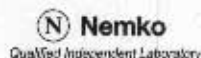


# FCC - TEST REPORT

REPORT NO.: 21991/0/400F



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**FCC – Test Report**Date: 2000-06-07

No. 21991/0/400F

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**FCC listed testlab  
acc. to Section 2.948 of the FCC - Rules  
in compliance with the requirements of  
ANSI C63.4 - 1992**

**Product** : Radio Control Wheeled Loader -- 27  
MHz Transmitter

**Model** : 2025

**Applicant** : GOLDEN BRIGHT MANUFACTURER  
LIMITED

**Manufacturer** : GOLDEN BRIGHT MANUFACTURER  
LIMITED



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9. Interference Radiation (Datasheet)
10. Notes for Radiation Measurement (acc. to ANSI C63.4 - 1992)
11. Measurement of Emissions within Band Edges (Datasheet)
12. Notes for Measurement of Emissions within Band Edges



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**FCC – Test Report**

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**LABORATORY - REPORT**

**APPLICANT:** GOLDEN BRIGHT MANUFACTURER LIMITED  
**ADDRESS:** 803 Peninsula Centre  
Tsimshatsui East, Kowloon  
HONG KONG

**DATE OF SAMPLE RECEIVED:** 2000-03-08

**DATE OF TESTING:** 2000-05-17 to 2000-06-07

**DESCRIPTION OF SAMPLE:**

**Product:** Radio Control Wheeled Loader – 27 MHz Transmitter  
**Manufacturer:** GOLDEN BRIGHT MANUFACTURER LIMITED  
**Model number:** 2025  
**Rating:** DC 9V ('6F22' Size Battery x 1)  
**Country of Origin:** P.R. CHINA

**INVESTIGATIONS REQUESTED:**

Measurements to the relevant clauses of F.C.C. Rules and Regulations Part 15 Subpart C - Intentional Radiators

**RESULTS:**

See the attached test sheets

**CONCLUSIONS**

From the measurement data obtained, the tested sample was considered to have **COMPLIED** with the requirements for the relevant clauses of Federal Communications Commission Rules as specified above.



Authorized Signature

**Remark:** Purpose of those tests in this report is to provide the applicant with the necessary test data of their device for the submission to FCC with application for Equipment Authorization under the FCC Equipment Authorization Program. The tests themselves are not Approval Tests



**FCC – Test Report**Date: 2000-06-07

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**Summary of Test Results****Interference Radiation:**

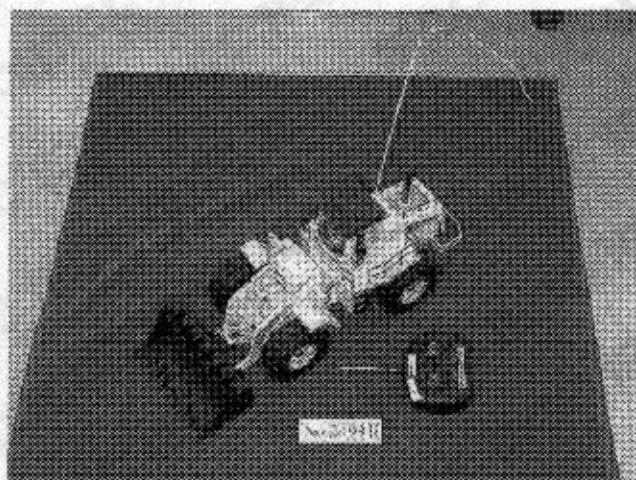
**Test result:** O.K.  
**Test data:** See attached data sheet

