RAMBUS - Climate Change 2021

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Rambus provides industry-leading chips and silicon IP. We believe in making data faster and safer and bring to the table more than 30 years of advanced semiconductor experienced. Rambus is a pioneer in high-performance memory subsystems that solve the bottleneck between memory and processing for data-intensive systems. Whether in the cloud, at the edge or in your hand, real-time and immersive applications depend on data throughput and integrity. Our products and innovations deliver increased bandwidth, capacity and security required to meet the world's data needs and drive ever-greater end-user experience.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2020	December 31 2020	Yes	1 year

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

Canada
Finland
India
Netherlands
Republic of Korea
United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Director on board	There is an external director on the board that has oversight of Rambus's CSR and ESG practices.
Board-level committee	The Corporate Governance / Nominating Committee reviews Rambus's CSR and ESG policies, programs, initiatives, and reports.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	The board's oversight includes reviewing and monitoring progress of policies, programs, initiatives, and reports on an annual basis as they are developed and presented by the ESG Counsel and CSR/ESG Committee (management-level committees).

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	<Not Applicable>	Assessing climate-related risks and opportunities	<Not Applicable>	Annually
Other committee, please specify (ESG Counsel)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Annually
Corporate responsibility committee *Referred to within Rambus as CSR/ESG Committee*	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Annually

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

The ESG Counsel consists of the Senior VP-General Counsel, Senior VP of HR, Senior VP of Global Operations, and a cross-departmental Advisory Counsel which includes leadership members from Legal, Workplace, and Marketing. This group is responsible for reviewing and approving policies, strategies, climate-related targets, and funding activities associated with implementing aspects of Rambus's CSR program. The ESG Counsel is also responsible for monitoring internal and external trends to identify potential risks that could have a material impact on Rambus. At the management-level, there is also the CSR/ESG Committee which has representation from the Legal, Workplace, Marketing, Engineering, Global Operations, HR, Quality, Sales, and Supply Chain departments. The CSR/ESG Committee manages and implements the CSR program, including its policies and initiatives, of which climate action is a priority. These responsibilities also include developing and presenting an annual CSR workplan. Rambus's CEO ultimately maintains the overall responsibility of the CSR program and providing an environmentally-responsible workplace.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	No, not currently but we plan to introduce them in the next two years	

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

No

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	3	
Medium-term	3	10	
Long-term	10		

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

Rambus utilizes an Enterprise Risk Management protocol for the identification and management of material risks - those risks that have a likelihood of impacting Rambus's operations and financial performance.

C2.2g

(C2.2g) Why does your organization not have a process in place for identifying, assessing, and responding to climate-related risks and opportunities, and do you plan to introduce such a process in the future?

	Primary reason	Please explain
Row 1	We are planning to introduce a climate-related risk management process in the next two years	Rambus's current Enterprise Risk Management protocol does not include climate-related risks but expanding it to address these issues is an immediate priority of the CSR program and it's related committees.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

No

C2.3b

(C2.3b) Why do you not consider your organization to be exposed to climate-related risks with the potential to have a substantive financial or strategic impact on your business?

	Primary reason	Please explain
Row 1	Not yet evaluated	Rambus understands that there are climate-related risks that could have a substantive impact on its business so it will be expanding its Enterprise Risk Management protocols to address this area and establish a formalized process for identifying risks in the immediate future.

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Move to more efficient buildings

Primary potential financial impact

Reduced indirect (operating) costs

Company-specific description

Part of Rambus's renewal strategy is to leverage negotiations to address environmental, as well as health and wellness, aspects of its workplaces. This includes the

prioritization of green certifications such as LEED, Fitwel, WELL, etc. which promote energy and water-efficient buildings which reduce costs associated with utility consumption.

Time horizon
Short-term

Likelihood
Likely

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Rambus does not currently calculate or estimate the potential financial impact of evaluating and operating in potential workspaces based on their environmental performance and/or certifications.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation
Rambus will be incorporating existing resource efficiency and related certifications as pertinent criteria during the selection of leased workplaces as outlined in its current Environmental and Climate Change Statement. Currently, the cost to realize this opportunity is not calculated.

Comment

Identifier
Opp2

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Energy source

Primary climate-related opportunity driver
Use of new technologies

Primary potential financial impact
Reduced direct costs

Company-specific description
Rambus has entered into a partnership with Bloom Energy to add on-site power generation through the company's Bloom Box and Microgrid technologies which are located at the new headquarters in California. As climate change exacerbates extreme weather events in the state which can disrupt the power grid, these on-site solutions improve the resiliency of Rambus's power supply. The partnership also reduces Rambus's exposure to rising electricity prices and is projected to reduce costs on utility consumption over its lifetime.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Rambus does not currently calculate or estimate the potential financial impact of switching over to the Bloom Box and Microgrid technologies. The new headquarters was not occupied in 2020 so Rambus will have a better comprehension of the realized savings once consumption data for the property is understood.

