CERTIFICATE OF CONSTRUCTION TYPE
RADIO EQUIPMENT FOR JAPAN

3	Certificate No.:	**2023094/02**

4 Element Materials Technology, operating as a Recognised Foreign Certification Assessment Body (CAB ID 205), declares that the listed product complies with the Certification by Type of the Ordinance Concerning Technical Regulations Conformity Certification, etc. Of Specified Radio Equipment (MPT Ordinance No. 37 of 1981).

5	Certificate Holder:	**Cassia Networks Inc.**
6	Address:	**97 E. Brokaw Road, Suite 130, San Jose, CA 95112, USA**
7	Name of the Specified Radio Equipment:	**Cassia Bluetooth Router**
8	Model Number:	**X2000, X2000-10, X2000-20**
9	Trademark:	**CASSIA**
10	Category of the Specified Radio Equipment:	**[1] [2] [3] [4] BLE0/BLE1/WIFI 2.4GHz** Article 2, Paragraph 1, Item (19) **[5] [6] [7] WIFI 5GHz W52** Article 2, Paragraph 1, Item (19)-3

11 When the holder of this certificate is placing the product on the Japanese market, the product must be affixed with the following Identification Code:

R 205-230094

12 Any deviation to the design and construction of the specified radio equipment that is not certified by Element Materials Technology shall render this certificate invalid. This Certificate contains “Annex A” and is only valid when provided with this Annex.

Josh Batty, Deputy Certification Manager

Date of Certification: 2023-08-03

Revision Date: Issue of /02: 2025-02-12

Unit 1, Pendle Place, Skelmersdale, West Lancashire, WN8 9PN, United Kingdom
Element Materials Technology Warwick Ltd.
Registered in England and Wales. Registered Office: 5 Fleet Place, London, EC4M 7RD
Company Reg No. 02536659

UKAS PRODUCT CERTIFICATION 0178

13 **Technical description**

Class of Emission:

[1] [2] BLE0/BLE1: F1D
[3] [4] [5] [6] [7] WIFI: G1D, D1D

Frequency:

[1] [2] BLE0/BLE1
2402 MHz – 2480 MHz
[3] WIFI 2.4GHz 802.11b/g/n HT20
2412 MHz – 2472 MHz
[4] WIFI 2.4GHz 802.11n HT40
2422 MHz – 2462 MHz
[5] WIFI 5GHz W52 802.11a/n HT20/ac VHT20
5180 MHz – 5240 MHz
[6] WIFI 5GHz W52 802.11n HT40/ac VHT40
5190 MHz – 5230 MHz
[7] WIFI 5GHz W52 802.11ac VHT80
5210 MHz

Output Power:

[1] BLE0: 0.02 mW
[2] BLE1: 0.02 mW
[3] WIFI 2.4GHz 802.11b/g/n HT20
4.5 mW/MHz
[4] WIFI 2.4GHz 802.11n HT40
1.5 mW/MHz
[5] WIFI 5GHz W52 802.11a/n HT20/ac VHT20
2.0 mW/MHz
[6] WIFI 5GHz W52 802.11n HT40/ac VHT40
1.0 mW/MHz
[7] WIFI 5GHz W52 802.11ac VHT80
0.5 mW/MHz

Antenna Type and Gain:

[1] BLE0
External Antenna with Maximum Gain
DB24-65V12A: 12 dBi
DF24-60V12M: 12 dBi
DB24-90V11A: 11 dBi
DF24-90V11M: 11 dBi
TDJ-2400BKCH70: 11 dBi
DF24-110V10F: 10 dBi
DB24-120V10A: 10 dBi
Oscar-18: 10 dBi
DB24-120VH09A: 9 dBi
iANT214-2400: 8.5 dBi
iANT214-2400D: 8 dBi
iANT221: 7.5 dBi
iANT213-2400: 6 dBi
iANT216M: 6 dBi
iANT212: 2 dBi
iANT213-QB: 2.3 dBi
iANT227M: 3.5 dBi
QB24V8A-F: 8 dBi
QB24V8A-M: 8 dBi
ANT-4G1: 1.9 dBi
ANT-BW1: 4.9 dBi

Internal Antenna with Maximum Gain
Q-24254M1-GHW-X2000 * 3: 7.72 dBi

[2] BLE1
External Antenna with Maximum Gain
DB24-65V12A: 12 dBi
DF24-60V12M: 12 dBi
DB24-90V11A: 11 dBi
DF24-90V11M: 11 dBi
TDJ-2400BKCH70: 11 dBi
DF24-110V10F: 10 dBi
DB24-120V10A: 10 dBi

