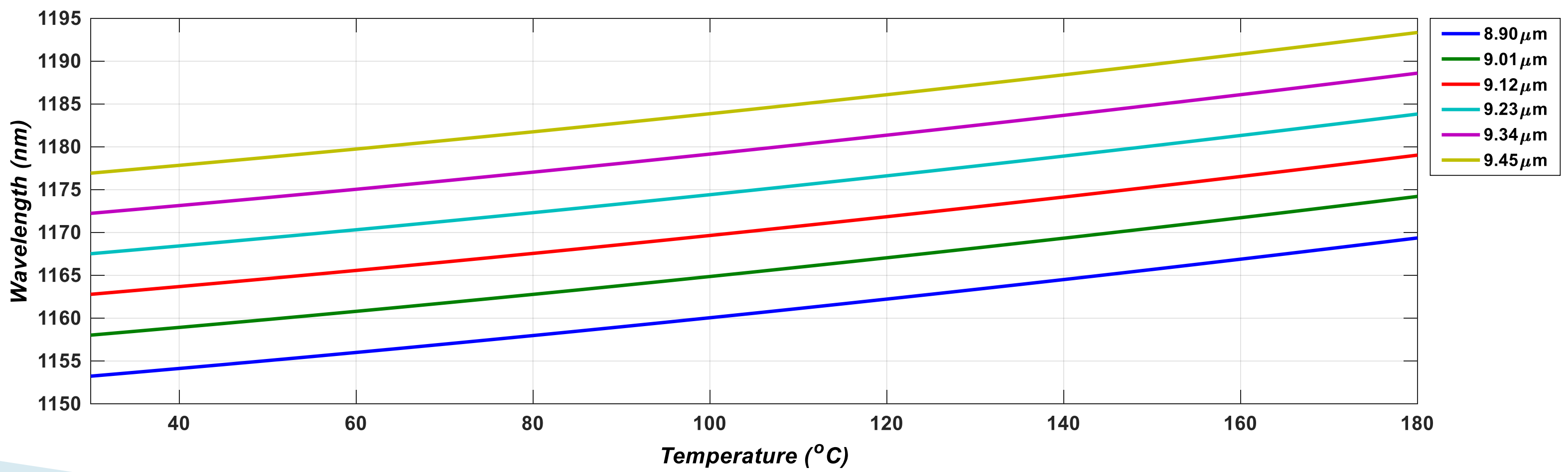
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ, μm)	8.90, 9.01, 9.12, 9.23, 9.34, 9.45	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm^2 (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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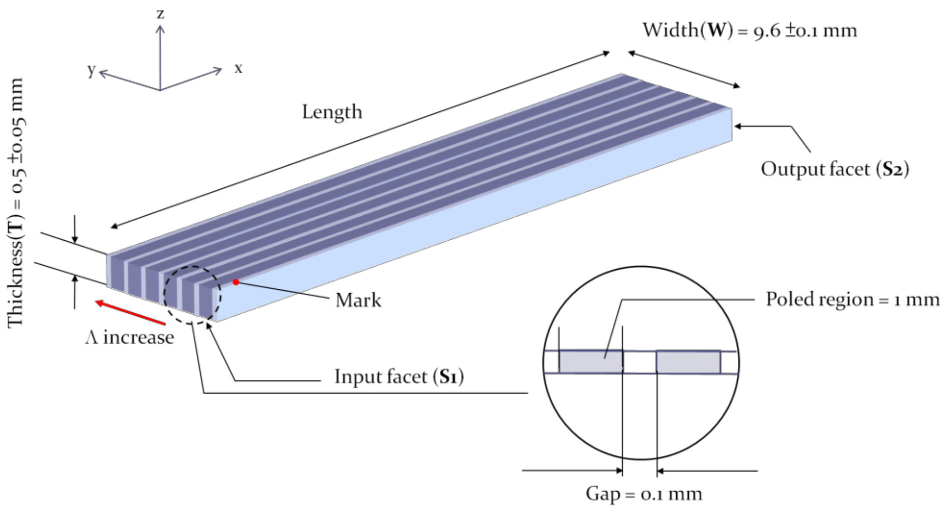
Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-MF-C

- Chip Lay-Out

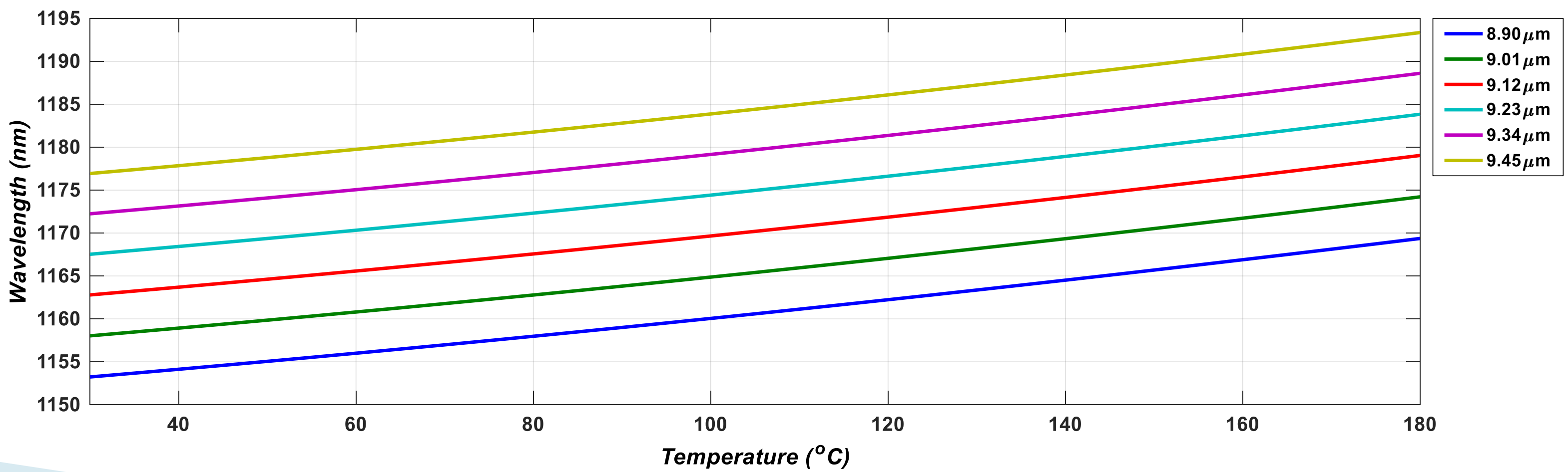


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	8.90, 9.01, 9.12, 9.23, 9.34, 9.45	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



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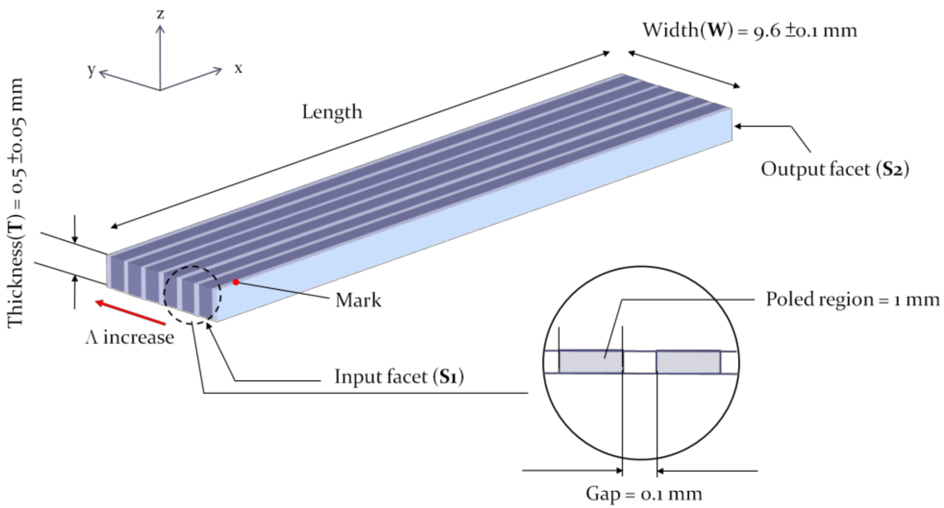
Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-MG

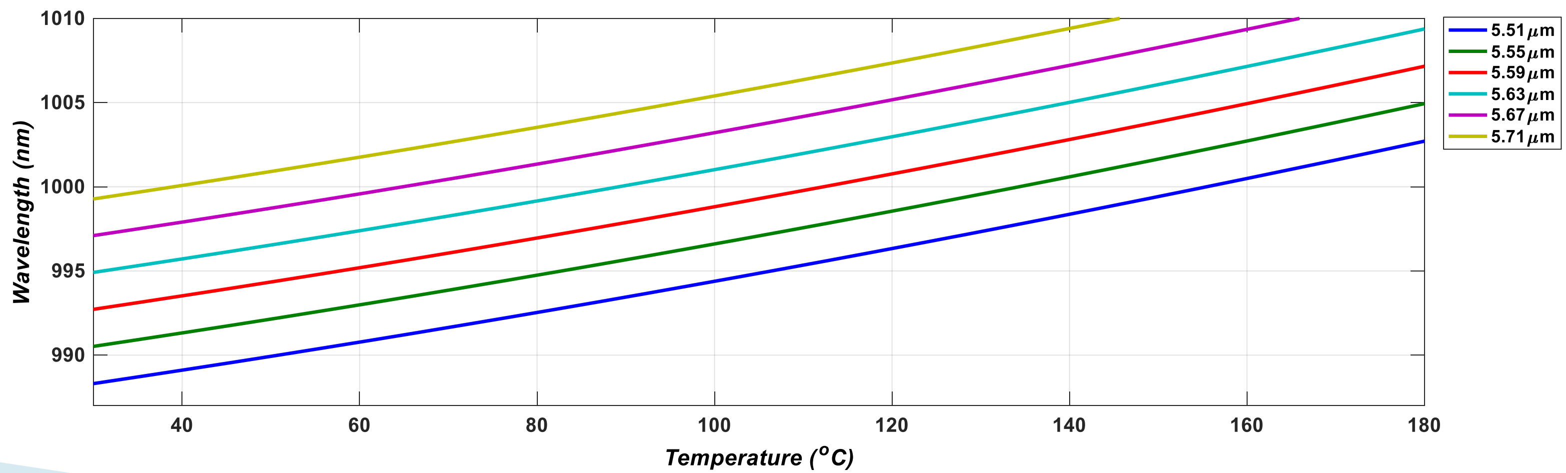
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	5.51 , 555 , 5.59 , 5.63 , 5.67 , 5.71	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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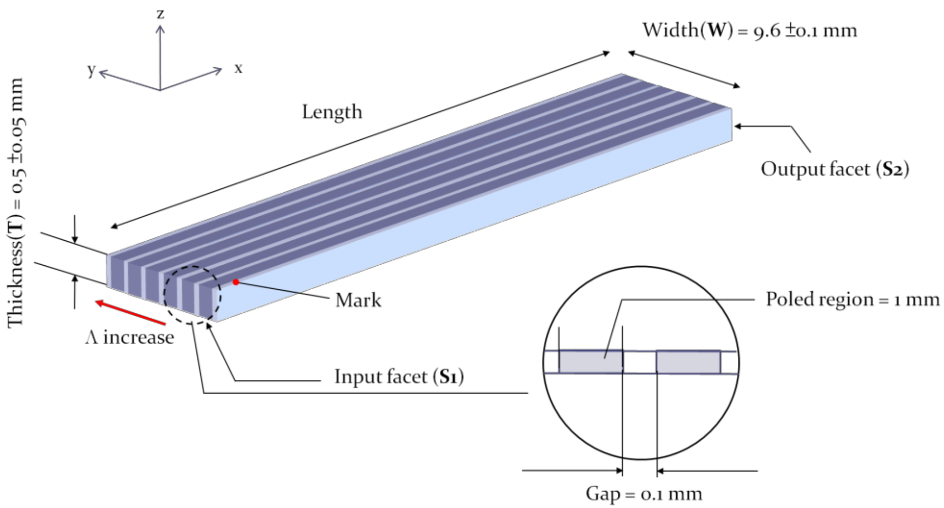
Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-MG-C

- Chip Lay-Out

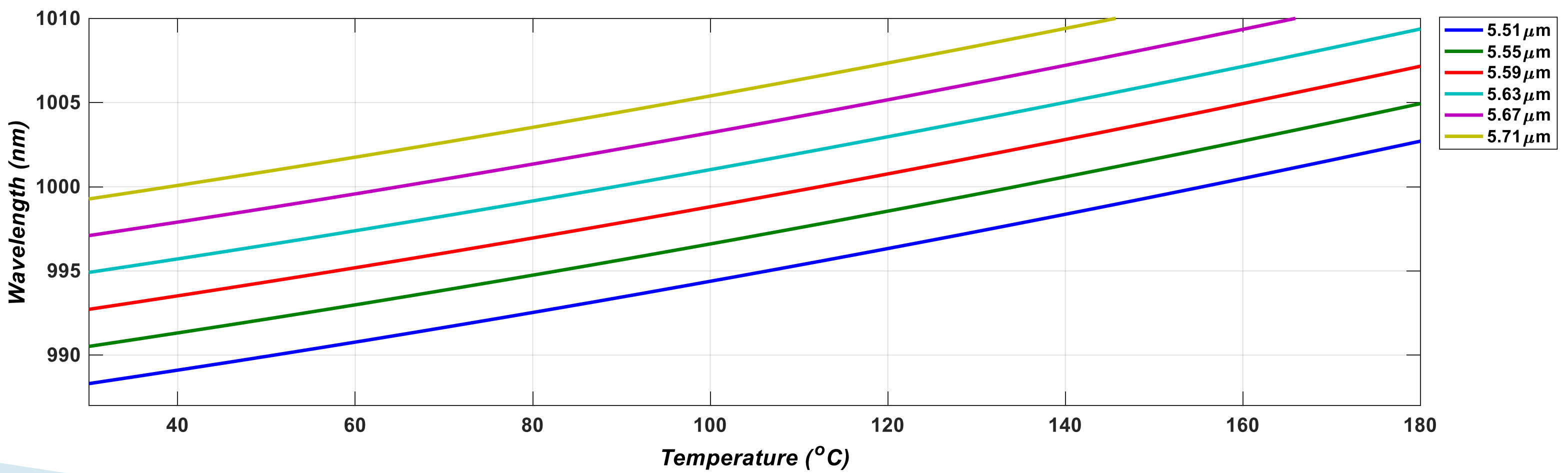


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	5.51 , 555 , 5.59 , 5.63 , 5.67 , 5.71	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm^2 (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



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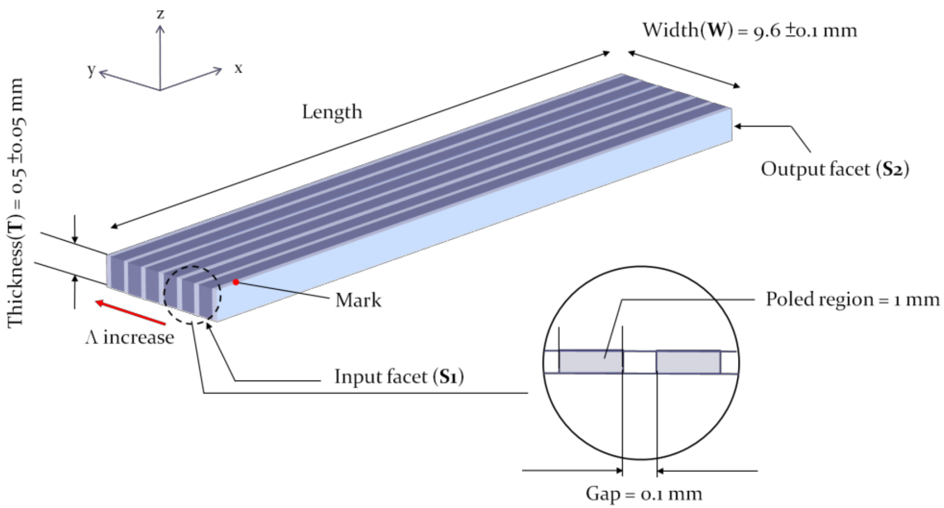
Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-MH

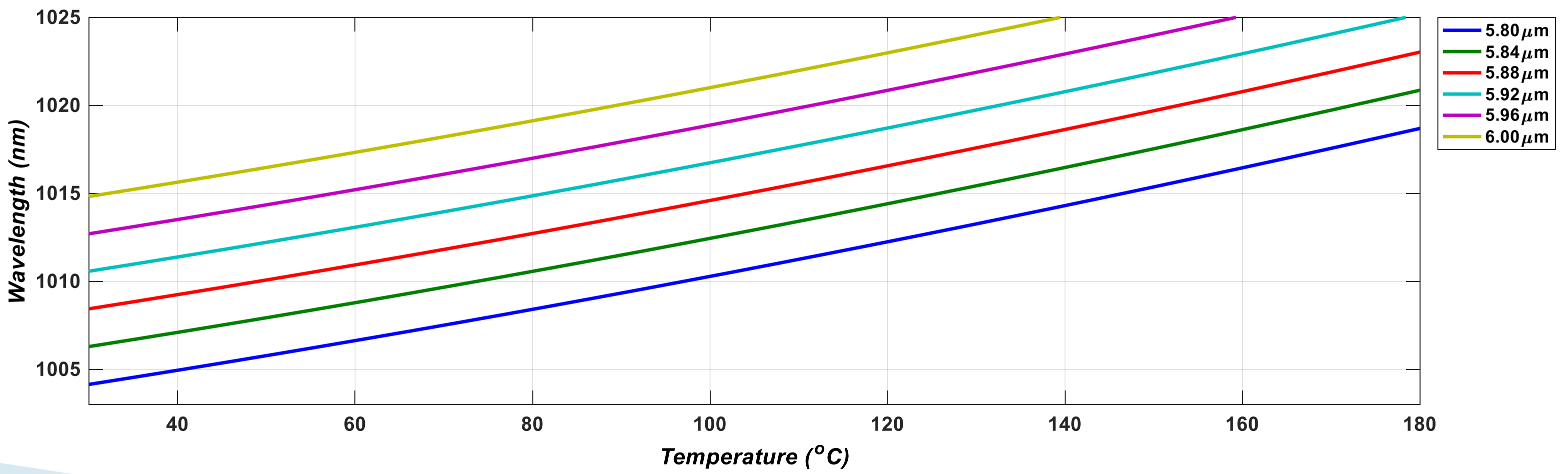
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	5.80 , 5.84 , 5.88 , 5.92 , 5.96 , 6.00	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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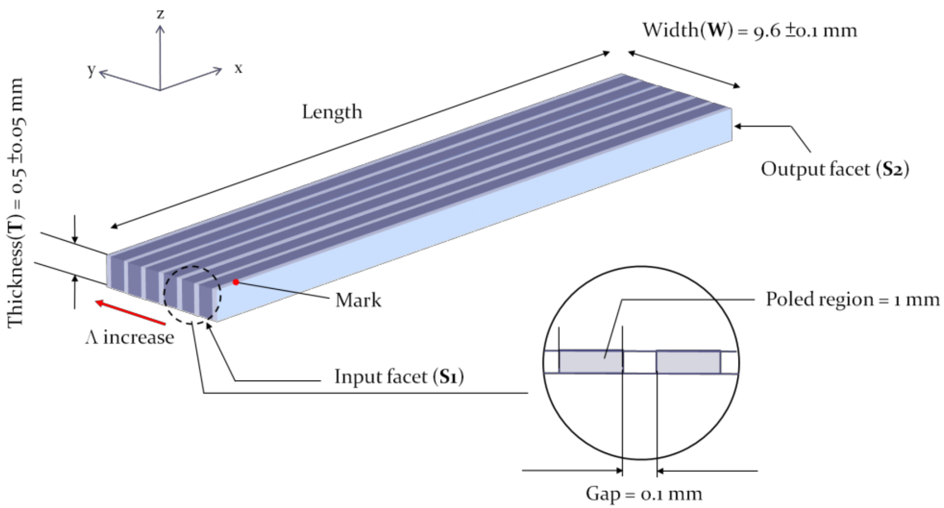
Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-MH-C

- Chip Lay-Out

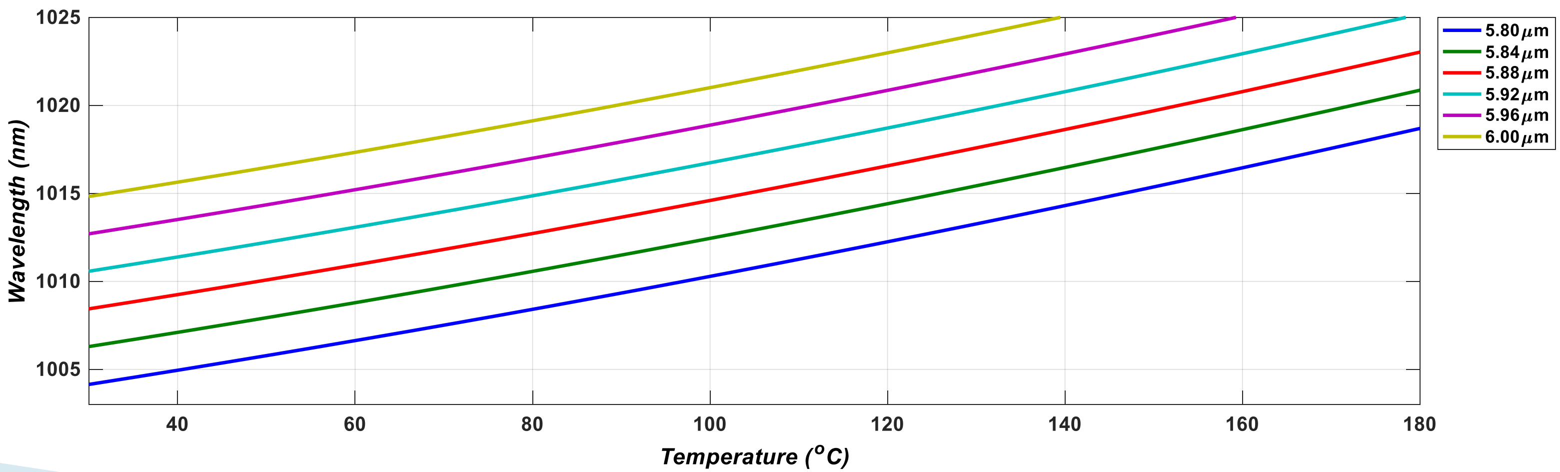


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	5.80 , 5.84 , 5.88 , 5.92 , 5.96 , 6.00	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



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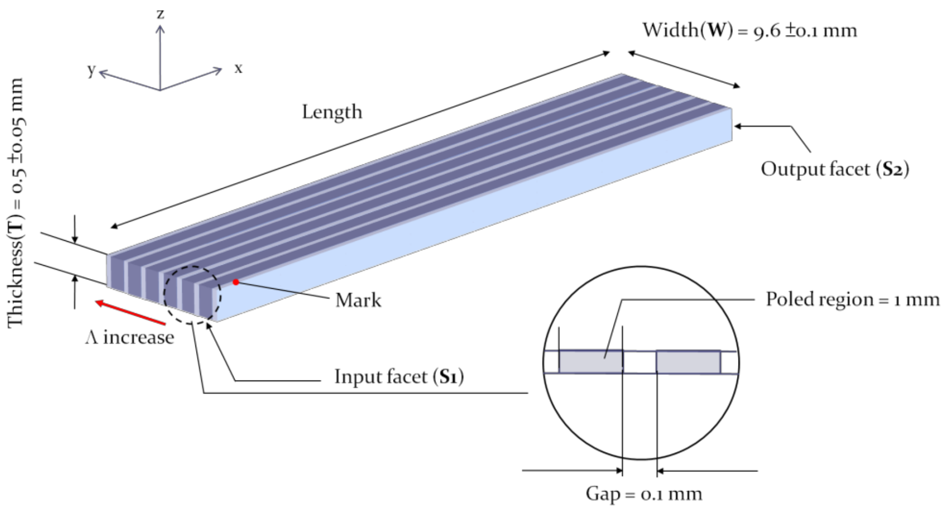
Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-MI

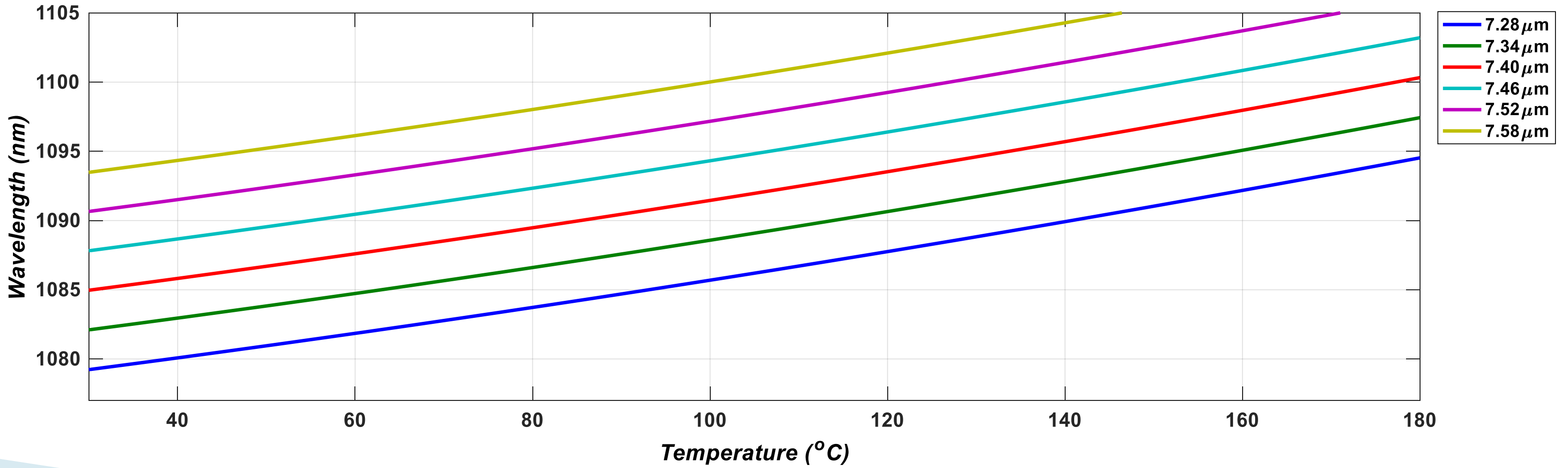
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	7.28 , 7.34 , 7.40 , 7.46 , 7.52 , 7.58	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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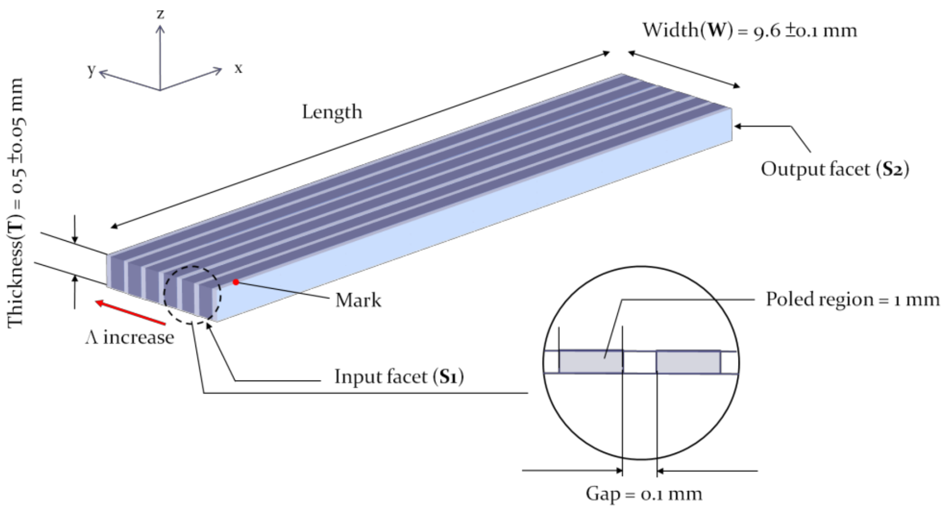
Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-MI-C

- Chip Lay-Out

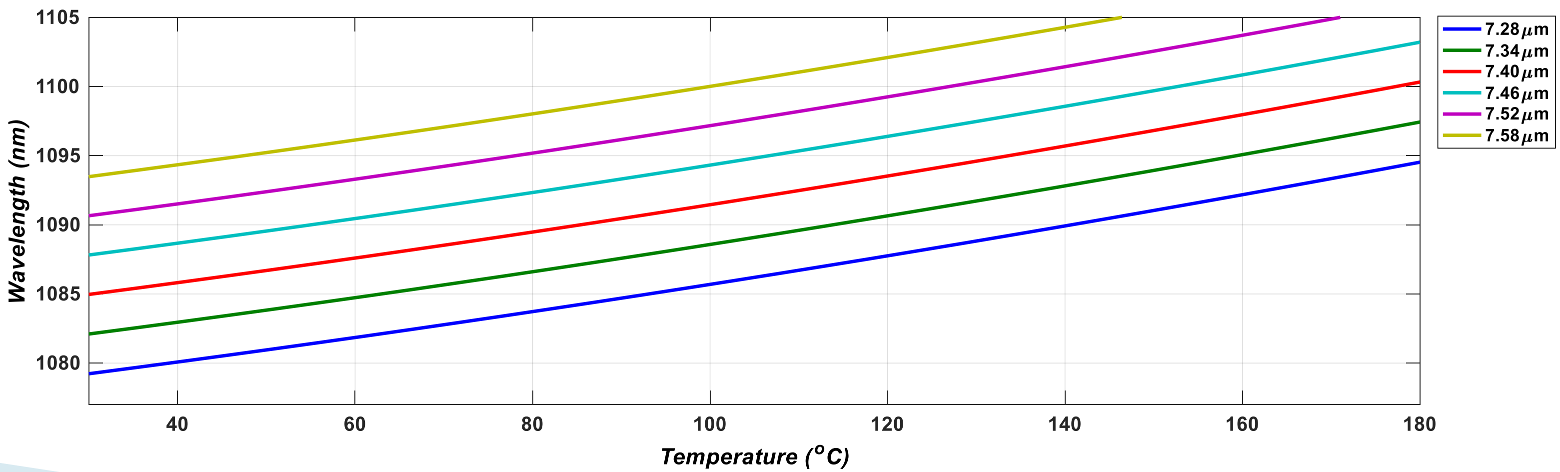


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	7.28 , 7.34 , 7.40 , 7.46 , 7.52 , 7.58	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



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Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-MJ

