



AUGUST 2021

# SECOND QUARTER 2021 EARNINGS

---

NASDAQ | RESN

# SAFE HARBOR STATEMENT

This document contains forward-looking statements. The words “believe,” “may,” “will,” “potentially,” “estimate,” “continue,” “anticipate,” “intend,” “could,” “would,” “project,” “plan,” “expect” and similar expressions that convey uncertainty of future events or outcomes are intended to identify forward-looking statements. Forward-looking statements may address the following subjects among others: the status of filter designs under development, the prospects for licensing filter designs upon completion of development, plans for other filter designs not currently in development, potential customers for our designs, the timing and amount of future royalty streams, the expected duration of our capital resources, our hiring plans, the impact of our designs on the mobile device market, and our business strategy. Forward-looking statements are inherently subject to risks and uncertainties which could cause actual results to differ materially from those in the forward-looking statements, including, without limitation, the following: our limited operating history; our ability to complete designs that meet customer specifications; the ability of our customers (or their manufacturers) to fabricate our designs in commercial quantities; the ability of our customers to sell products incorporating our designs to OEMs; our dependence on a small number of customers; the ability of our designs to significantly lower costs as compared to other designs and solutions; the risk that the intense competition and rapid technological change in our industry renders our designs less useful or obsolete; our ability to find, recruit and retain the highly skilled personnel required for our design process in sufficient numbers to support our growth; our ability to manage growth; and general market, economic and business conditions. Additional factors that could cause actual results to differ materially from those anticipated by our forward-looking statements are under the captions “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in our most recent Annual Report (Form 10-K) or Quarterly Report (Form 10-Q) filed with the Securities and Exchange Commission. Forward-looking statements are made as of the date of this document, and we expressly disclaim any obligation or undertaking to update forward-looking statements.

We may refer to information regarding potential markets for products and other industry data. We believe that all such information has been obtained from reliable sources that are customarily relied upon by companies in our industry. However, we have not independently verified any such information.

# CONTINUED BUSINESS ACCELERATION

Executing against operational and strategic priorities

## XBAR® MILESTONES

- Commercialization phase of agreement with strategic partner
- Began sampling XBAR® Wi-Fi filters for non-mobile market
- XBAR® successfully manufactured by eight (8) separate SAW foundries

## OPERATIONAL HIGHLIGHTS

- Announced WaveX™, Resonant's upgraded filter design software
- Patent portfolio grew to >375 patents filed or issued, >225 of which are related XBAR®
- Legacy customer successes provide roadmap for future XBAR® engagements

## Q2 2021 HIGHLIGHTS

Revenues of

**\$0.6M**

Q2 Unit Volumes Ramped to

**17.5M+**

(~450% increase YoY)

