

## Research Report – Update

*Investors should consider this report as only a single factor in making their investment decision.*

### KULR Technology Group, Inc.

**Speculative Buy**

John Nobile

November 30, 2021

**KULR \$3.45 — (NYSE)**

	<u>2019A</u>	<u>2020A</u>	<u>2021E</u>	<u>2022E</u>
Revenues (million)	\$0.8	\$0.6	\$2.3	\$2.8
Earnings (loss) per share	\$(0.02)	\$(0.03)	\$(0.14)*	\$(0.12)

52-Week range	\$3.81 – \$1.15	Fiscal year ends:	December
Common shares out as of 11/12/21	104.7 million	Revenue per share (TTM)	\$0.02
Approximate float	63.3 million	Price/Sales (TTM)	172.5X
Market capitalization	\$361 million	Price/Sales (FY2022)E	115X
Tangible book value/share	\$0.12	Price/Earnings (TTM)	NMF
Price/tangible book value	28.9X	Price/Earnings (FY2022)E	NMF

\*Includes a \$(0.03) per share preferred stock deemed dividend.

*KULR Technology Group, Inc., headquartered in Campbell, California, develops and commercializes high-performance thermal management technologies for batteries, electronics, and other components.*

#### Key investment considerations:

*We are maintaining coverage of KULR Technology Group, Inc. with a Speculative Buy rating and twelve-month price target of \$4.50 per share.*

*The company is well positioned for strong growth as the shift to electric vehicles and 5G technology should be significant growth drivers fueling demand for the company's products in the coming years.*

*According to MarketsandMarkets, the electric vehicle market is projected to reach approximately 34.8 million units by 2030 from an estimated 4.1 million units in 2021 for annualized growth of 26.8%. Grandview Research projected the global 5G services market at \$41.5 billion in 2020, with annualized growth of 43.9% from 2021 to 2027.*

*KULR's revenue increased more than four-fold in 3Q21 while the company continued to make significant investments in an effort to expand and commercialize its business.*

*For 2021, we project a more than 3-fold increase in revenue to \$2.3 million from \$624,000 in 2020 and a net loss of \$(0.14) per share. We previously projected revenue of \$2.3 million and a net loss of \$(0.11) per share. While our revenue projection remains unchanged, our net loss projection has widened due primarily to higher SG&A expenses than originally anticipated.*

*For 2022, we project a 19.7% increase in revenue to \$2.8 million with a net loss of \$(0.12) per share. We previously projected revenue of \$2.8 million with a net loss of \$(0.05) per share. While our revenue projection is unchanged, our net loss projection widened due primarily to higher operating expenses than originally anticipated.*

*KULR reported (11/15/21) 3Q21 revenue increased to \$601,000 from \$137,000 in 3Q20 and a loss of \$(0.03) per share versus \$(0.01) per share in 3Q20. We projected revenue of \$650,000 and a loss of \$(0.02) per share.*

***\*Please view our disclosures on pages 14 - 16.***

### ***Recommendation and Valuation***

**We are maintaining coverage of KULR Technology Group, Inc. with a Speculative Buy rating and twelve-month price target of \$4.50 per share.**

The company is well positioned for strong growth as the shift to electric vehicles and 5G technology should be significant growth drivers fueling demand for the company's products in the coming years. According to MarketsandMarkets, the electric vehicle market is projected to reach approximately 34.8 million units by 2030 from an estimated 4.1 million units in 2021 for annualized growth of 26.8%. Grandview Research projected the global 5G services market at \$41.5 billion in 2020, with annualized growth of 43.9% from 2021 to 2027.

KULR's revenue increased more than four-fold in 3Q21 while the company continued to make significant investments in an effort to expand and commercialize its business.

Shares of KULR have traded at trailing-twelve-month (ttm) P/S multiples ranging from 130X to 326X over the past year. Applying a multiple of 228X (mid-point of ttm multiples) to our 2022 sales projection of nearly \$0.03 per share, discounted for execution risks, we arrive at a 12-month price target of approximately \$4.50 per share.

### ***Recent Developments***

KULR received an initial order totaling approximately \$500,000 for its passive propagation resistant (PPR) battery systems from the Lockheed Martin Corporation.

KULR partnered with Heritage Battery Recycling (HBR) to provide safe transportation of HBR's battery collection operations across North America through its KULR-Tech Safe Case. HBR, through its sister companies, maintains access to over 100,000 customer locations, 2,500 employees, and a fleet of over 1,300 power units and 108 facility locations across North America.

KULR expanded its services with Heritage Battery Recycling as a result of HBR's merger with Retrieval Technologies, creating the largest lithium-ion battery recycler in North America.

KULR joined Clarios, the largest global producer of lead acid batteries, in the US Department of Energy lithium-ion battery lifecycle initiative to develop the manufacturing and reuse of lithium-ion batteries and their chemical elements in the US. In this project, KULR will provide safe transportation of lithium-ion batteries within the full battery management lifecycle, from manufacturing through recycle and reuse.

KULR obtained a special permit from the DoT authorizing the transportation of damaged, defective, and recalled lithium-ion cells, batteries, or lithium metal cells contained in or packed with KULR's proprietary TRS packaging.

KULR received authorization for expanded battery coverage to the existing DoT special permit. The upgraded special permit expands KULR's scope of opportunity by authorizing KULR to transport reused, refurbished, and retrofitted batteries for recycling.

### ***Business***

*Overview* - KULR Technology Group, Inc., headquartered in Campbell, California, develops and commercializes high-performance thermal management technologies for batteries, electronics, and other components.

