

FCC Part 24 Transmitter Certification

Test Report

FCC ID: DNY0B2SCCELL1900

FCC Rule Part: CFR 47 Part 24 Subpart E

ACS Report Number: 05-0272-24E

Manufacturer: EMS Wireless
Equipment Type: PCS Band Bi-Directional Amplifier
Model: SelectaCell-19-S

Tune-up Procedure

RF Power Level Calibration

For both Downlink & Uplink, perform the following procedure at center of Band. To reduce changing cable connections, test Downlink for all Bands/Sub Bands, then Uplink.

1. Ensure cables are connected for Uplink testing.
2. Set up the Spectrum Analyzer and signal generator (calibrated per Section 5.3).
For Downlink, set equipment Center Frequency = 1957.5 Mhz.
For Uplink, set equipment Center Frequency = 1877.5 Mhz
Signal Generator Output Power = -95dBm
3. Enter Serial No. and Date.
4. Select Control Page and set gain to "MAX-GAIN"
5. Adjust the signal generator output Level and Frequency connected to SelectaCell input to achieve the desired SelectaCell output level.
6. Select Calibration Page, Uplink (or Downlink) Tab/Page, "Calibration" Option in SW APP for Downlink/Uplink power detection at the following SelectaCell output power levels (dBm).

SelectaCell Output Levels

1957.5 Mhz	Downlink	-35	-30	-25	-20	-15	-10	-5	0	1	2	3	4			
1877.5 Mhz	Uplink	-35	-30	-25	-20	-15	-10	-5	0	5	6	8	10	12	14	15

7. Move cursor to the right of target Gain value in second column of left hand table on Calibration Page, then highlight in gray. Move cursor to left in first column and double click. Note that GAIN data in third column has been updated with a new value.
8. Record GAIN Data observed in SW CAL entry for the corresponding Level measured.
9. Go to step 7 and perform for next gain level to calibrate until all levels for Down Link (or UpLink) are completed.
10. Deselect "Calibration" Option in SW APP.
11. Select "SET" command button, then select "FLASH" Command button to load the desired gain control value into flash.
12. Change to Uplink cable connections, and go to step 2 to perform all levels for Uplink until completed, then go to step 13.

VERIFY PEAK LIMITING:

CHANNEL	CENTER FREQ	Set SelectaCell Max
		Power Output
Downlink	1957.5 Mhz	2 dBm
Uplink	1877.5 Mhz	12 dBm

13. Ensure cables are connected for Downlink testing.
14. Set Signal Generator to Downlink Center Frequency 1957.5 Mhz and set Signal Generator Level to -60dBm to obtain a SelectaCell 0dbm Output Level. Select "Restart" button in SW App. and insure that this level is reached by SelectaCell.
15. Increase Signal Generator to reach SelectaCell Max Power Output Level of 2dBm. Select "Restart" button in SW App. and insure that this level is reached by SelectaCell. Increase Signal Generator output by 10 db above current Signal

- Generator setting (if Level at -58dBm, increase to -48 dBm) and verify SelectaCell Power Output is limited.
16. Record Downlink Peak Limit.
 17. Connect cables for Uplink testing.
 18. Set Signal Generator to Downlink Center Frequency 1877.5 Mhz and set Signal Generator Level to -60dBm to obtain a SelectaCell 0dbm Output Level. Select “Restart’ button in SW App. and insure that this level is reached by SelectaCell.
 19. Increase Signal Generator to reach SelectaCell Max Power Output Level of 12dBm. Select “Restart’ button in SW App. and insure that this level is reached by SelectaCell.
 20. Increase Signal Generator output by 10 db above current Signal Generator setting (if Level at -58dBm, increase to -48 dBm) and verify Selectacell Power Output Limit.
 21. Record Uplink Peak Limit.