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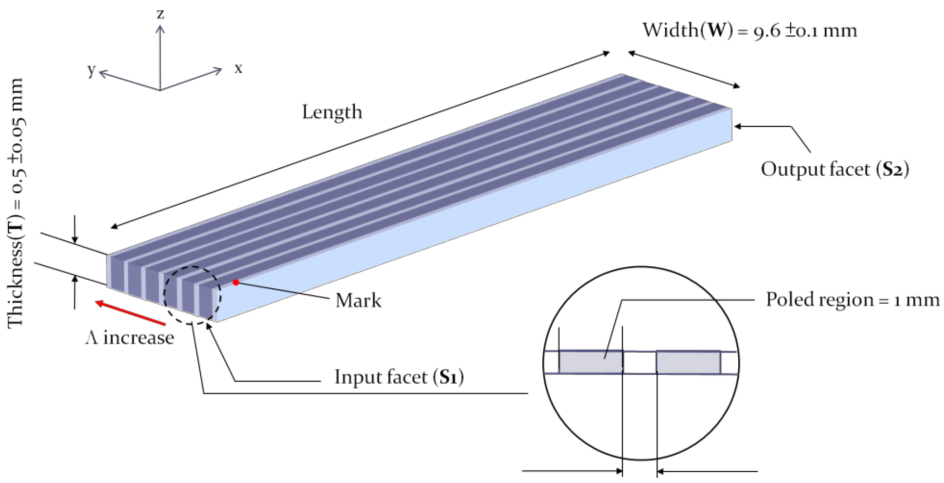
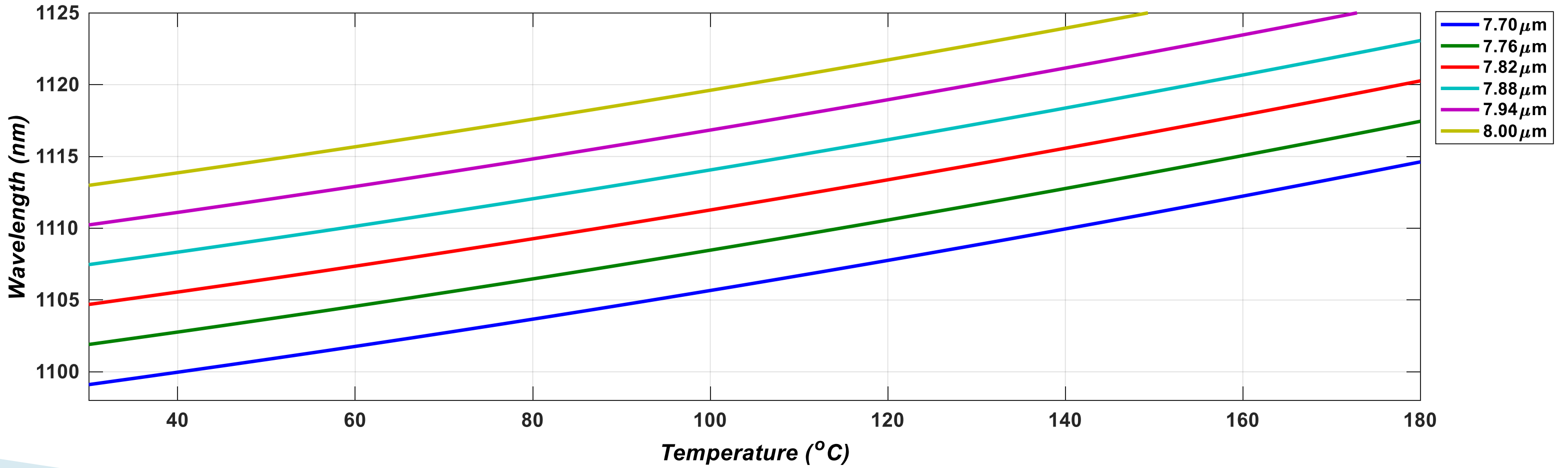
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ, μm)	7.70, 7.76, 7.82, 7.88, 7.94, 8.00	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (W x T)	Cutting Machine
Available Length	0.3 /0.5 /1.0 ± 0.1 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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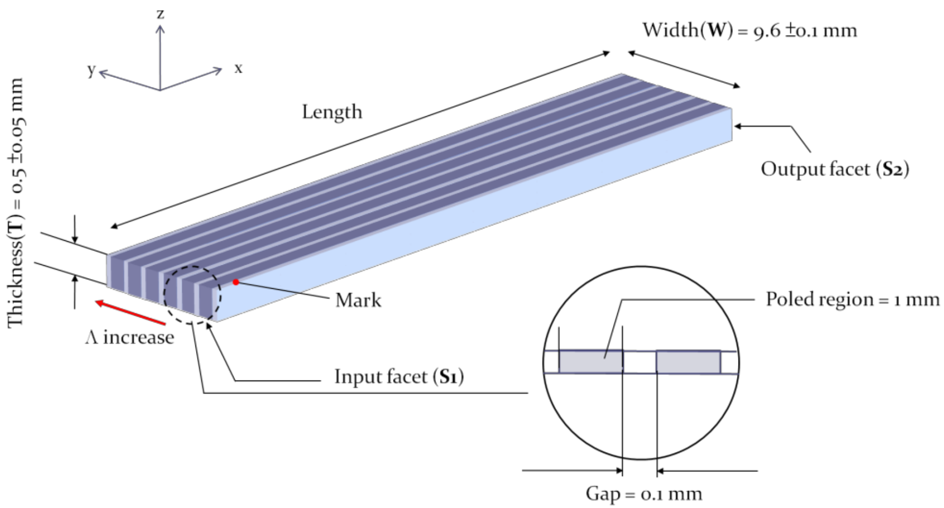
Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-MJ-C

- Chip Lay-Out

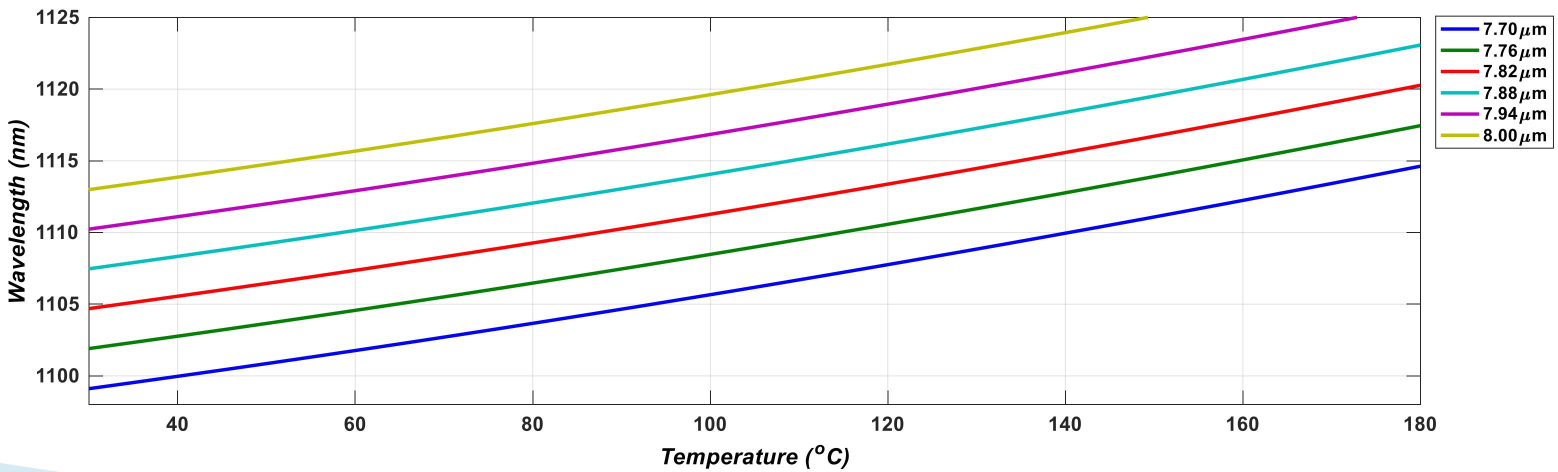


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	7.70 , 7.76, 7.82 , 7.88 , 7.94 , 8.00	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	9.6 x 0.5 mm² (W x T)	Cutting Machine
Available Length	0.3/0.5 mm*1	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to the length of poled grating. Physical length is 1.0 ± 0.1 mm.

- Phase Matching Tuning Curve



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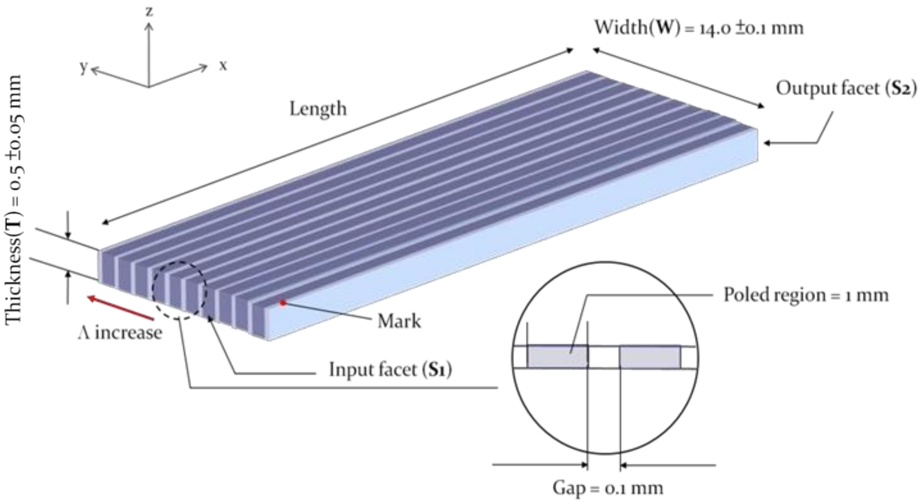
Periodically Poled Lithium Niobate (PPLN) Chip: FSHVIS-YT

- Chip Lay-Out

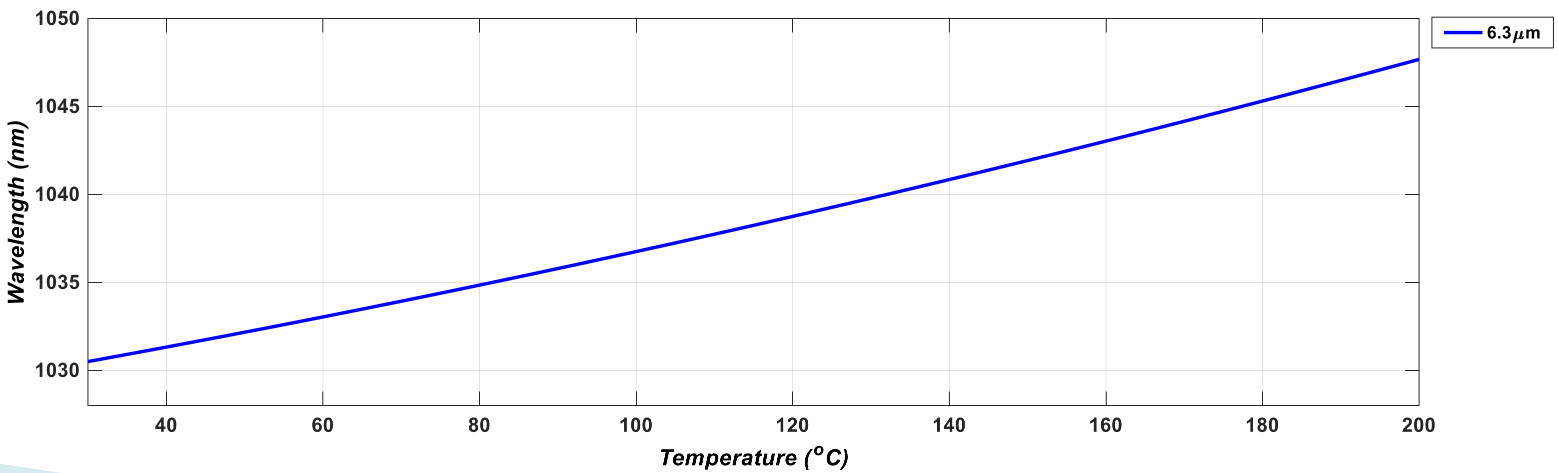


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	6.30~6.30	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970~1180(R<0.5%)nm	Spectral Analyzer
Aperture Size	14.0 x 0.5 mm² (W x T)	Cutting Machine
Available Length*1	Poled length(L_{poled}) from 0.1mm to 1mm and step 0.1mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

*1 Refer to length of periodically poled. Physical length is 1.0±0.1mm.

- Phase Matching Tuning Curve



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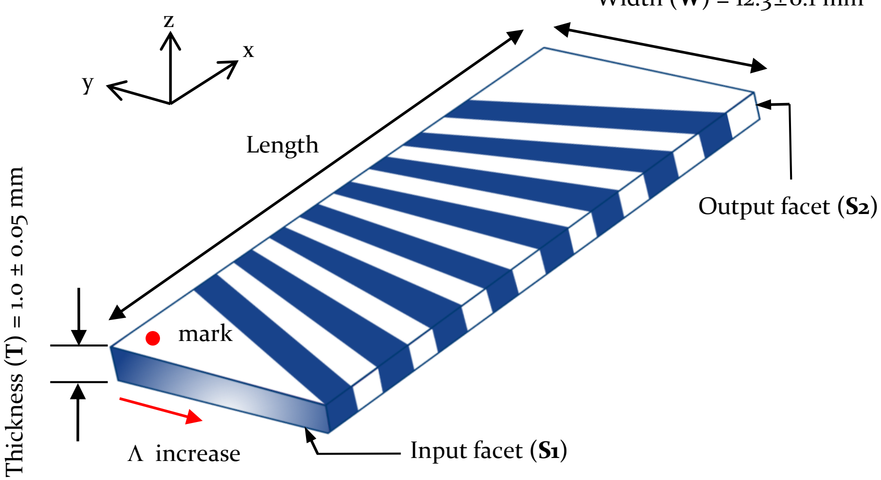
Periodically Poled Lithium Niobate (PPLN) Chip: OPMIR-FA

- Chip Lay-Out

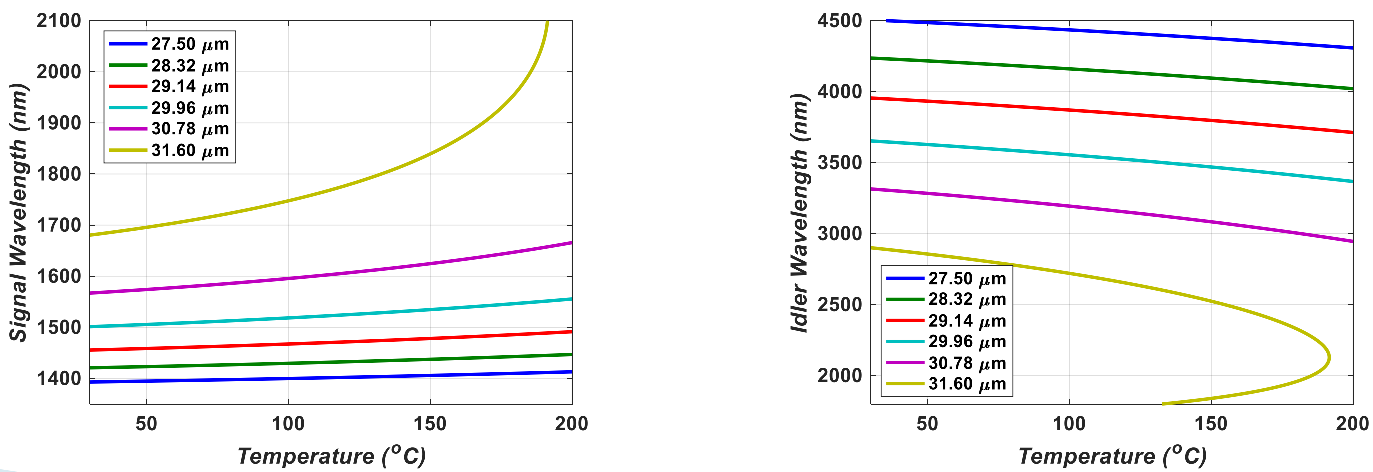


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	27.50~31.60	Microscope
Main Function	Optical Parametric Oscillator	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @1030~1080 (R<1%) /1380~1800 (R<1%) /1800~4500(R<5%) nm	Spectral Analyzer
Aperture Size	12.3 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25 ± 0.2 mm	
Clear Aperture	≥80% (T), ≥ 10.9 mm (W) *1	NA

*1 Poled fan-out grating width = 10.9 mm.

- Phase Matching Tuning Curve



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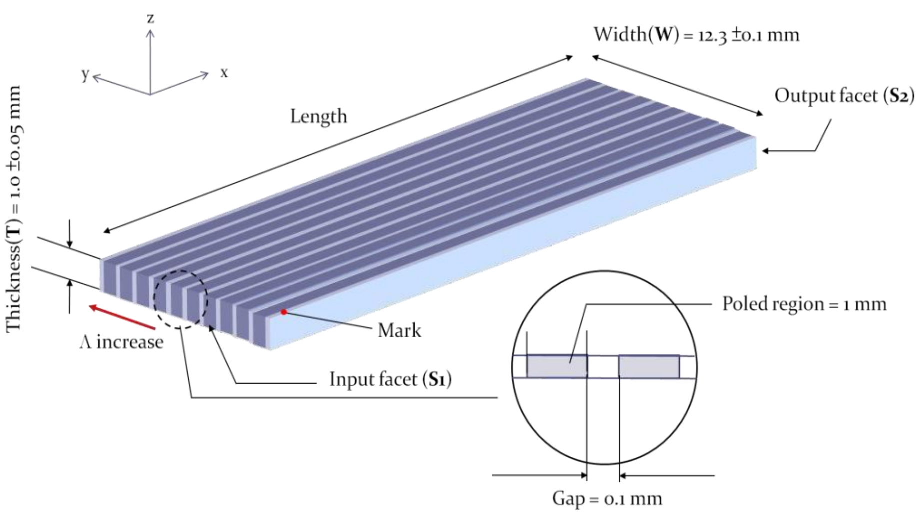
Periodically Poled Lithium Niobate (PPLN) Chip: OPMIR-MA

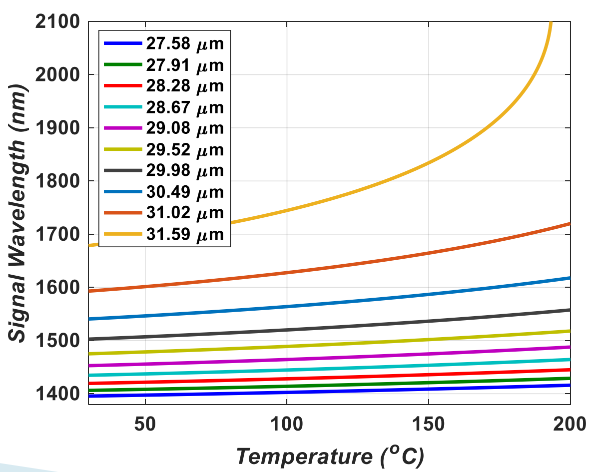
- Chip Lay-Out

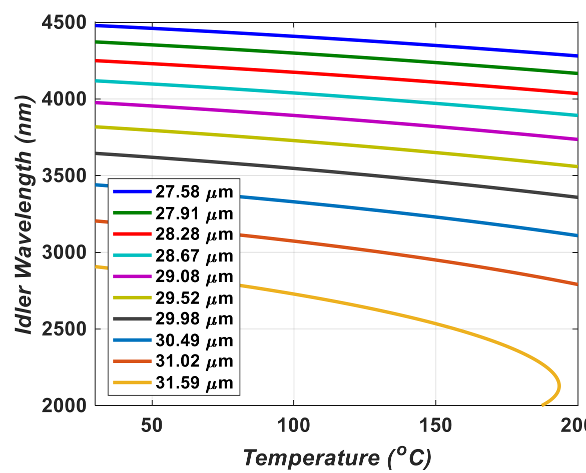


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	27.58, 27.91, 28.28, 28.67, 29.08, 29.52, 29.98, 30.49, 31.02, 31.59	Microscope
Main Function	Optical Parametric Oscillator	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @1030-1080 (R<1%) /1380~1800 (R<1%) /1800~4500(R<5%) nm	Spectral Analyzer
Aperture Size	12.3 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25/50 ± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve





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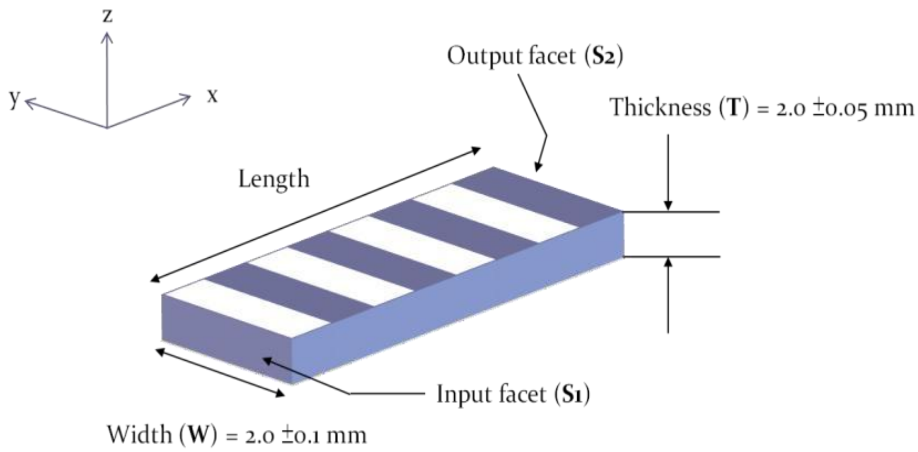
Periodically Poled Lithium Niobate (PPLN) Chip: OPMIR-SA

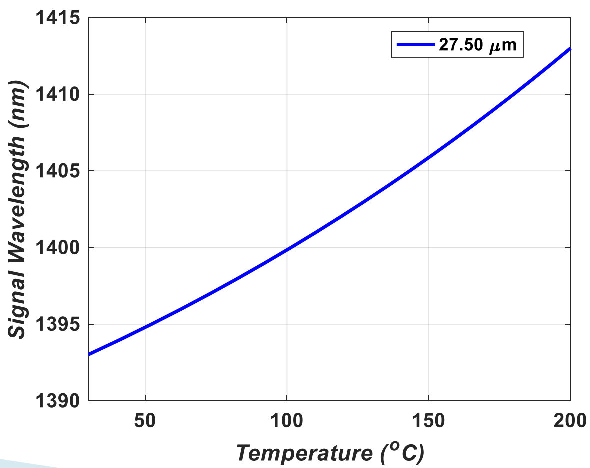
- Chip Lay-Out

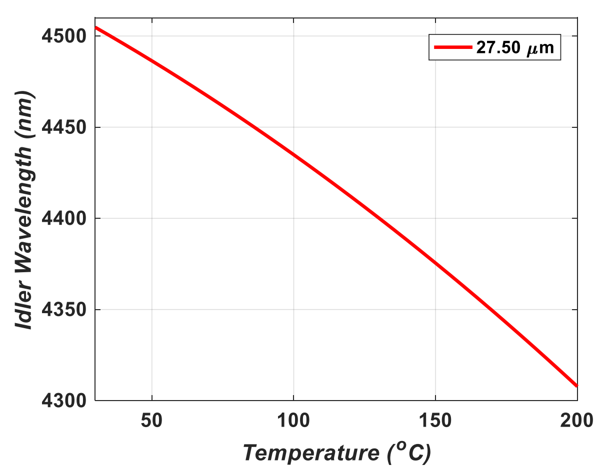


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	27.50	Microscope
Main Function	Optical Parametric Oscillator	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @1030-1080 (R<1%) /1380~1800 (R<1%) /1800~4500(R<5%) nm	Spectral Analyzer
Aperture Size	2.0 x 2.0 mm² (W x T)	Cutting Machine
Available Length	10/25/50 ± 0.2 mm	
Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve





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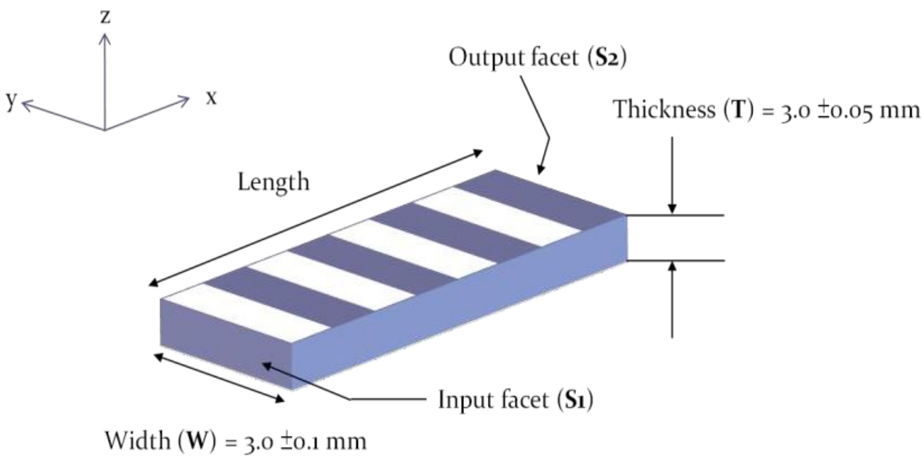
Periodically Poled Lithium Niobate (PPLN) Chip: OPMIR-SB

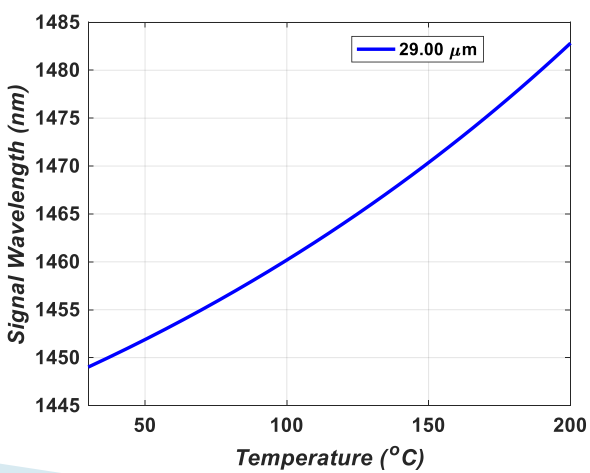
- Chip Lay-Out

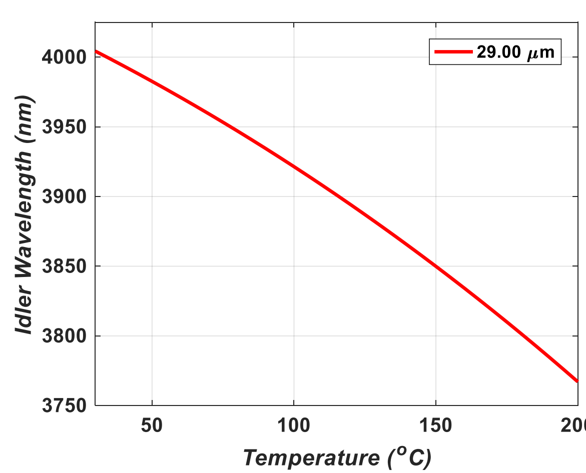


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	29.00	Microscope
Main Function	Optical Parametric Oscillator	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @1030-1080 (R<1%) /1380~1800 (R<1%) /1800~4500(R<5%) nm	Spectral Analyzer
Aperture Size	3.0 x 3.0 mm² (W x T)	Cutting Machine
Available Length	10/25/50 ± 0.2 mm	
Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve





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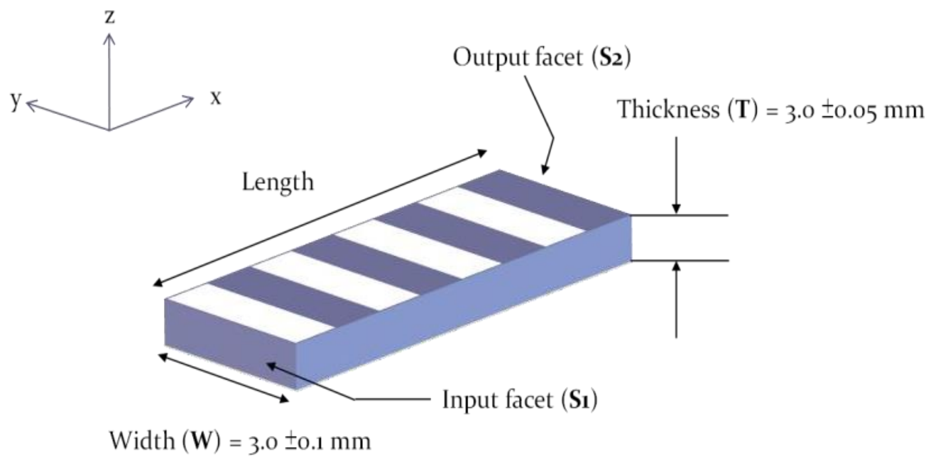
Periodically Poled Lithium Niobate (PPLN) Chip: OPMIR-SC

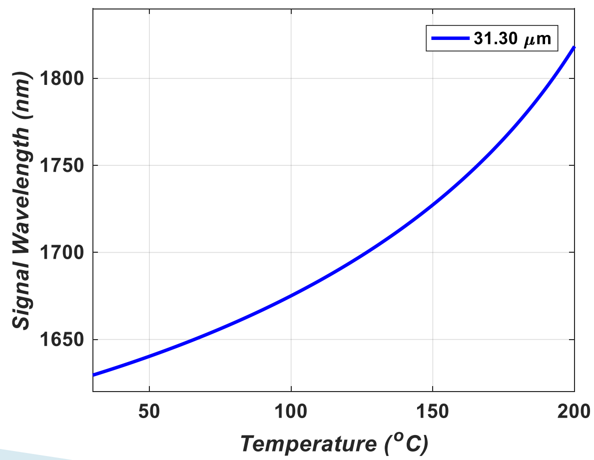
- Chip Lay-Out

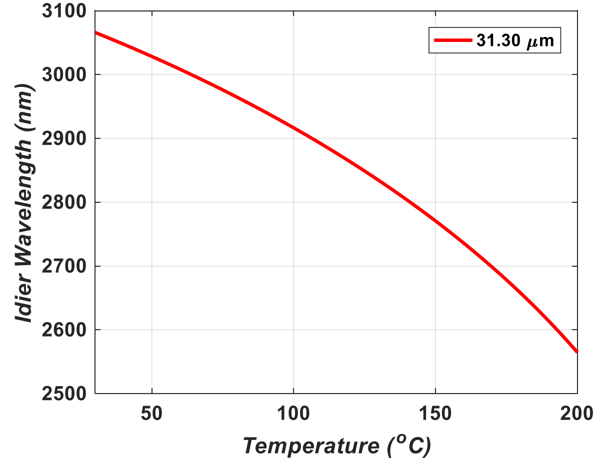


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	31.30	Microscope
Main Function	Optical Parametric Oscillator	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @1030-1080 (R<1%) /1380~1800 (R<1%) /1800~4500(R<5%) nm	Spectral Analyzer
Aperture Size	3.0 x 3.0 mm² (**W** x **T**)	Cutting Machine
Available Length	10/25/50 ± 0.2 mm	
Clear Aperture	≥80% (**T**), ≥90% (**W**)	NA

- Phase Matching Tuning Curve





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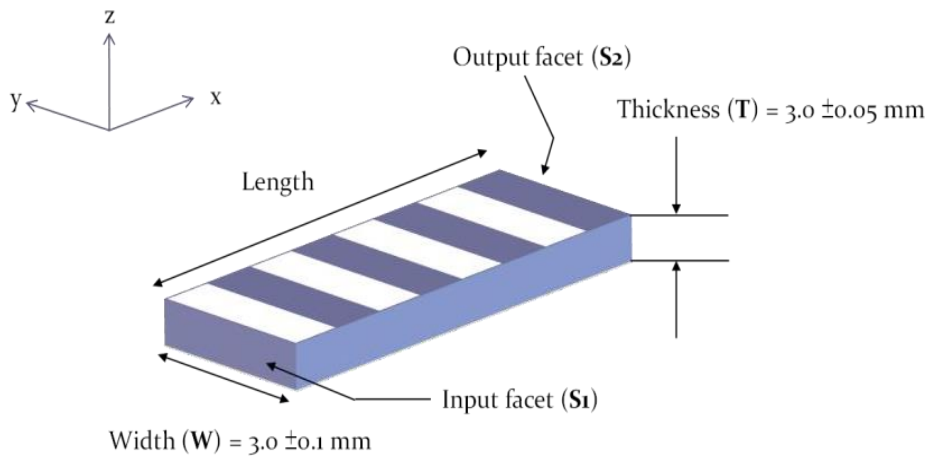
Periodically Poled Lithium Niobate (PPLN) Chip: OPMIR-SD