The company's main focus is a total solution to battery safety by which it aims to mitigate the effects of thermal runaway propagation (the release of cell energy and highly flammable gas which propagates to neighboring cells leading to fire and explosions). KULR targets and provides thermal solutions for electric vehicles, cloud computing, 5G communication technologies, and energy storage for commercial markets, as well as directed energy weapons and high-power missile programs for aerospace and defense.

The company's proprietary core technology is based on a carbon fiber material that provides superior thermal conductivity and heat dissipation for an ultra-lightweight and pliable material. KULR leverages its proprietary cooling solutions that have been developed through longstanding partnerships with NASA, the Jet Propulsion Lab, and others, to make commercial battery powered products safer and electronics systems cooler and lighter.

Products - Lithium Ion (L-ion) Battery Thermal Runaway Shield (TRS): KULR has developed a thermal insulation technology aimed at passive resistance to thermal runaway propagation in L-ion batteries in partnership with the National Aeronautics and Space Administration Johnson Space Center. HYDRA TRS acts as a heat sink during normal lithium-ion battery pack operation but also prevents thermal runaway propagation, which is a serious concern for aerospace and defense customers and electric vehicle manufacturers.

Phase Change Material (PCM) Heat Sink: The company's PCM composite heat sinks offer passive thermal control for instruments that would otherwise overheat or under-cool during periodic operations. A typical application involves lasers that dissipate heat but need tight thermal control where active cooling is unavailable.

Fiber Thermal Interface Material (FTI): KULR thermal interface materials are selected to serve a wide range of applications, including hostile thermal and chemical environments, sliding interfaces, and interfaces with widely varying gaps. KULR'S FTI can be coated for electrical isolation, require low contact pressure, and provide high thermal conductivity. Their light weight and high compliance make the company's FTI products suited for aerospace, industrial, and high-performance commercial devices.

Internal Short Circuit (ISC) Device: In March 2018, KULR reached an agreement with the National Renewable Energy Laboratory (NREL), a national laboratory of the US Department of Energy, to be the exclusive manufacturing and distribution partner for the patented ISC device. The ISC device causes predictable battery cell failures in L-ion batteries, making them easier to study and, therefore, safer. L-ion batteries are the industry and consumer standard for portable power; billions of individual battery cells exist and billions more are planned for production. They provide power for everything from smart phones and laptops to electric cars and space crafts.

The picture below provides an illustration and highlights of the thermal management products KULR offers.

## KULR's Thermal Management Product Line



**PROVEN TECHNOLOGIES To Transform E-Mobility, Consumer Electronics, And Aerospace Industries**

**HYDRA Thermal Runaway Shield (TRS)**

- Used in aerospace, defense customers and electric vehicle applications
- Offers a safe and reliable, light-weight battery management solution which prevents lithium-ion batteries from overheating and combusting
- Reduces risk of battery combustion for consumers, significantly limiting legal liability for OEMs



**ARA Thermal Capacitor – PCM heat sink**

- Carbon-fiber infused heat sink used to absorb/provide heat and eliminates the need for active cooling
- ARA is useful for compact and high-performance devices that require bursts of power in short intervals, such as batteries in space, high power lasers and RF components



**URSA Fiber Thermal Interface (FTI) Material**

- URSA products are high performance, flexible thermally conductive materials that will increase contact between two irregular surfaces and limit the loss of heat conduction across the surfaces
- Increases overall product performance and reliability and reduces manufacturing costs



**LYRA Internal Short Circuit (ISC) Trigger Cell**

- Exclusive commercialization partner of NREL and NASA
- Testing tool for battery manufacturers used to analyze and identify failure modes in rechargeable batteries
- Provides the industry with a safe and reliable way to test and ultimately create a better battery pack



Source: KULR Investor Presentation June 2020

KULR also offers the CRUX cathode and battery storage bags.

**CRUX Cathode:** The CRUX Cathode can be customized for different applications including the generation of microwaves, x-rays, and laser radiation. They can be fabricated in a wide variety of physical configurations, ranging from simple planar and cylindrical forms to more complex lobed shapes.

**HYDRA TRS Battery Storage Bag:** KULR developed the HYDRA TRS Bag to safely store and transport lithium-ion batteries in partnership with NASA Johnson Space Center for the International Space Stations. Between January 2019 and June 2019, experts with NASA's Propulsion & Power Division tested the storage and use of rechargeable lithium ion laptop batteries. The tests intentionally triggered the batteries into dangerous failures in order to study what storage methods may stop battery fires from spreading battery to battery in thermal runaway propagation. As a result, KULR TRS bags are currently in service on the International Space Station for storage of spare laptop batteries. KULR is developing a commercial version for mass market applications.

### ***Battery Fires and Explosions***

According to the Website [batteryfires.com](http://batteryfires.com), numerous factors can increase the likelihood of battery failures which can cause fires or explosions. Some of these factors include battery manufacturing defects, product defects, product software issues, battery aging, battery degradation, overcharging, faulty charging, improper product use, battery puncture, and exposure to high temperatures.

Lithium-ion battery chemistry offers some of the highest energy densities available in today's batteries. However, high energy density comes at a potential price. When battery failure occurs, tremendous thermal energy is released (upwards of 1,000°C) along with toxic fluoride gas and smoke. Lithium-ion battery fires burn with prolonged intensity, oftentimes requiring special procedures and copious amounts of water to extinguish.