**Interference Voltage:**

**Test result:** N.A.  
**Test data:** N.A.

**Measurement of Emissions within Band Edges**

**Test result:** O.K.  
**Test data:** See attached data sheet

**PHOTOGRAPH OF THE SAMPLE**

# FCC – Test Report

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## TEST EQUIPMENT LIST

| Equipment                       | Manufacturer    | Model                    | Serial No.          | Remark                            |
|---------------------------------|-----------------|--------------------------|---------------------|-----------------------------------|
| Test Receiver                   | Rohde & Schwarz | ESH 3                    | 863497/015          | 10KHz – 30MHz                     |
| Test Receiver                   | Rohde & Schwarz | ESVP                     | 860688/022          | 25MHz – 1,300 MHz                 |
| Artificial Mains Network (LISN) | Schwarzbeck     | NSLK 8127                | --                  | 2 x 10A, 50Ω, 50μH<br>10KHz-30MHz |
| Antenna System                  | Schwarzbeck     | BBA 9106 /<br>UHALP 9107 | --                  | 30MHz – 1000MHz                   |
| Antenna Mast System             | Schwarzbeck     | AM9104                   | --                  | Max. 4 meters height              |
| Spectrum Analyzer with Q. Peak  | Tektronix       | 2712                     | B023006             | 9KHz – 1.8GHz                     |
| Interface for Spectrum 2712     | Tektronix       | TD3F14A                  | --                  |                                   |
| Test Receiver                   | Rohde & Schwarz | ESH 3                    | 892580/006          | 10KHz – 30MHz                     |
| Test Receiver                   | Rohde & Schwarz | ESVP                     | 863512/012          | 25MHz – 1,300 MHz                 |
| Impulse Limiter                 | Rohde & Schwarz | ESH-3-Z2                 | --                  |                                   |
| Artificial Mains Network (LISN) | Schwarzbeck     | NSLK 8127                | --                  | 2 x 10A, 50Ω, 50μH<br>10KHz-30MHz |
| Antenna System                  | Schwarzbeck     | BBA 9106 /<br>UHALP 9107 | --                  | 30MHz – 1000MHz                   |
| Signal Generator                | Rohde & Schwarz | SWS 2                    | 879113/42           | 100KHz – 1040 MHz                 |
| Digital Multimeter              | Tektronix       | DM2510G                  | DM-<br>2510GTW10555 | 10KHz – 30MHz                     |
| Turntable with Controller       | Drehtisch       | DT312                    | --                  | φ120 cm                           |



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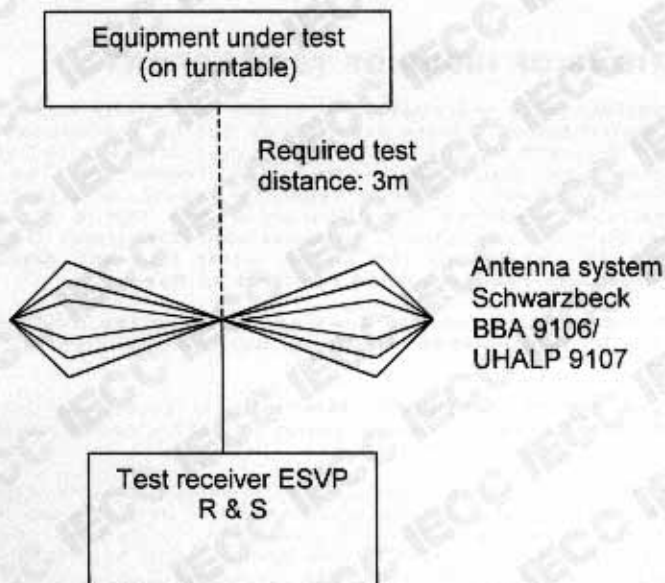


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**Radiated Emission Test Procedure****Head Office:**Unit 602-605, 6/F., 31 Lok Yip Rd., On Lok Tsuen, Fanling, N.T., Hong Kong. Tel: (852) 2305 2570 Fax: (852) 2756-4480 Home page: <http://www.iecc.com.hk> E-mail: [info@iecc.com.hk](mailto:info@iecc.com.hk)  
香港新界粉嶺安樂村樂業路31號6樓602-605室 電話: (852) 2305 2570 傳真: (852) 2756 4480 網頁: <http://www.iecc.com.hk> 電子郵件: [info@iecc.com.hk](mailto:info@iecc.com.hk)**Guangzhou Office:**Unit 1916, 19/F., South Tower, Guangzhou World Trade Centre Complex, 371-375 Huan Shi Dong Rd., Guangzhou, P.R. China. Tel: +86-20-8776 4838 Fax: +86-20-8776 3918  
廣州市環市東路371-375號世界貿易中心南塔19樓1916室 電話: (020) 8776 4838 傳真: (020) 8776 3918