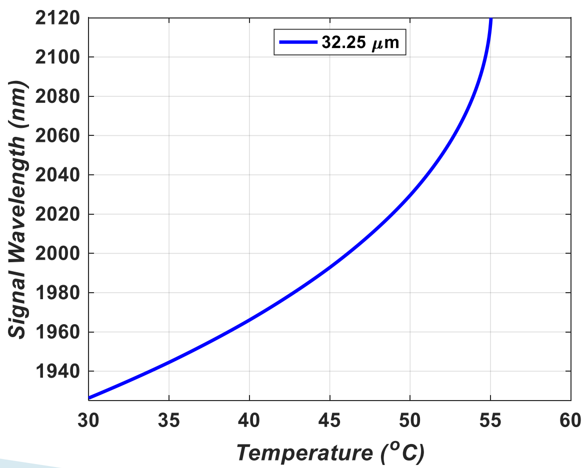
- Chip Lay-Out

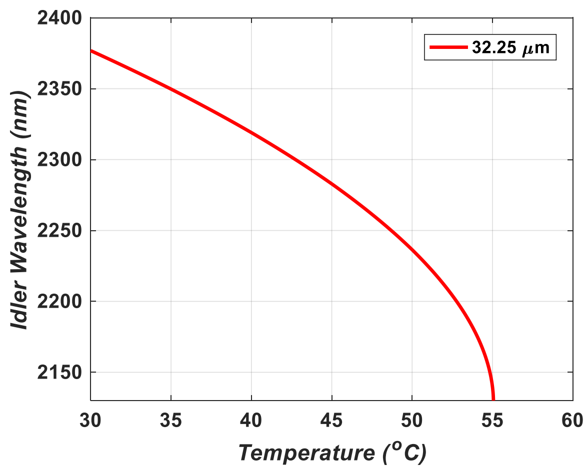


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	32.25	Microscope
Main Function	Optical Parametric Oscillator	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @1030-1080 (R<1%) /1380~1800 (R<1%) /1800~4500(R<5%) nm	Spectral Analyzer
Aperture Size	3.0 x 3.0 mm² (W x T)	Cutting Machine
Available Length	10/25/50 ± 0.2 mm	
Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve





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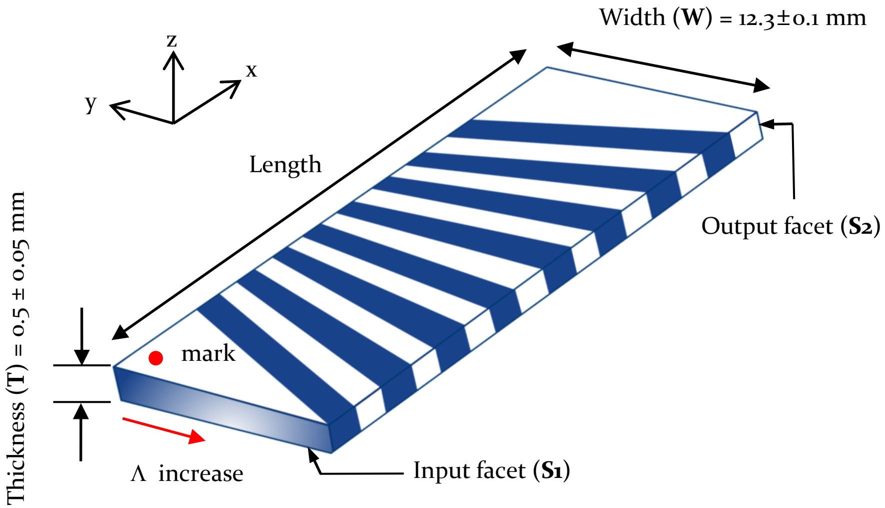
Periodically Poled Lithium Niobate (PPLN) Chip: SFVIS-FA

- Chip Lay-Out

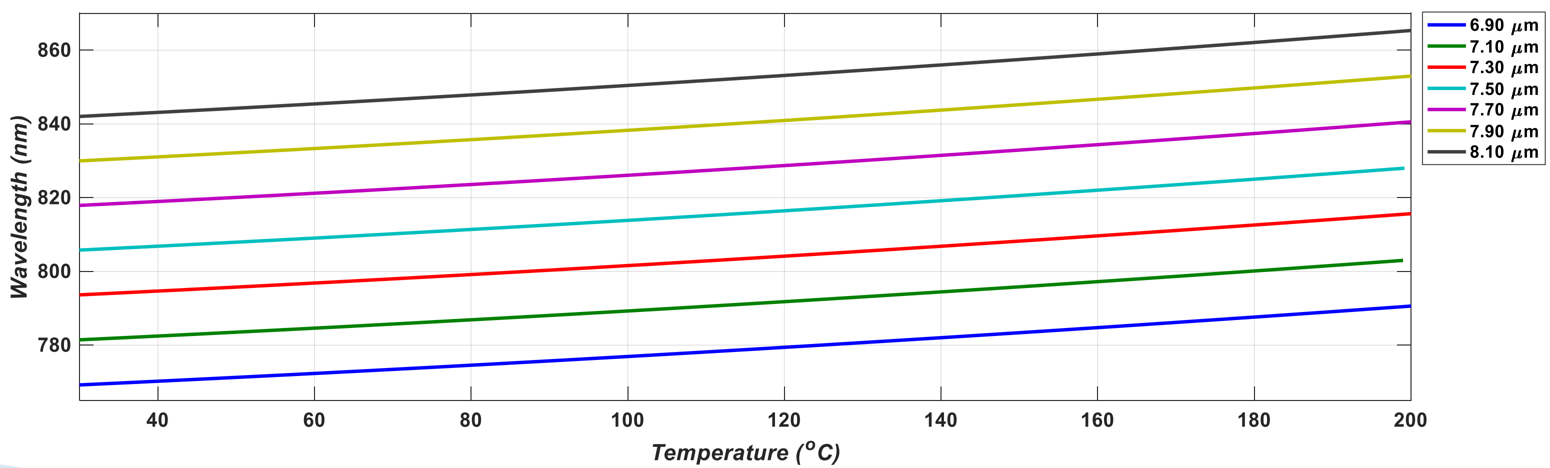


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	6.90~8.10	Microscope
Main Function	Sum-Frequency Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @470~550/720~850 /1480~1590 (R<0.5%) nm	Spectral Analyzer
Aperture Size	12.3 x 0.5 mm² (W x T)	Cutting Machine
Available Length	10/25 ± 0.2 mm	
Clear Aperture	≥80% (T), ≥ 10.9 mm (W) *1	NA

*1 Poled fan-out grating width = 10.9 mm.

- Phase Matching Tuning Curve



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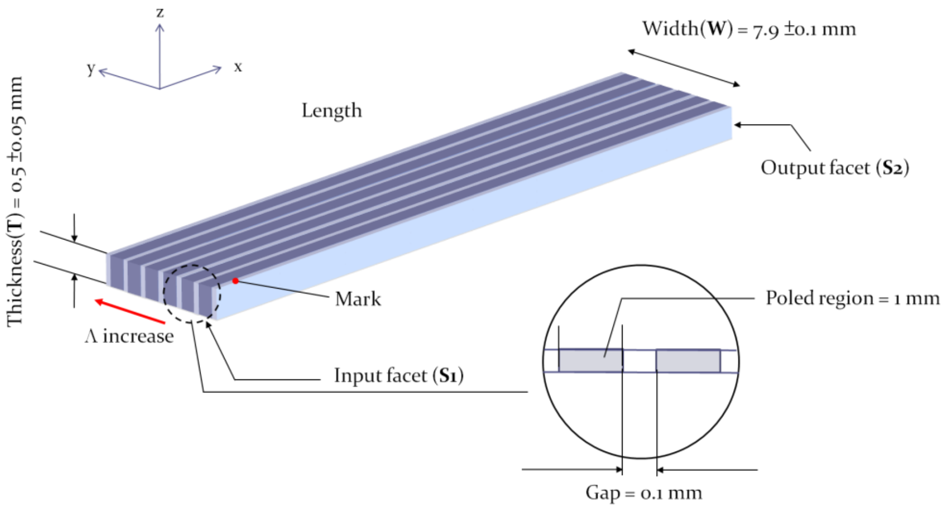
Periodically Poled Lithium Niobate (PPLN) Chip: SFVIS-MA

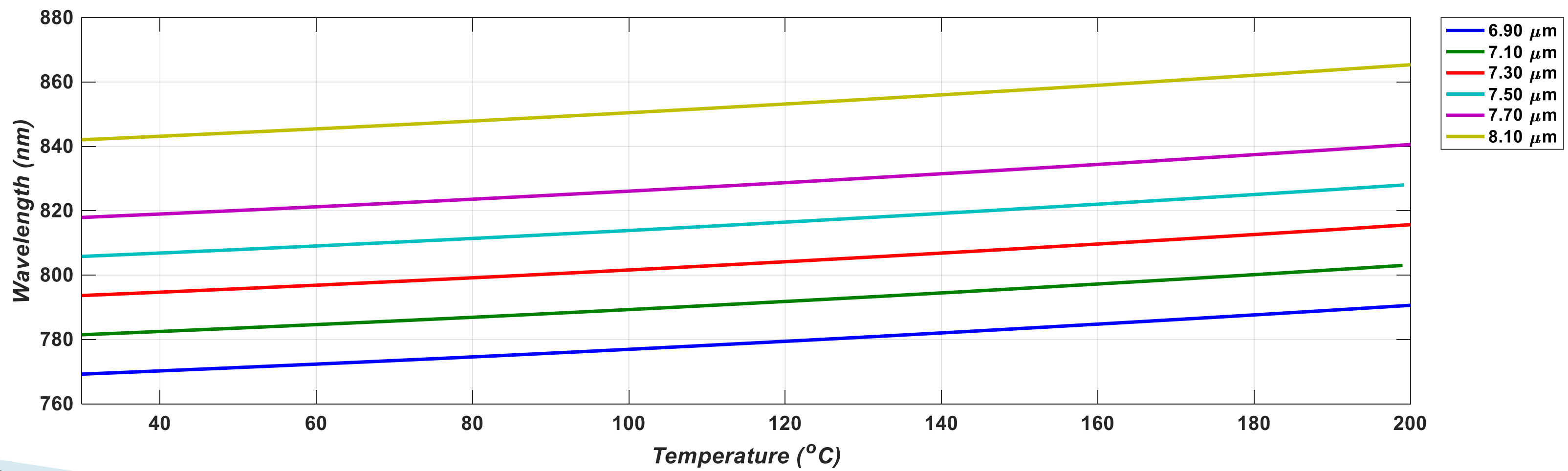
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	6.90, 7.10, 7.30, 7.50, 7.70, 8.10	Microscope
Main Function	Sum-Frequency Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2@470~550/720~850 /1480~1590 (R<0.5%) nm	Spectral Analyzer
Aperture Size	7.9 x 0.5 mm² (W x T)	Cutting Machine
Available Length	10/25 /50± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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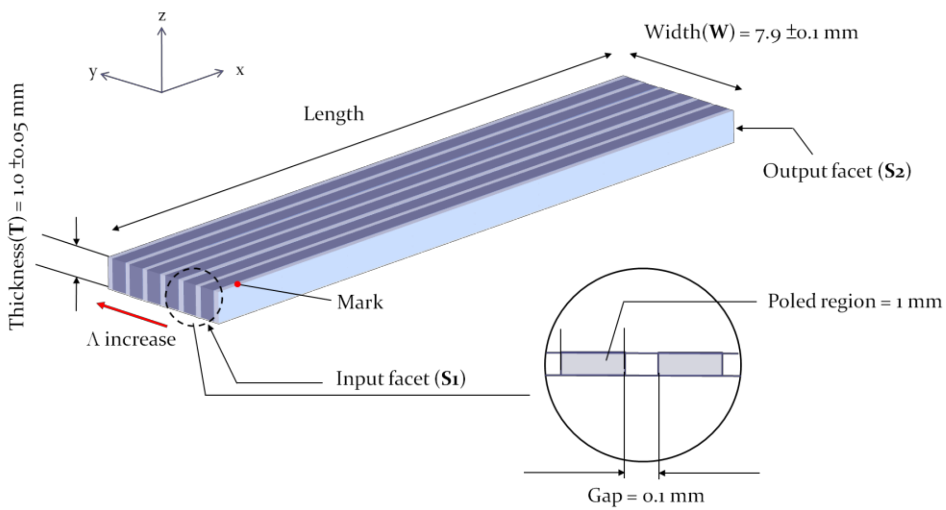
Periodically Poled Lithium Niobate (PPLN) Chip: SFVIS-MB

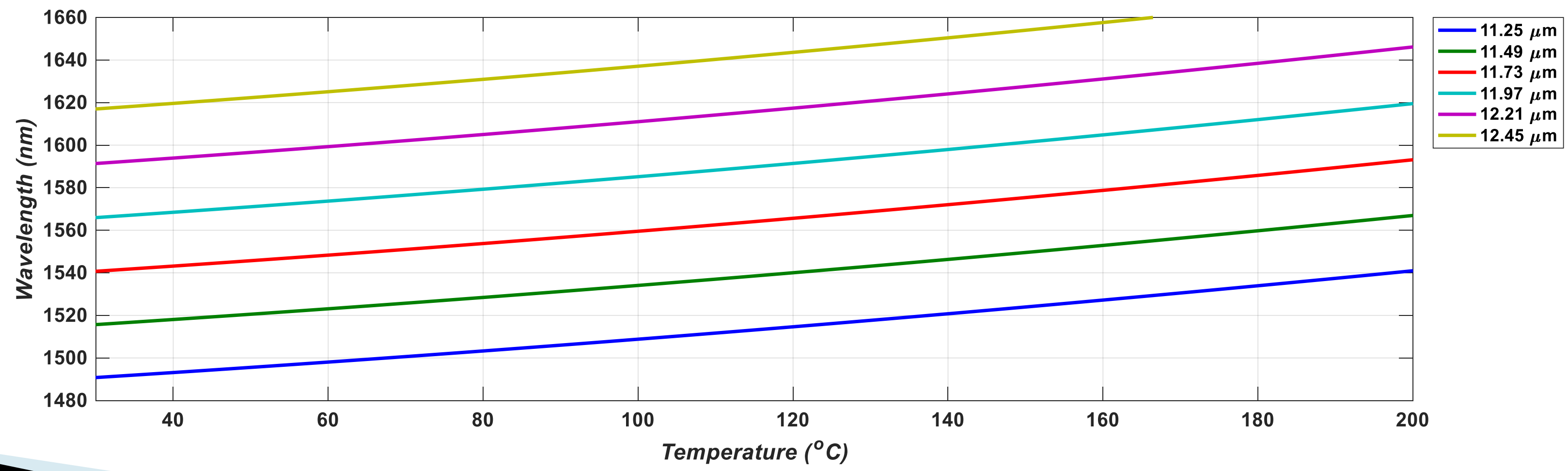
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	11.25, 11.49, 11.73, 11.97, 12.21, 12.45	Microscope
Main Function	Sum-Frequency Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2@625~642/1020~1080 /1520~1620 (R<0.5%) nm	Spectral Analyzer
Aperture Size	7.9 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25 /50± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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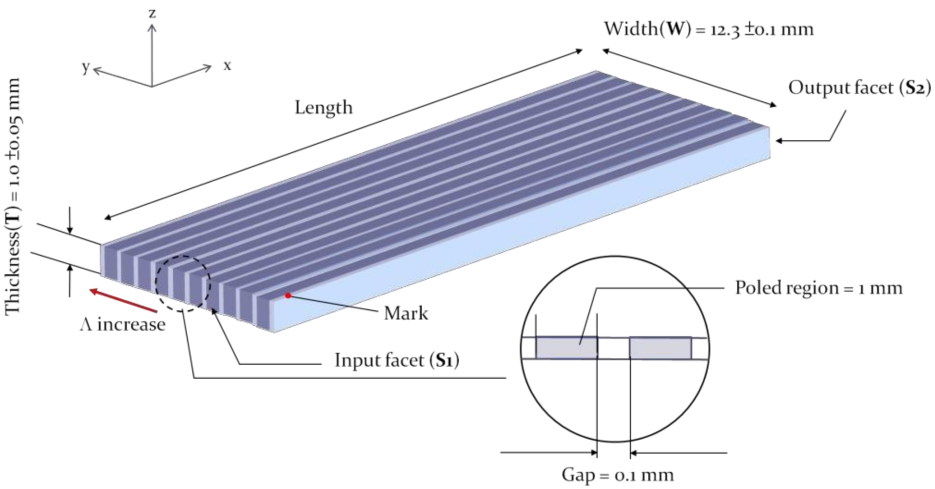
Periodically Poled Lithium Niobate (PPLN) Chip: SFVIS-MC

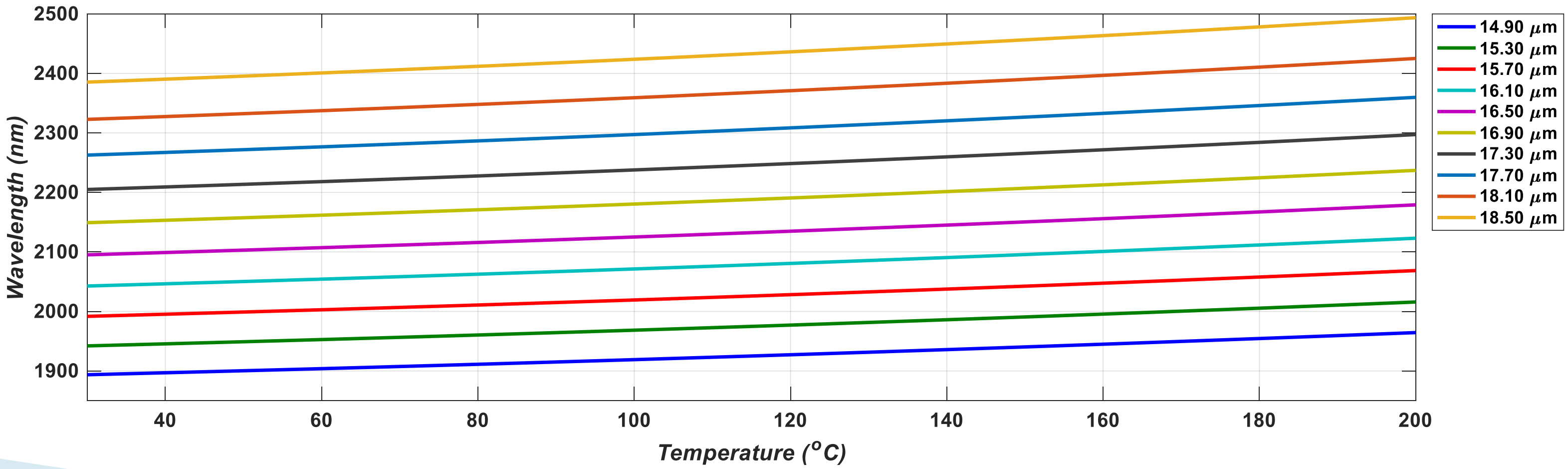
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	14.90, 15.30, 15.70, 16.10, 16.50, 16.90, 17.30, 17.70, 18.10, 18.50	Microscope
Main Function	Sum-Frequency Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @680~740(R<0.5%) /1030~1080(R<0.5%) /1900~2400(R<1%)nm	Spectral Analyzer
Aperture Size	12.3 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25/50 ± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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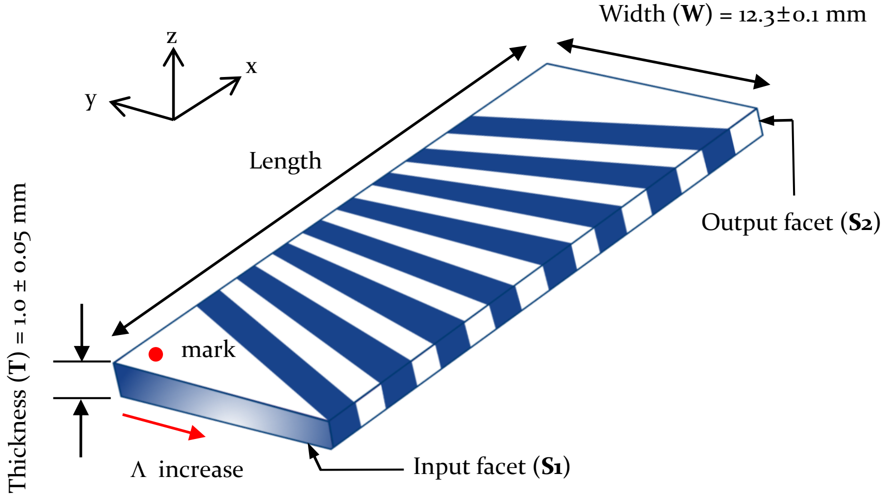
Periodically Poled Lithium Niobate (PPLN) Chip: SHNIR-FA

- Chip Lay-Out

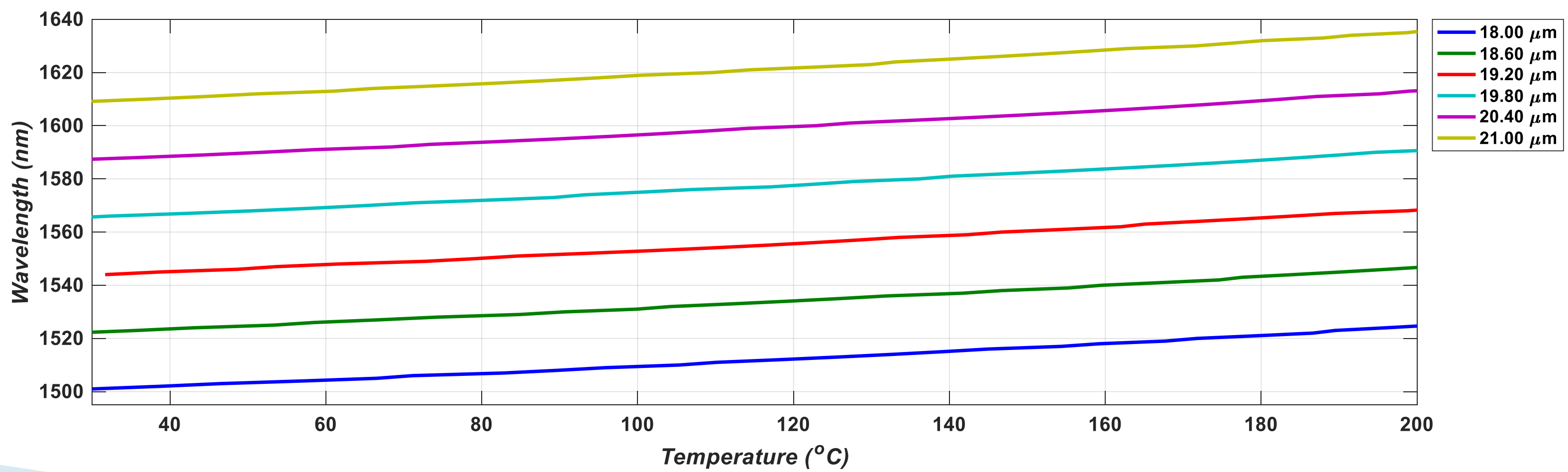


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	18.00~21.00	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @750~810(R<0.5%) /1500~1620(R<0.5%) nm	Spectral Analyzer
Aperture Size	12.3 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25 ± 0.2 mm	
Clear Aperture	≥80% (T), ≥ 10.9 mm (W) *1	NA

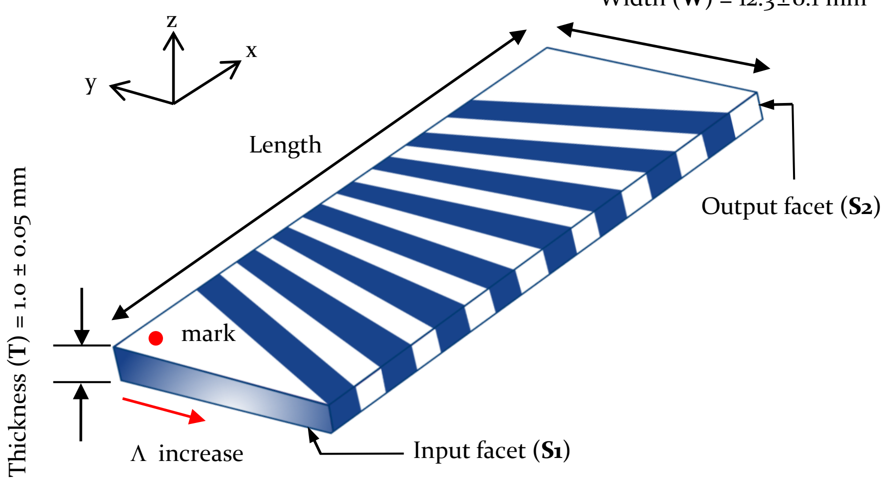
*1 Poled fan-out grating width = 10.9 mm.

- Phase Matching Tuning Curve



Periodically Poled Lithium Niobate (PPLN) Chip: SHNIR-FB

- Chip Lay-Out

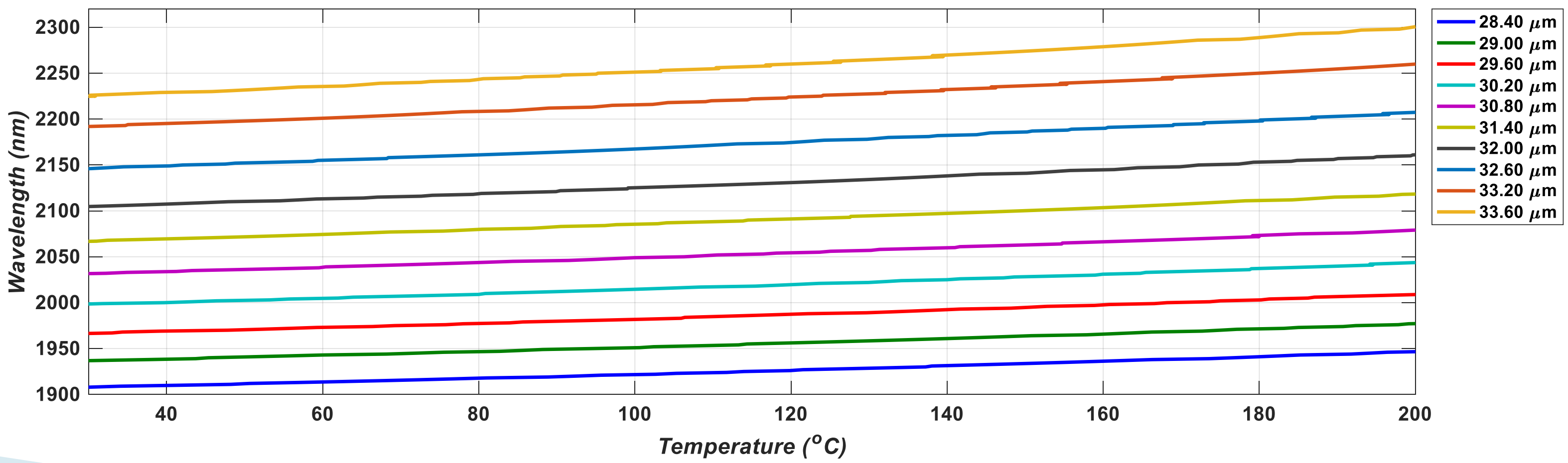


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	28.40~33.60	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @960~1150(R<0.5%) /1925~2300(R<0.5%) nm	Spectral Analyzer
Aperture Size	12.3 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25 ± 0.2 mm	
Clear Aperture	≥80% (T), ≥ 10.9 mm (W) *1	NA

*1 Poled fan-out grating width = 10.9 mm.

- Phase Matching Tuning Curve



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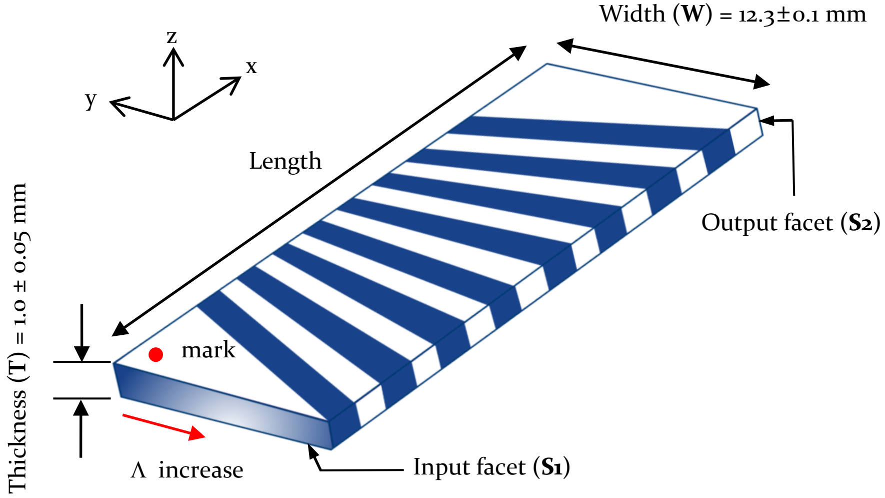
Periodically Poled Lithium Niobate (PPLN) Chip: SHNIR-FC

- Chip Lay-Out

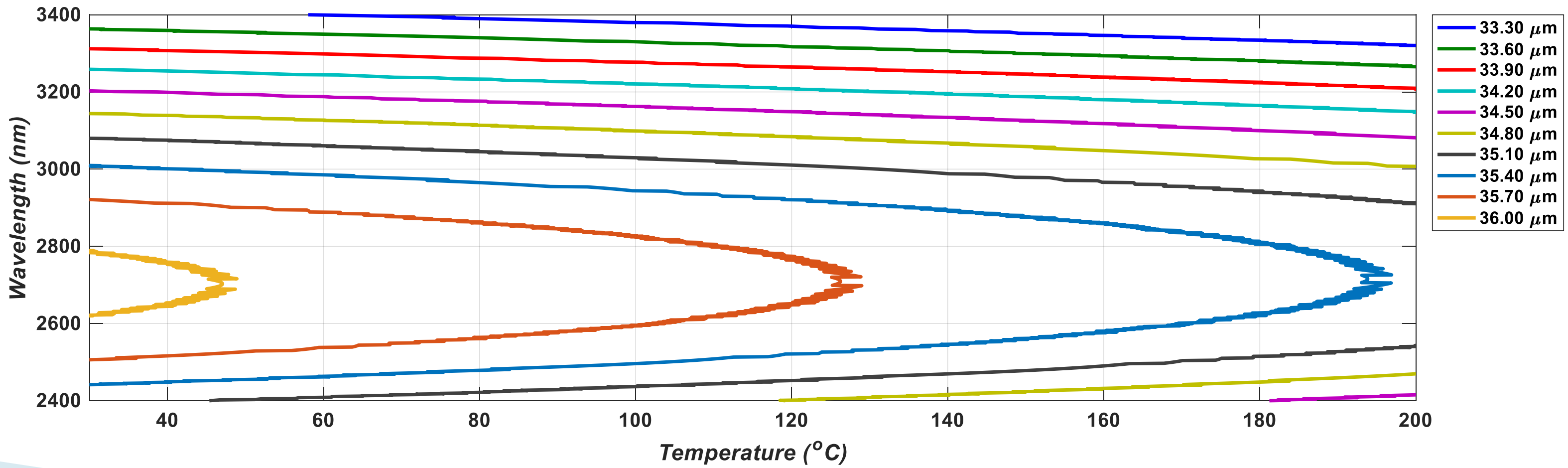


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	33.30~36.00	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @1200~1700(R<1%) /2400~3400(R<5%) nm	Spectral Analyzer
Aperture Size	12.3 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25 ± 0.2 mm	
Clear Aperture	≥80% (T), ≥ 10.9 mm (W) *1	NA

*1 Poled fan-out grating width = 10.9 mm.

