

# TIMCO ENGINEERING INC.

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## TCB & FCB

*FCC Approvals  
Industry Canada Approvals  
Notified Body for Europe*

8/23/2006

MR. DANIEL LEE

SPORTON INTERNATIONAL INC.-BU5

886-2-2696-2468 X206 886-2-2692-2255

DANIEL@SPORTON.COM.TW; Ivonne@sporton.com.tw

SUBJECT: COILER CORPORATION - FCC ID: UG8C-2024-19

REFERENCE: JOB 2434TC6

Dear MR. LEE:

**This application is on hold until these questions are resolved.** Please answer all question(s) together and only respond to [tei@timcoengr.com](mailto:tei@timcoengr.com). Any other method will cause **unnecessary delay. DO NOT HIT REPLY!** Responses should also contain the Reference information, as shown at the top of this message. If acceptable response is not received within 2 week the job will be closed & there will be additional charges to reopen.

Based upon our review of this application we have the following questions:

**Notes: Please see attached guidance document from the FCC**

1. The following required exhibits were not received- Schematics, Operational Description, Tune Up Info and Parts List. Please submit these exhibits at your earliest convenience. Thanks.
2. BLOCK DIAGRAM: The Block diagram received file is corrupt. Please resubmit. Thanks.
3. Manual: Please include RF exposure info for indoor and outdoor antenna installation including Maximum antenna gain authorized for use with this device.
4. 731 form: Please include uplink band information.
5. RF exposure for donor antenna: Please provide RF exposure info outdoor installation. According to manual page 2/5 section 4. the donor antenna can be installed indoor. Please show compliance for the maximum gain and separation distance.
6. Please confirm that the device cannot operate in saturation. Are there means to control maximum power and to assure linear operation (use in system configuration may be necessary)?

7. How is saturation or over-modulation prevented for pulsed signal inputs?
8. Intermodulation spurious emissions: This device is a bi-directional booster/repeater transmitting and receiving uplink and downlink signals using radiated emissions. Therefore, Intermodulation test data are required.
9. Occupied bandwidth data – In/out bandwidth: It appears that no data was provided for uplink.
10. Output Power: Is the output power either composite of multichannels or per carrier?
11. Radiated and conducted spurious emissions are required at Low, Mid, and High channel in the uplink and downlink bands.
12. Please, make sure the you provide data for both uplink and downlink operations.

Sincerely,

Gretchen Torres  
& Bruno Clavier

## Response from Sporton

1. This device do not have tune up procedure because it is repeater, not GSM phone. The other required exhibits were re-uploaded.
2. Resubmitted
3. Updated users manual was uploaded
4. Uploaded
5. Uploaded
6. Yes, the methods of Auto Shut Down (ASD) and Auto Turn On (ATO) prevent the EUT operation from saturation, while the maximum input power exceed following table values.

	Frequency (MHz)	Input Power(dBm)	Output Power(dBm)	Output Power(W)
Uplink	1850.2	-34.2	6.95	0.0050
	1880	-35.8	6.91	0.0049
	1909.8	-29.6	6.91	0.0049
Downlink	1930.2	-34	6.95	0.0050
	1960	-38.9	6.96	0.0050
	1989.8	-39	6.83	0.0048

7. The same as item 6.
8. Intermodulation test data are updated in the report.
9. Uplink data is updated in the report.
10. The output power is measured by one GSM modultain carrier inputed
11. Data for radiated and conducted spurious emissions at Low, Mid, and High channel in the uplink and downlink bands are updated in the report.
12. Yes