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Nemko  
Qualified Independent Laboratory

# Interference Radiation



Approved Laboratory

Measurement of Radiated Emissions (27MHz-1000MHz)

Acc: FCC Part 15 Subpart C

IECC Ref: 21991/0/400F  
 Model: 2025  
 Applicant: GOLDEN BRIGHT MANUFACTURER LIMITED  
 Ser.Nr.: 1  
 Set under test: Radio Control Wheeled Loader  
 Connected sets: -  
 Operating mode: Power "On"

Test Equipment  
 Receiver: ESVP Rohde & Schwarz  
 Antenna: Schwarzbeck BBA 9106  
 and UHALP 9107

|          | Frequency (MHz) | Horz. Reading dB(μV) | Vert. Reading dB(μV) | Antenna Factor (dB) | Horiz. Test Result (μV/m) | Vert. Test Result (μV/m) | Limit (μV/m) |
|----------|-----------------|----------------------|----------------------|---------------------|---------------------------|--------------------------|--------------|
| Harm. 2  | 54.24           | 18                   | 28                   | 6.3                 | 16                        | 52                       | 100          |
| Harm. 3  | 81.36           | < 16                 | 28                   | 5.2                 | < 12                      | 46                       | 100          |
| Harm. 4  | 108.48          | 20                   | 24                   | 9.5                 | 30                        | 48                       | 150          |
| Harm. 5  | 135.6           | < 16                 | < 16                 | 12.2                | < 26                      | < 26                     | 150          |
| Harm. 6  | 162.72          | 20                   | < 16                 | 13.6                | 48                        | < 30                     | 150          |
| Harm. 7  | 189.84          | 22                   | < 16                 | 14.8                | 69                        | < 35                     | 150          |
| Harm. 8  | 216.96          | 24                   | < 16                 | 15.7                | 97                        | < 38                     | 200          |
| Harm. 9  | 244.08          | < 16                 | < 16                 | 16.5                | < 42                      | < 42                     | 200          |
| Harm. 10 | 271.2           | < 16                 | < 16                 | 17.3                | < 46                      | < 46                     | 200          |
| Harm. 11 | 298.32          | < 16                 | < 16                 | 18.0                | < 50                      | < 50                     | 200          |
| Harm. 12 | 325.44          | < 16                 | < 16                 | 16.8                | < 44                      | < 44                     | 200          |
| Harm. 13 | 352.56          | < 16                 | < 16                 | 17.4                | < 47                      | < 47                     | 200          |
| Harm. 14 | 379.68          | < 16                 | < 16                 | 17.9                | < 50                      | < 50                     | 200          |
| Harm. 15 | 406.8           | < 16                 | < 16                 | 18.4                | < 52                      | < 52                     | 200          |
| Harm. 16 | 433.92          | < 16                 | < 16                 | 18.8                | < 55                      | < 55                     | 200          |
| Harm. 17 | 461.04          | < 16                 | < 16                 | 19.2                | < 57                      | < 57                     | 200          |
| Harm. 18 | 488.16          | < 16                 | < 16                 | 19.5                | < 60                      | < 60                     | 200          |
| Harm. 19 | 515.28          | < 16                 | < 16                 | 19.9                | < 62                      | < 62                     | 200          |
| Harm. 20 | 542.4           | < 16                 | < 16                 | 20.1                | < 64                      | < 64                     | 200          |
| Harm. 21 | 569.52          | < 16                 | < 16                 | 20.5                | < 67                      | < 67                     | 200          |
| Harm. 22 | 596.64          | < 16                 | < 16                 | 20.9                | < 70                      | < 70                     | 200          |
| Harm. 23 | 623.76          | < 16                 | < 16                 | 21.2                | < 73                      | < 73                     | 200          |
| Harm. 24 | 650.88          | < 16                 | < 16                 | 21.6                | < 76                      | < 76                     | 200          |
| Harm. 25 | 678             | < 16                 | < 16                 | 22.1                | < 80                      | < 80                     | 200          |
| Harm. 26 | 705.12          | < 16                 | < 16                 | 22.5                | < 84                      | < 84                     | 200          |
| Harm. 27 | 732.24          | < 16                 | < 16                 | 22.8                | < 87                      | < 87                     | 200          |
| Harm. 28 | 759.36          | < 16                 | < 16                 | 23.2                | < 91                      | < 91                     | 200          |
| Harm. 29 | 786.48          | < 16                 | < 16                 | 23.5                | < 95                      | < 95                     | 200          |
| Harm. 30 | 813.6           | < 16                 | < 16                 | 23.9                | < 99                      | < 99                     | 200          |
| Harm. 31 | 840.72          | < 16                 | < 16                 | 24.2                | < 103                     | < 103                    | 200          |
| Harm. 32 | 867.84          | < 16                 | < 16                 | 24.6                | < 107                     | < 107                    | 200          |
| Harm. 33 | 894.96          | < 16                 | < 16                 | 24.9                | < 111                     | < 111                    | 200          |
| Harm. 34 | 922.08          | < 16                 | < 16                 | 25.3                | < 117                     | < 117                    | 200          |
| Harm. 35 | 949.2           | < 16                 | < 16                 | 25.8                | < 122                     | < 122                    | 200          |
| Harm. 36 | 976.32          | < 16                 | < 16                 | 26.2                | < 128                     | < 128                    | 500          |