- Phase Matching Tuning Curve



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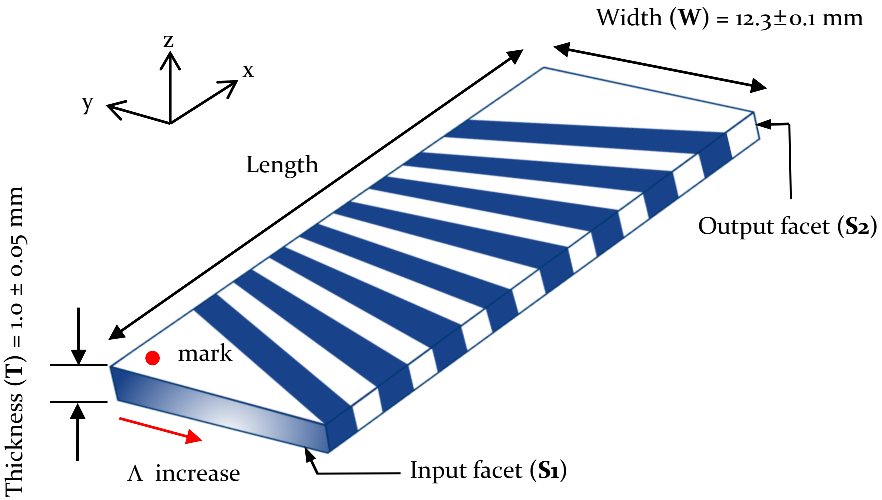
Periodically Poled Lithium Niobate (PPLN) Chip: SHNIR-FD

- Chip Lay-Out

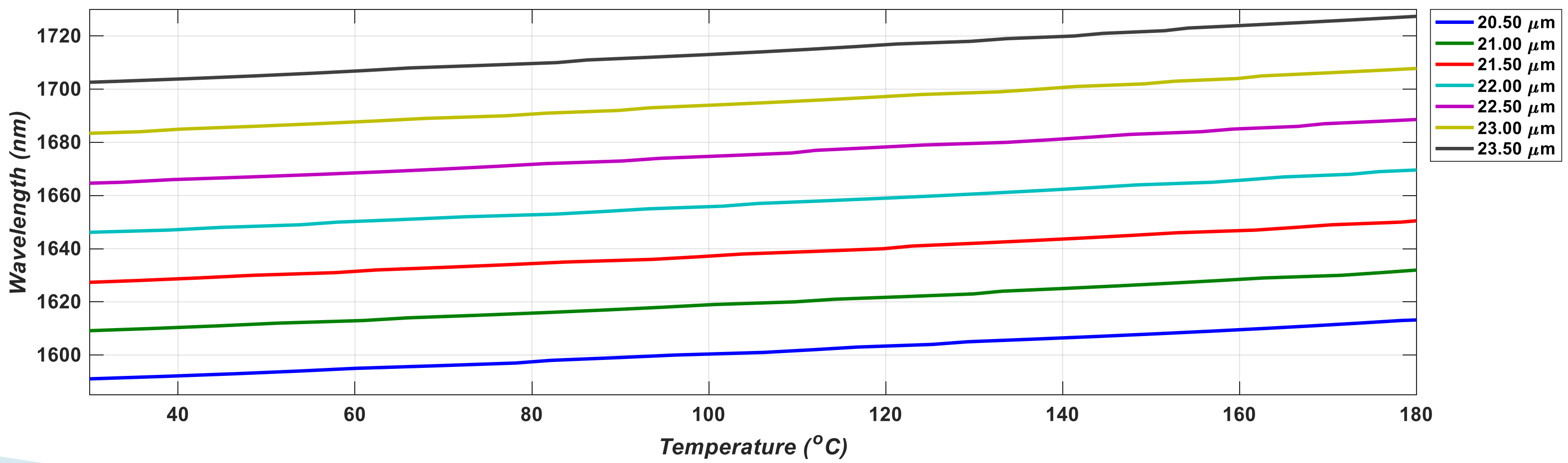


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	20.50~23.50	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @795~855(R<0.5%) /1590~1710(R<0.5%) nm	Spectral Analyzer
Aperture Size	12.3 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25 ± 0.2 mm	
Clear Aperture	≥80% (T), ≥ 10.9 mm (W) *1	NA

*1 Poled fan-out grating width = 10.9 mm.

- Phase Matching Tuning Curve



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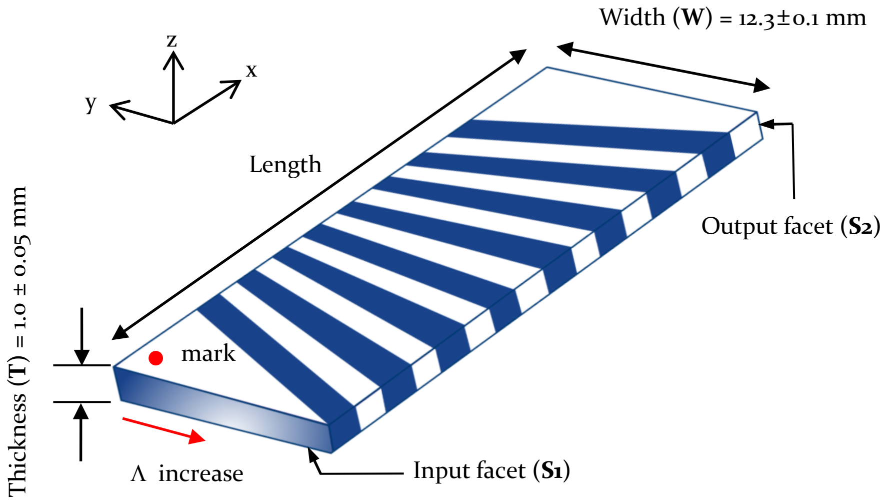
Periodically Poled Lithium Niobate (PPLN) Chip: SHNIR-FE

- Chip Lay-Out

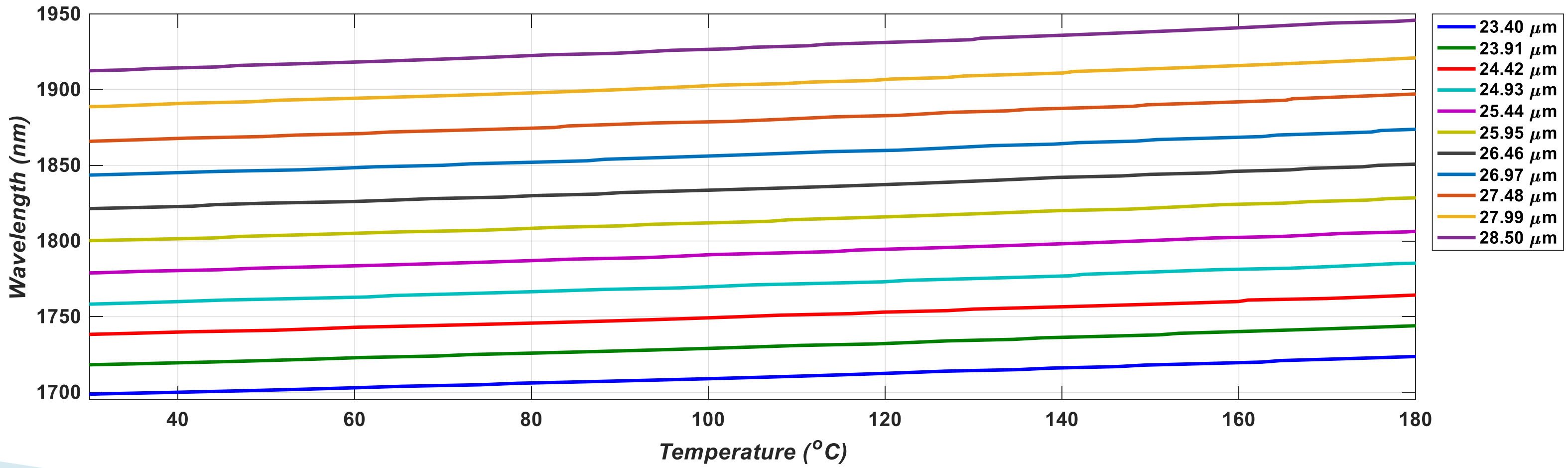


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	23.40~28.50	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @850~1000(R<0.5%) /1700~2000(R<0.5%) nm	Spectral Analyzer
Aperture Size	12.3 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25 ± 0.2 mm	
Clear Aperture	≥80% (T), ≥ 10.9 mm (W) *1	NA

*1 Poled fan-out grating width = 10.9 mm.

- Phase Matching Tuning Curve



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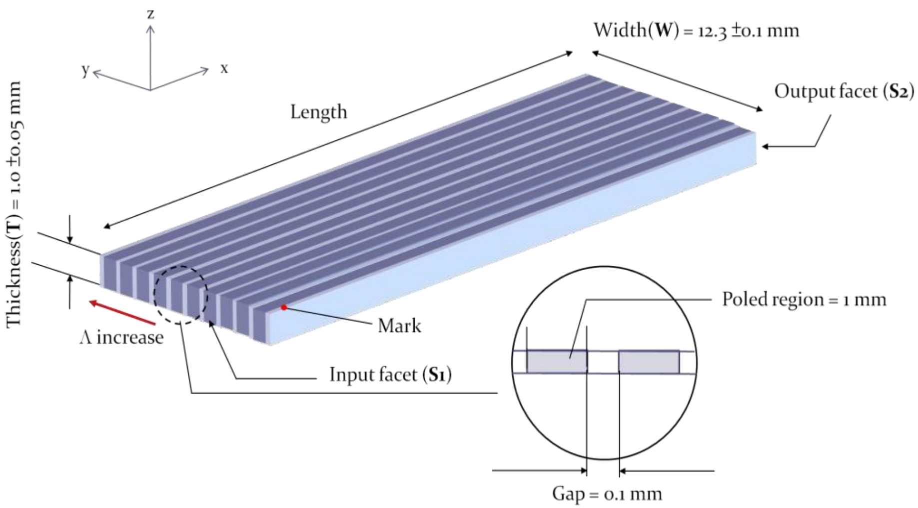
Periodically Poled Lithium Niobate (PPLN) Chip: SHNIR-MA

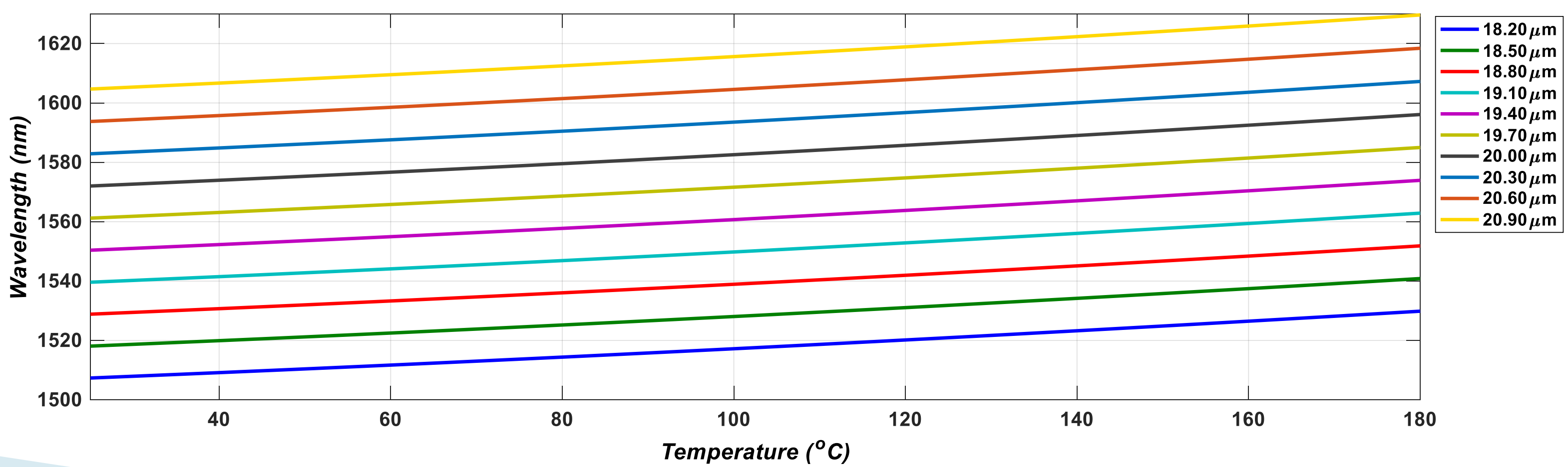
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	18.20, 18.50, 18.80, 19.10, 19.40, 19.70, 20.00, 20.30, 20.60, 20.90	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @750-810(R<0.5%) /1500-1620(R<0.5%) nm	Spectral Analyzer
Aperture Size	12.3 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25/50 ± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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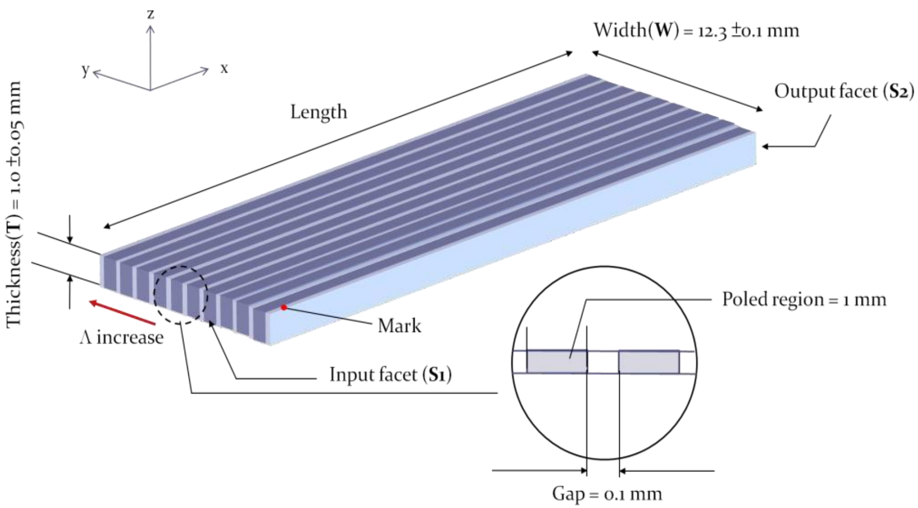
Periodically Poled Lithium Niobate (PPLN) Chip: SHNIR-MB

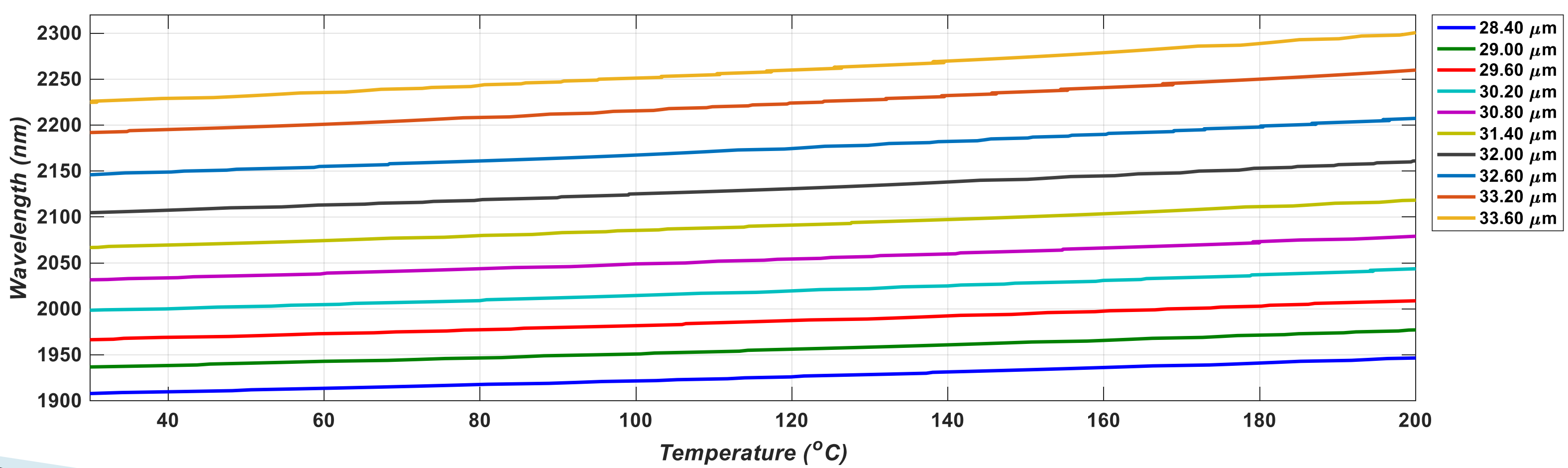
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	28.40, 29.00, 29.60, 30.20, 30.80, 31.40, 32.00, 32.60, 33.20, 33.60	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @960-1150(R<0.5%) /1925-2300(R<0.5%) nm	Spectral Analyzer
Aperture Size	12.3 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25/50 ± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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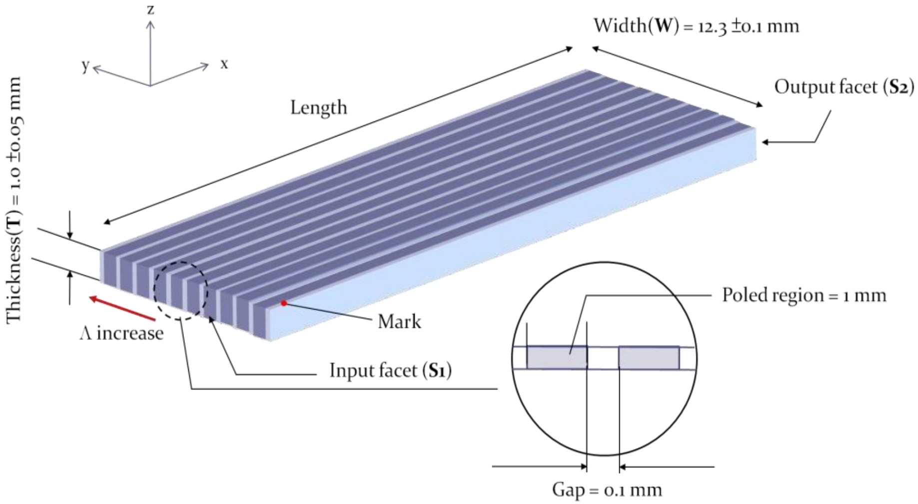
Periodically Poled Lithium Niobate (PPLN) Chip: SHNIR-MC

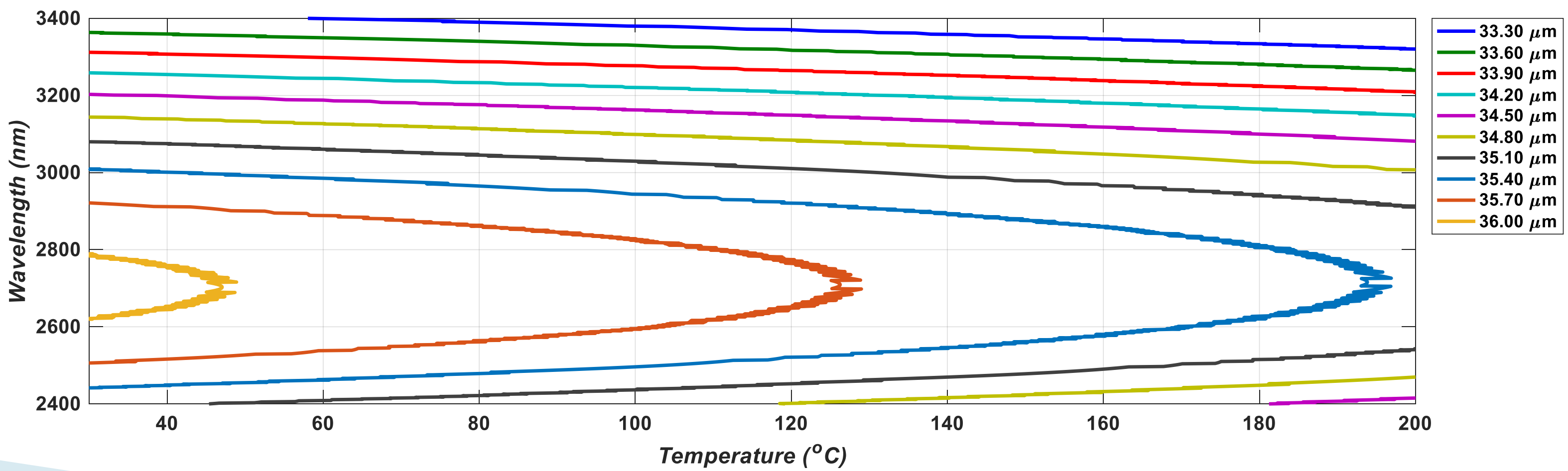
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	33.30, 33.60, 33.90, 34.20, 34.50, 34.80, 35.10, 35.40, 35.70, 36.00	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @1200~1700(R<1%) /2400~3400(R<5%)nm	Spectral Analyzer
Aperture Size	12.3 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25/50 ± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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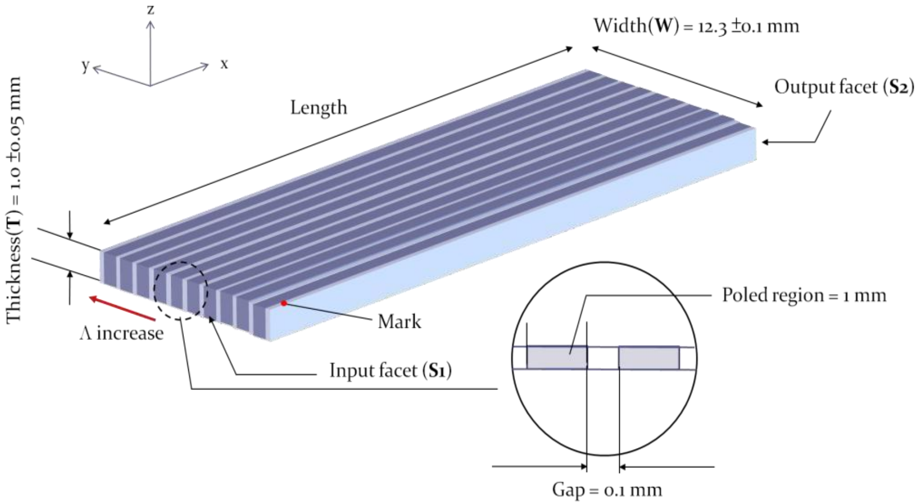
Periodically Poled Lithium Niobate (PPLN) Chip: SHNIR-MD

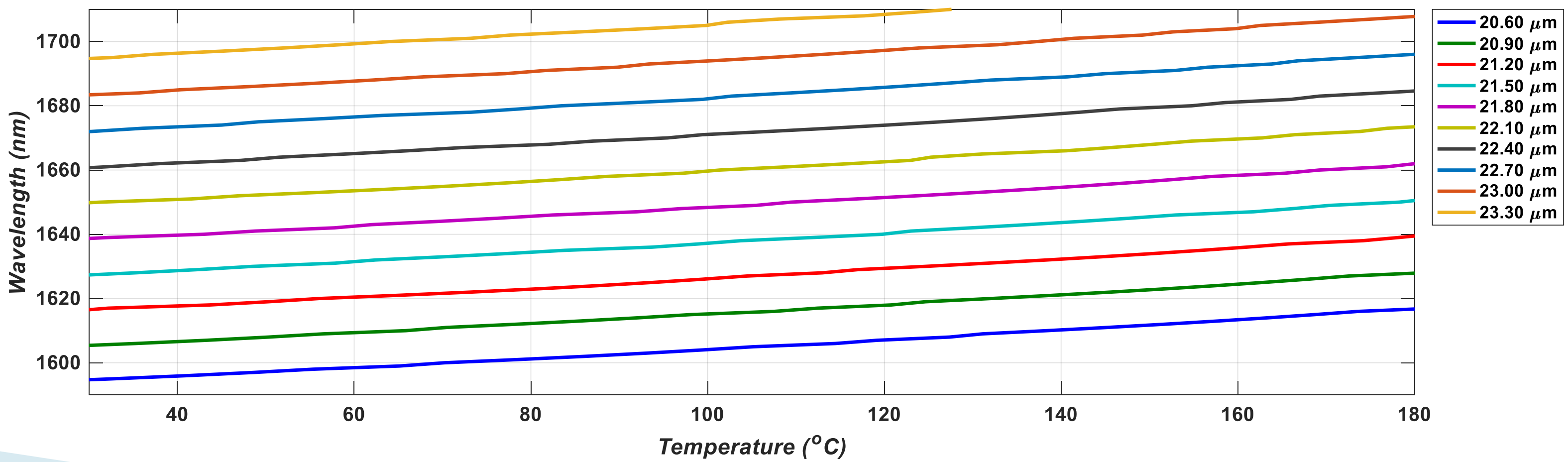
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	20.60, 20.90, 21.20, 21.50, 21.80, 22.10, 22.40, 22.70, 23.00, 23.30	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @795~855(R<0.5%) /1590~1710(R<0.5%)nm	Spectral Analyzer
Aperture Size	12.3 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25/50 ± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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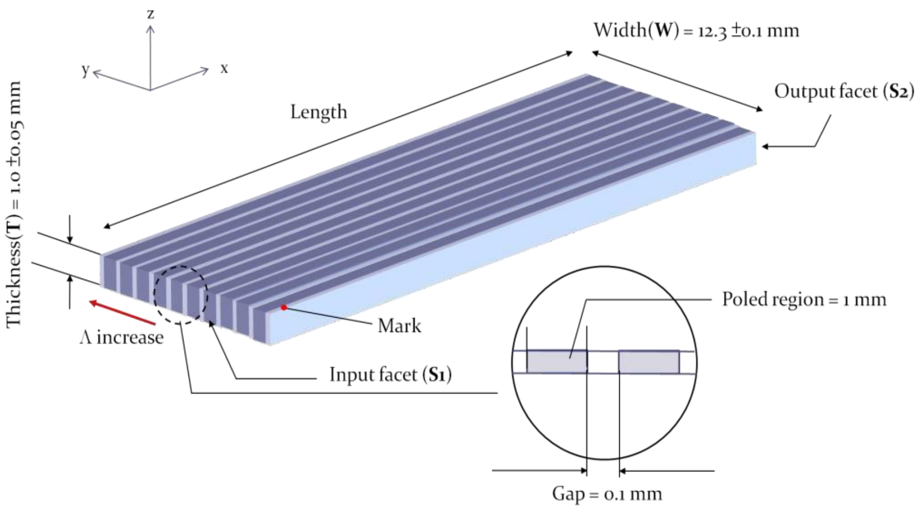
Periodically Poled Lithium Niobate (PPLN) Chip: SHNIR-ME

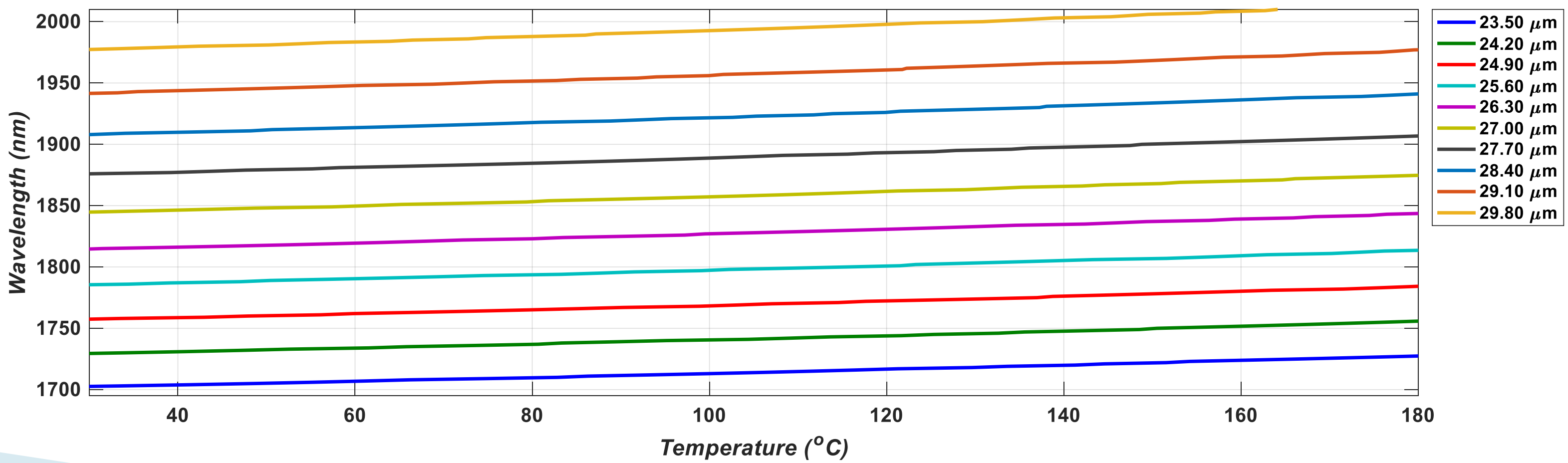
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ, μm)	23.50, 24.20, 24.90, 25.60, 26.30, 27.00, 27.70, 28.40, 29.10, 29.80	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @850~1000(R<0.5%) /1700~2000(R<0.5%)nm	Spectral Analyzer
Aperture Size	12.3 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25/50 ± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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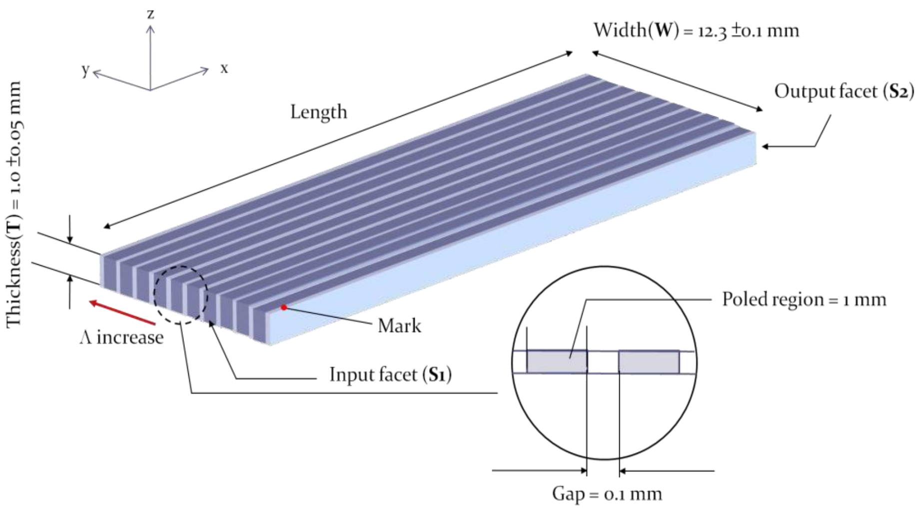
Periodically Poled Lithium Niobate (PPLN) Chip: SHNIR-MF