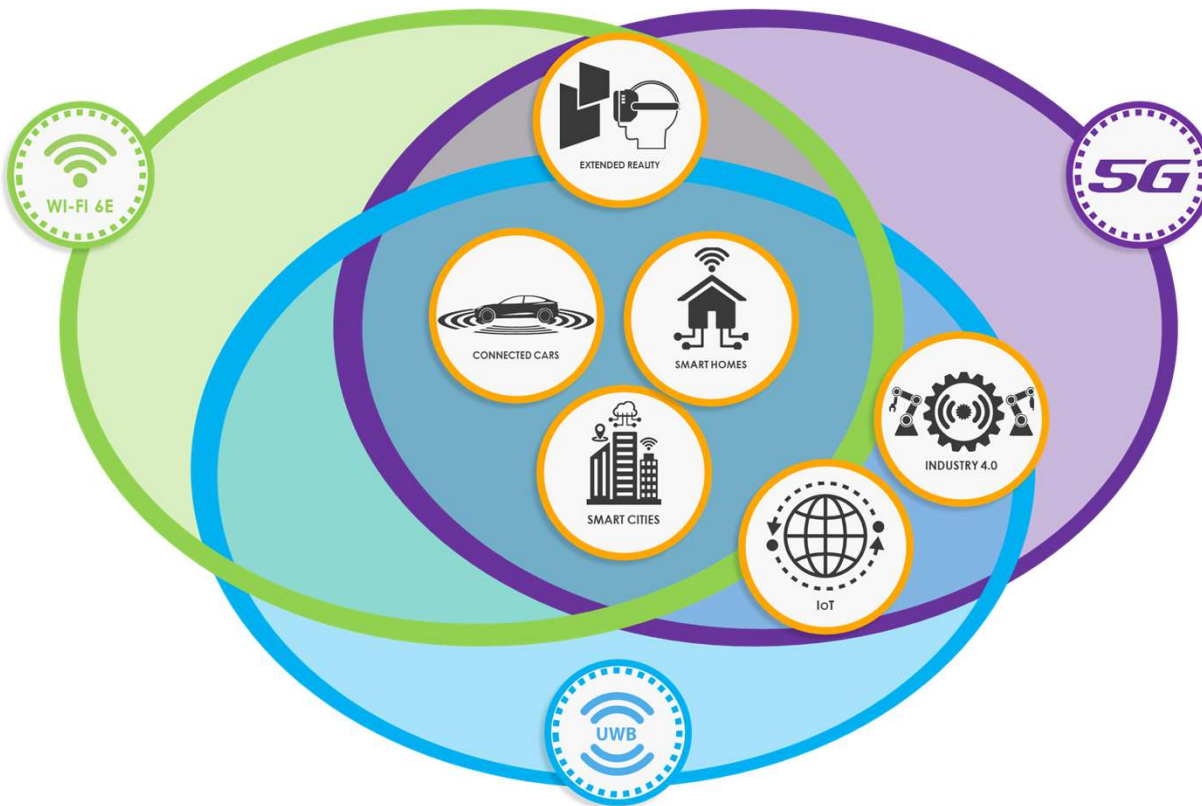
Unit Volumes Shipped To-Date

**79M+**

(production volumes)

# UNLOCKING THE POTENTIAL OF NEXT-GENERATION WIRELESS

**XBAR** innately meets the requirements of 5G, next-gen Wi-Fi, and UWB



**Continued progress in partnership with the world's largest RF filter manufacturer**

- ✓ Target performance
- ✓ Packaging
- ✓ Initial Reliability

**Focus is now on commercialization** (high-volume manufacturing of XBAR-based RF filters for 5G)

**Expanding agreement with strategic partner** to include additional devices by year end

**XBAR® technology ideally suited for non-mobile segment** including mobile infrastructure, Wi-Fi access points, UWB, and IoT applications