Note : Refer to the test report no. FCC-21991 issued by PKM Electronic GmbH for measurement at frequencies below 30 MHz

07 JUN 2000

Date: \_\_\_\_\_

Test result:

O.K.  
 Not O.K.

Operator: \_\_\_\_\_





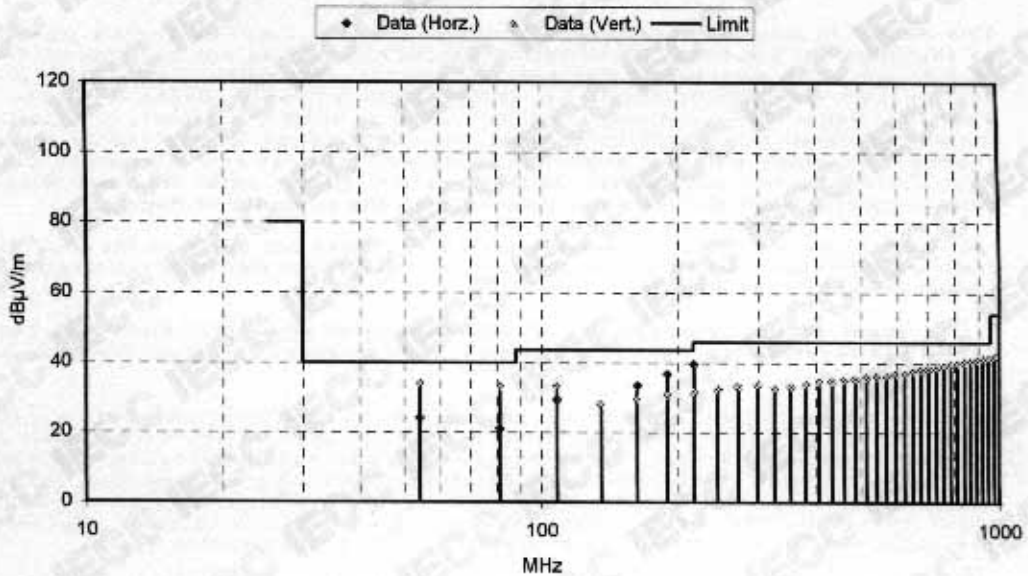
## Interference Radiation

Measurement of Radiated Emissions (27MHz-1000MHz)

Acc: FCC Part 15 Subpart C

IECC Ref: 21991/0/400F  
 Model: 2025  
 Applicant: GOLDEN BRIGHT MANUFACTURER LIMITED  
 Ser.Nr.: 1  
 Set under test: Radio Control Wheeled Loader  
 Connected sets: -  
 Operating mode: Power "On"

Test Equipment  
 Receiver: ESVP Rohde & Schwarz  
 Antenna: Schwarzbeck BBA 9106  
 and UHALP 9107



Test result:

O.K.  
 Not O.K.