Oscar-18: 10 dBi
DB24-120VH09A: 9 dBi
iANT214-2400: 8.5 dBi
iANT214-2400D: 8 dBi
iANT221: 7.5 dBi
iANT213-2400: 6 dBi
iANT216M: 6 dBi
iANT212: 2 dBi
iANT213-QB: 2.3 dBi
iANT227M: 3.5 dBi
QB24V8A-F: 8 dBi
QB24V8A-M: 8 dBi
ANT-4G1: 1.9 dBi
ANT-BW1: 4.9 dBi

Internal Antenna with Maximum Gain
Q-24254M1-GHW-X2000 * 3: 7.72 dBi

[3] [4] WIFI 2.4GHz
External Antenna with Maximum Gain
iANT212: 2 dBi
iANT213-2400: 6 dBi
iANT216M: 6 dBi
ANT-BW1: 4.9 dBi

Internal Antenna with Maximum Gain 3.7 dBi

[5] [6] [7] WIFI 5GHz W52
External Antenna with Maximum Gain
iANT213-5000: 5 dBi
iANT216M: 6 dBi
iANT212: 2 dBi
ANT-BW1: 6.4 dBi

Internal Antenna with Maximum Gain 6.6 dBi

Serial Number: Not Applicable

Software Version: 2.1.0

14 Manufacturer details

Manufacturer: **Cassia Networks Inc.**

Address: **97 E. Brokaw Road, Suite 130, San Jose, CA 95112, USA**

15 Test report No. (associated with this certificate issue):

WTX21X04041458W-1	WTX21X04041458W-2	WTX21X04041458W-3	WTX21X04041458W-4
2305RSU020-J1 V03	2305RSU020-J2 V03	2305RSU020-J3 V03	2305RSU020-J4 V03

16 "Restrictions on use", if any:

1. 5.2 GHz band is restricted to indoor use only (Except when communicating with 5.2GHz high power base stations or relay stations).

17 Details of revisions to this certificate

This certificate is a consolidated certificate and reflects the latest status of the certification, including the following variations:

- Issue of /01 – Original certificate.
- Variation Issue of /02 – To add 2 additional antennas and update the address of applicant & manufacturer.

18 **Notes to this certificate**

Element Materials Technology certification reference: CN-ACTQ-0003.

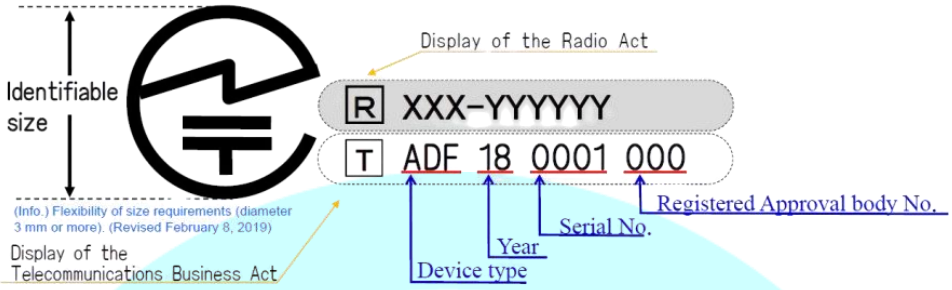
Throughout this certificate, the date format yyyy-mm-dd (year-month-day) is used.

Conformity Assessment Body 205 is the designation for Element Materials Technology Warwick Ltd.

GUIDELINES ON MARKING

An example of marking is provided below. It must be affixed to an easily noticeable section of the specified radio or terminal equipment. This marking includes:

- Giteki mark;
- A square containing the letter R for radio equipment or T for terminal equipment;
- A unique certificate number that incorporates the ID number of the certifying CAB;



- The format of the unique number and CAB ID section differs for radio and terminal equipment.

For radio equipment the format is:
CCC-YYNNNN

Example:  R **205-171001**

CCC = CAB ID (205 in case of Element)
YY = Year
NNNN = CAB serial number

Note: *Hyphen is part of the marking requirement*

Additional marking for 5GHz products:
For products using frequencies within 5.15-5.35 GHz, please print the following warning text on your product label.

5.2 GHz 帯域は屋内での使用のみに制限されています
(5.2 GHz 高電力基地局または中継局と通信する場合を除く)
電波法により 5.3 GHz 帯は屋内使用に限ります

Translation: *5.2 GHz band is restricted to indoor use only*
(Except when communicating with 5.2GHz high power base stations or relay stations)
5.3 GHz band is restricted to indoor use due to the Radio Law

Restrictions apply to outdoor products using frequencies within 5.15-5.25 GHz, including:

- For access points and relays, registration in advance is required;
- Usage must not affect satellite equipment, EIRP restrictions according to elevation angles apply;
- Usage must not affect weather radars.

For products using frequencies within 5.47-5.725 GHz may be used indoor and/or outdoor.

More information can be found under: https://www.tele.soumu.go.jp/j/sys/others/wlan_outdoor/index.htm