Cost to realize opportunity
8000000

Strategy to realize opportunity and explanation of cost calculation
The partnership has already been implemented and the associated cost has been provided above.

Comment

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?

No

C3.5

(C3.5) Why have climate-related risks and opportunities not influenced your strategy and/or financial planning?

Climate-related risks and opportunities are not formally evaluated as part of Rambus's Enterprise Risk Management or strategic planning. Rambus intends to incorporate climate-related issues as part of its next strategic planning cycle beginning in March 2022.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

No target

C4.1c

(C4.1c) Explain why you did not have an emissions target, and forecast how your emissions will change over the next five years.

	Primary reason	Five-year forecast	Please explain
Row 1	We are planning to introduce a target in the next two years	In the next few years, the Scope 1 & 2 emissions of Rambus will likely increase significantly. This is due to the addition of a new headquarters (and potentially other locations) that will be under operational control. Currently, Rambus does not have any facilities under operational control and has extremely limited Scope 1 & 2 emissions so these new facilities will greatly increase these totals in subsequent years. Rambus's previous headquarters were responsible for approximately 420 MTCO2e in the last full year of operation (2019) but these were Scope 3 as it was an upstream leased asset. It can be expected that the facility will have similar emissions in 2022 and beyond but these will be moved to Scope 1 & 2 as Rambus takes operational control (as of Q1 2021).	Rambus intends to establish emissions targets prior to the publication of its 2021 ESG/CSR report, currently set to be released in Q2 2022.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

No other climate-related targets

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation		
To be implemented*		
Implementation commenced*		
Implemented*	1	
Not to be implemented		

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Low-carbon energy generation	Other, please specify (On-site electricity generation through Bloom Energy's Bloom Box technology, utilizing natural gas.)

Estimated annual CO2e savings (metric tonnes CO2e)

Scope(s)
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)
8000000

Payback period
4-10 years

Estimated lifetime of the initiative
6-10 years

Comment
Rambus's partnership with Bloom Energy will provide on-site generated electricity, utilizing natural gas instead of purchasing from the grid. This technology will improve energy efficiency and does not require combustion, meaning it will reduce emissions associated with electricity consumption.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Dedicated budget for energy efficiency	

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?
No

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
8.33

Comment

Scope 2 (location-based)

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
0

Comment
Rambus did not have any facilities with operational control so there were no Scope 2 emissions during CY 2019.

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
Rambus did not have any facilities with operational control so there were no Scope 2 emissions during CY 2019.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
US EPA Center for Corporate Climate Leadership: Indirect Emissions From Purchased Electricity
US EPA Center for Corporate Climate Leadership: Direct Emissions from Stationary Combustion Sources
US EPA Center for Corporate Climate Leadership: Direct Emissions from Mobile Combustion Sources
US EPA Emissions & Generation Resource Integrated Database (eGRID)

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
1.059

Start date
January 1 2020

End date
December 31 2020

Comment

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)
8.33

Start date
January 1 2019

End date
December 31 2019

Comment

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

Comment
There were no Scope 2 emissions during the reporting year as Rambus had no facilities under operational control.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based
0

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
January 1 2020

End date
December 31 2020

Comment
There were no Scope 2 emissions during the reporting year as Rambus had no facilities under operational control.

Past year 1

Scope 2, location-based
0

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
January 1 2019

End date
December 31 2019

Comment
There were no Scope 2 emissions for Past year 1 (CY 2019) as Rambus had no facilities under operational control.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?
No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status
Relevant, calculated

Metric tonnes CO2e
4032.33

Emissions calculation methodology
Rambus collects and calculates the Scope 1 and Scope 2 emissions of its contract manufacturers based on the allocated fuel and electricity consumption used to produce Rambus goods in our suppliers' facilities.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Rambus collects allocated electricity and fuel consumption from its contract manufacturers annually.

Capital goods

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Rambus outsources the manufacturing of its products so emissions related to capital goods are not a relevant source of emissions.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Rambus will have a new headquarters under operational control for CY 2021 so the Scope 1 & Scope 2 emissions will significantly vary next year. As these emissions change due to the new headquarters, fuel-and-energy-related activities will also be investigated to determine the Scope 3 emissions related this energy consumption as well.

Upstream transportation and distribution

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Upstream transportation and distribution related to Rambus's contract manufacturing are a relevant and significant source of Scope 3 emissions. Rambus plans on collecting the data required to calculate these emissions in the future.