Next-Gen Wireless Networks Depend on Each Other To Unlock New Applications

# INNOVATIVE FILTER DESIGN WITH INDUSTRY-LEADING **WaveX™** DESIGN SOFTWARE PLATFORM

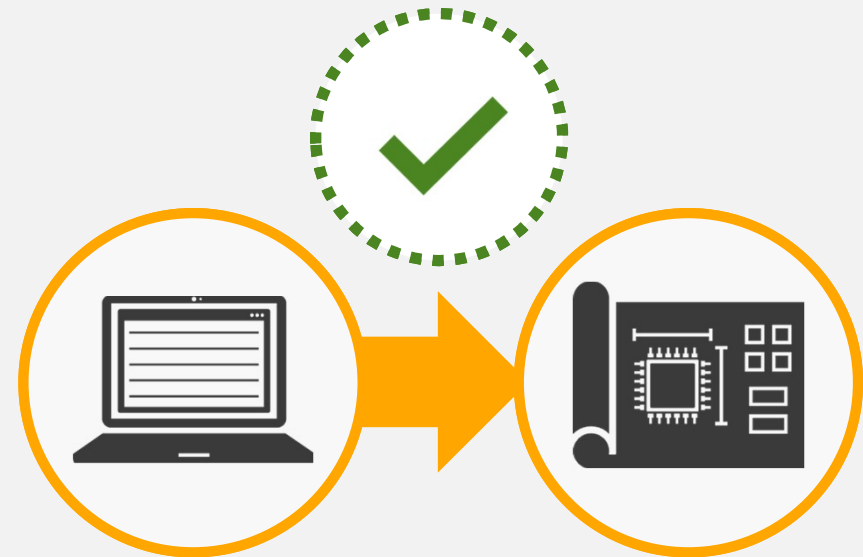
## TRADITIONAL APPROACH

TIME CONSUMING, ITERATIVE DEVELOPMENT PROCESS WITH  
MONTHS/YEARS OF LEAD TIME



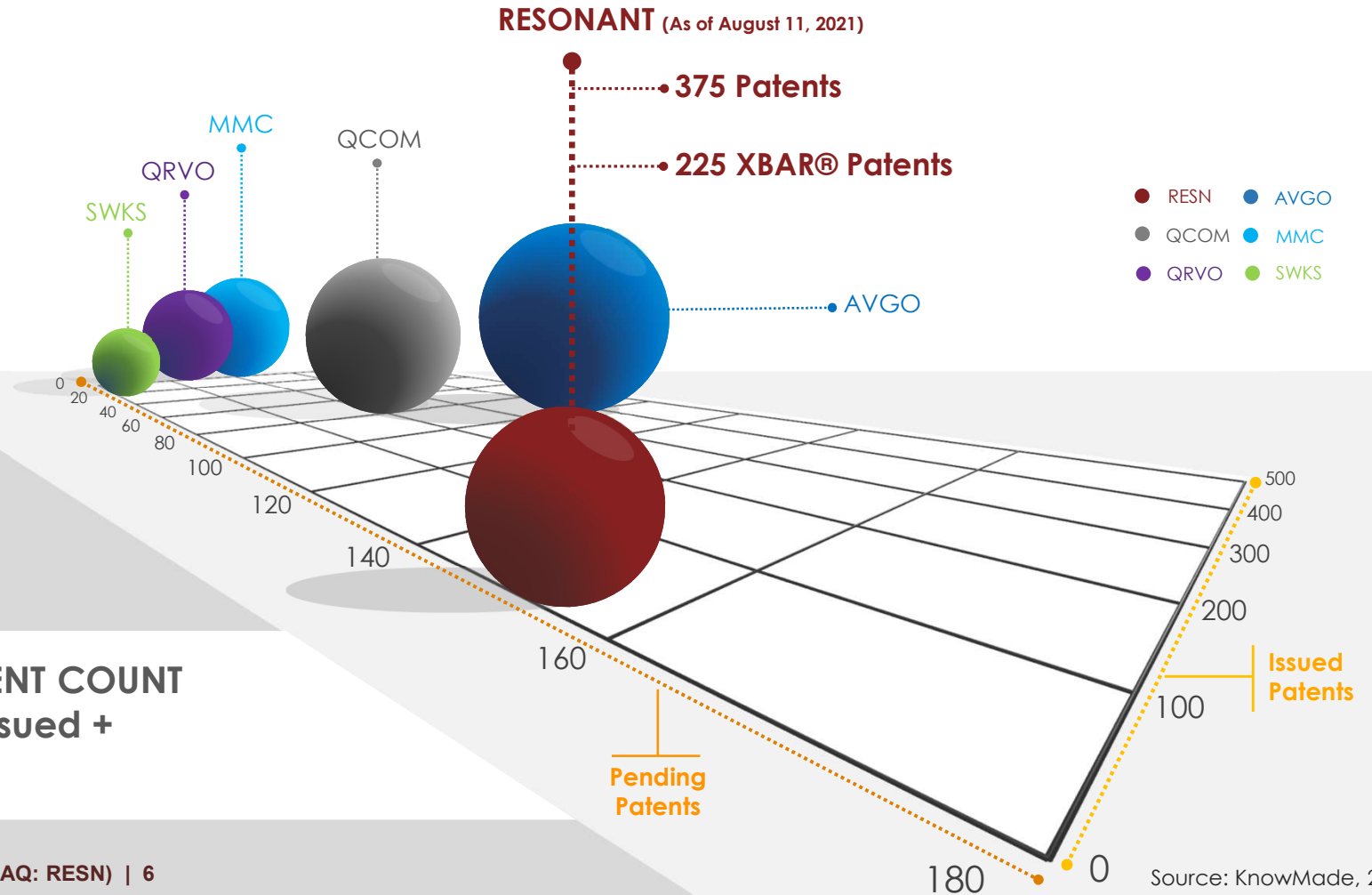
## WaveX™ DESIGN PLATFORM

NIMBLE SOLUTION, SUPERIOR PERFORMANCE WITH 2X FASTER  
TIME-TO-MARKET



# RAPIDLY GROWING IP PORTFOLIO

## Bulk Acoustic Wave (BAW) Filter Patents





# THE CHALLENGE WITH EXISTING BAW SOLUTIONS

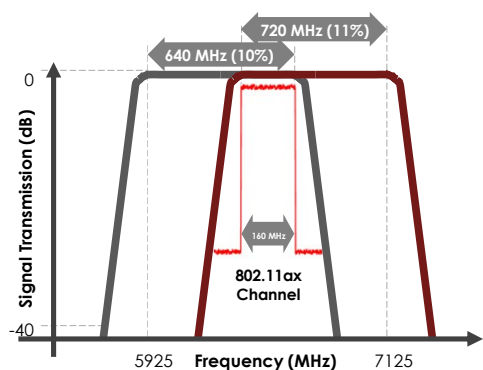
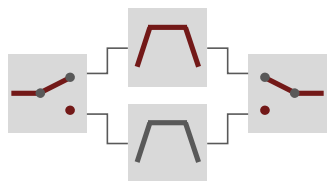
Insufficient bandwidth for 3-10 GHz bands