Lithium-ion batteries are everywhere, powering everything from consumer goods and electronics to electric vehicles. Battery production and demand are projected to increase rapidly, driven largely by automakers who aim to electrify their entire fleets over the next five to ten years. As a result, the frequency of catastrophic battery failures will also increase, and consumer-facing industries will undoubtedly look for safer battery technologies (like KULR offers) to power their products.

As the Biden administration pushes for half of new car sales to be electric vehicles by 2030, automakers that are spending billions of dollars to produce EVs are already having problems. The issues range from recalls due to vehicle fires or loss of power to cars not starting. The problems can prove especially costly when they involve batteries, specifically reputation-damaging vehicle fires, recalls, sudden power loss and problems getting some of the cars started.

The lithium-ion batteries in electric cars are similar to those found in consumer electronics, which store large amounts of energy relative to their size. But to power an automobile, there needs to be more of them, and the demands are higher, creating a unique risk.

The National Highway Traffic Safety Administration (NHTSA) said the agency has launched multiple investigations into the potential safety issues related to fires involving electric-vehicle batteries based on data it collects. NHTSA funds targeted research on advanced-battery technology and participates in developing global technical regulations.

### ***Applications***

KULR believes that battery cell testing and screening has become a topic of focus within the commercial, aerospace and defense, and high-value application markets. The company plans to expand its capabilities to include full battery analysis and testing as outlined by NASA's Johnson Space Center.

It is expected that the aerospace and defense sectors will experience high growth in directed energy weapons (ranged weapons that damage their targets with highly focused energy), hypersonic weapons (weapons such as cruise missiles that travel five or more times the speed of sound), and space missions. Experts predict that directed energy weapons will greatly impact the future of warfare. KULR’s CRUX cathode generates powerful electron pulses which has the potential to further advance the current technology.

Thermal management is another critical component of both hypersonic weapons programs and space missions. KULR’s carbon fiber solutions are used for thermal management in missile defense programs and are particularly effective because of their survivability at very high temperatures. They are very effective at transferring heat and mitigating the risk of overheating in such high-risk environments.

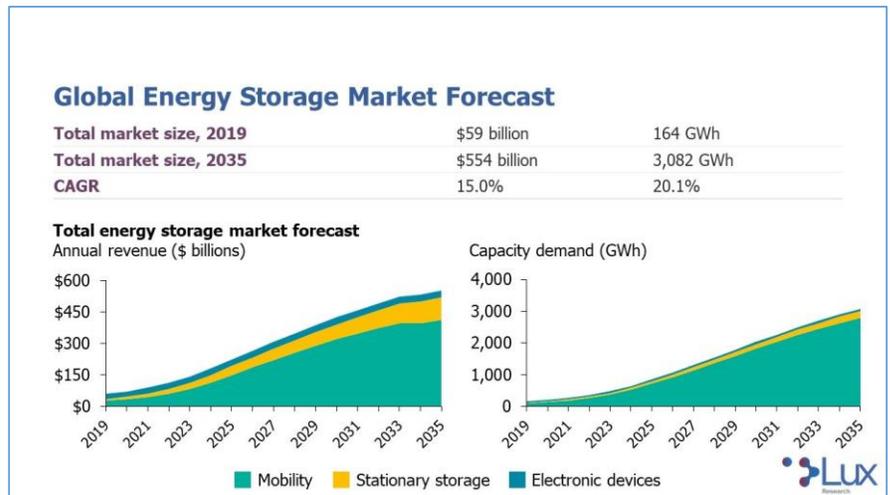
Opportunities for the company’s products exists in industries such as electric motor vehicles that have become increasingly more reliant on Cloud computing, portability, and high-demand processing power. KULR’s high performance thermal interface materials can be used to accelerate 5G communications development due to their high thermal conductivity, light weight, and low contact pressure. Cloud computing is also an application of interest since high power communications chips and optical communication modules require cooling.

**Markets**

KULR operates in the thermal management market which is driven by the energy storage market.

Energy Storage Market - The total energy storage market is expected to grow to \$554 billion in annual revenue by 2035 from \$59 billion in 2019 for a compound annual growth rate of 15% according to a report by Lux Research (see chart at right).

Lux estimates that the three main drivers of energy storage – mobility applications, electronic devices, and stationary storage – will reach an annual combined deployment level of 3,082 GWh (Gigawatt hours, abbreviated as GWh, is a unit of energy representing one billion watt hours) over the next 15 years, up from the current 164 GWh, with mobility applications the primary growth driver.



LUX anticipates the energy storage industry is poised for a massive increase in annual revenue and deployment capacity as key innovative technologies, such as solid-state batteries and flow batteries, reach commercialization. Expectations are for electric mobility applications, primarily light-duty passenger vehicles, to be the principal long-term driver of energy storage annual revenue and demand. Total market share is estimated at 74% as measured by annual revenue and 91% as measured by annual deployed GWh by 2035.

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Thermal Management Market – The increasing demand for the reliability of microelectronics and lithium-ion batteries has driven the thermal management market. KULR targets the following markets and applications, passive propagation resistant (PPR) battery design (prevents cell to cell thermal runaway propagation and prevents the fire and explosion of single cell thermal runaway from exiting the battery enclosure), battery storage and transportation, electrical transportation, 5G mobile and cloud computing infrastructure, and aerospace and defense.

MarketsandMarkets estimates the global thermal management market was \$8.8 billion in 2020 and projected to reach \$12.8 billion by 2025 for annualized growth of 8.2%. Market growth should be driven by the rising demand for effective thermal management solutions & systems in consumer electronics, increasing demand for

electric and hybrid vehicles, increasing use of electronic devices in different end-use industries, and ongoing radical miniaturization of electronic devices.