Waste generated in operations

Evaluation status
Relevant, calculated

Metric tonnes CO2e
65.701

Emissions calculation methodology
Landfilled, recycled, and composted waste from Rambus's offices were collected and the EPA's Center for Corporate Climate Leadership emissions factors was used to derive the associated CO2e totals.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
The emissions were based on weights of different waste streams from internal operations. These weights were collected internally for emissions calculations.

Business travel

Evaluation status
Relevant, calculated

Metric tonnes CO2e
203.39

Emissions calculation methodology
Emissions were based on EPA factors and provided by Rambus's travel partner. This is only based on flights and does not include any ground transportation.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Rambus's travel partner tracks the emissions related to business flights and provides a summary report.

Employee commuting

Evaluation status
Relevant, calculated

Metric tonnes CO2e
309.863

Emissions calculation methodology
Rambus has utilized the Map My Emissions tool to track the distance traveled and mode of transportation for daily commuting. This data was used to calculate emissions based on total mileage. Because of the significant decrease in employee commuting following the COVID-19 pandemic, this only includes emissions from Q1 2020.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Data was provided by internal Rambus employees in the form of daily mileage and modes of transportation.

Upstream leased assets

Evaluation status
Relevant, calculated

Metric tonnes CO2e
1406.234

Emissions calculation methodology
The electricity consumption of Rambus's upstream leased assets was collected and used to calculate the related emissions. For US and Canadian-based offices, the eGRID or provincial emissions factors were used. For international offices, the most recently made available emissions factors were used for each applicable country.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Electricity consumption data was collected internally for each relevant upstream leased asset.

Downstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Rambus has relevant emissions for outbound transportation and distribution but because these services are purchased by Rambus, they would be included in upstream transportation and distribution.

Processing of sold products

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Rambus will be investigating the potential calculation of this source of emissions.

Use of sold products

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Rambus plans on evaluating and calculating the Scope 3 emissions associated with the use of its sold products in 2022.

End of life treatment of sold products

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Rambus will be investigating the potential calculation of this source of emissions.

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Rambus does not lease any owned assets.

Franchises

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Rambus does not have any franchises.

Investments

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Investments are not a relevant source of emissions for Rambus.

Other (upstream)

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
All relevant upstream Scope 3 emissions have been addressed.

Other (downstream)

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
All relevant downstream Scope 3 emissions have been addressed.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?
No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure
4.2e-9

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
1.05

Metric denominator
unit total revenue

Metric denominator: Unit total
246322000

Scope 2 figure used
Location-based

% change from previous year
88.25

Direction of change
Decreased

Reason for change
Rambus's scope 1 and scope 2 emissions are very low due to the lack of operational control across its business so because there was a decrease in absolute emissions from 2019 to 2020, it resulted in a significant decrease in MTCO2e per unit revenue even though revenue only slightly changed from the previous year.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?
Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	1.055	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	0.001	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	0.002	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
United States of America	1.059

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By facility

C7.3b

(C7.3b) Break down your total gross global Scope 1 emissions by business facility.

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Rambus - Chapel Hill	1.059	35.931308	-79.03251

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
North America	0	0	0	0

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

Please select

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption		<Not Applicable>		
Other emissions reduction activities		<Not Applicable>		
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output		<Not Applicable>		
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other	7.112	Decreased	85	Rambus had 3 sources of Scope 1 + 2 emissions in 2019. This included recharges of fire suppression equipment, company fleet usage, and generator fuel usage. In 2020, there was no recharge of fire suppression or fleet usage so the 2019 values of these two sources were combined to calculate these value.

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	No

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	4.2	4.2
Consumption of purchased or acquired electricity	<Not Applicable>	0	3637.55	3637.55
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	0	3641.75	3641.75

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)
Fuel Oil Number 2

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
4.2

MWh fuel consumed for self-generation of electricity
4.2

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
0.0027

Unit
metric tons CO2e per liter

Emissions factor source
The EPA's stationary combustion emissions factors were used to calculate the emissions associated with the consumption of fuel. This emissions factor was presented in MTCO2e/gal so it was converted to MTCO2e/liter for calculation purposes.

Comment

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	No emissions data provided
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Not applicable

Attach the statement

Page/ section reference

Relevant standard
Please select

Proportion of reported emissions verified (%)
100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category
Scope 3: Purchased goods and services

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Not applicable

Attach the statement

Page/section reference

Relevant standard
Please select

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Waste generated in operations

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Not applicable

Attach the statement

Page/section reference

Relevant standard
Please select

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Business travel

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Please select

Attach the statement

Page/section reference

Relevant standard
Please select

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Employee commuting

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Please select

Attach the statement

Page/section reference

Relevant standard
Please select

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Upstream leased assets

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Please select

Type of verification or assurance
Please select

Attach the statement

Page/section reference

Relevant standard
Please select

Proportion of reported emissions verified (%)
100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?
No, we are waiting for more mature verification standards and/or processes

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?
No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

No, but we anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

4

% total procurement spend (direct and indirect)

88

% of supplier-related Scope 3 emissions as reported in C6.5

62

Rationale for the coverage of your engagement

Rambus currently collects environmental performance metrics from its contract manufacturers as stipulated in its Vendor Code of Conduct. In 2020, the participating suppliers represented 88% of the procurement spend.