## ScAIN BAW SOLUTION

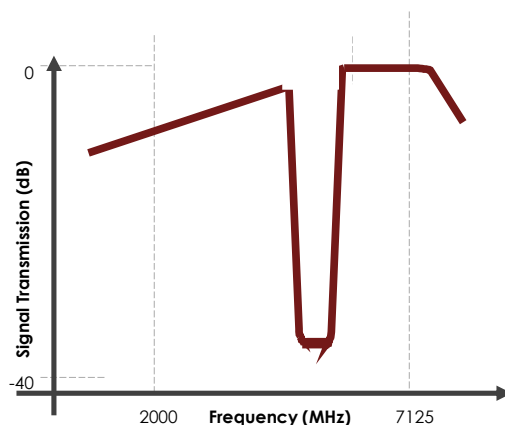
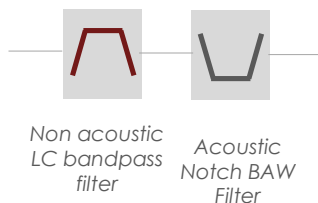
\$\$\$

Requires sub-banding or selective "notches", increasing cost, area, and loss

### Multi-Band Switching Approach



### Hybrid Approach



## XBAR® SOLUTION

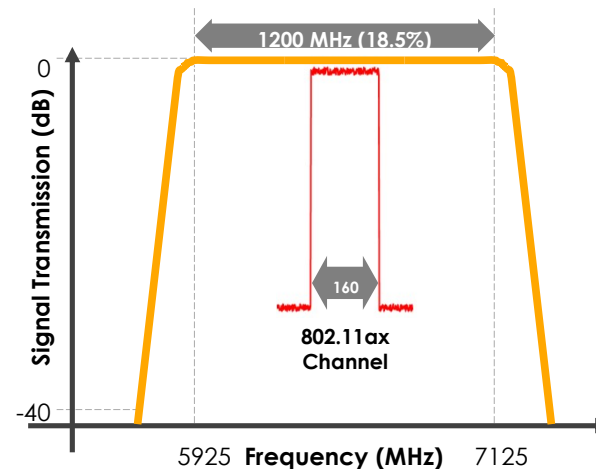
\$

Native wide-band capability easily covers full Wi-Fi 6E band.