A MarketsandMarkets published report states that the strong actions taken, such as imposing country-wide lockdowns by governments globally to curb the spread of COVID-19 was expected to have a severe impact on the entire manufacturing industry, dragging down the demand of customers for thermal management solutions.

We anticipate the shift to electric vehicles and 5G technology will be significant growth drivers fueling demand for the company's products in the coming years.

*Electrical Transportation Market* – According to MarketsandMarkets, the electric vehicle market is projected to reach approximately 34.8 million units by 2030 from an estimated 4.1 million units in 2021 for a CAGR of 26.8%. Factors such as growing demand for low emission commuting and governments supporting long-range, zero emission vehicles through subsidies and tax rebates have driven demand for electric vehicles.

*5G Mobile Services Market* – According to Grandview Research, the global 5G services market was estimated at \$41.5 billion in 2020 and is expected to expand at an annualized rate of 43.9% from 2021 to 2027. 5G wireless mobile services are expected to enable a fully mobile and connected environment by delivering a wide range of use cases and business models to consumers. Grandview Research points out that faster data speeds and extremely low latency offered by 5G technology should enhance the user experience while using 5G services for Virtual Reality and Augmented Reality gaming, seamless video calling, and Ultra-high Definition videos. Growing demand for high-speed data connectivity for unified Internet of Things applications, such as smart home energy management, is estimated to propel the adoption of 5G services over the forecast period. As 5G infrastructure grows, the need for thermal management technologies such that KULR offers should grow.

### ***Economic Outlook***

In October 2021, the International Monetary Fund (IMF) revised its global economic growth estimates to an increase of 5.9% for 2021 and 4.9% for 2022. While the IMF's growth projection for 2022 is unchanged from its earlier projection (July 2021), the 2021 projection is down from 6%. The 2021 downward revision primarily reflects supply disruptions and worsening pandemic dynamics.

The IMF revised its economic growth estimate for the US to an increase of 6% for 2021 and 5.2% for 2022. In July 2021, the IMF projected US economic growth of 7% and 4.9% for 2021 and 2022, respectively.

The second estimate of US GDP growth (released on November 24, 2021) showed the US economy increased at an annual rate of 2.1% in 3Q21, down from the 6.7% increase reported in 2Q21. The 3Q21 US GDP estimate primarily reflects increases in inventory investment, consumer spending, state and local government spending, and business investment, partially offset by decreases in housing investment, federal government spending, and exports.

### ***Projections***

*2021 Forecast* - We project a more than 3-fold increase in revenue to \$2.3 million from \$624,000 in 2020 and a net loss to common of \$13.7 million or \$(0.14) per share. We previously projected revenue of \$2.3 million and a net loss of \$10.2 million or \$(0.11) per share. While our revenue projection remains unchanged, our net loss projection has widened due primarily to higher SG&A expenses than originally anticipated.

We project gross margins of 52.3%, down from 72.9% in 2020 due primarily to product mix. SG&A expenses are projected to increase to \$10.5 million from \$2.5 million to reflect staff additions to support sales growth and increased stock-based compensation. R&D expenses are projected to increase to \$1.5 million from \$290,000 in 2020 as the company expands development of its offerings. We project the operating loss widening to \$10.7 million compared to \$2.3 million in 2020. We project amortization of debt discount expense of \$128,000 compared to \$502,000 in 2020 as the company pays off debt.

## KULR Technology Group, Inc.

In 2021, we project \$7.7 million cash used in operations from a cash loss of \$7.1 million and a \$608,000 increase in working capital. Proceeds from the sale of convertible preferred stock of \$6.5 million and \$11.7 million from warrant exercises should cover cash used in operations and a \$2.6 million pay off of debt, increasing cash by \$6.1 million to \$14.9 million at the end of 2021.

2022 Forecast - We project a 19.7% increase in revenue to \$2.8 million with a net loss of \$13 million or \$(0.12) per share. We previously projected revenue of \$2.8 million with a net loss of \$5.2 million or \$(0.05) per share. While our revenue projection is unchanged, our net loss projection widened due primarily to higher operating expenses than originally anticipated.

We project gross margins of 65%, up from an estimated 52.3% in 2021 due to a shift to higher margin offerings. SG&A expenses are projected at \$12.8 million, up from \$10.5 million projected from 2021 to reflect higher stock-based compensation related to the 2021 managerial hirings. R&D expenses are projected to increase to \$2 million from \$1.5 million projected for 2021 as the company continues to expand its product offerings. We project the operating loss increasing to \$13 million from an estimated \$10.5 million in 2021.

In 2022, we project \$9.1 million cash used in operations, primarily from a cash loss, which should result in a \$9.5 million decrease in cash to \$5.4 million at the end of 2022.

### **3Q21 and Nine-Months 2021 Financial Results**

3Q21 - Revenue increased over four-fold to \$601,000 from \$137,000 in 3Q20. KULR reported a net loss to common of \$3.1 million or \$(0.03) per share versus a loss of \$1 million or \$(0.01) per share in 3Q20. We projected 3Q21 revenue of \$650,000 and a net loss of \$1.5 million or \$(0.02) per share.

The increase in revenue was mainly due to new contracts received in 2021. Gross margins increased to 74.2% from 55.5% primarily due to product mix. R&D expenses increased to \$482,000 from \$52,000 due primarily to fees for thermal energy management reports and energy storage development services provided during the period.

Selling, general and administrative expenses increased to \$3.1 million from \$835,000 due primarily to an increase in stock-based compensation, additional marketing and advertising expense, and increased head count.