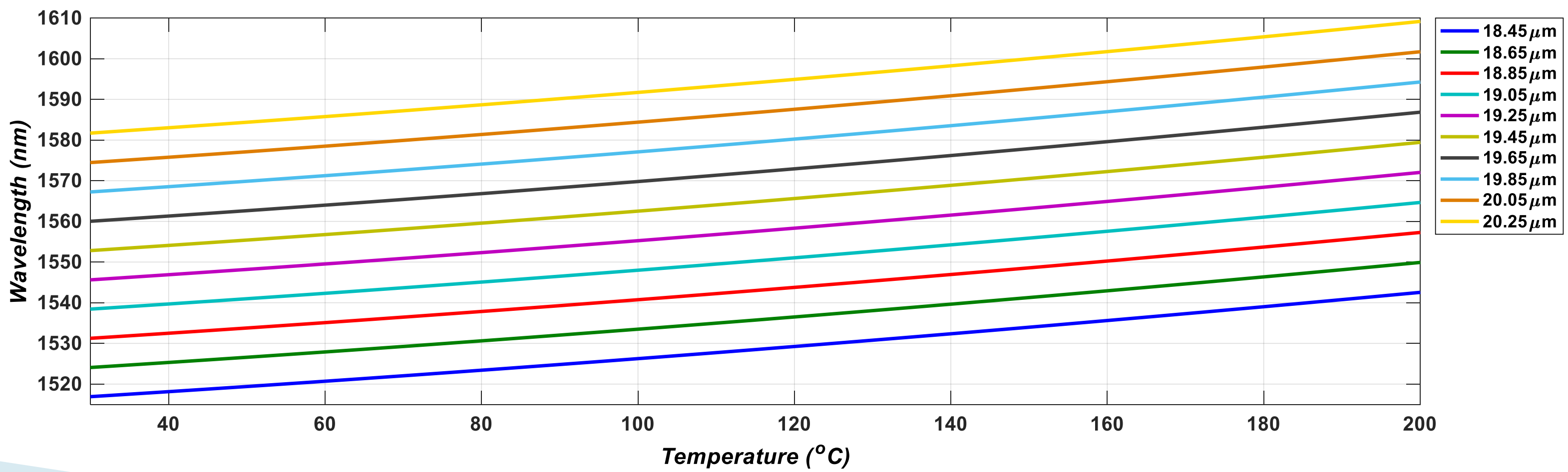
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	18.45, 18.65, 18.85, 19.05, 19.25, 19.45, 19.65, 19.85, 20.05, 20.25	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @750-810(R<0.5%) /1500-1620(R<0.5%) nm	Spectral Analyzer
Aperture Size	12.3 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25/50 ± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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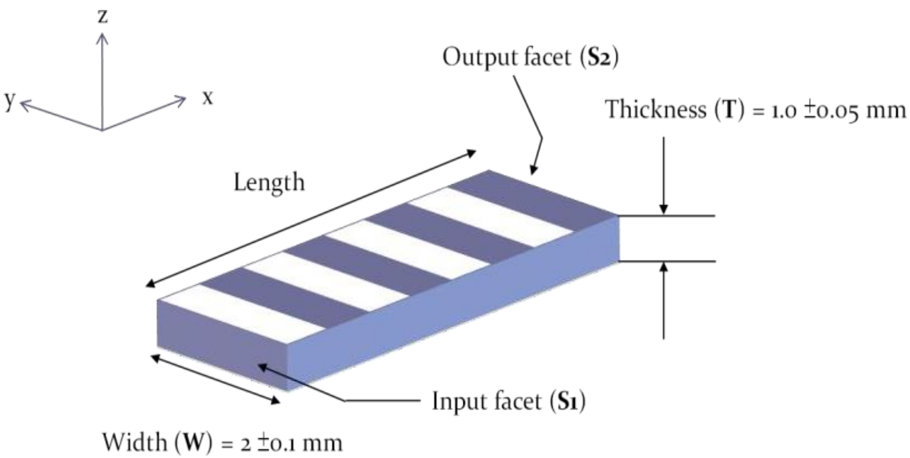
Periodically Poled Lithium Niobate (PPLN) Chip: SHNIR-SA

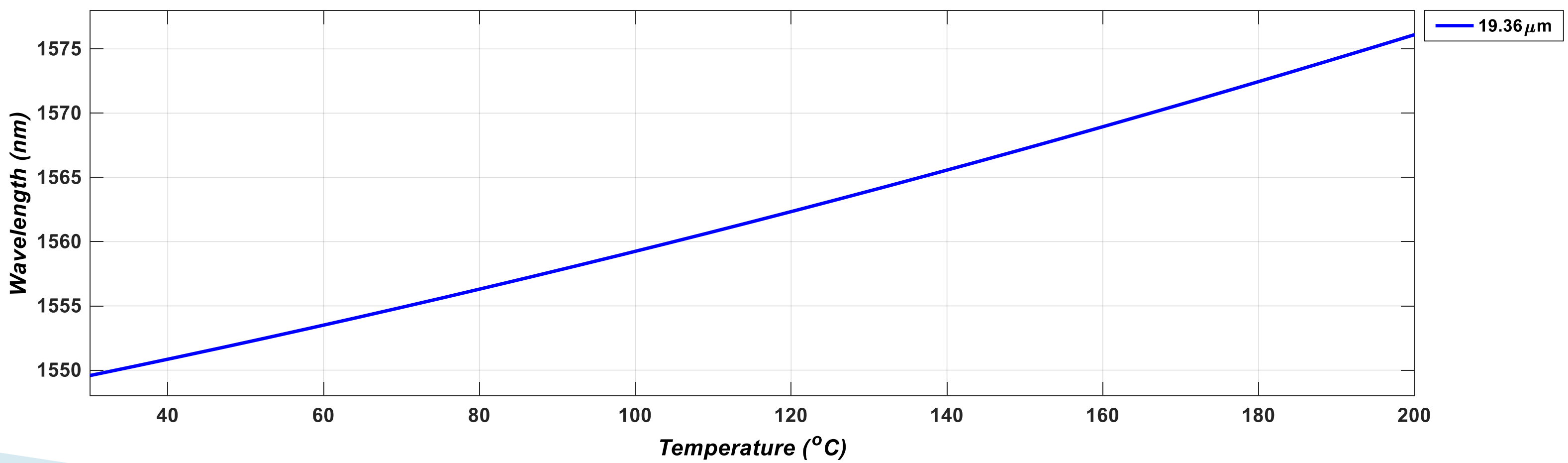
- Chip Lay-Out



[Image for reference only. Not for scale.]

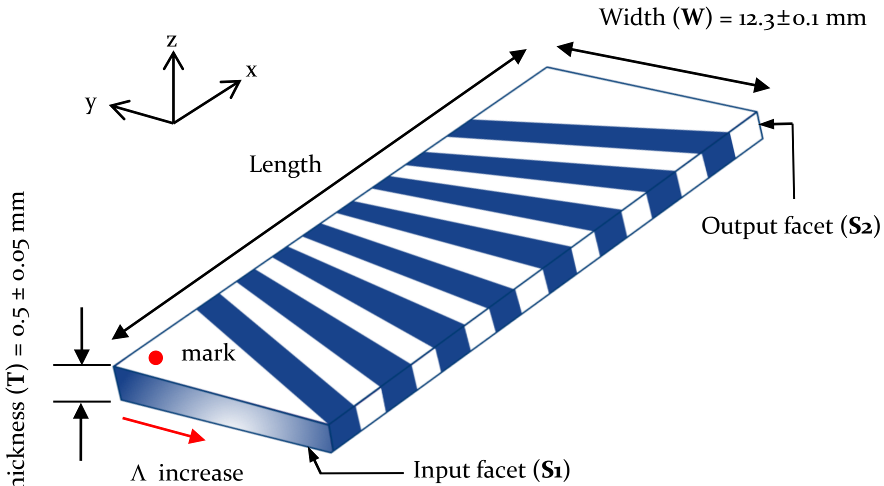
Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ, μm)	19.36	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @775(R<0.5%) /1550(R<0.3%) nm	Spectral Analyzer
Aperture Size	2.0 x 1.0 mm^2 (W x T)	Cutting Machine
Available Length	10/25/50 ± 0.2 mm	
Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



Periodically Poled Lithium Niobate (PPLN) Chip: SHRED-FA

- Chip Lay-Out

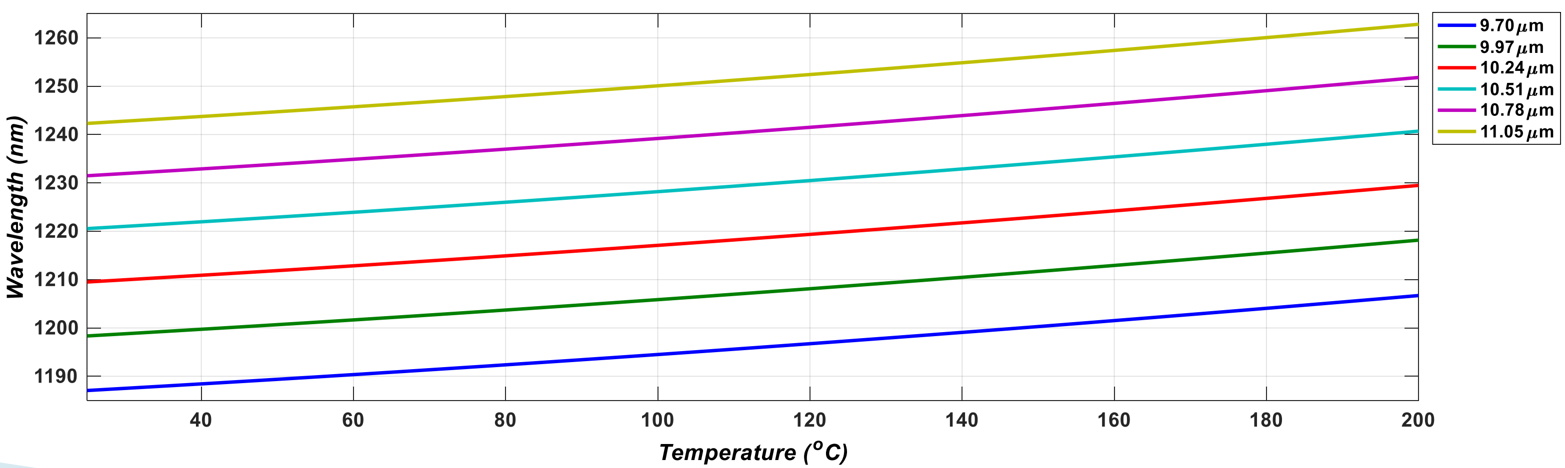


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	9.70~11.05	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @590~680(R<0.5%) /1180~1360 (R<0.5%) nm	Spectral Analyzer
Aperture Size	12.3 x 0.5 mm² (**W** x **T**)	Cutting Machine
Available Length	10/25 ± 0.2 mm	
Clear Aperture	≥80% (**T**), ≥ 10.9 mm (**W**) *1	NA

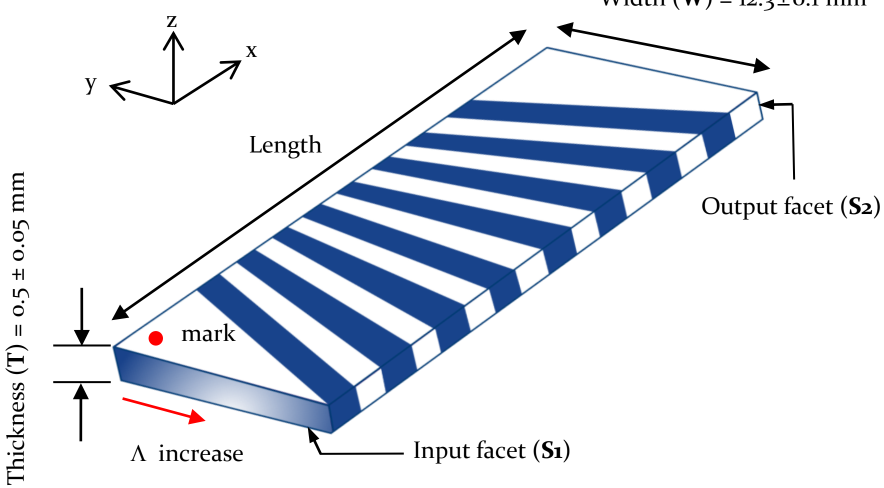
*1 Poled fan-out grating width = 10.9 mm.

- Phase Matching Tuning Curve



Periodically Poled Lithium Niobate (PPLN) Chip: SHRED-FB

- Chip Lay-Out

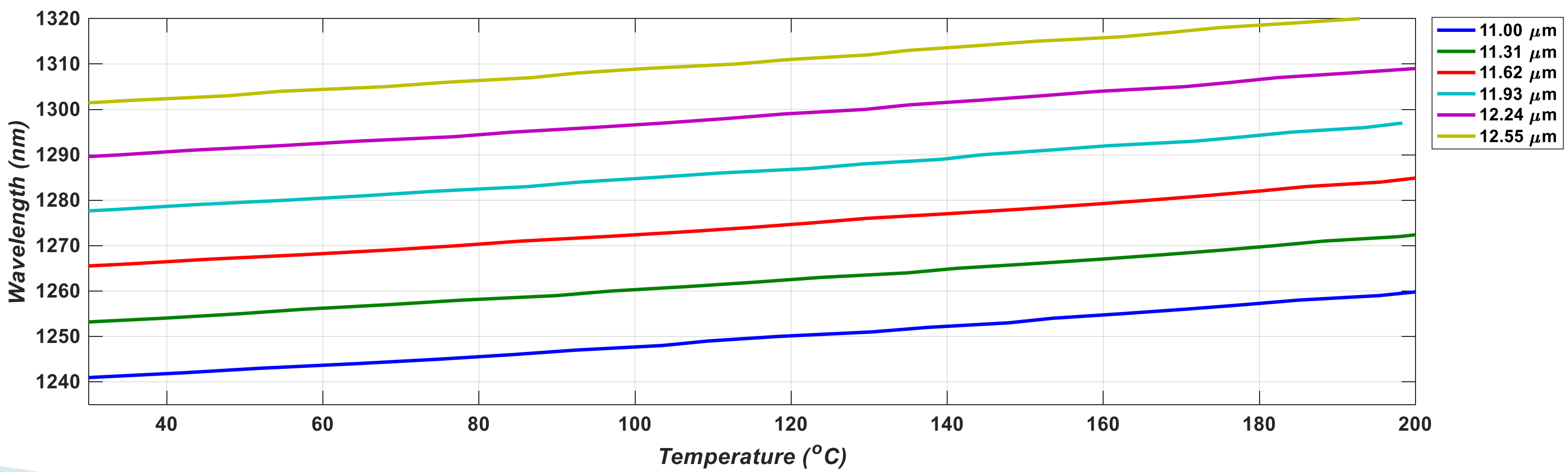


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ, μm)	11.00~12.55	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @590~680(R<0.5%) /1180~1360 (R<0.5%) nm	Spectral Analyzer
Aperture Size	12.3 x 0.5 mm² (**W** x **T**)	Cutting Machine
Available Length	10/25 ± 0.2 mm	
Clear Aperture	≥80% (**T**), ≥ 10.9 mm (**W**) *1	NA

*1 Poled fan-out grating width = 10.9 mm.

- Phase Matching Tuning Curve



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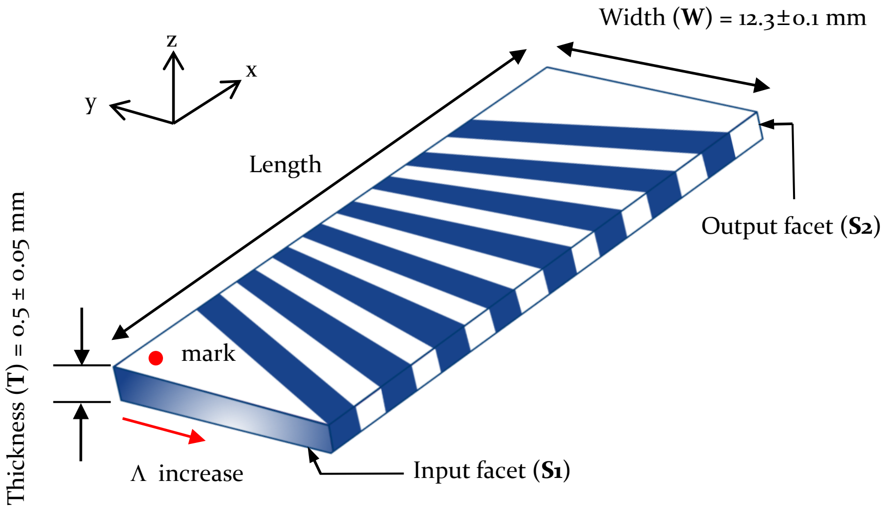
Periodically Poled Lithium Niobate (PPLN) Chip: SHRED-FC

- Chip Lay-Out

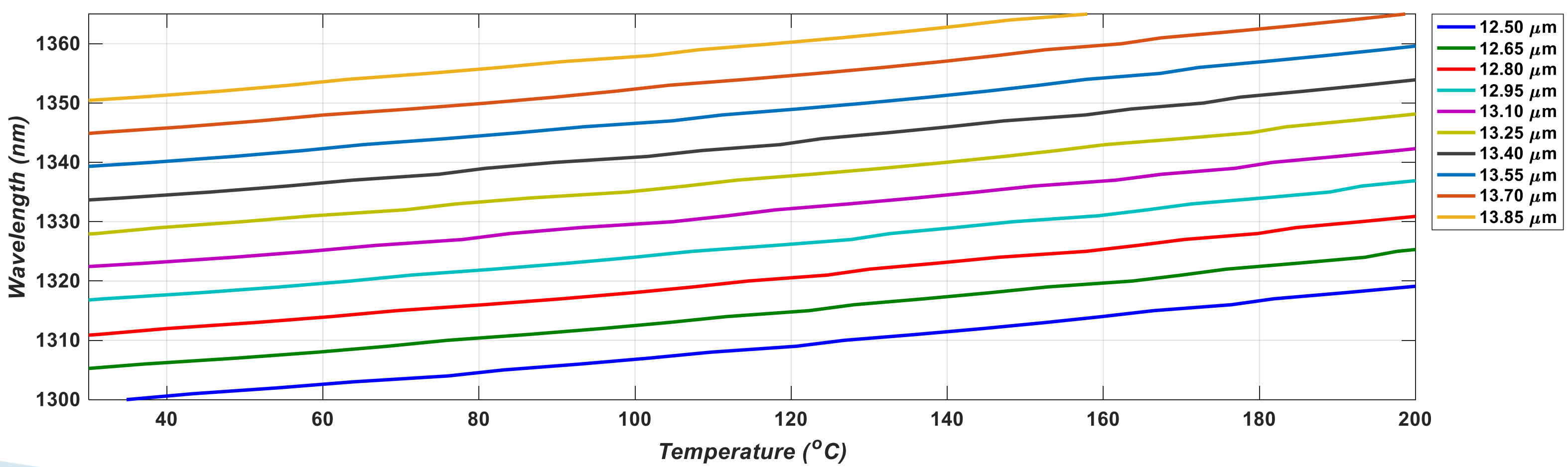


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	12.50~13.85	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @590~680(R<0.5%) /1180~1360 (R<0.5%) nm	Spectral Analyzer
Aperture Size	12.3 x 0.5 mm² (**W** x **T**)	Cutting Machine
Available Length	10/25 ± 0.2 mm	Cutting Machine
Clear Aperture	≥80% (**T**), ≥ 10.9 mm (**W**) *1	NA

*1 Poled fan-out grating width = 10.9 mm.

- Phase Matching Tuning Curve



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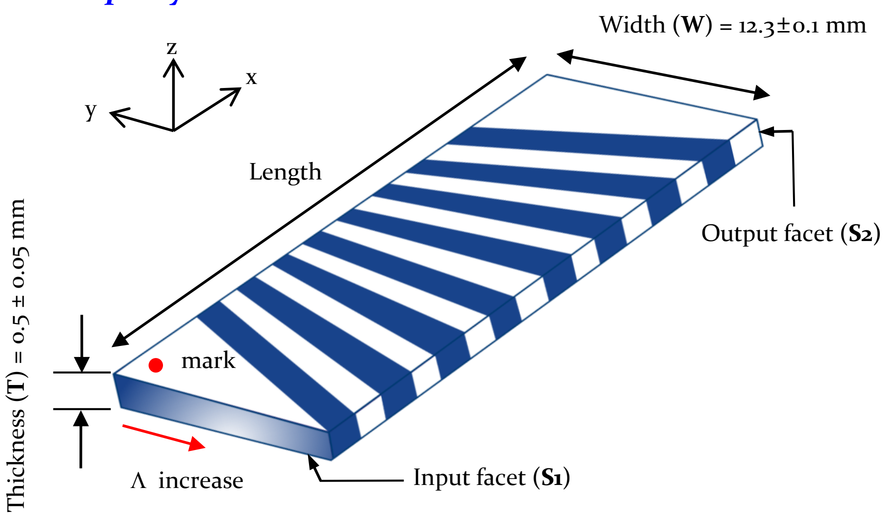
Periodically Poled Lithium Niobate (PPLN) Chip: SHRED-FD

- Chip Lay-Out

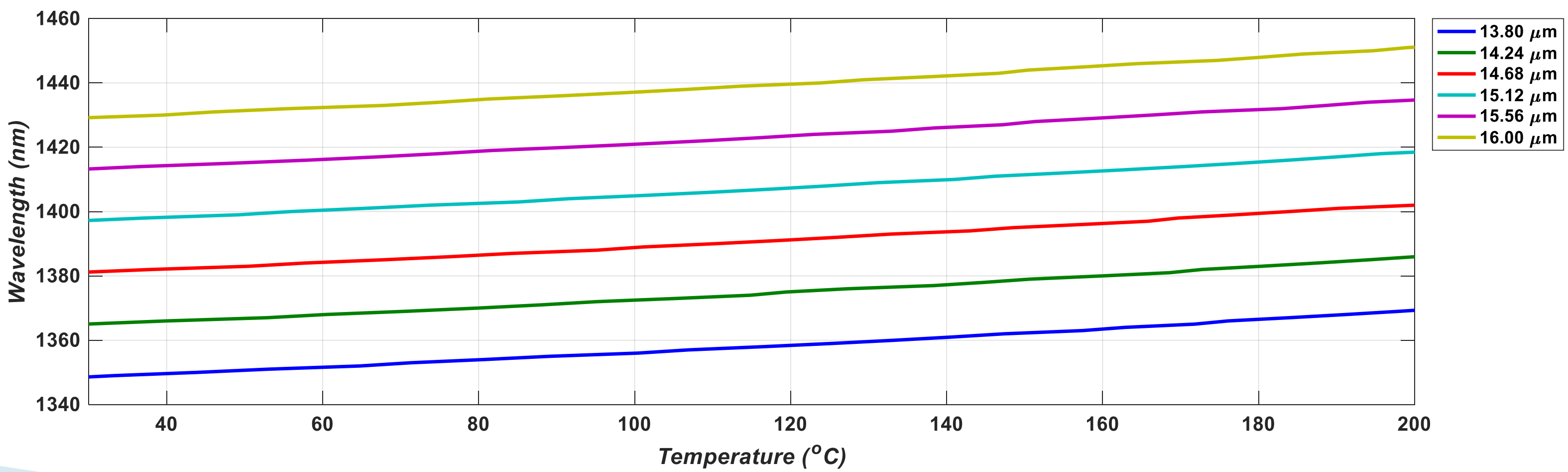


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	13.80~16.00	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @670~730(R<0.5%) /1350~1450 (R<0.5%) nm	Spectral Analyzer
Aperture Size	12.3 x 0.5 mm² (W x T)	Cutting Machine
Available Length	10/25 ± 0.2 mm	
Clear Aperture	≥80% (T), ≥ 10.9 mm (W) *1	NA

*1 Poled fan-out grating width = 10.9 mm.

- Phase Matching Tuning Curve



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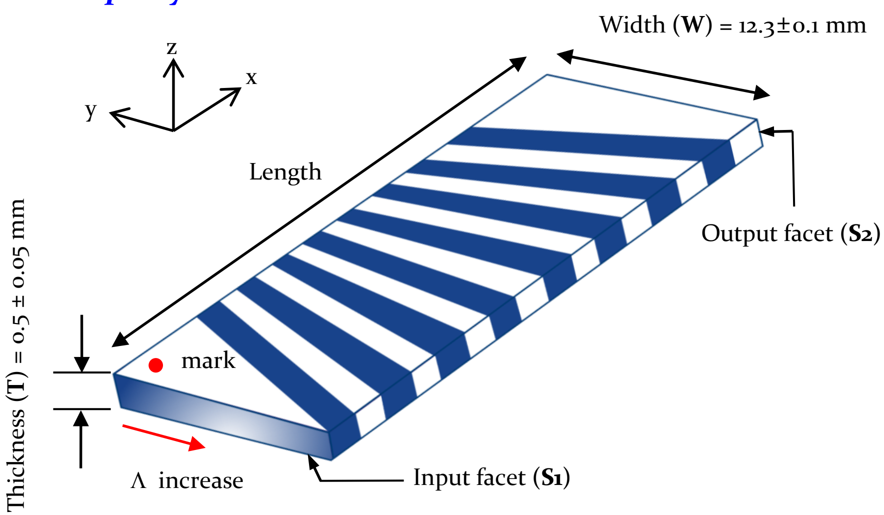
Periodically Poled Lithium Niobate (PPLN) Chip: SHRED-FE

- Chip Lay-Out

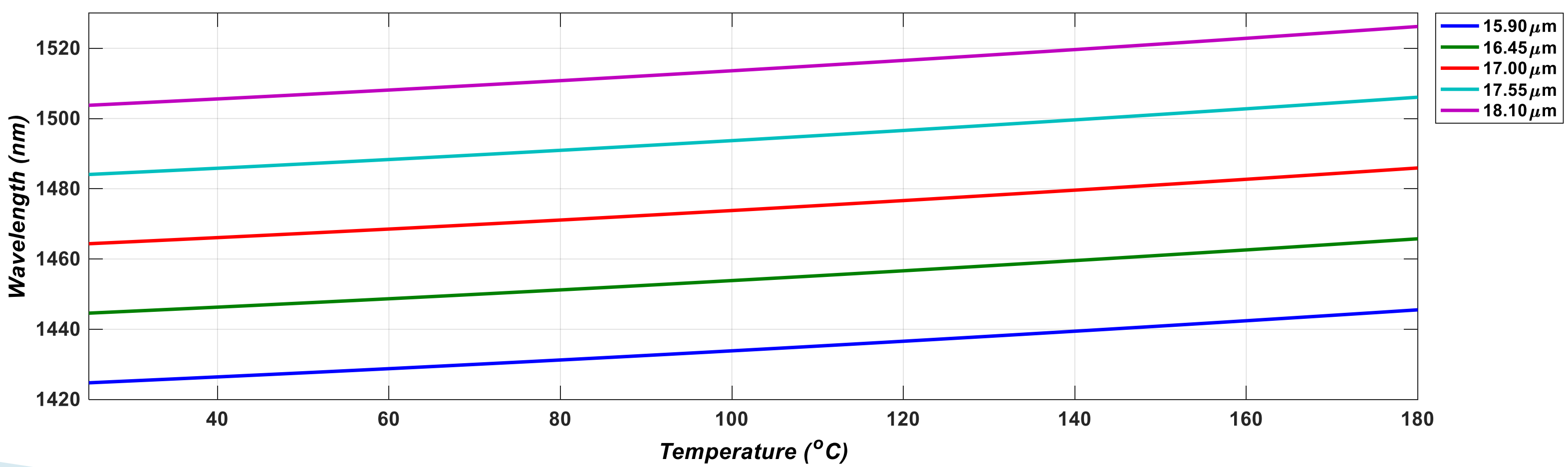


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	15.90~18.10	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @710~760(R<0.5%) /1420~1520 (R<0.5%) nm	Spectral Analyzer
Aperture Size	12.3 x 0.5 mm² (**W** x **T**)	Cutting Machine
Available Length	10/25 ± 0.2 mm	Cutting Machine
Clear Aperture	≥80% (**T**), ≥ 10.9 mm (**W**) *1	NA

*1 Poled fan-out grating width = 10.9 mm.