Embraced by world's largest RF filter manufacturer with 36% market share\*

\*Source: Navian

### Full Band Approach

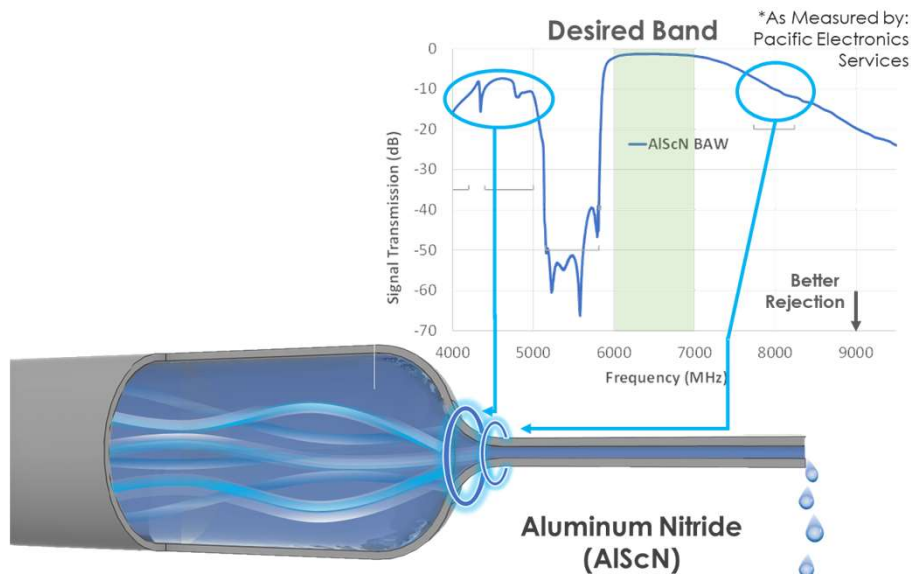


# SUPERIOR XBAR® PERFORMANCE FOR 5G AND Wi-Fi

## Legacy filters restrict data flow

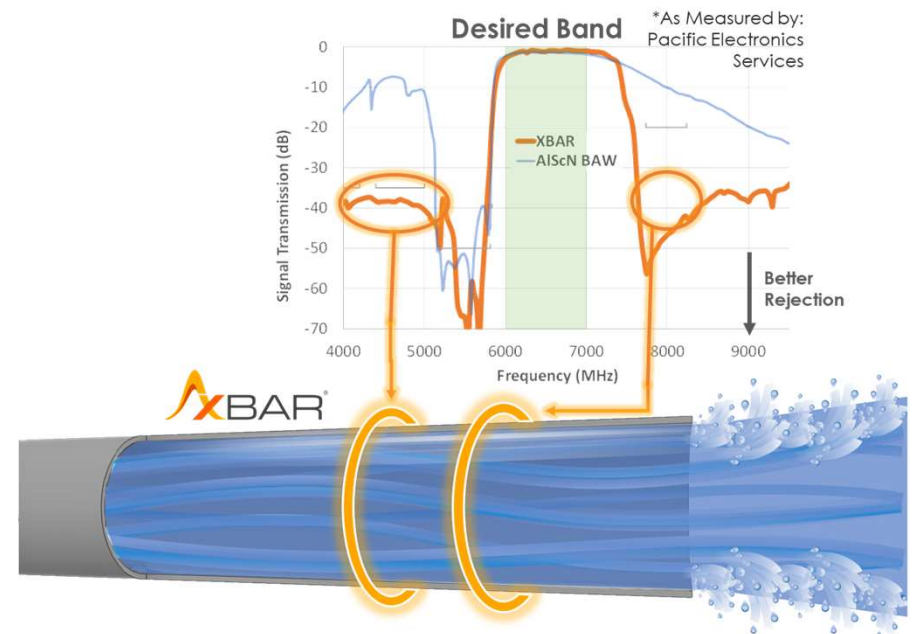
### ScAlN BULK ACOUSTIC WAVE (BAW) SOLUTION

- Extreme rejection across huge bandwidths required to reduce interference
- Today's technology cannot meet these requirements - choking off the data flow



### XBAR® SOLUTION

- XBAR®'s breakthrough bandwidth provides extreme rejection of all undesired signals, enabling the free flow of high-speed data





