

-----Original Message-----

From: Compliance Certification Services [mailto:mheckrotte@ccsemc.com]

Sent: Monday, April 18, 2005 12:36 PM

To: Michael Heckrotte

Subject: Shyam Telecom Inc., FCC ID: S3CIRD55FB-30-70, Assessment NO.: AN05T4695, Notice#1

1. Request for confidentiality listed block diagram but block diagram is embedded in the user manual. User manual is not listed as confidential document. Please remove block diagram from user manual or update the request for confidentiality.

OK -- noted will be done in modified manual

2. Description of circuitry contains theory of operation information but it is not considered as confidential document. Please confirm that this is not a confidential document or update the request for confidentiality.

OK—Revise the operational description by removing the block diagram. Still put it as confidential doc.

3. Applicant is hereby notified that FCC Rules Part 22.383 states that Licensees may install and operate in-building radiation systems without applying for authorization or notifying the FCC, provided that the locations of the in-building radiation systems are within the protected service area of the licensee's authorized transmitter(s) on the same channel or channel block.

OK – the applicant is notified.

4. Please provide internal photographs of all subassemblies, including the front and back of each PC Board.

OK --see revised internal photos attached.

5. The schematic only shows the 800 MHz Downlink. Please provide schematics for the entire unit.

OK – see revised schematics files 1&2 attached

6. The schematic shows capacity for 4 sub bands, however the block diagram shows capacity for 3 sub bands in one service (PCS, according to the user manual) and 2 sub bands in the other service (Cellular, according to the user manual). Please explain.

OK

7. The stages described in the theory of operation do not match the stages shown in the block diagram. Please update documentation to make these consistent.

The Schematic is having option for 4 sub-bands in each service for future upgrades (in total 8 sub bands) ,however at present we are utilizing 2 sub-bands in cellular & 3 in PCS .

8. Please provide the factory tune up procedure.

OK – see attached revised Tune-up procedure.

9. The output power in the test report is the power per carrier however the user manual specifies the power as composite. Additionally the rated composite power is less than the measured power per carrier. Please explain.

Power per carrier shall be included in manual

Nominal Power output with

1 Carrier	27 dbm
2 Carrier	16dbm @ 13 dbm each carrier
4 Carrier	16 dbm @ 10 dbm each carrier
8 Carrier	16 dbm @ 7 dbm each carrier

10. Please update the user manual to include specifications regarding the maximum input drive rating.

OK the max. input power is -10 dbm

11. Please provide plots showing the input signals for occupied bandwidth measurements, for each modulation type.

OK – it's included in the report (Input =SG)

12. Please provide test data showing the occupied bandwidth in the PCS bands.

OK – See revised report

13. Please provide test data and/or describe the means to control maximum power and assure linear operation.

Same as Question no. 9: The Automatic Gain Control Circuit ensure that linear operation.

14. Please provide conducted spurious plots from 30 MHz to 5.8 GHz for the following:

PCS Band, Uplink, GSM High channel **OK – See revised report Pg. 162-163**
PCS Band, Uplink, GSM Mid channel **OK – See revised report Pg 165-166**
PCS Band, Downlink, CDMA High channel **OK – See revised report Pg 147-148**
PCS Band, Downlink, CDMA Mid channel **OK – See revised report Pg 151-152**
PCS Band, Downlink, GSM High channel **OK – See revised report Pg 174-175**
PCS Band, Downlink, GSM Mid channel **OK – See revised report Pg 178-179**

15. Please describe the number of input signals, including the frequency and drive level for each input signal, that were used for intermodulation tests.

OK – See revised report Pg 84

16. The radiated spurious data shows substitution measurements to 19.898 GHz, however the equipment list only shows equipment with a maximum frequency of 3 GHz for signal generators and 18 GHz for antennas. Please explain.

OK – See revised report Pg 217 (rental equipment included)

17. The frequency stability table on page 167 indicates a signal in the range of 1.9 MHz, however the band under test is in the range of 1.9 GHz. Please explain.

OK – See revised report (typo)

18. Please provide test data to show the out of band rejection, or submit frequency response plots for each filter that provides out of band rejection.

OK – See revised report. Sec. 8

19. RF Exposure: The calculated MPE distance is more than 20 cm but in the user manual, only 20 cm separation distance is required. Please make the necessary changes to the user manual.

OK – See revised user manual

20. The user manual shows a PCS block of 1878 to 1883 MHz paired with 1958 to 1963 MHz, however this block pair is not shown in FCC Rule Part 24.229. Please explain.

OK – See revised User Manual (typo).

Attachment:

- 1. Revised Test Report.**
- 2. Revised Schematic file**
- 3. Revised Internal Photo file**
- 4. Revised Operational Description**
- 5. Revised User Manual**

More questions from FCC :

21. Regarding your response to Q2, You state that the theory of operation (circuit description) is intended to be confidential however the revised confidentiality letter only lists the schematic and block diagram. Please clarify and submit revised documents that are consistent.

OK – No need to change.

22. Regarding your response to Q4, The set of internal photos is not complete. Three castings are shown in the overall photo but it appears that only one of these has photos at the subassembly level. Mother board close-up photos of front and back are not provided. Back of power supply board not provided. Please provide internal photos of all subassemblies, down to the front and back of all PC Boards (if two or more identical subassemblies, only require one set of photos) and label each photo.

ALL PHOTOS are attached.

23. Regarding your response to Q5, The set of schematics is not complete; missing at least the converters and the uC section. Please provide a complete set of schematics.

Attached.

24. Regarding your response to Q9, Based on the specifications in the User Manual it would appear that the Cellular Uplink levels are 2 dB lower than the Cellular DL levels; please confirm. Please also advise rated single channel and composite output levels for GSM both DL and UL.

**Nominal DL Power output with
1 Carrier 27 dbm**

2 Carrier 16dbm @ 13 dbm each carrier
4 Carrier 16 dbm @ 10 dbm each carrier
8 Carrier 16 dbm @ 7 dbm each carrier

Nominal DL Power output with

1 Carrier 25 dbm
2 Carrier 14dbm @ 11dbm each carrier
4 Carrier 14 dbm @ 8 dbm each carrier
8 Carrier 14 dbm @ 5dbm each carrier

Attachment:

More Internal Photos

More Schematics

Revised Confidential letter

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 30 days of the original e-mail date may result in application dismissal and forfeiture of the filing fee. Also, please note that partial responses increase processing time and should not be submitted. Any questions about the content of this correspondence should be directed to the e-mail address listed below the name of the sender.