- Phase Matching Tuning Curve



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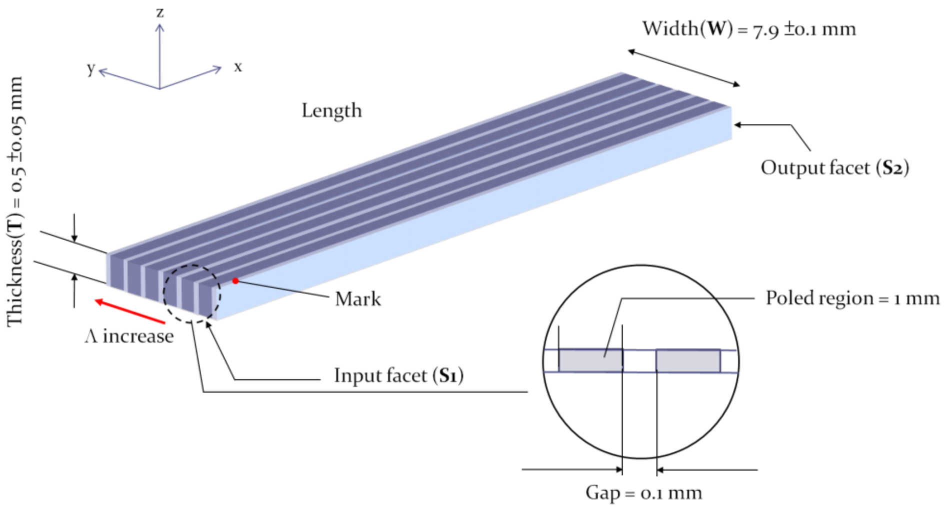
Periodically Poled Lithium Niobate (PPLN) Chip: SHRED-MA

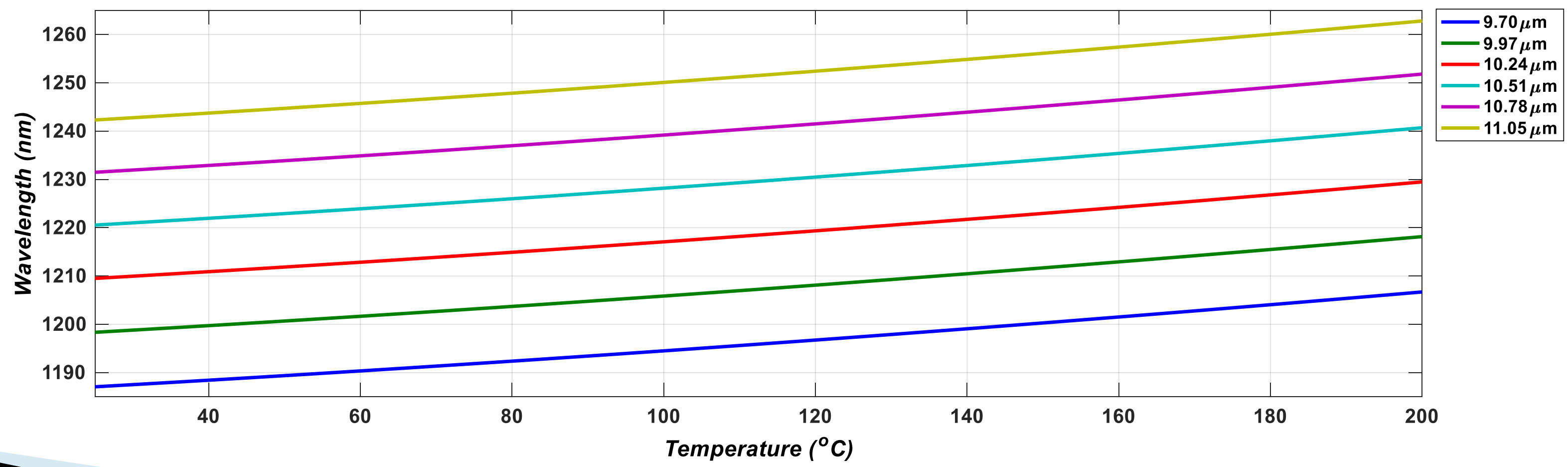
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	9.70, 9.97, 10.24, 10.51, 10.78, 11.05	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @590~680(R<0.5%) /1180~1360(R<0.5%)nm	Spectral Analyzer
Aperture Size	7.9 x 0.5 mm² (W x T)	Cutting Machine
Available Length	10/25 /50± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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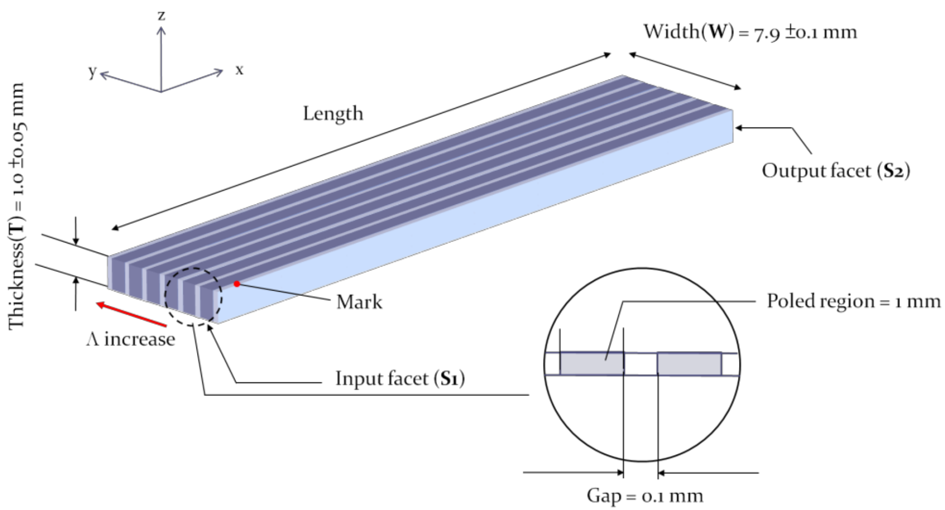
Periodically Poled Lithium Niobate (PPLN) Chip: SHRED-MB

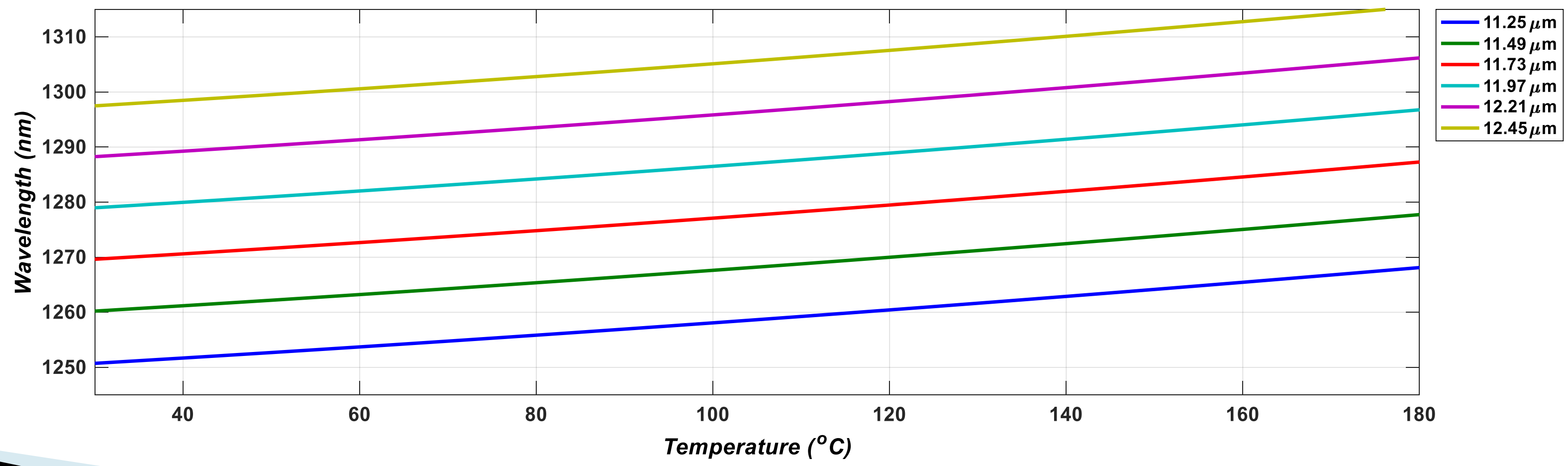
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	11.25, 11.49, 11.73, 11.97, 12.21, 12.45	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @590~680(R<0.5%) /1180~1360(R<0.5%)nm	Spectral Analyzer
Aperture Size	7.9 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25 /50± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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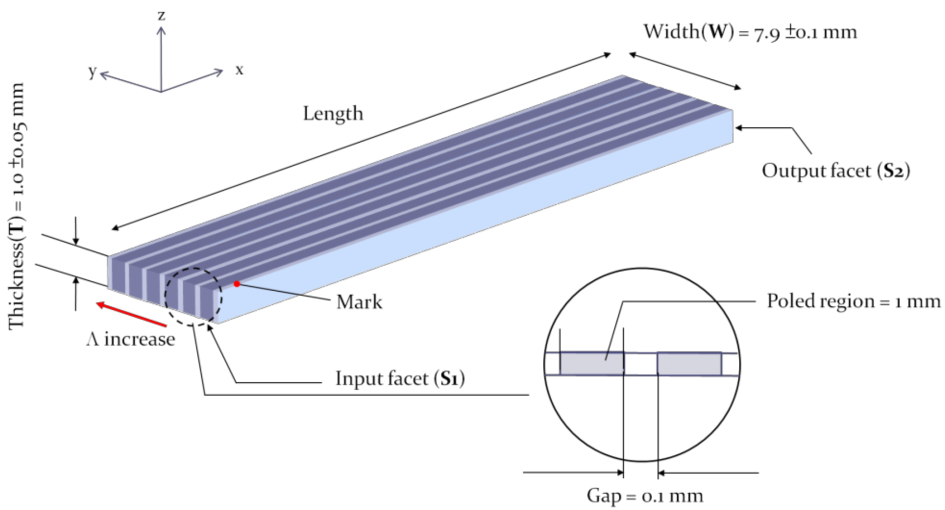
Periodically Poled Lithium Niobate (PPLN) Chip: SHRED-MC

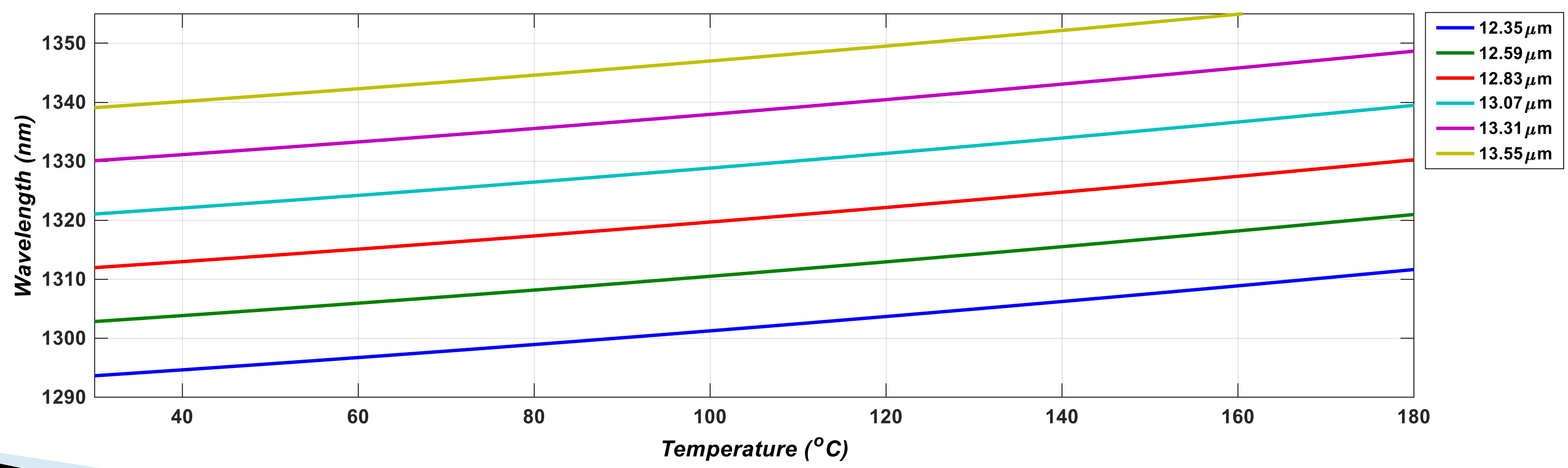
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	12.35, 12.59, 12.83, 13.07, 13.31, 13.55	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @590~680(R<0.5%) /1180~1360(R<0.5%)nm	Spectral Analyzer
Aperture Size	7.9 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25 /50± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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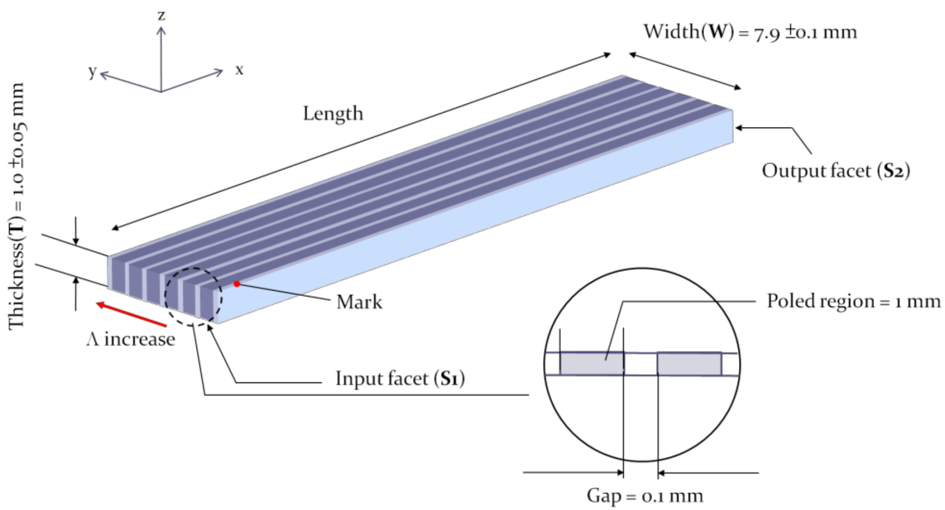
Periodically Poled Lithium Niobate (PPLN) Chip: SHRED-MD

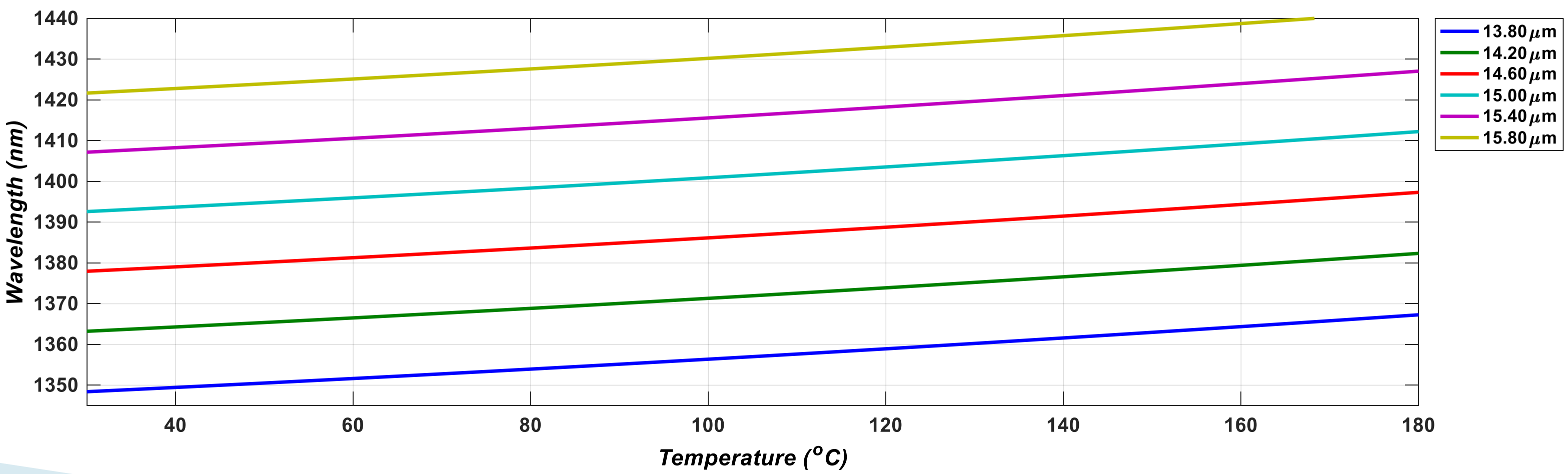
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	13.80, 14.20, 14.60, 15.00, 15.40, 15.80	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @670~730(R<0.5%) /1350~1450(R<0.5%) nm	Spectral Analyzer
Aperture Size	7.9 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25 /50± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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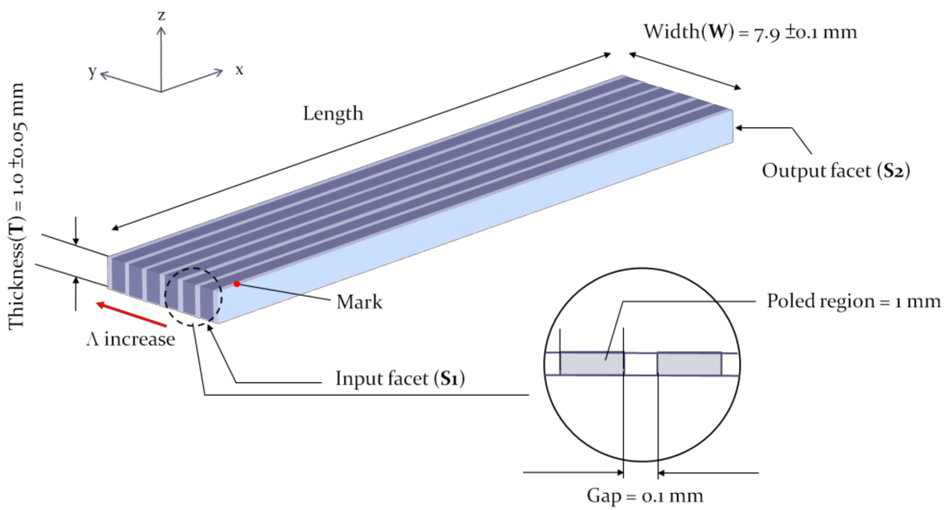
Periodically Poled Lithium Niobate (PPLN) Chip: SHRED-ME

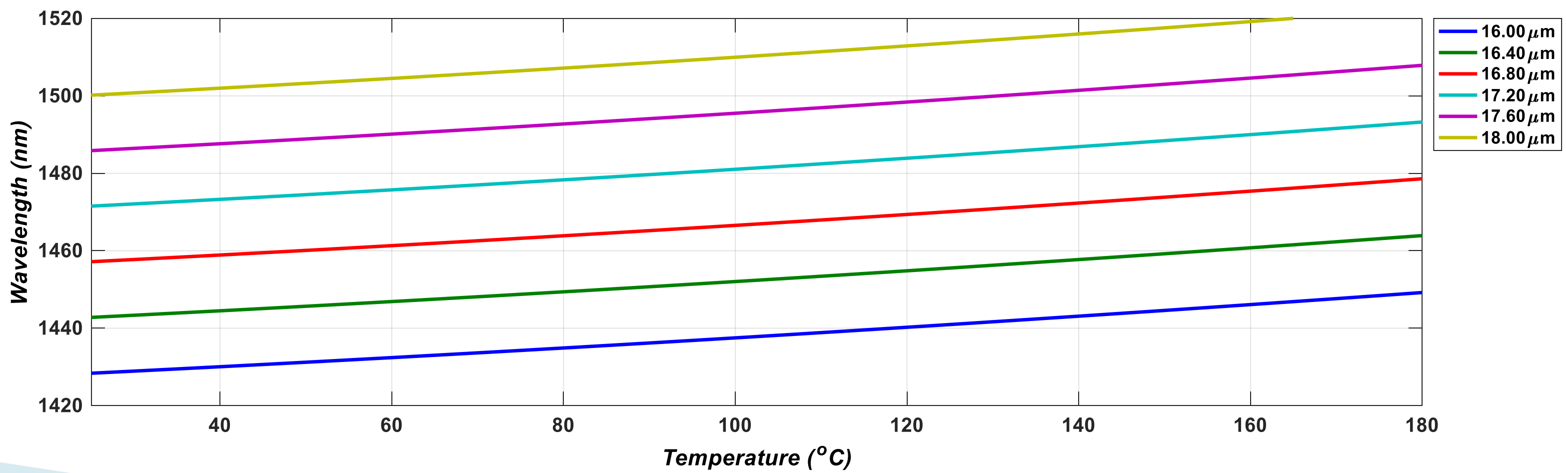
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ, μm)	16.00, 16.40, 16.80, 17.20, 17.60, 18.00	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @710~760(R<0.5%) /1420~1520(R<0.5%) nm	Spectral Analyzer
Aperture Size	7.9 x 1.0 mm² (W x T)	Cutting Machine
Available Length	10/25 /50± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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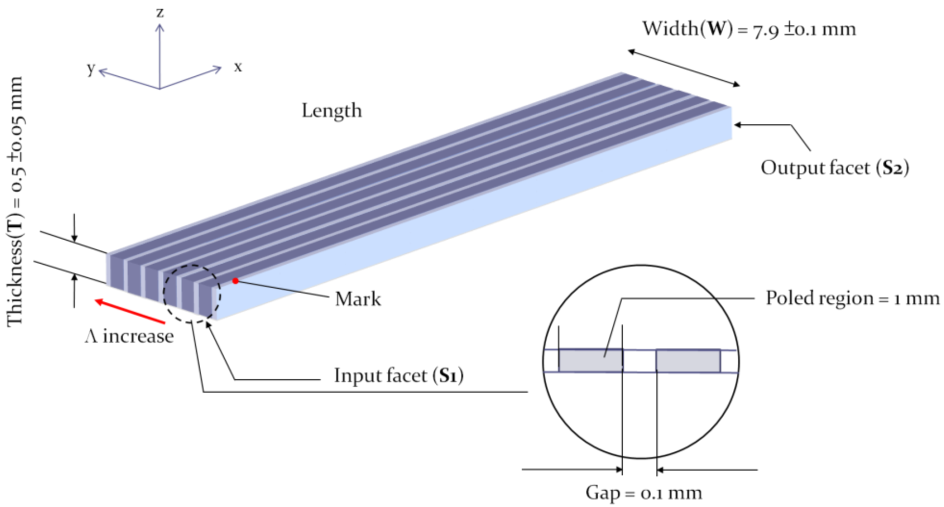
Periodically Poled Lithium Niobate (PPLN) Chip: SHRED-MF

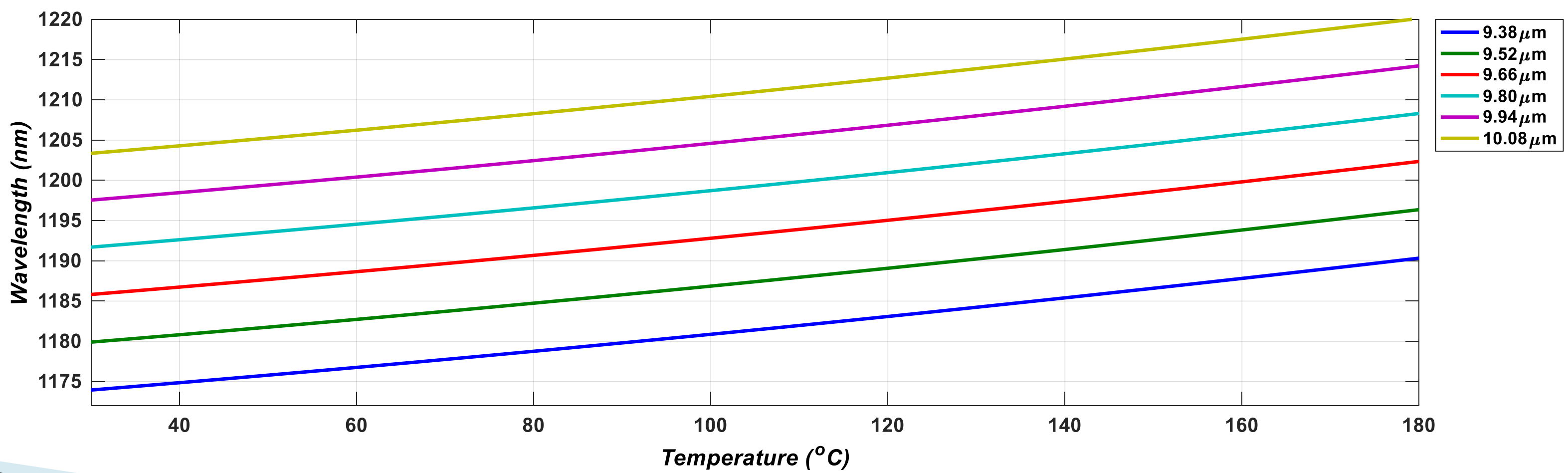
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	9.38 , 9.52, 9.66 , 9.80 , 9.94 , 10.08	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @590~680(R<0.5%) /1180~1360(R<0.5%)nm	Spectral Analyzer
Aperture Size	7.9 x 0.5 mm² (W x T)	Cutting Machine
Available Length	10/25 /50± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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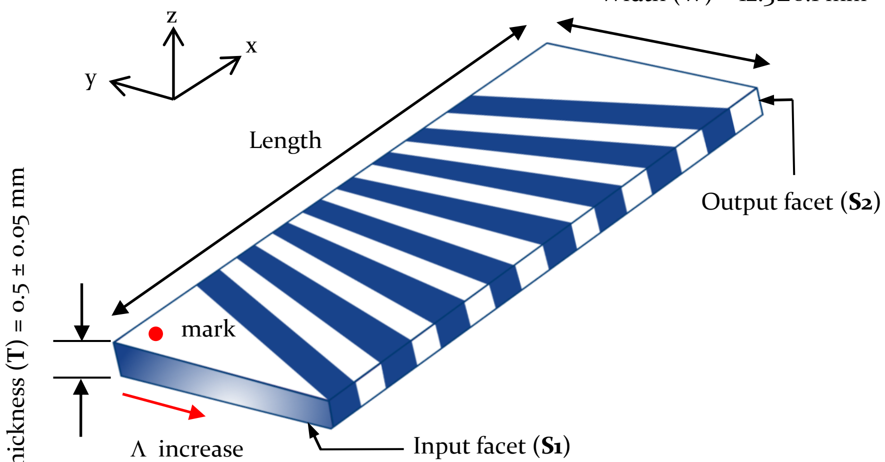
Periodically Poled Lithium Niobate (PPLN) Chip: SHVIS-FA

- Chip Lay-Out

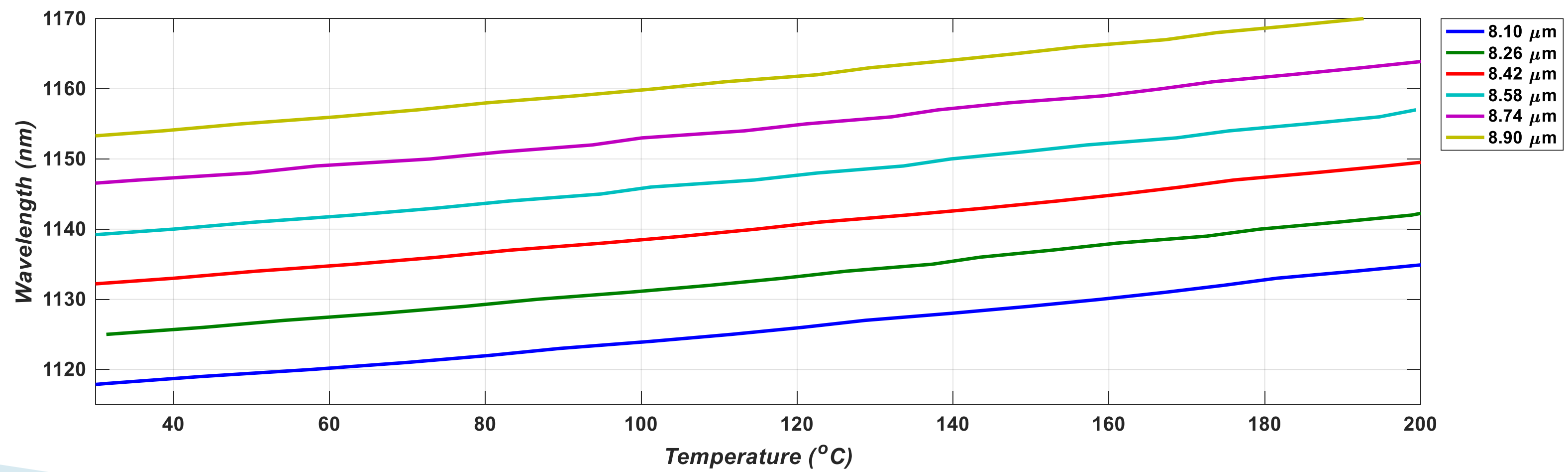


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	8.10~8.90	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @560~600(R<0.5%) /1120~1200 (R<0.5%) nm	Spectral Analyzer
Aperture Size	12.3 x 0.5 mm² (**W** x **T**)	Cutting Machine
Available Length	10/25 ± 0.2 mm	
Clear Aperture	≥80% (**T**), ≥ 10.9 mm (**W**) *1	NA

*1 Poled fan-out grating width = 10.9 mm.

- Phase Matching Tuning Curve



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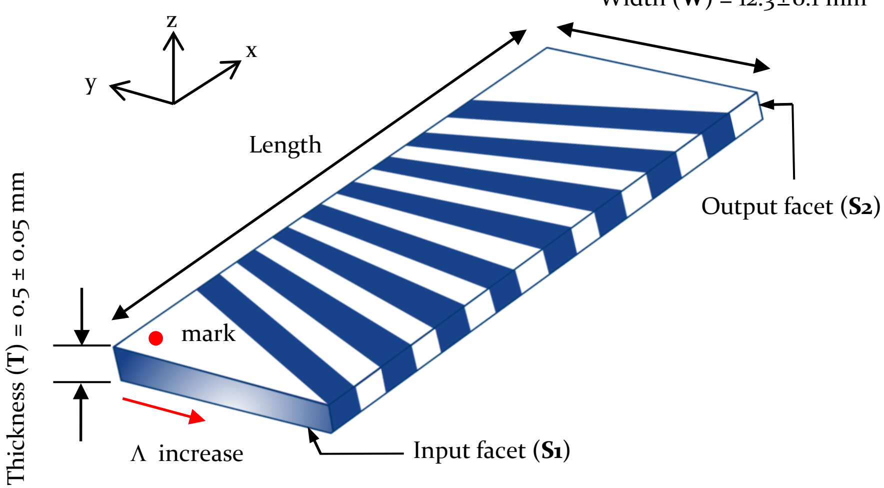
Periodically Poled Lithium Niobate (PPLN) Chip: SHVIS-FB

- Chip Lay-Out

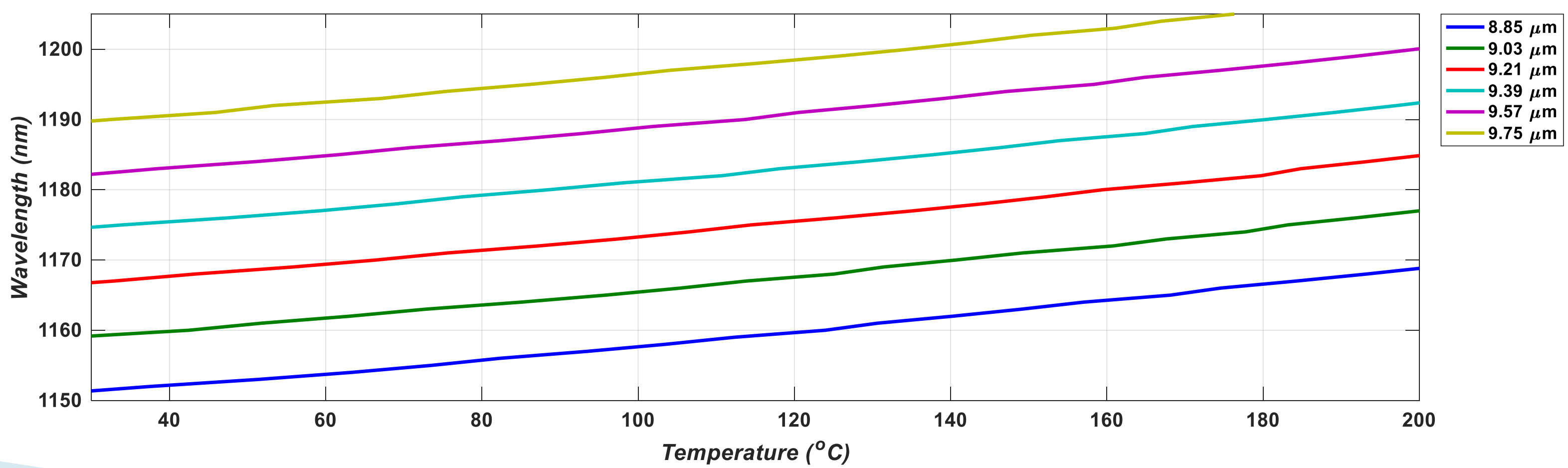


[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	8.85~9.75	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @560~600(R<0.5%) /1120~1200 (R<0.5%) nm	Spectral Analyzer
Aperture Size	12.3 x 0.5 mm² (W x T)	Cutting Machine
Available Length	10/25 ± 0.2 mm	
Clear Aperture	≥80% (T), ≥ 10.9 mm (W) *1	NA

*1 Poled fan-out grating width = 10.9 mm.