# XBAR® DELIVERS THE PROMISE OF NEXT-GEN WIRELESS

## The roadmap to the future of 5G

### TODAY'S 5G

- + Spotty coverage
- + Poor indoor reception
- + Similar performance to 4G

### Tomorrow's 5G

- + 100X faster than 4G
- + Faster connection time
- + Enables new applications

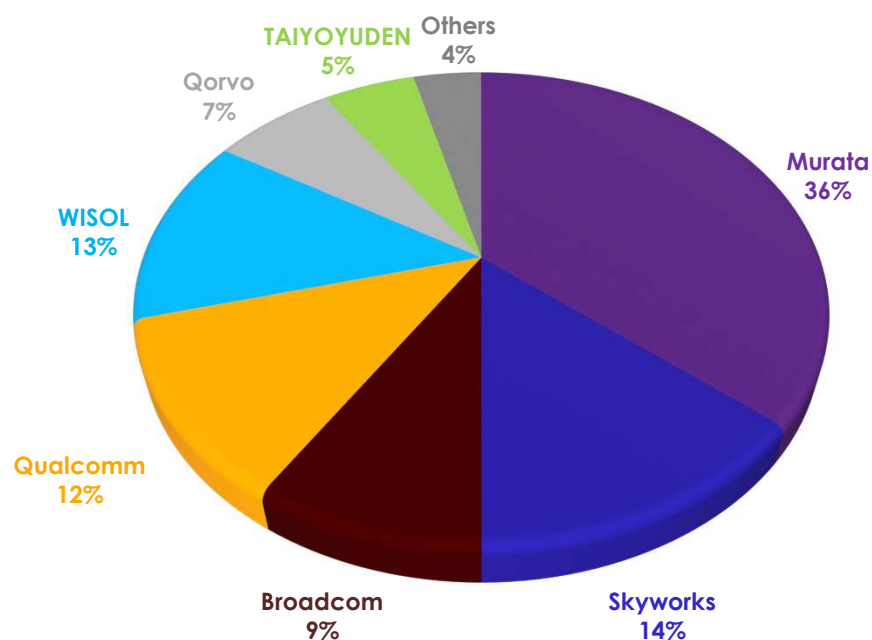


Resonant's XBAR Technology  
Bridges the Gap to **REAL 5G**

# UNIQUELY POSITIONED IN A BOOMING MARKET

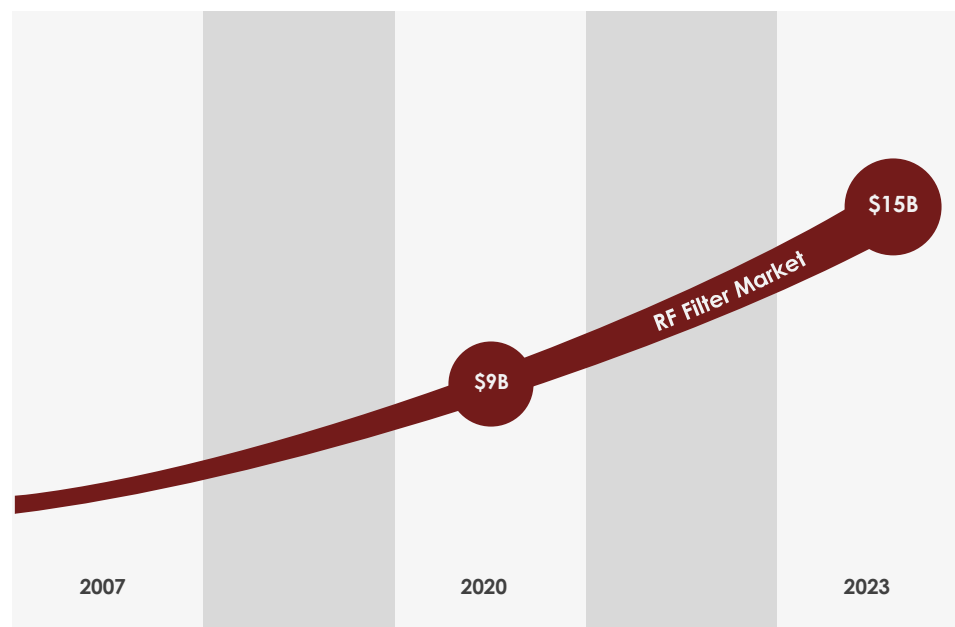
## Pure-play business model

### ENABLING THE LARGEST FILTER MANUFACTURERS IN THE WORLD



Source: Navian

### RF Filters – The Largest & Fastest Growing Market Segment



Source: Navian

# CAPITALIZING ON THE EMERGING 'NON-MOBILE' SEGMENT

## XBAR® meets the requirements of next-gen Wi-Fi

Medical Equipment



Electric & Autonomous Vehicles



Extended Reality

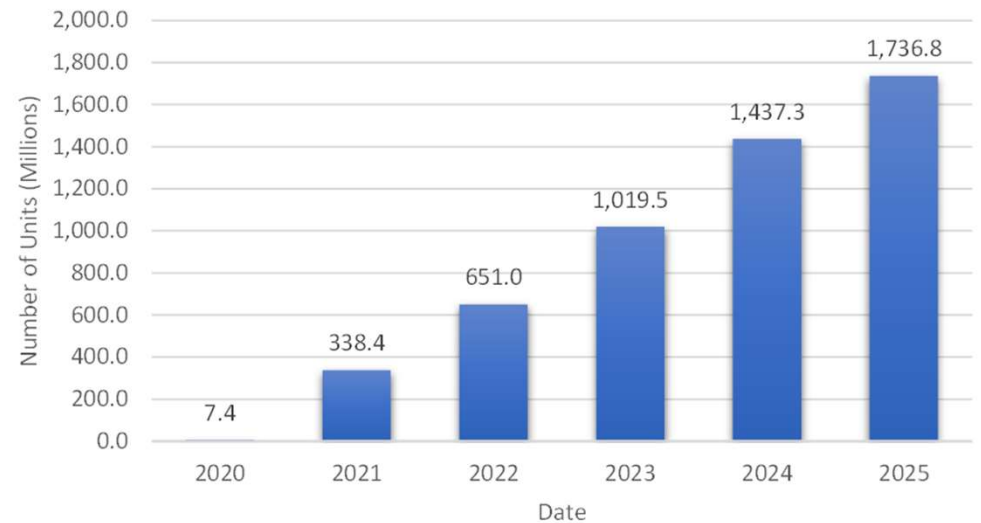


Smart Cities



- Next gen Wi-Fi (6/6E) complements 5G service and enables innovation for IoT
- Requirements for Wi-Fi 6/6E filters are similar to those of 5G
  - 5G & Wi-Fi 6/6E operate at similar frequencies & bandwidths