Total other income was \$44,000 compared to an expense of \$202,000 in 3Q20 due primarily to a gain related to the change in fair value of accrued issuable equity in 2021 and a charge related to the amortization of debt discount in 2020.

Nine-months 2021 - Revenue increased nearly four-fold to \$1.6 million from \$415,000 in the same period in 2020. KULR reported a net loss to common of \$10.5 million or \$(0.11) per share versus a loss of \$2 million or \$(0.02) per share in the same period in 2020. The loss in 2021 included a \$2.6 million or \$(0.03) per share preferred stock deemed dividend.

The increase in revenue was mainly due to new contracts received in 2021. Gross margins decreased to 47.2% from 66.7% primarily due to a low margin contract in 2Q21. R&D expenses increased to \$958,000 from \$221,000 due primarily to fees for thermal energy management reports and energy storage development services provided during the period.

	9 Months Ended (in thousands \$)	
	9/21A	9/20A
Revenue	1,647	415
Cost of revenue	870	138
Gross profit	777	277
Research and development	958	221
Selling, general and administrative	7,320	1,719
Operating income (loss)	(7,501)	(1,663)
Interest expense	(3)	(5)
Other income (expense)	(140)	-
Amortization of debt discount	(128)	(307)
Change in fair value of accrued equity	(66)	(16)
Net Income / (Loss)	(7,838)	(1,991)
Preferred stock deemed dividend	(2,624)	-
Net Income / (Loss) to common	(10,462)	(1,991)
EPS	(0.11)	(0.02)
Shares Outstanding	93,816	82,042
<u>Margin Analysis</u>		
Gross margin	47.2%	66.7%
R&D	58.2%	53.3%
SG&A	444.4%	414.2%
Operating margin	(455.4)%	(400.7)%
<u>Year / Year Growth</u>		
Total Revenues	296.9%	
Source: Company filings		

Selling, general and administrative expenses increased to \$7.3 million from \$1.7 million due primarily to an increase in stock-based compensation, additional marketing and advertising expense, and increased head count.

Total other expenses were relatively flat at \$337,000.

Liquidity – As of September 30, 2021, KULR had \$11 million cash, a current ratio of 8X, \$155,000 of total debt (all short-term) and shareholder's equity of \$12.4 million.

In 9M21, the company's cash burn of \$4.8 million and a \$546,000 increase in working capital resulted in \$5.4 million cash used in operations. Cash used in operations and investing was more than offset by \$8.9 million cash provided by financing primarily from proceeds from the sale of convertible preferred stock and the exercise of warrants, offset in part by the repayment of debt. Cash increased by \$2.1 million to \$11 million as of September 30, 2021.

Subsequent to September 30, 2021, KULR issued an aggregate of 2.6 million shares of common stock upon the exercise of outstanding warrants to which the company received an aggregate of \$6.5 million of gross proceeds.

## ***Risks***

In our view, these are the principal risks underlying the stock.

Limited operating history - KULR was formed in 2015 and KTC was formed in 2013. The company has a limited operating history and has not yet demonstrated sales of products at a level capable of covering its fixed expenses. There can be no assurance that KULR will ever produce a profit.

Substantial capital requirements – KULR will need to raise additional capital to fund its operations. The company may not be able to raise such funds when needed and on acceptable terms, which could have a materially adverse effect on its business.

Reliance on a small number of customers – In 2020, KULR had two customers who accounted for 50% of total revenues. There is the risk of significant loss of future revenues if one or more of these customers were to stop ordering the company's materials.

Technological obsolescence – The company operates in a market that is subject to rapid technological change. If KULR is not able to adapt to new advances in materials sciences, the company's revenues and business prospects would likely be adversely affected.

Competition – The company operates in a market that is expected to have significant competition in the future. Global research is being conducted by substantially larger companies who have greater financial, personnel, technical, and marketing resources. There can be no assurance that KULR will be able to compete with other companies.

Economic conditions - Downturns in general economic conditions can reduce demand for the company's products, product prices, volumes and gross margins. A decline in the demand for KULR's products or a shift to lower-margin products due to deteriorating economic conditions could adversely affect sales of the company's products and profitability.

High level of unpredictability in sales growth – KULR's customers and prospective customers are large organizations with multiple levels of management, controls/procedures, and contract evaluation/authorization. The business activity cycle between initial customer interest to shipping, acceptance and billing can be lengthy, unpredictable and lumpy, which can influence the timing, consistency and reporting of sales growth.

High concentration of insider ownership – As of March 19, 2021, KULR’s officers, directors and affiliates owned approximately 41% of KULR outstanding common stock. With such concentrated control of the company, other shareholders may have no effective voice in the company’s management.

Pandemic concerns - Given the uncertainty around the extent and timing of the potential future spread or mitigation of COVID-19, it is difficult to reasonably estimate the impact this pandemic will have on KULR’s future results of operations, cash flows, or financial condition.

Liquidity risk - Shares of KULR have risks common to those of the microcap segment of the market. Often these risks cause microcap stocks to trade at discounts to their peers. The most common of these risks is liquidity risk, which is typically caused by small trading floats and very low trading volume and can lead to large spreads and high volatility in stock price. There are 63.3 million shares in the float and the average daily volume is approximately 1.6 million shares.

Miscellaneous risk - The company's financial results and equity values are subject to other risks and uncertainties including competition, operations, financial markets, regulatory risk, and/or other events. These risks may cause actual results to differ from expected results.

KULR Technology Group, Inc.