- Phase Matching Tuning Curve



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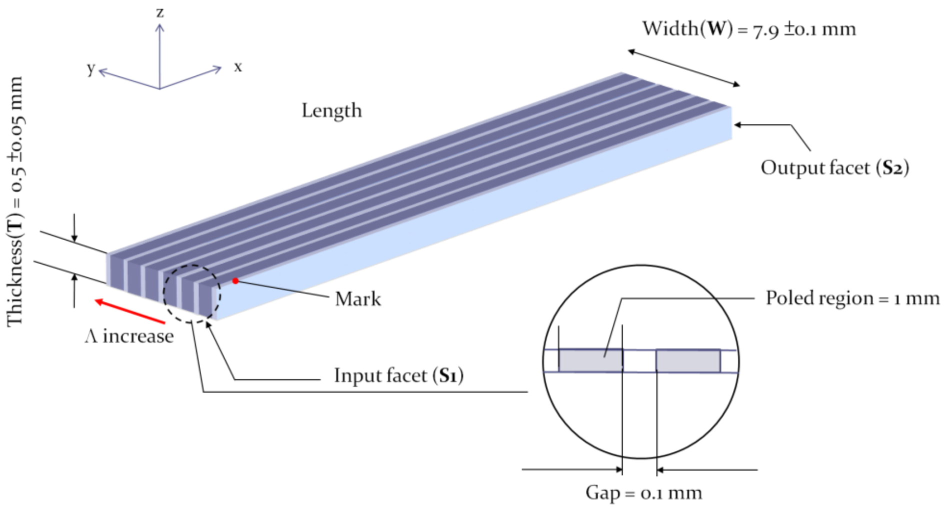
Periodically Poled Lithium Niobate (PPLN) Chip: SHVIS-MA

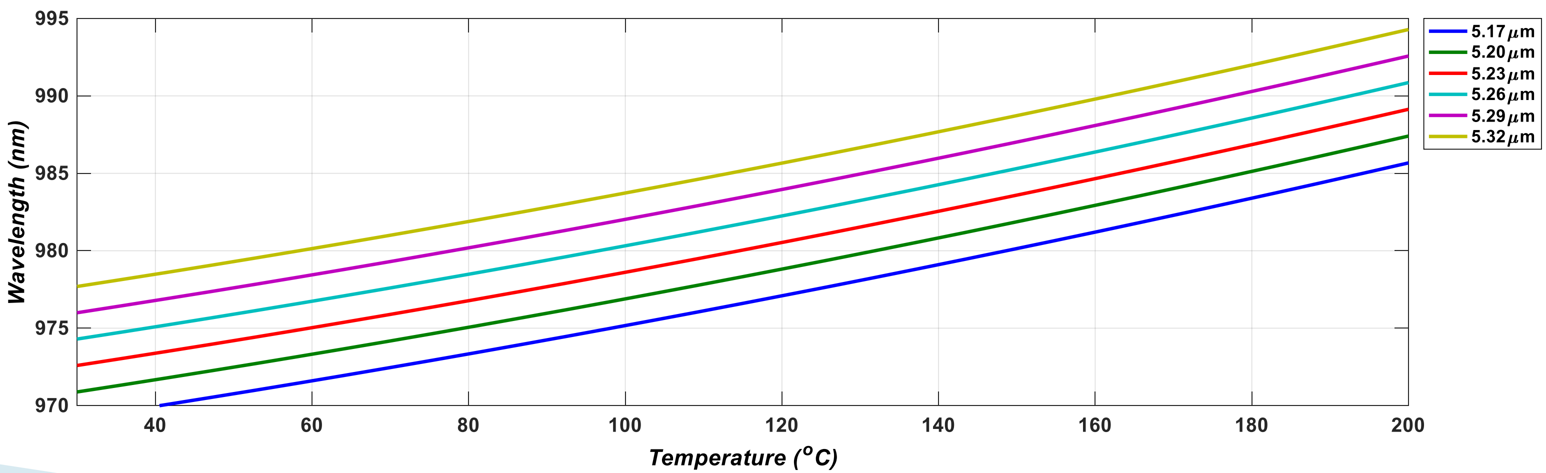
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	5.17, 5.20, 5.23, 5.26, 5.29, 5.32	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	7.9 x 0.5 mm² (W x T)	Cutting Machine
Available Length	10/25 /50± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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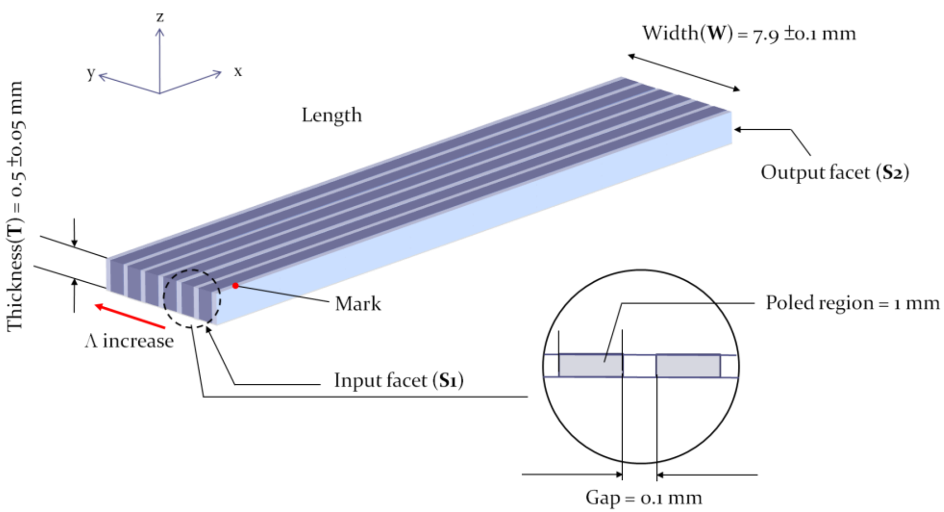
Periodically Poled Lithium Niobate (PPLN) Chip: SHVIS-MB

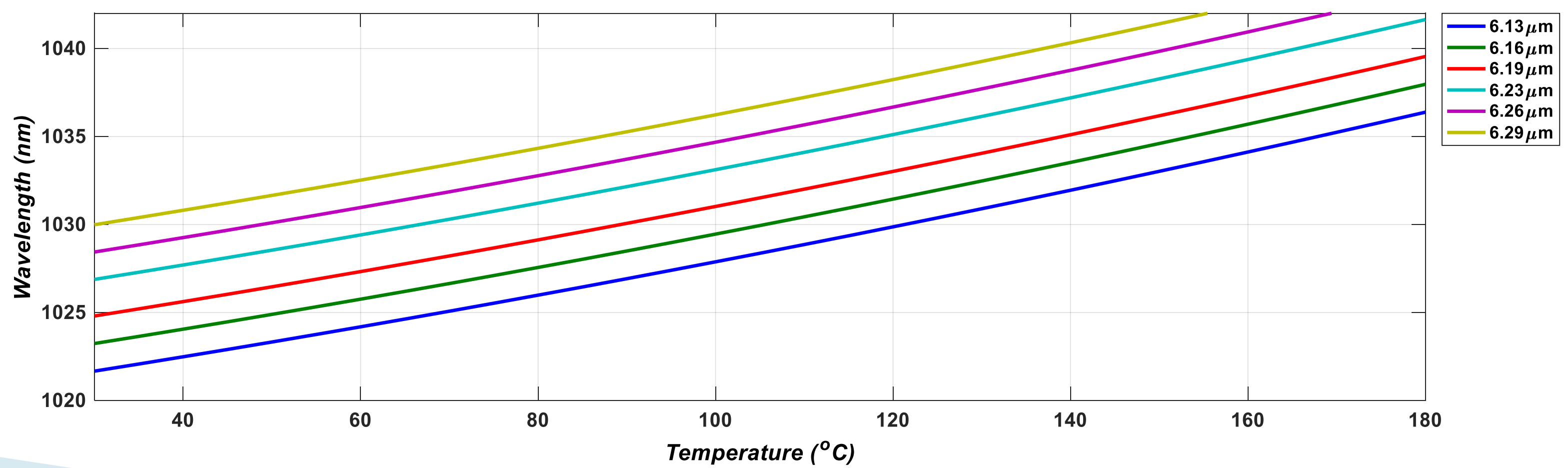
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	6.13, 6.16, 6.19, 6.23, 6.26, 6.29	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	7.9 x 0.5 mm² (W x T)	Cutting Machine
Available Length	10/25 /50± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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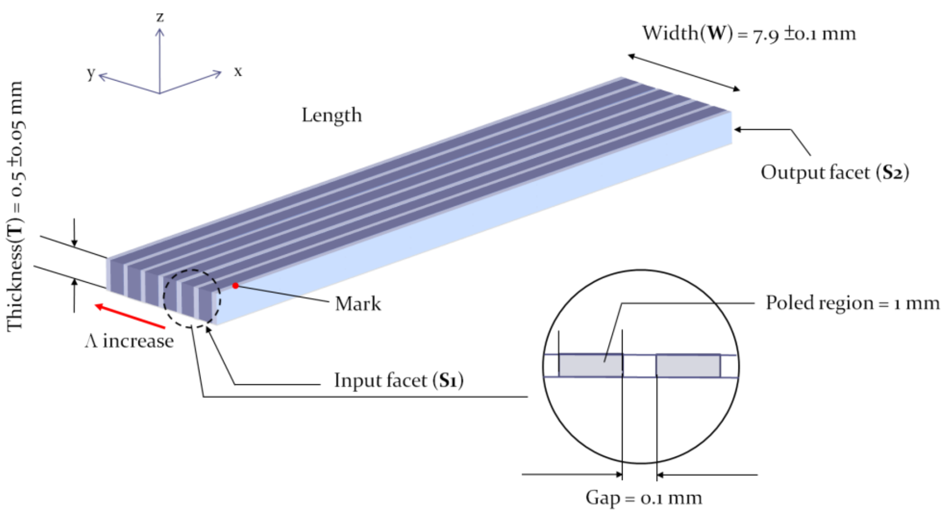
Periodically Poled Lithium Niobate (PPLN) Chip: SHVIS-MC

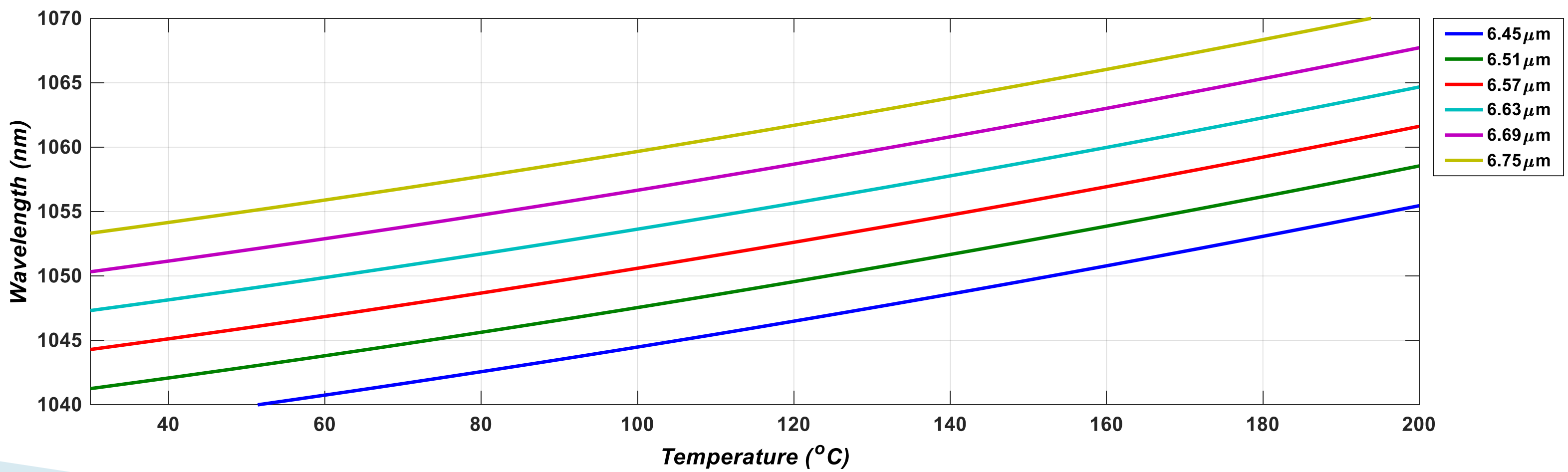
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ, μm)	6.45, 6.51, 6.57, 6.63, 6.69, 6.75	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	7.9 x 0.5 mm² (W x T)	Cutting Machine
Available Length	10/25 /50± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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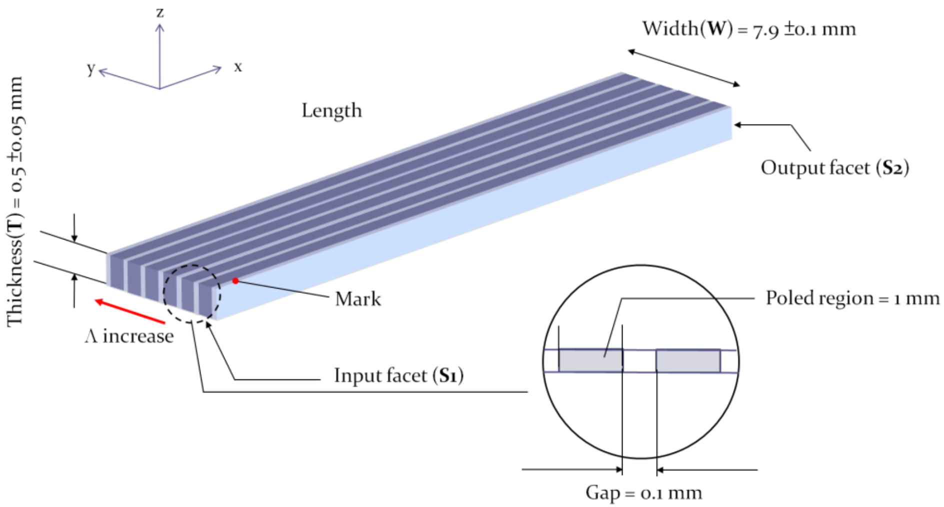
Periodically Poled Lithium Niobate (PPLN) Chip: SHVIS-MD

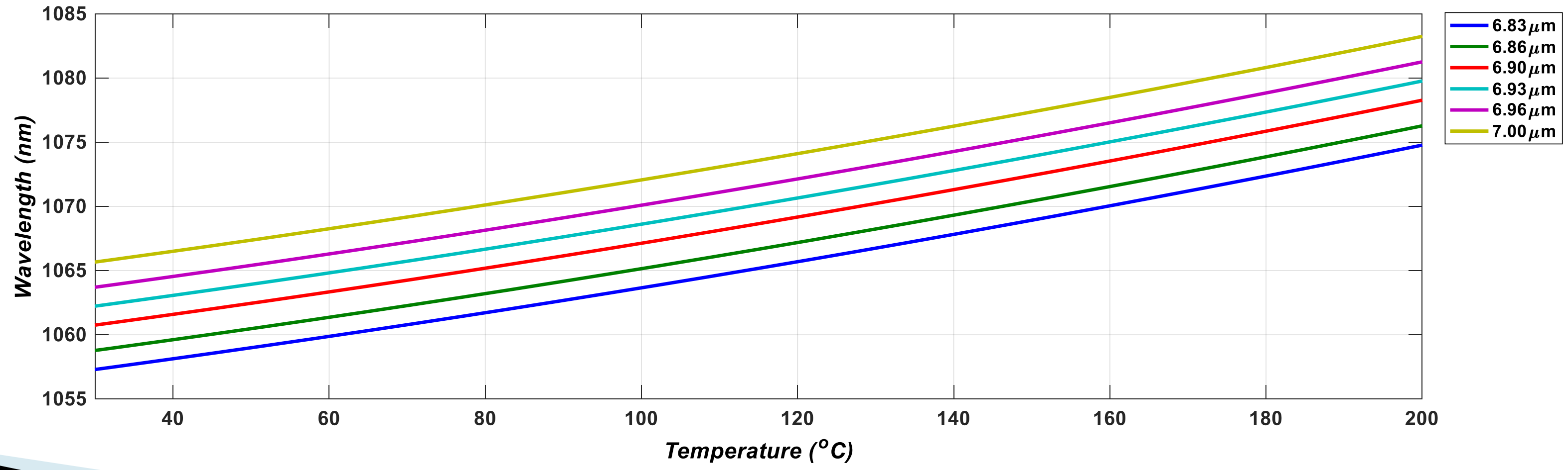
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	6.83, 6.86, 6.90, 6.93, 6.96,7.00	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	7.9 x 0.5 mm² (W x T)	Cutting Machine
Available Length	10/25 /50± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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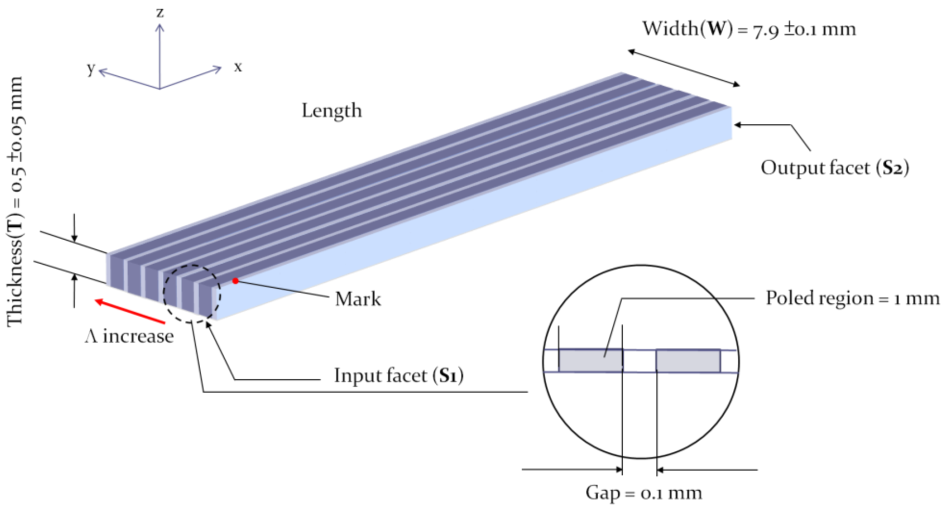
Periodically Poled Lithium Niobate (PPLN) Chip: SHVIS-ME

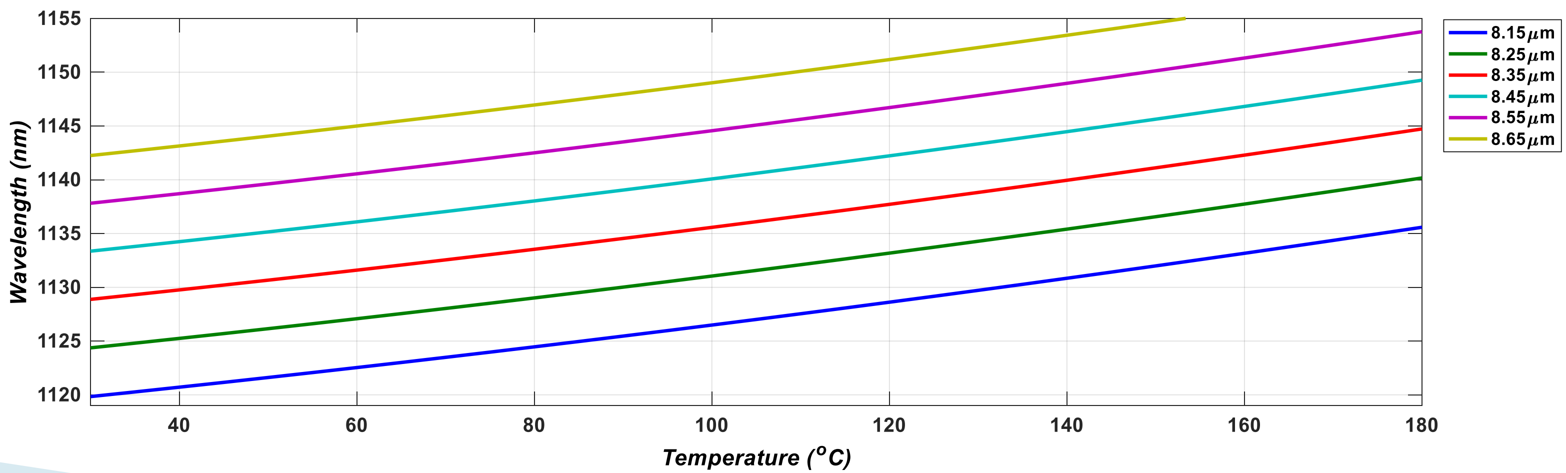
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	8.15, 8.25, 8.35, 8.45, 8.55, 8.65	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	7.9 x 0.5 mm^2 (W x T)	Cutting Machine
Available Length	10/25 /50± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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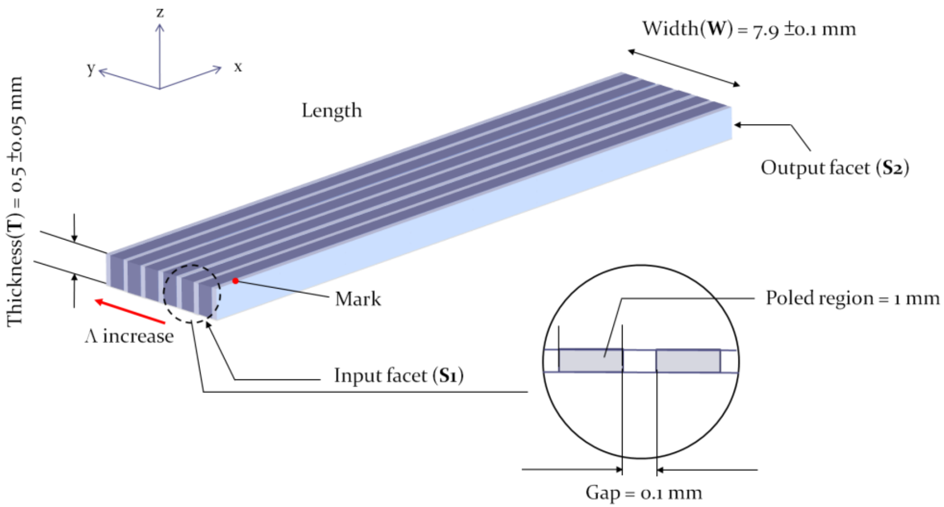
Periodically Poled Lithium Niobate (PPLN) Chip: SHVIS-MF

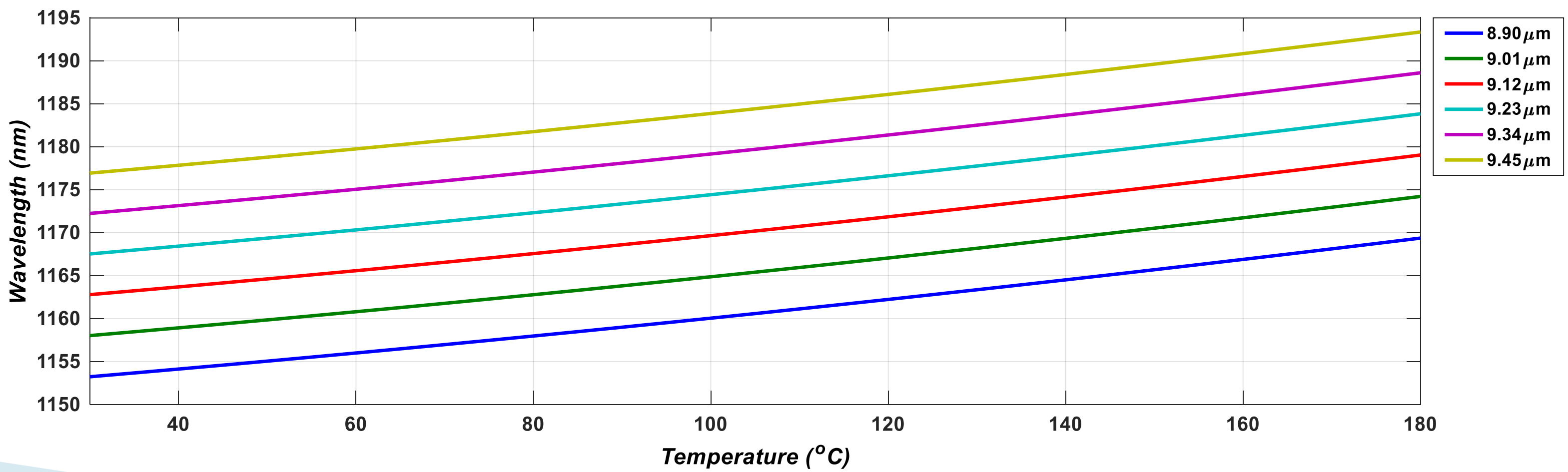
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	8.90, 9.01, 9.12, 9.23, 9.34, 9.45	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	7.9 x 0.5 mm² (W x T)	Cutting Machine
Available Length	10/25 /50± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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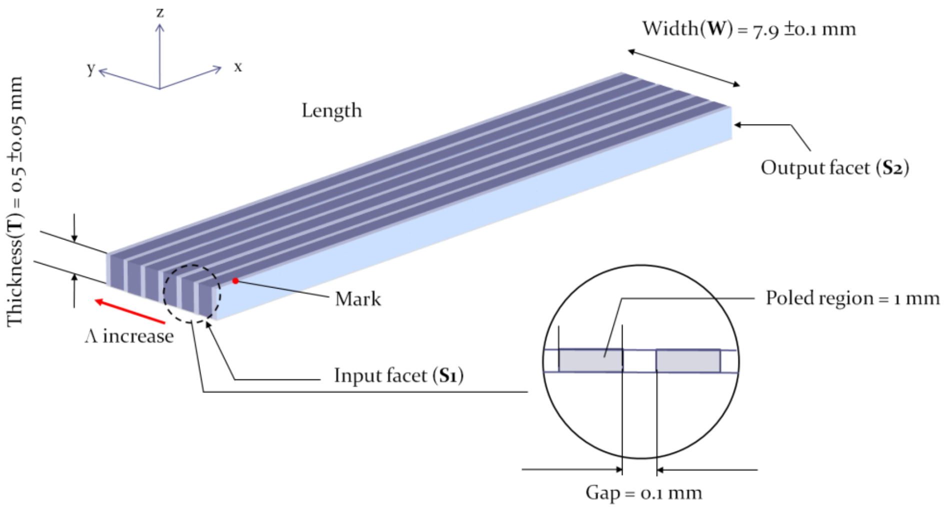
Periodically Poled Lithium Niobate (PPLN) Chip: SHVIS-MG

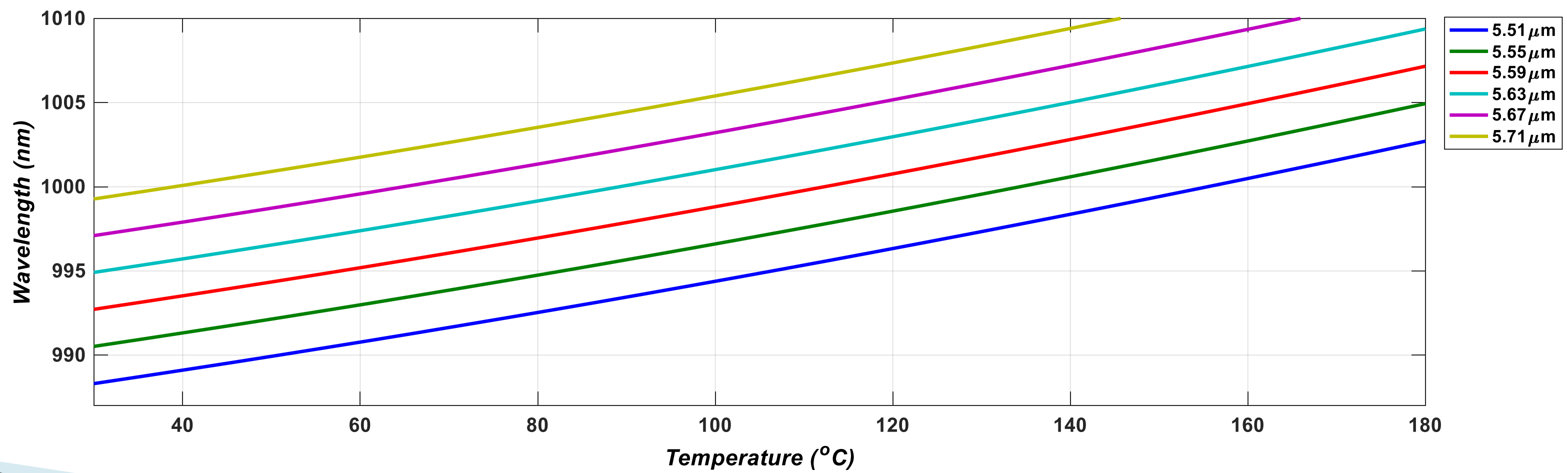
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	5.51 , 555 , 5.59 , 5.63 , 5.67 , 5.71	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	7.9 x 0.5 mm² (W x T)	Cutting Machine
Available Length	10/25 /50± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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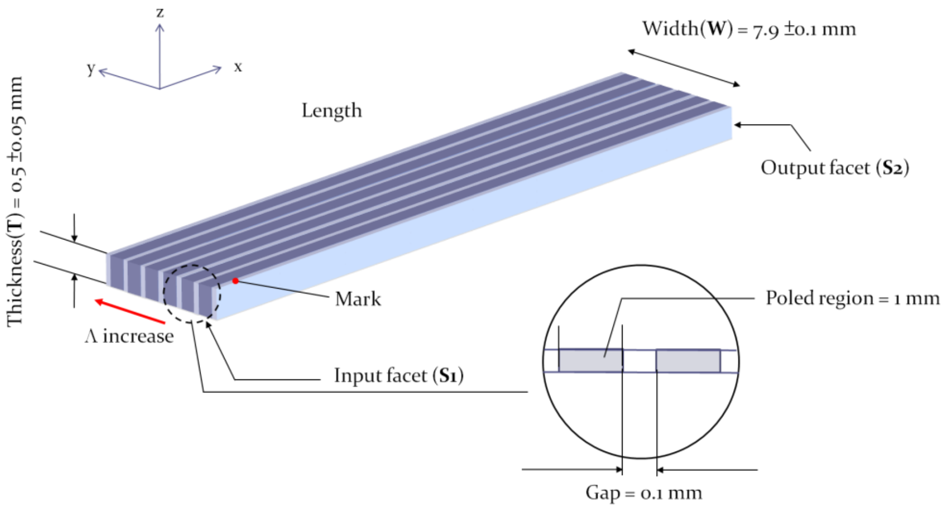
Periodically Poled Lithium Niobate (PPLN) Chip: SHVIS-MH