Impact of engagement, including measures of success

This process of information and data gathering allows Rambus to better understand the Scope 3 emissions of its own value chain. As a company that has a very limited Scope 1 & 2 footprint, it is important for Rambus to identify the material sources of Scope 3 emissions to enable future initiatives and climate-related strategy. The success of this engagement is measured by the percent of suppliers, based on procurement spend, that provide these metrics.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement
Education/information sharing

Details of engagement
Other, please specify (Rambus, through its membership with the Responsible Business Alliance, has completed a Self-Assessment Questionnaire that can be shared with customers who are also RBA members.)

% of customers by number

% of customer - related Scope 3 emissions as reported in C6.5

Portfolio coverage (total or outstanding)
<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement
The Responsible Business Alliance is a leading industry coalition focused on promoting CSR in global supply chains. Many of Rambus's customers are members of RBA so it is important that Rambus shares information on practices and performance based on RBA frameworks and templates. Rambus is in the process of determining the percentage of suppliers that have access to this information.

Impact of engagement, including measures of success
Engaging customers customers through RBA's established frameworks and templates demonstrates Rambus's commitment to a similar set of principles and focus to CSR issues within the supply chain. This is especially important with our customers because we are a part of their own supply chain so it is crucial that are operations are in line with their own expectations and commitments that are expressed through their membership and involvement in RBA.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?
Trade associations

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?
No

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Rambus does not engage in many activities related to public policy that are necessarily relevant to its overall climate change strategy. However, its membership to the Responsible Business Alliance holds Rambus accountable with guiding principles for climate change and environmental strategy. These principles have been embedded into Rambus's current policies to ensure a cohesive and consistent approach across its operations.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication
In voluntary sustainability report

Status
Underway – previous year attached

Attach the document
2019-GHG-Inventory-Repoert-Infographic.pdf

Page/Section reference

Content elements
Emissions figures

Comment
Emission figures from 2019 were published in a standalone document that is publicly available on Rambus's website. This reporting year's (2020) emissions will be published in the first-ever ESG Impact report for Rambus, set to come out in Q3 2021.

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Senior Director of Global Workplace	Facilities manager

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	246322000

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

No

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member
Micron Technology, Inc.

Scope of emissions
Scope 3

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
319.76

Uncertainty (±%)

Major sources of emissions
The major sources of emissions come from the energy usage of the contract manufacturing and OSATs within Rambus's Tier 1 suppliers. These emissions are a part of Rambus's Scope 3 - Purchased Goods and Services category.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Because much of Rambus's carbon emissions are within Scope 3, and specifically the supply chain, the most relevant emissions for Rambus's customers are those from the Purchased Goods and Services category. These are emissions related to the energy consumption from Rambus's contract manufacturers and OSATs so the emissions have been allocated based on revenue. We do not have insight into the carbon intensity of specific products from our suppliers so the current allocation method is unable to account for variances in the specific products and services purchased by our customers at this time. Moving forward, Rambus will focus on improving the comprehensiveness of environmental data collected from the supply chain to improve the accuracy of future emissions allocations.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

No published information has been used in completing SC1.1. The calculations were completed using actual data provided by our value chain members.

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Managing the different emission factors of diverse and numerous geographies makes calculating total footprint difficult	With a global supply chain, it can be difficult for Rambus to collect consistent environmental data in order to accurately allocate emissions. Further climate-related engagement with suppliers will help overcome these challenges as Rambus can then understand what issues they may also be experiencing in data collection and allocation. Rambus will also be investigating the utilization of CDP requests for our own suppliers to streamline the process and demonstrate the commitment to accurately reporting relevant Scope 3 emissions.

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?
Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

Rambus will be investigating the potential use of CDP requests of our own customers to better understand the relevant Scope 3 emissions within the supply chain. By collecting more comprehensive data on supply chain emissions, Rambus will have further insight into how emissions can be allocated for our own customers. This is especially important as an organization that has a significant Scope 3 footprint compared to our Scope 1 and 2 totals.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain questions?
I am submitting my response	Customers	Public	<Not Applicable>

Please confirm below

I have read and accept the applicable Terms