Consolidated Balance Sheets  
(in thousands \$)

	2018A	2019A	2020A	9/21A	2021E	2022E
Cash	230	109	8,880	10,990	14,940	5,431
Accounts receivable	112	30	56	550	638	764
Inventory	10	27	55	191	219	241
Prepaid expenses and other	54	43	150	451	451	451
<b>Total current assets</b>	<b>406</b>	<b>209</b>	<b>9,141</b>	<b>12,182</b>	<b>16,249</b>	<b>6,886</b>
Property and equipment	45	28	58	386	468	846
Equipment deposits	-	-	-	1,030	1,030	1,030
Security deposits	-	-	9	59	59	59
Right of use asset	-	-	-	730	730	730
<b>Total assets</b>	<b>451</b>	<b>237</b>	<b>9,208</b>	<b>14,387</b>	<b>18,536</b>	<b>9,551</b>
Accounts payable	118	349	66	68	76	88
Accounts payable-related party	-	-	3	-	-	-
Accrued expenses and other	374	659	395	689	735	880
Accrued expenses and other-related party	84	10	-	-	-	-
Accrued issuable equity	-	-	128	194	194	194
Notes payable	-	-	2,322	-	-	-
Loans payable	-	-	13	155	-	-
Lease liability	-	-	-	257	257	257
Deferred revenue	-	15	20	159	159	159
<b>Total current liabilities</b>	<b>576</b>	<b>1,033</b>	<b>2,947</b>	<b>1,522</b>	<b>1,421</b>	<b>1,578</b>
Lease liability	-	-	-	476	476	476
Loans payable	-	-	142	-	-	-
<b>Total liabilities</b>	<b>576</b>	<b>1,033</b>	<b>3,089</b>	<b>1,998</b>	<b>1,897</b>	<b>2,054</b>
<b>Total stockholders' equity (deficit)</b>	<b>(125)</b>	<b>(796)</b>	<b>6,119</b>	<b>12,389</b>	<b>16,639</b>	<b>7,497</b>
<b>Total liabilities &amp; stockholders' equity</b>	<b>451</b>	<b>237</b>	<b>9,208</b>	<b>14,387</b>	<b>18,536</b>	<b>9,551</b>

Source: Company filings and Taglich Brothers' estimates

KULR Technology Group, Inc.

Income Statements for the Fiscal Years Ended  
(in thousands \$)

	<u>2018A</u>	<u>2019A</u>	<u>2020A</u>	<u>2021E</u>	<u>2022E</u>
Revenue	1,274	830	624	<b>2,297</b>	<b>2,750</b>
Cost of revenue	<u>337</u>	<u>226</u>	<u>169</u>	<u><b>1,097</b></u>	<u><b>963</b></u>
Gross profit	937	604	455	<b>1,201</b>	<b>1,788</b>
Research and development	508	502	290	<b>1,458</b>	<b>2,000</b>
Selling, general and administrative	<u>2,510</u>	<u>2,081</u>	<u>2,506</u>	<u><b>10,470</b></u>	<u><b>12,800</b></u>
Operating income (loss)	(2,081)	(1,979)	(2,341)	<b>(10,728)</b>	<b>(13,013)</b>
Interest expense	(1)	(2)	(5)	<b>(3)</b>	-
Other income (expense)	-	1	-	<b>(140)</b>	-
Amortization of debt discount	-	-	(502)	<b>(128)</b>	-
Loss on foreign currency transactions	-	-	-	-	-
Change in fair value of accrued equity	<u>24</u>	<u>-</u>	<u>(2)</u>	<u><b>(67)</b></u>	<u>-</u>
Net Income / (Loss)	<u>(2,058)</u>	<u>(1,980)</u>	<u>(2,850)</u>	<u><b>(11,066)</b></u>	<u><b>(13,013)</b></u>
Preferred stock deemed dividend	-	-	-	<b>(2,624)</b>	-
Net Income / (Loss) to common	<u>(2,058)</u>	<u>(1,980)</u>	<u>(2,850)</u>	<u><b>(13,690)</b></u>	<u><b>(13,013)</b></u>
EPS	<u>(0.03)</u>	<u>(0.02)</u>	<u>(0.03)</u>	<u><b>(0.14)</b></u>	<u><b>(0.12)</b></u>
Shares Outstanding	77,642	80,123	82,032	<b>95,903</b>	<b>104,700</b>
<u>Margin Analysis</u>					
Gross margin	73.5%	72.8%	72.9%	<b>52.3%</b>	<b>65.0%</b>
R&D	39.9%	60.5%	46.5%	<b>63.5%</b>	<b>72.7%</b>
SG&A	197.0%	250.7%	401.6%	<b>455.8%</b>	<b>465.5%</b>
Operating margin	(163.3)%	(238.4)%	(375.2)%	<b>(467.0)%</b>	<b>(473.2)%</b>
<u>Year / Year Growth</u>					
Total Revenues		(34.9)%	(24.8)%	<b>268.1%</b>	<b>19.7%</b>

Source: Company filings and Taglich Brothers' estimates

KULR Technology Group, Inc.