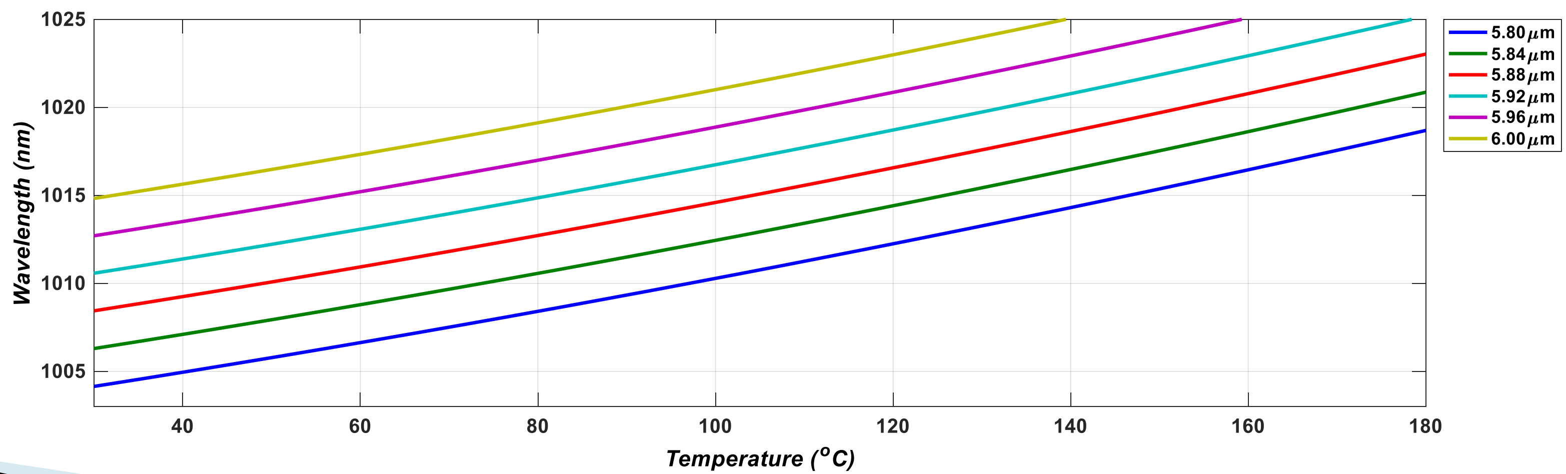
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	5.80 , 5.84 , 5.88 , 5.92 , 5.96 , 6.00	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	7.9 x 0.5 mm² (W x T)	Cutting Machine
Available Length	10/25 /50± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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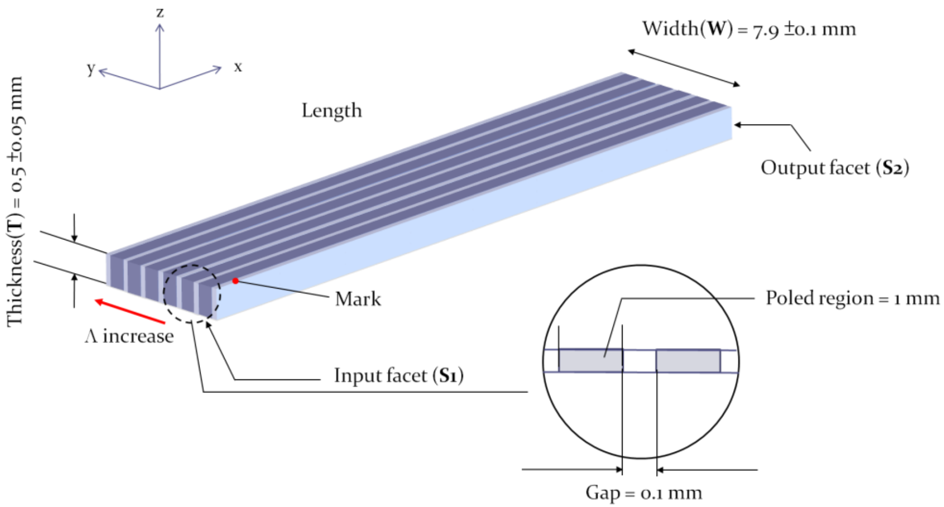
Periodically Poled Lithium Niobate (PPLN) Chip: SHVIS-MI

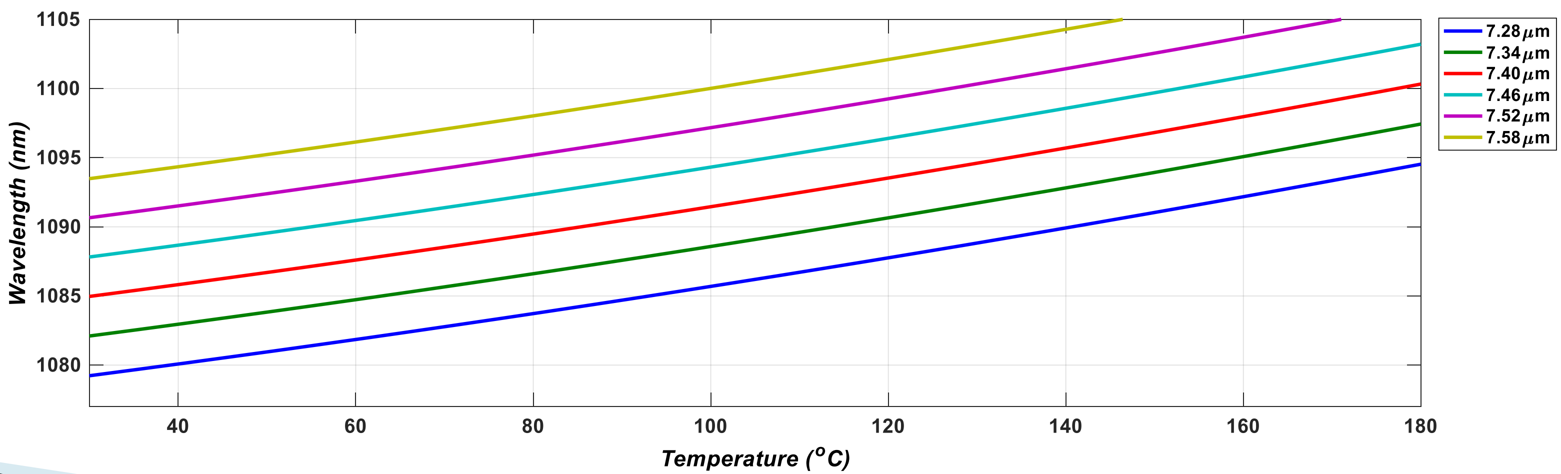
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	7.28 , 7.34 , 7.40 , 7.46 , 7.52 , 7.58	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	7.9 x 0.5 mm² (W x T)	Cutting Machine
Available Length	10/25 /50± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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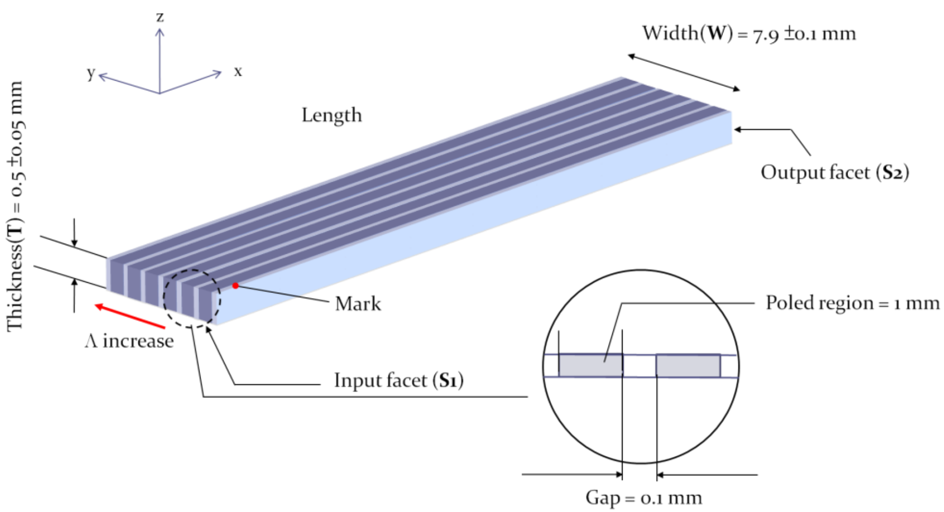
Periodically Poled Lithium Niobate (PPLN) Chip: SHVIS-MJ

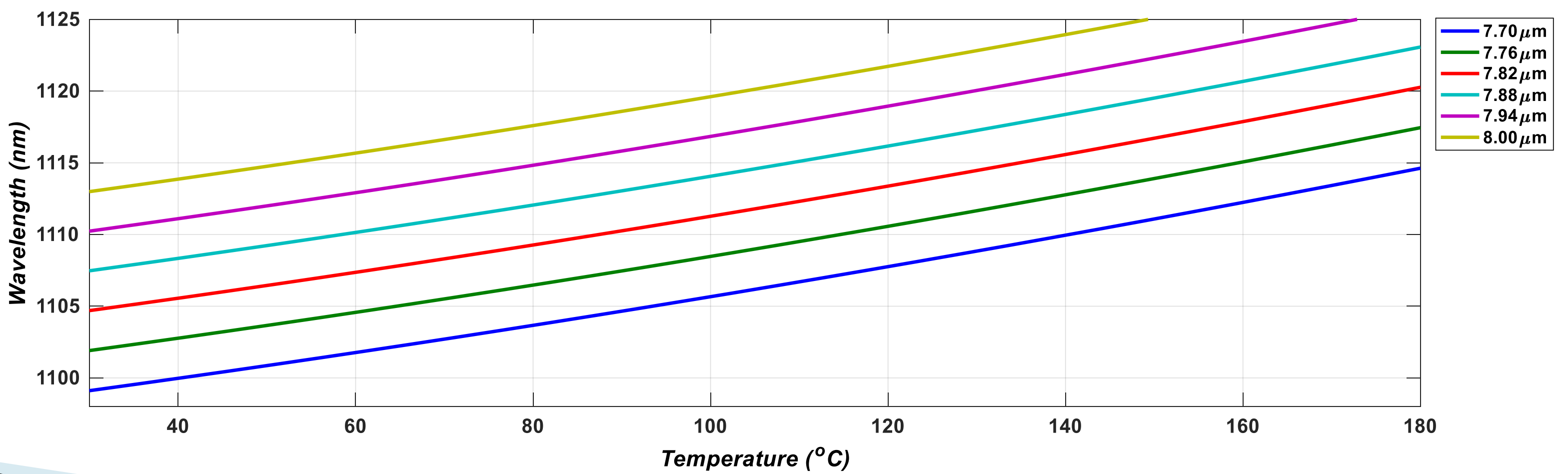
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ, μm)	7.70 , 7.76, 7.82 , 7.88 , 7.94 , 8.00	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	7.9 x 0.5 mm² (W x T)	Cutting Machine
Available Length	10/25 /50± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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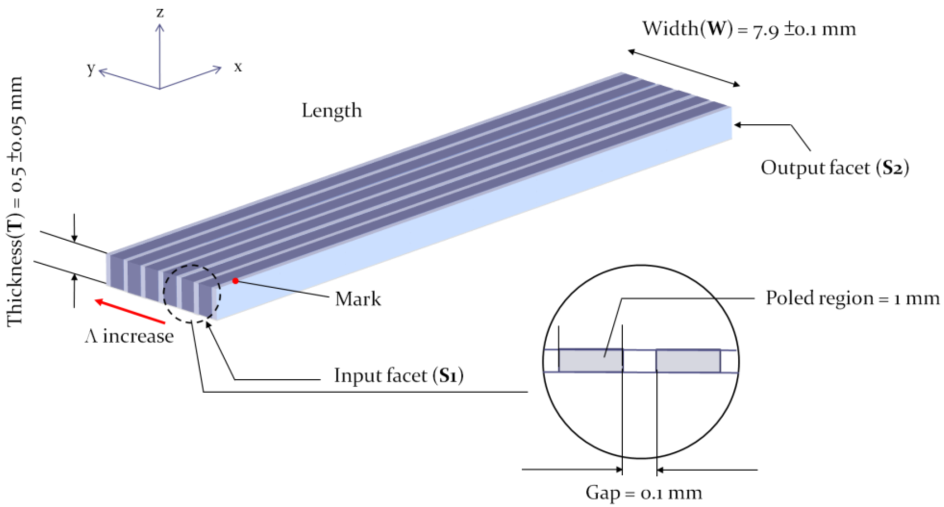
Periodically Poled Lithium Niobate (PPLN) Chip: SHVIS-MK

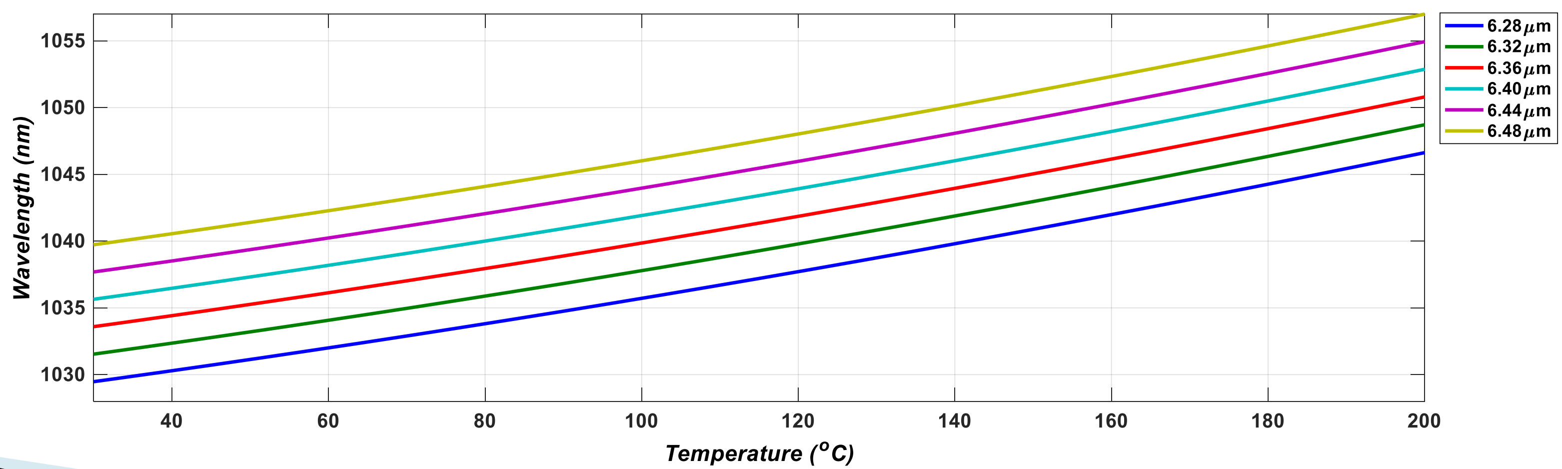
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	6.28, 6.32, 6.36, 6.40, 6.44, 6.48	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	7.9 x 0.5 mm² (W x T)	Cutting Machine
Available Length	10/25 /50± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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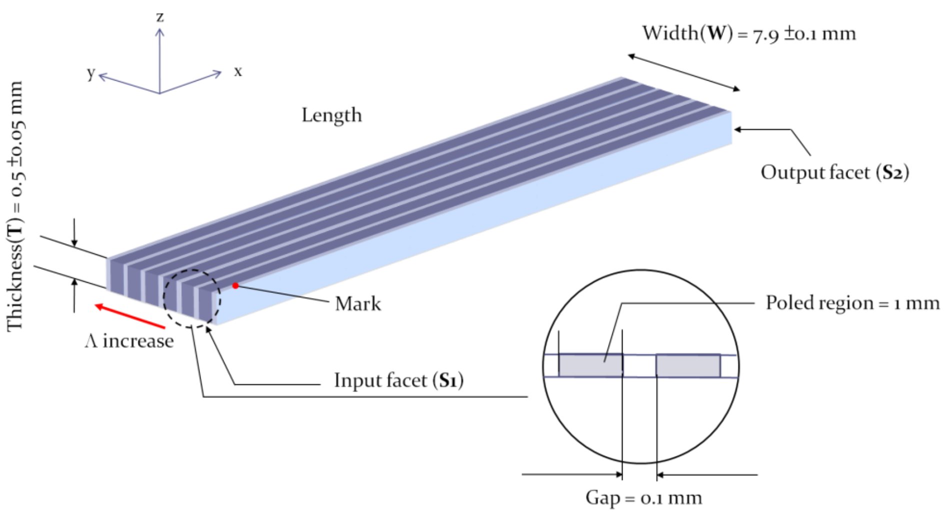
Periodically Poled Lithium Niobate (PPLN) Chip: SHVIS-ML

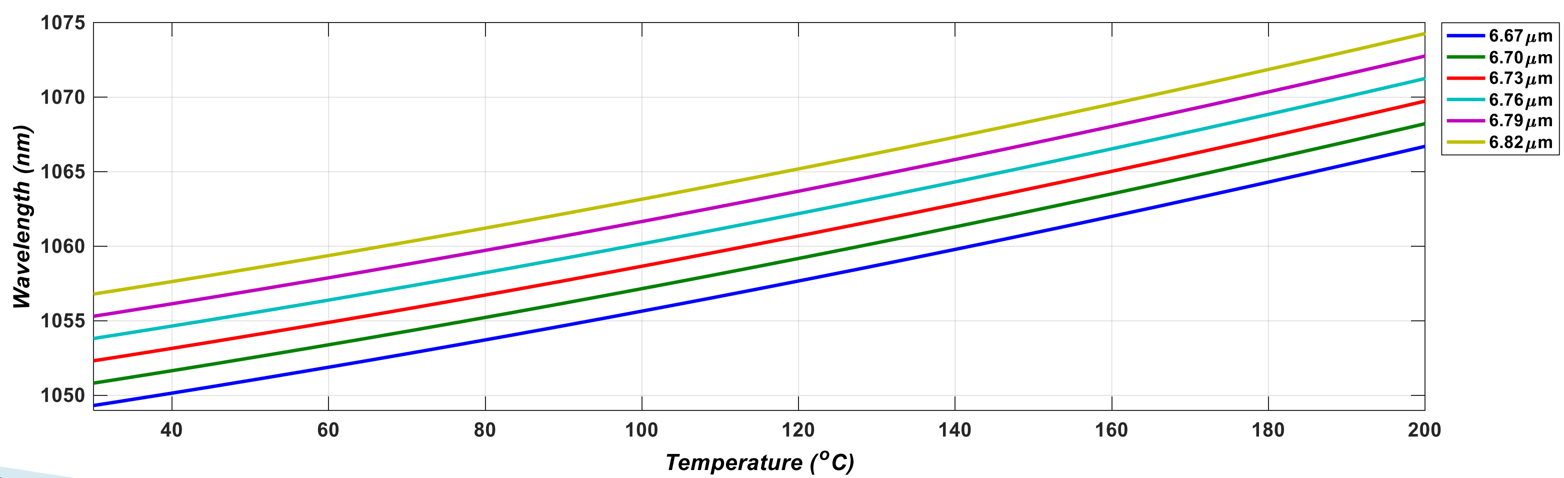
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	6.67, 6.70, 6.73, 6.76, 6.79, 6.82	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @485~590(R<0.5%) /970-1180(R<0.5%) nm	Spectral Analyzer
Aperture Size	7.9 x 0.5 mm² (W x T)	Cutting Machine
Available Length	10/25 /50± 0.2 mm	
Channel Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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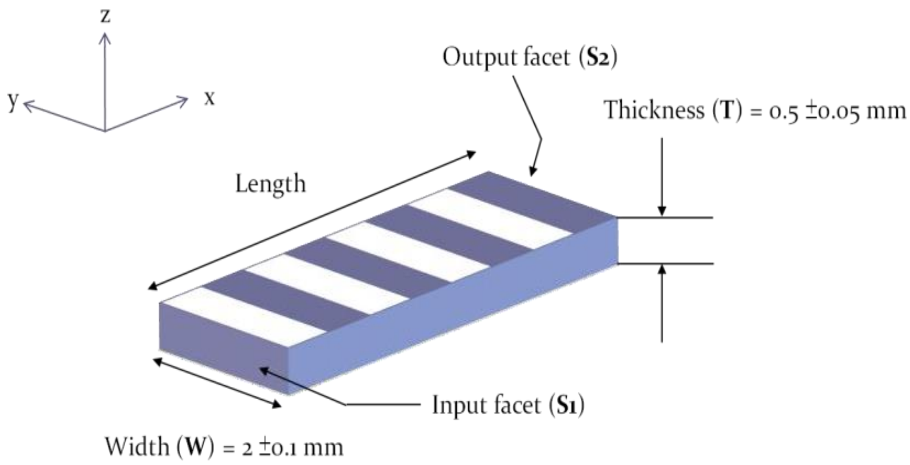
HCP HC PHOTONICS CORP.

Periodically Poled Lithium Niobate (PPLN) Chip: SHVIS-SA

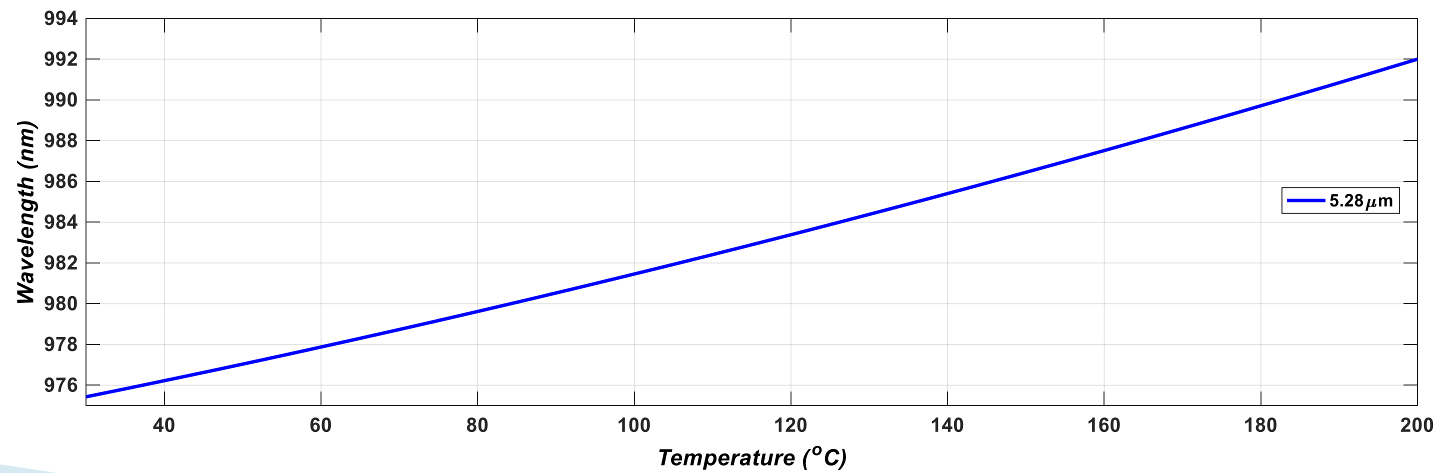
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	5.28	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @488(R<0.5%) /976(R<0.3%) nm	Spectral Analyzer
Aperture Size	2.0 x 0.5 mm² (W x T)	Cutting Machine
Available Length	10/25/50 ± 0.2 mm	
Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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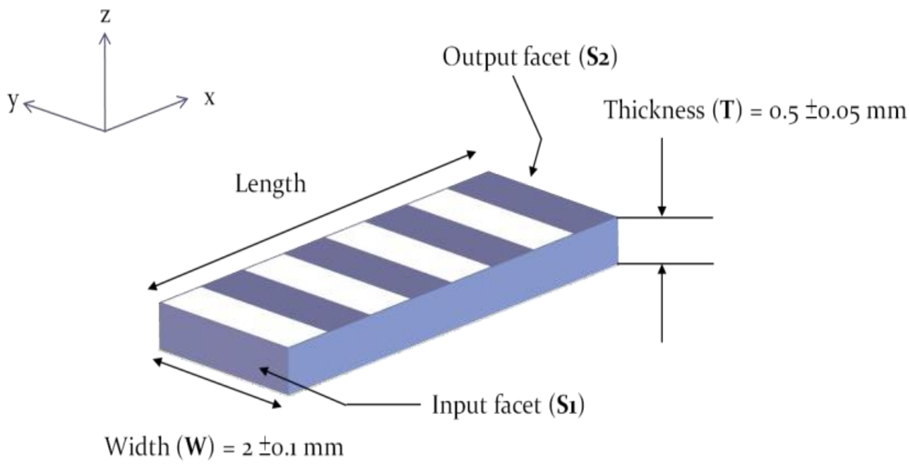
Periodically Poled Lithium Niobate (PPLN) Chip: SHVIS-SB

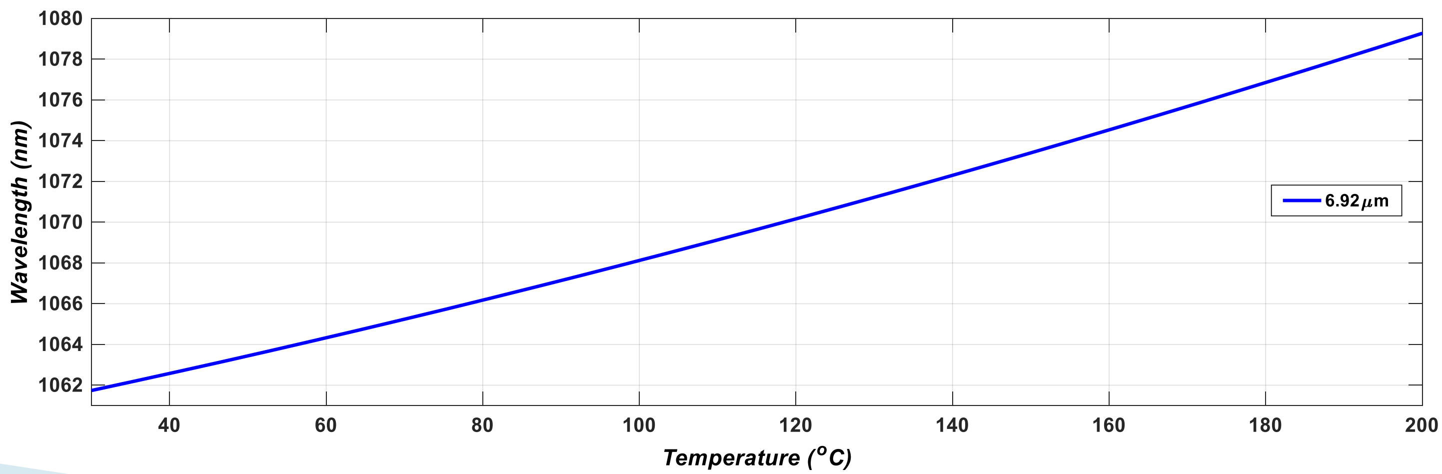
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	6.92	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @532(R<0.5%) /1064(R<0.3%) nm	Spectral Analyzer
Aperture Size	2.0 x 0.5 mm² (W x T)	Cutting Machine
Available Length	10/25/50 ± 0.2 mm	
Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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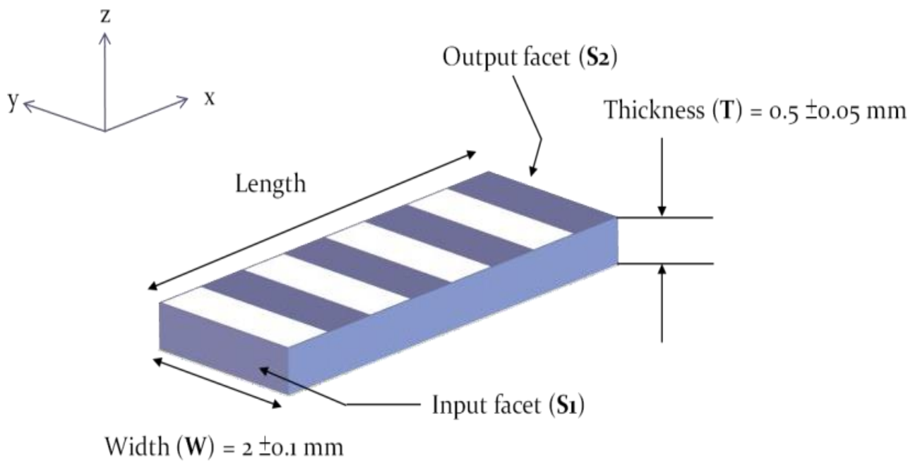
Periodically Poled Lithium Niobate (PPLN) Chip: SHVIS-SC

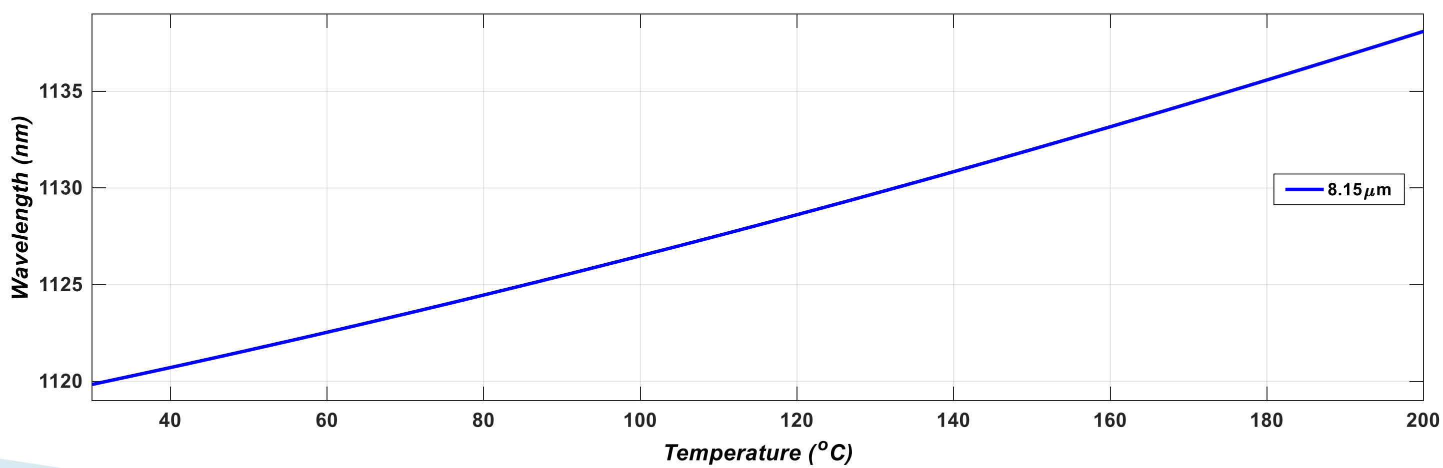
- Chip Lay-Out



[Image for reference only. Not for scale.]

Items	Properties	Inspection
Material	5 mol.% MgO:LN	NA
Period (Λ,μm)	8.15	Microscope
Main Function	Second Harmonic Generation	NA
Parallelism/Perpendicularity	≤5'/21'	Autocollimator
Flatness	≤λ/6 (λ=633nm)	Interferometer
Scratch/Dig	≤20/10	Microscope
Optical coating (S1/S2 facets)	S1/S2 @561(R<0.5%) /1122(R<0.3%) nm	Spectral Analyzer
Aperture Size	2.0 x 0.5 mm² (W x T)	Cutting Machine
Available Length	10/25/50 ± 0.2 mm	
Clear Aperture	≥80% (T), ≥90% (W)	NA

- Phase Matching Tuning Curve



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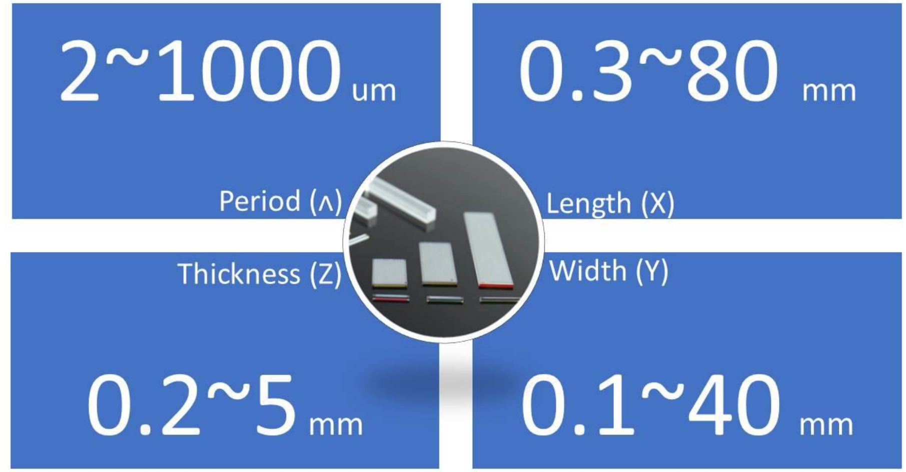

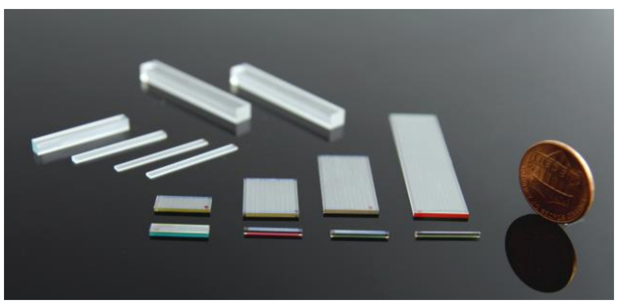

If you have any questions or if you need more information, please contact us!

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