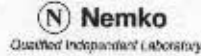
07 JUN 2000

Date: \_\_\_\_\_

Operator: \_\_\_\_\_



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**Notes for Radiation Measurement****1. Measurement facility:**

Measurement facility located at Fanling (Hong Kong), placed on file with the FCC Pursuant to Section 2.948 of the FCC Rules.

**2. Distance between the EUT and measuring antenna:**

3 meters.

**3. Measuring instrumentations:**

Rohde & Schwarz ESVP Test Receiver ( 20 - 1300 MHz ) with a CISPR weighting QP detector, 6 dB bandwidth set at 120 KHz.

In the frequency range above 1000 MHz Spectrum Analyzer FMSM26 and Analyzer Display Unit FSA-D are used, bandwidth set at 100 kHz.

**4. Measuring antenna:**

Broad-band antenna for the frequency range 30 - 300 MHz and frequency range 300 - 1000 MHz, connected with 10 meters coaxial cable. Cable loss of the coaxial cable included in the Antenna Factor for measurement data. The antennas are capable of measuring both horizontal and vertical polarizations.

In the frequency range above 1 GHz horn-antenna RGA 50/60 is used.

**5. Frequency range scanned:**

The frequency range 30 - 5000 MHz has been scanned. Readings of the highest emissions relating to the limit were reported as above.

**6. Arrangement of EUT:**

During the test, the sample was operated at rated supply voltage and arranged for maximum emissions.

**7. Measuring Procedure:**

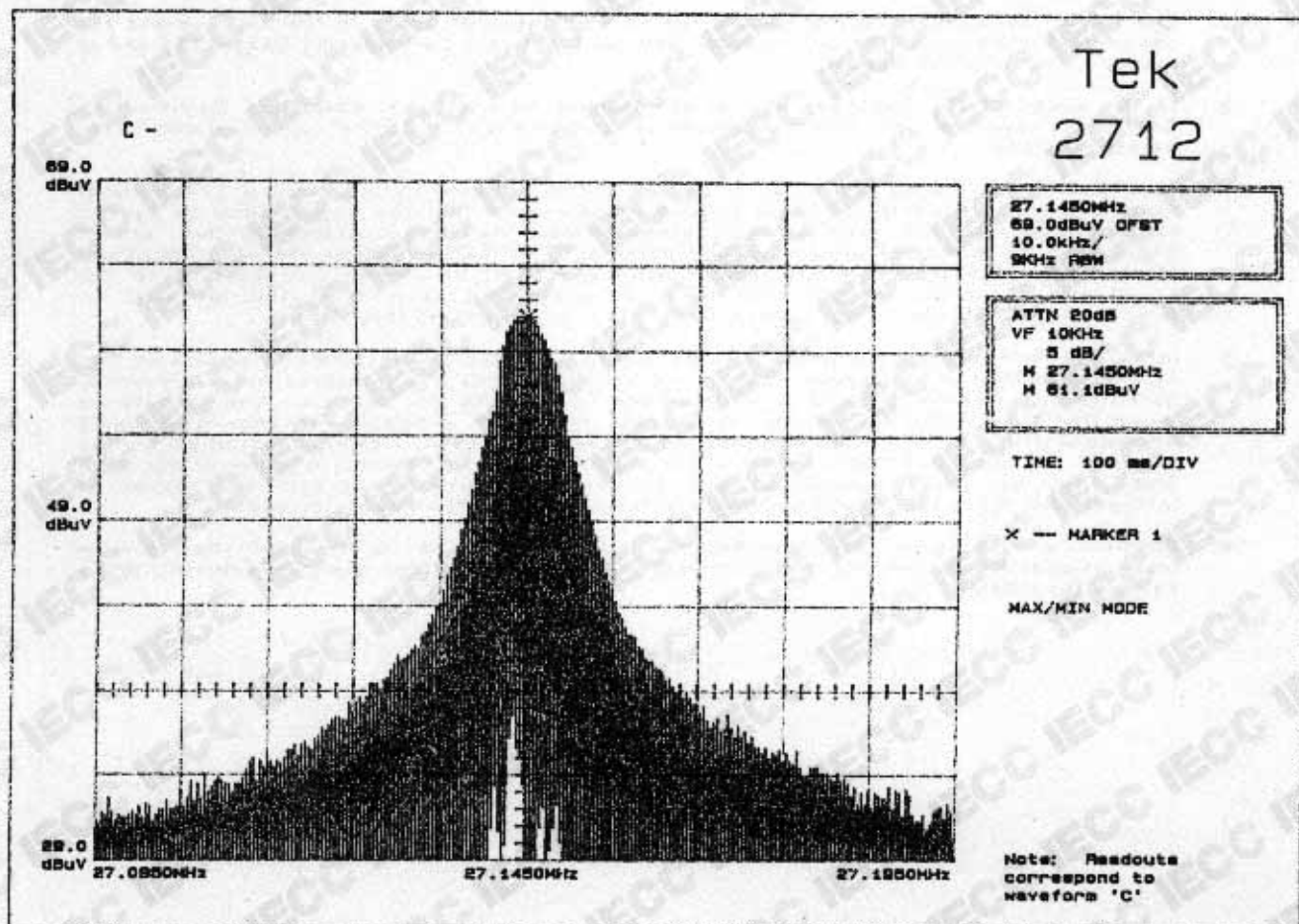
In accordance with the relevant sections of the American National Standards Institute (ANSI) C63.4-1992 'Methods of Measurement of Radio Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9KHz to 40GHz'.