Number of Wi-Fi 6E Shipments



Source: IDC

- Growth driven by large bandwidth and the upgraded technologies of Wi-Fi 6
- Non-mobile RF filter segment expected to be comparable in size to the mobile segment

# FINANCIAL SUMMARY

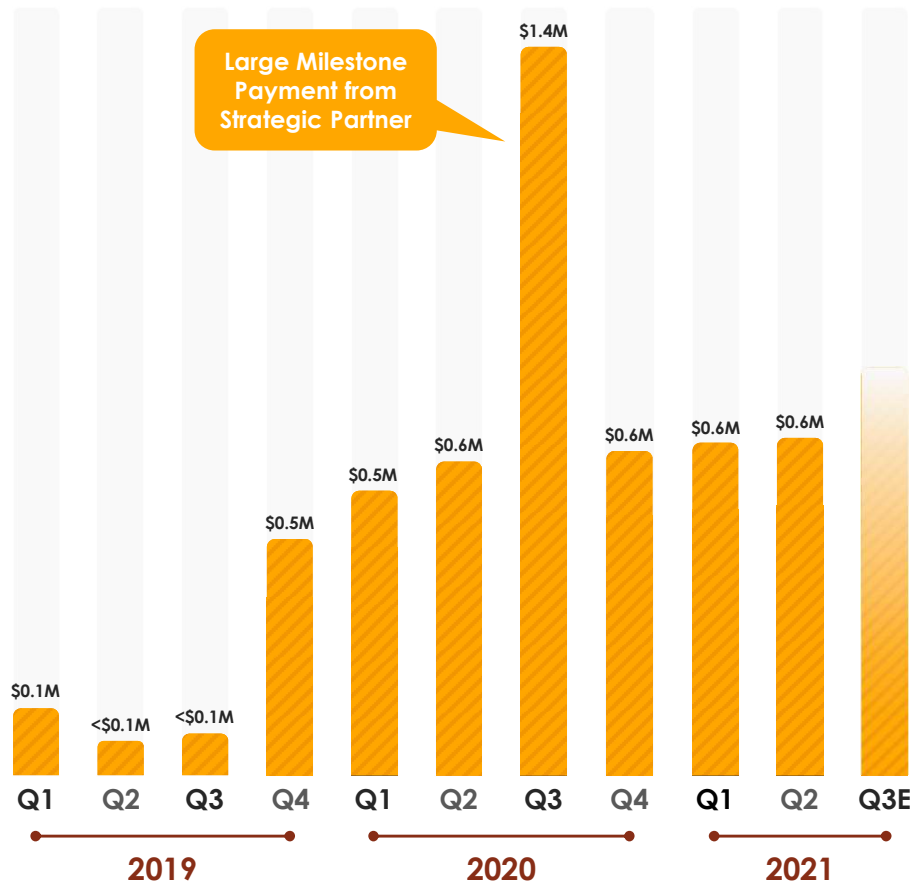
## Strong balance sheet and in-line with guidance

(\$ thousands, except share data)	Three Months Ended	
	June 30, 2021	June 30, 2020
Billings	\$85	\$211
Deferred Revenues	\$766	\$1,076
<b>REVENUES</b>	<b>\$614</b>	<b>\$604</b>
<b>OPERATING EXPENSES</b>		
Research and development	\$5,885	\$4,845
Sales, marketing and administration	\$3,795	\$2,976
<b>TOTAL OPERATING EXPENSES</b>	<b>\$9,680</b>	<b>\$7,821</b>
<b>NET OPERATING LOSS</b>	<b>-9,066</b>	<b>-7,217</b>
<b>NET LOSS</b>	<b>-\$9,066</b>	<b>-\$7,215</b>
NET LOSS PER SHARE – BASIC AND DILUTED	\$ (0.15)	\$ (0.14)
Weighted average shares outstanding — basic and diluted	<b>60,820,319</b>	<b>52,901,488</b>
Adjusted EBITDA - Non-GAAP	<b>-\$6,675</b>	<b>-\$5,361</b>
Net EBITDA Per Share - Basic and Diluted	\$ (0.11)	\$ (0.10)
<b>Balance Sheet Information</b>		
Cash and Cash Equivalents	<b>\$22,732</b>	<b>\$23,873</b>

