

## Engineering/Process Change Notice

#### ECN/PCN No.: R0043

	For Ma	nufacturer		
Product Description: Bluetooth modules	Abracon Part Numb ABBTM Bluetoo	er / Part Series: th module series	Documentation only ECN EOL	⊠ Series □ Part Number
Affected Revision: N/A	New Revision: E	OL	Application:	□ Safety ⊠ Non-Safety
Prior to Change: ABBTM-2.4GHZ, ABBTM-2 2.4GHZ-51, ABBTM-2.4GHZ-51-T, ABBTM-2 2.4GHZ-T2, ABBTM-NVC-EVK-56, ABBTM-N CON, ABBTM-NVC-MDCS71, ABBTM-NVC-M NVC-MDCS71-101, ABBTM-NVC-MDCS86-1 2.4GHZ-T, ABBTM-103-2.4GHZ-T, ABBTM-2 NVC-MDCS56-102. After Change: All 32 EOL	2.4GHZ-52, ABBTM-2.4 IVC-EVK-71, ABBTM-N MDCS71-CON, ABBTM .01, ABBTM-101-2.4G	4GHZ-52-T, ABBTM-2.4 IVC-EVK-71-MESH, AB -NVC-MDCS71-MESH, HZ-T, ABBTM-2.4GHZ-	4GHZ-EVAL, ABBTM-2.4GHZ BTM-NVC-MB-EVK, ABBTM- ABBTM-NVC-MDCS71-MES 51-101-, ABBTM-2.4GHZ-52	2-T, ABBTM- NVC-MDCS42A- H-CON, ABBTM- 2-101, ABBTM-53-
Cause/Reason for Change: Due to low demand, the Bluetooth Module				
	Char	ige Plan		
Effective Date: 06/08/2021	Additional Remarks	:		
Change Declaration: EOL	·			
Issued Date: 06/08/2021	Issued By: Nicholas	El-Takach	Issued Department: Engineerii	ng
Approval: Syed Raza Engineering VP		u <i>intanilla</i> Director	Approval: Ying Huar Purchasing Di	-
	For Abrad	on EOL only		
Last Time Buy (if applicable): No last time buy.		Alternate Part Numb N/A	per / Part Series:	
Additional Approval:	Additional Approva	:	Additional Approval:	
	Customer Appr	oval (If Applicable)		
Qualification Status: Note: It is considered approved if there is no		□ Not accepted ustomer 1 month afte	r ECN/PCN is released.	
Customer Part Number:		Customer Project:		
Company Name:	Company Represent	ative:	Representative Signature	:
Customer Remarks:			·	

Form #7020 | Rev. G | Effective: 02/22/2021 |

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## ABBTM-2.4GHz-33-T Compliant to MSL level 3



• Automotive car kit applications

• PDAs and other portable terminals

**APPLICATIONS:** 

• Car radio/Car DVD



#### **FEATURES**:

- Bluetooth Spec v1.2 Compliant
- Class 2, up to 10-meter range
- Complete 2.4GHz Bluetooth® System
- Power management: low power 1.8V operation for Bluetooth® core
- Compact size: 29.0mm (L) x 25.5 (W) mm x 2.8 (H) mm
- Bluetooth® Profile Supported: HSP, HFP, A2DP, AVRCP
- Built-in stereo codec
- Internal antenna
- Built-in audio amplifier
- Built-in power manager
- On-board flash memory (8Mbits)
- Echo cancellation software library
- Several firmware options
- Rewritable flash memory for easy upgrade route

### **GENERAL DESCRIPTION**

Abracon's ABBTM-2.4GHz-33-T module is a complete Bluetooth® solution built on CSR BC03 MultiMedia External Core, supported by 8Mbit on-board Flash Memory. ABBTM-2.4GHz-33-T is a short range, compact, cost effective solution designed to facilitate Bluetooth® connectivity for applications including Car & Home Audio and other Handsfree solutions.

ABBTM-2.4GHz-33-T module is a Power Class-2 Bluetooth® device, compliant with version 1.2 specification. The overall architecture comprises of built-in antenna and supporting circuitry for software protocols including L2CAP, SDP, GAP, HSP, HFP, A2DP and AVRCP, resident in the on-board Flash Memory.

### **ELECTRICAL SPECIFICATIONS:**

2.4GHz ~ 2.48GHz Unlicensed ISM Band
V1.2
Class 2
+3.3V and +5.0V
UART
8 Mb

	A	osolute	Maximum Ratings	
			Minimum	Maximum
Storage temperature			-40°C	+150°C
Supply voltage: VBAT			-0.30V	3.6V

Recommended Operating Conditions				
	Minimum	Maximum		
Operating temperature range	-40°C	+85°C		
Supply voltage: Vcc	+3.0V	+3.6V		
Supply voltage: Vdd	+1.7V	+1.9V		



