

**ELECTRONIC ACKNOWLEDGEMENT RECEIPT**

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
<b>19/246,614</b>	<b>06/23/2025 10:36:29 PM Z ET</b>	-

**Title of Invention**

BIO-MIMETIC NANO-CHANNEL COOLING SYSTEM FOR HIGH BANDWIDTH MEMORY (HBM) DEVICES AND METHOD THEREOF

**Application Information**

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	6041	FILED BY	Lee Bong Hyoung
PATENT CENTER #	71037868	FILING DATE	-
CUSTOMER #	-	FIRST NAMED INVENTOR	Lee Bong Hyoung
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**Documents****TOTAL DOCUMENTS: 3**

DOCUMENT		PAGES	DESCRIPTION	SIZE (KB)
hbm-cooling-1.pdf		16	-	791 KB
hbm-cooling-1-SPEC.pdf	(1-6)	6	Specification	187 KB
hbm-cooling-1-CLM.pdf	(7-9)	3	Claims	174 KB
hbm-cooling-1-ABST.pdf	(10-16)	7	Abstract	737 KB

**Digest**

DOCUMENT	MESSAGE DIGEST(SHA-512)
hbm-cooling-1.pdf	3EFCDF9146A6151E933573F2011B1B046F0365841241B4C0DA

040CD1E9095E73CF72E64BE2C01913FD6031A91FEFF3AF3B  
D9409FD1AC6A66E8EA585F06B481AC

hbm-cooling-1-SPEC.pdf

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789D6F5FA53A83942FCB1CEE2CCE9B7C043EB286607B8B8C  
F13024DBD285296A5FC60E5A4170D0

hbm-cooling-1-CLM.pdf

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CF67857B882606DA2EEF5A7740BB46C5849FD937DDA08C1A  
4E74099EC967D583735E55660714AC9B

hbm-cooling-1-ABST.pdf

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CCCDD64DA2C9947E9A606AE5E693FA86

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#### **New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

#### **National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

#### **New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.