Quarterly Income Statements 2020A - 2022E  
(in thousands \$)

	3/20A	6/20A	9/20A	12/20A	2020A	3/21A	6/21A	9/21A	12/21E	2021E	3/22E	6/22E	9/22E	12/22E	2022E
Revenue	78	201	137	208	624	418	628	601	650	<b>2,297</b>	500	900	600	750	<b>2,750</b>
Cost of revenue	26	41	61	41	169	275	439	155	228	<b>1,097</b>	175	315	210	263	<b>963</b>
Gross profit	52	160	76	167	455	143	189	446	423	<b>1,201</b>	325	585	390	488	<b>1,788</b>
Research and development	112	58	52	68	290	123	353	482	500	<b>1,458</b>	500	500	500	500	<b>2,000</b>
Selling, general and administrative	470	425	835	776	2,506	1,493	2,723	3,104	3,150	<b>10,470</b>	3,200	3,200	3,200	3,200	<b>12,800</b>
Operating income (loss)	(530)	(323)	(811)	(677)	(2,341)	(1,473)	(2,887)	(3,140)	(3,228)	<b>(10,728)</b>	(3,375)	(3,115)	(3,310)	(3,213)	<b>(13,013)</b>
Interest expense	(1)	(2)	(1)	(1)	(5)	(1)	(1)	(1)	-	<b>(3)</b>	-	-	-	-	-
Other income (expense)	-	-	-	-	-	-	(140)	-	-	<b>(140)</b>	-	-	-	-	-
Amortization of debt discount	-	(78)	(210)	(214)	(502)	(108)	(20)	-	-	<b>(128)</b>	-	-	-	-	-
Loss on foreign currency transactions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Change in fair value of accrued equity	(19)	(26)	10	33	(2)	(133)	21	45	-	<b>(67)</b>	-	-	-	-	-
Net Income / (Loss)	(550)	(429)	(1,012)	(859)	(2,850)	(1,715)	(3,027)	(3,096)	(3,228)	<b>(11,066)</b>	(3,375)	(3,115)	(3,310)	(3,213)	<b>(13,013)</b>
Preferred stock deemed dividend	-	-	-	-	-	-	(2,624)	-	-	<b>(2,624)</b>	-	-	-	-	-
Net Income / (Loss) to common	(550)	(429)	(1,012)	(859)	(2,850)	(1,715)	(5,651)	(3,096)	(3,228)	<b>(13,690)</b>	(3,375)	(3,115)	(3,310)	(3,213)	<b>(13,013)</b>
EPS	(0.01)	(0.01)	(0.01)	(0.01)	(0.03)	(0.02)	(0.06)	(0.03)	(0.03)	<b>(0.14)</b>	(0.03)	(0.03)	(0.03)	(0.03)	<b>(0.12)</b>
Shares Outstanding	81,098	81,235	82,467	83,327	82,032	90,079	92,513	99,019	102,000	<b>95,903</b>	104,700	104,700	104,700	104,700	<b>104,700</b>
<u>Margin Analysis</u>															
Gross margin	66.7%	79.6%	55.5%	80.3%	72.9%	34.2%	30.1%	74.2%	65.0%	<b>52.3%</b>	65.0%	65.0%	65.0%	65.0%	<b>65.0%</b>
R&D	143.6%	28.9%	38.0%	32.7%	46.5%	29.4%	56.2%	80.2%	76.9%	<b>63.5%</b>	100.0%	55.6%	83.3%	66.7%	<b>72.7%</b>
SG&A	602.6%	211.4%	609.5%	373.1%	401.6%	357.2%	433.6%	516.5%	484.6%	<b>455.8%</b>	640.0%	355.6%	533.3%	426.7%	<b>465.5%</b>
Operating margin	(679.5)%	(160.7)%	(592.0)%	(325.5)%	(375.2)%	(352.4)%	(459.7)%	(522.5)%	(496.5)%	<b>(467.0)%</b>	(675.0)%	(346.1)%	(551.7)%	(428.3)%	<b>(473.2)%</b>
<u>Year / Year Growth</u>															
Total Revenues	(60.0)%	258.9%	(74.0)%	300.0%	(24.8)%	435.9%	212.4%	338.7%	212.5%	<b>268.1%</b>	19.6%	43.3%	(0.2)%	15.4%	<b>19.7%</b>

Source: Company filings and Taglich Brothers' estimates

KULR Technology Group, Inc.

Statement of Cash Flows for the Periods Ended  
(in thousands \$)