## ABBTM-2.4GHz-33-T



RoHS

Compliant

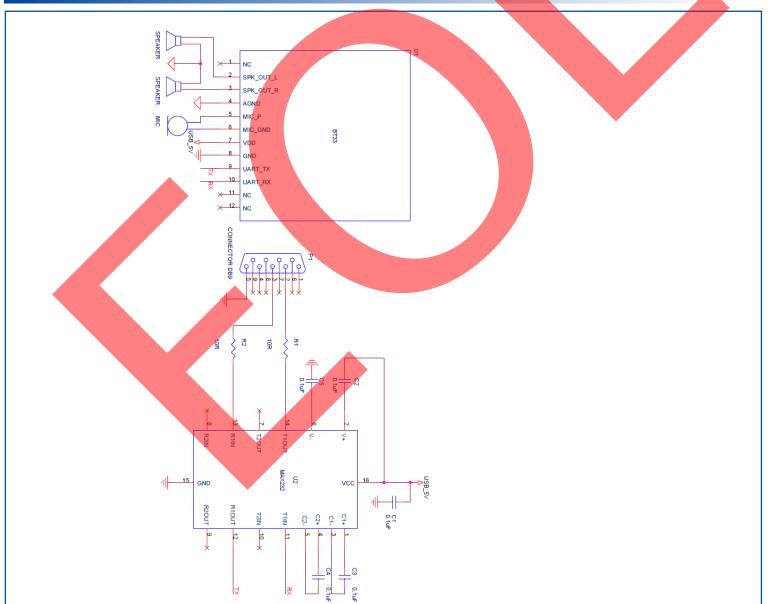
### **Firmware Configuration**

- a) UART Baud: 115200, N, 8, 1
- b) BlueTooth Name: BlueAudio
- c) Pin Code:
- 0000

### **Software Description**

- 1. After Power on 3V3, the module is connectable and Pairing
- 2. ABBTM-2.4GHz-33-T can be found with the name "BlueAudio" via any Bluetooth device
- 3. Input the Pincode "0000", you can pair with the module named "BlueAudio"
- 4. Then the BlueAudio can be connected
- 5. Data can be transferred between the BlueAudio and any other Bluetooth device

#### **APPLICATION SCHEMATIC**





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## ABBTM-2.4GHz-33-T



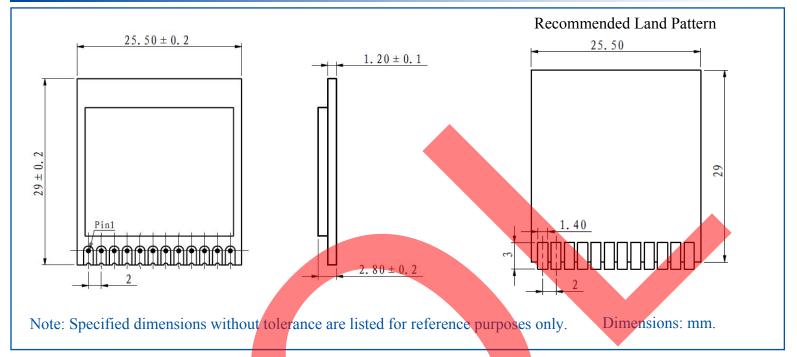
RoHS

Compliant

Pb

**MECHANICAL DIMENSIONS** 

 $\triangleright$ 



#### **PIN DESCRIPTION**

Pin No.	Name	Туре	Function
1	NC	Input / Output	Not used currently
2	SPK_OUT_L	Output	Left channel audio out
3	SPK_OUT_R	Output	Right channel audio out
4	AGND	Ground	Analog ground
5	MIC_P	Input	Microphone positive pole input, internal power
			supply
6	MIC_GND	Ground	Microphone ground
7	VDD	Input	Power supply, $+3.3V \sim +5V$
8	GND	Ground	Power ground
9	UART_TX	Output	UART data output
10	UART)RX	Input	UART data input
11	NC	Input / Output	Not used currently
12	NC	Input / Output	Not used currently

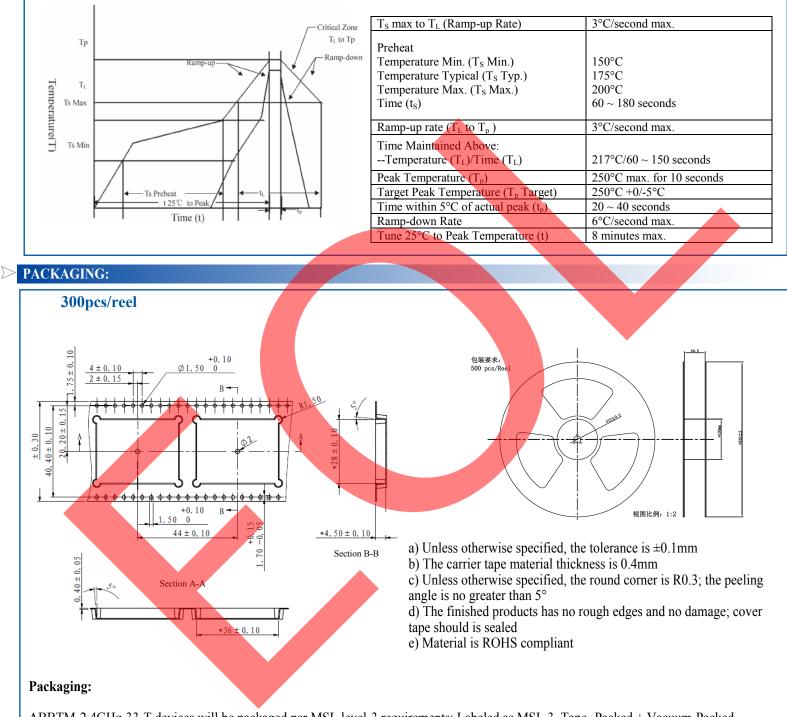


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ABBTM-2.4GHz-33-T



### **REFLOW PROFILE**



ABBTM-2.4GHz-33-T devices will be packaged per MSL level-3 requirements; Labeled as MSL 3, Tape- Packed + Vacuum-Packed with Antistatic bag, Desiccant, Humidity Indicator Card (HIC). Ref: IPC/JEDEC J-STD-033B.1

**ATTENTION:** Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

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