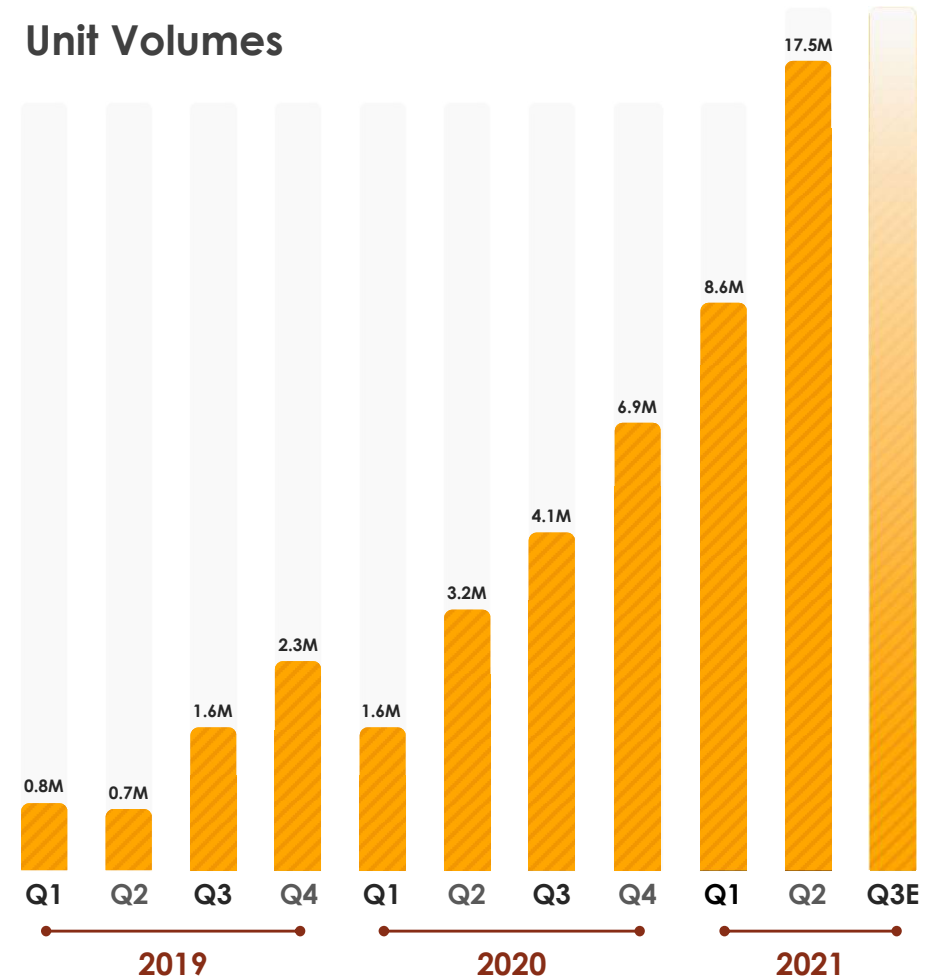
# REVENUES & UNIT VOLUMES RAMPING

2021 billings and volumes expected to be significantly greater than 2020

## Revenues



## Unit Volumes



# WHAT TO TRACK?

## 2021 KEY MILESTONES

- Significant prepaid royalty and volume growth from 2020
- Legacy and foundry programs will expand into XBAR® based relationships
- Expansion of relationship with world's largest RF filter manufacturer
- Secure a contract focused on XBAR® for non-mobile applications



# KEY TAKEAWAYS

## ESSENTIAL 5G TECHNOLOGY

- XBAR® technology is THE ONLY technology that has showcased the ability to innately meet the complex requirements of “True” 5G applications

## ROBUST TECHNOLOGY AND IP

- >375 patents filed or issued and >225 for high-frequency 5G-targeted devices

## PROVEN MANAGEMENT TEAM

- Leadership team that has a proven ability to deliver to shareholders, billions in transaction value

## LARGE AND GROWING MARKET

- Targeting largest segment of the RF Front-End market (growing to \$26B in 2023). Filters are expected to grow almost 67% to \$15B by 2023 (Source: Navian)

## TECHNOLOGY VALIDATED

- XBAR® poised for commercialization in strategic partnership with world's largest RF filter manufacturer (bigger than the 2<sup>nd</sup> and 3<sup>rd</sup> players combined)

## ESTABLISHED FOUNDRY PROGRAM

- Business model that significantly expands the filter market by allowing component suppliers ease of entry at low cost (first of its kind program)

## STRONG BALANCE SHEET

- Ample cash balance, no debt

## BETTER, CHEAPER & FASTER

- Our WaveX™ design platform enables us to create filter designs that save money, resources & time, while solving complex challenges that are otherwise not possible