## Interference Radiation

Measurement of Radiated Emissions (27MHz-1000MHz)  
Acc: FCC Part 15 Subpart C

|                        |   |  |
|------------------------|---|--|
| <b>IECC Ref:</b>       | <u>21991/0/400F</u>                       | <b>Test Equipment</b>                        |
| <b>Model:</b>          | <u>2025</u>                               | Receiver: ESVP Rohde & Schwarz               |
| <b>Applicant:</b>      | <u>GOLDEN BRIGHT MANUFACTURER LIMITED</u> | Antenna: Schwarzbeck BBA 9106 and UHALP 9107 |
| <b>Ser.Nr.:</b>        | <u>1</u>                                  |  |
| <b>Set under test:</b> | <u>Radio Control Wheeled Loader</u>       |  |
| <b>Connected sets:</b> | <u>-</u>                                  |  |
| <b>Operating mode:</b> | <u>Power "On"</u>                         |  |



Test result:

O.K.  
 Not O.K.

Date: 07 JUN 2000

Operator: [Signature]

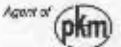




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**Notes for Measurement of Emissions within Band Edges****1. Measurement facility:**

Measurement facility located at Fanling (Hong Kong) placed on file with the FCC Pursuant to Section 2.948 of the FCC Rules.

**2. Measuring instrumentations:**

Spectrum Analyzer: Tektronix 2712

**3. Frequency range scanned:**

The frequency range acc. to FCC rules and regulations part 15 subpart C - Intentional Radiators.

**4. Arrangement of EUT:**

During the test, the sample was operated.

**5. Measuring Procedure:**

In accordance with the relevant sections of American National Standards Institute (ANSI) C63.4 - 1992 'Methods of Measurement of Radio Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz'.

**Head Office:**

Unit 602-605, 6/F., 31 Lok Yip Rd., On Lok Tsuen, Fanling, N.T., Hong Kong. Tel: (852) 2305 2570 Fax: (852) 2756-4480 Home page: <http://www.iecc.com.hk> E-mail: [info@iecc.com.hk](mailto:info@iecc.com.hk)

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廣州市環市東路371-375號世界貿易中心南塔19樓1916室 電話: (020) 6776 4838 傳真: (020) 8776 3918