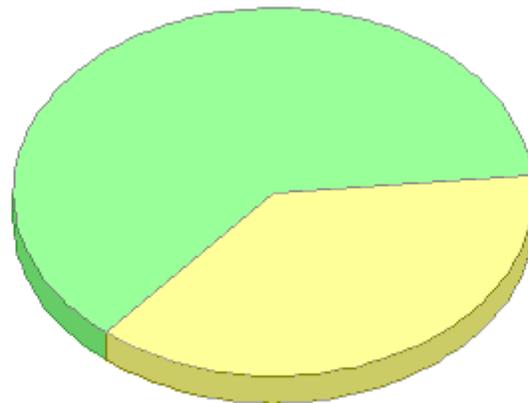
	2018A	2019A	2020A	9M21A	2021E	2022E
Net income (loss)	(2,058)	(1,980)	(2,850)	(7,838)	(11,066)	(13,013)
Amortization of debt discount	-	-	502	128	171	171
Depreciation expense	15	17	16	29	40	72
Bad debt expense	-	-	1	-	-	-
Change in fair value of accrued issuable equity	(24)	-	2	66	66	-
Lower of cost or net realizable value adjustment	4	-	-	-	-	-
Share-based compensation	458	221	344	2,766	3,700	3,700
Cash earnings (loss)	(1,605)	(1,742)	(1,985)	(4,849)	(7,089)	(9,070)
<i>Changes in assets and liabilities</i>						
Accounts receivable	40	82	(26)	(495)	(582)	(126)
Inventory	-	(17)	(28)	(135)	(164)	(21)
Prepaid expenses and other	69	11	(107)	(300)	(301)	-
Security deposits	(8)	-	-	(50)	(50)	-
Right of use asset	-	-	-	85	85	-
Accounts payable	81	231	(296)	(2)	10	12
Accounts payable-related party	-	-	(2)	-	(3)	-
Accrued expenses and other	185	270	(271)	294	340	145
Accrued expenses and other-related party	(121)	(38)	(11)	-	-	-
Lease liability	-	-	-	(82)	(82)	-
Deferred revenue	-	15	5	139	139	-
(Increase) decrease in working capital	246	554	(736)	(546)	(608)	10
<b>Net cash provided by (used in ) operations</b>	<b>(1,359)</b>	<b>(1,188)</b>	<b>(2,721)</b>	<b>(5,395)</b>	<b>(7,697)</b>	<b>(9,060)</b>
Deposits for equipment purchases	-	-	-	(1,030)	(1,030)	-
Purchase of property and equipment	(17)	-	(46)	(357)	(450)	(450)
<b>Net cash used in investing</b>	<b>(17)</b>	<b>-</b>	<b>(46)</b>	<b>(1,387)</b>	<b>(1,480)</b>	<b>(450)</b>
Proceeds from note payable	-	-	3,710	-	-	-
Repayments of note payable	-	-	(759)	(2,450)	(2,605)	-
Payment of debt issuance costs	-	-	(340)	-	-	-
Proceeds from the exercise of warrants	-	-	-	5,207	11,707	-
Proceeds from Paycheck Protection Program loan	-	-	155	-	-	-
Proceeds from issuance of Series B conv. pref. stock	31	-	-	-	-	-
Proceeds from sale of Series C conv. pref. stock	-	184	-	-	-	-
Proceeds from sale of Series D conv. pref. stock	-	-	-	6,500	6,500	-
Proceeds from sale of common stock	679	898	9,501	-	-	-
Payment of financing costs	-	(15)	(720)	(365)	(365)	-
<b>Net cash provided by (used in) financing</b>	<b>710</b>	<b>1,067</b>	<b>11,547</b>	<b>8,892</b>	<b>15,237</b>	<b>-</b>
<b>Net Change in Cash</b>	<b>(666)</b>	<b>(121)</b>	<b>8,780</b>	<b>2,110</b>	<b>6,060</b>	<b>(9,510)</b>
<b>Cash - Beginning of Period</b>	<b>896</b>	<b>230</b>	<b>109</b>	<b>8,880</b>	<b>8,880</b>	<b>14,940</b>
<b>Cash - End of Period</b>	<b>230</b>	<b>109</b>	<b>8,880</b>	<b>10,990</b>	<b>14,940</b>	<b>5,431</b>

Source: Company filings and Taglich Brothers' estimates

**Price Chart**



**Taglich Brothers' Current Ratings Distribution**



62.5 % Buy | 37.5 % Hold

<b>Investment Banking Services for Companies Covered in the Past 12 Months</b>		
Rating	#	%
Buy	4	19
Hold		
Sell		
Not Rated		

### **Important Disclosures**

As of the date of this report, we, our affiliates, any officer, director or stockholder, or any member of their families do not have a position in the stock of the company mentioned in this report. Taglich Brothers, Inc. does not currently have an Investment Banking relationship with the company mentioned in this report and was not a manager or co-manager of any offering for the company within the last three years.

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**I, John Nobile, the research analyst of this report, hereby certify that the views expressed in this report accurately reflect my personal views about the subject securities and issuers; and that no part of my compensation was, is, or will be, directly, or indirectly, related to the specific recommendations or views contained in this report.**

Public companies mentioned in this report:

Honeywell (NYSE: HON)

Lydall (NYSE: LDL)

3M (NYSE: MMM)

**Meaning of Ratings**

**Buy** – The growth prospects, degree of investment risk, and valuation make the stock attractive relative to the general market or comparable stocks.

**Speculative Buy** – Long term prospects of the company are promising but investment risk is significantly higher than it is in our BUY-rated stocks. Risk-reward considerations justify purchase mainly by high risk-tolerant accounts. In the short run, the stock may be subject to high volatility and could continue to trade at a discount to its market.

**Neutral** – Based on our outlook the stock is adequately valued. If investment risks are within acceptable parameters, this equity could remain a holding if already owned.

**Sell** – Based on our outlook the stock is significantly overvalued. A weak company or sector outlook and a high degree of investment risk make it likely that the stock will underperform relative to the general market.

**Discontinued** – Research coverage discontinued due to the acquisition of the company, termination of research services (includes non-payment for such services), diminished investor interest, or departure of the analyst.

**Some notable Risks within the Microcap Market**

**Stocks in the Microcap segment of the market have many risks that are not as prevalent in Large-cap, Blue Chips or even Small-cap stocks. Often it is these risks that cause Microcap stocks to trade at discounts to their peers. The most common of these risks is liquidity risk, which is typically caused by small trading floats and very low trading volume which can lead to large spreads and high volatility in stock price. In addition, Microcaps tend to have significant company specific risks that contribute to lower valuations. Investors need to be aware of the higher probability of financial default and higher degree of financial distress inherent in the microcap segment of the market.**

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From time to time our analysts may choose to withhold or suspend a rating on a company. We continue to publish informational reports on such companies; however, they have no ratings or price targets. In general, we will not rate any company that has too much business or financial uncertainty for our analysts to form an investment conclusion, or that is currently in the process of being acquired.