

FCC Part 22 Transmitter Certification

Test Report

FCC ID: SO4YX500-CEL

FCC Rule Part: CFR 47 Part 22 Subpart H

ACS Report Number: 05-0343-22H

Manufacturer: Wireless Extenders
Equipment Type: Cellular Band Bi-Directional Booster
Model: YX500-CEL

Tune-up Procedure

YX500-CEL
Cellular BDA Tuning Procedure

WIRELESS EXTENDERS, INC.
330 Research Court Suite 250
Norcross, GA 30092

This document contains proprietary information and is loaned in confidence subject to return upon demand on the express condition that it will not be used in any way not authorized by Wireless Extenders.			
Type		Document Number	Rev
			1

Page 1 of 6

Revision History

Rev/Ver	Description	Date	Changed By

**Company
Confidential**

1. Purpose

The purpose of this document is to outline a tuning procedure for defining maximum RF output power on Up link path and down link path.

2. RF Power Tuning Procedure

2.1. UUT Functional Test

2.1.1. DC Test

Test UUT for proper DC voltage and current.

2.1.2. Verify Uplink P1dB

Up link P1dB measurement is made to verify if maximum RF output power is acceptable.

2.1.3. Verify Downlink P1dB

Down link P1dB measurement is made to verify if maximum RF output power is acceptable.

2.2. RF Output Power Level Calibration Sequence

2.2.1. Downlink RF Output Power Level Calibration

2.2.1.1. Measure Downlink -10dBm level

measure the Downlink RF Power Calibration at -10dBm output power level. Record the detected voltage level.

2.2.1.2. Measure Downlink -5dBm level

measure the Downlink RF Power Calibration at -5dBm output power level. Record the detected voltage level.

2.2.1.3. Measure Downlink 0dBm level

measure the Downlink RF Power Calibration at 0dBm output power level. Record the detected voltage level.

2.2.1.4. Measure Downlink 5dBm level

measure the Downlink RF Power Calibration at 5dBm output power level. Record the detected voltage level.

2.2.1.5. Measure Downlink 10dBm level

measure the Downlink RF Power Calibration at 10dBm output power level. Record the detected voltage level.

2.2.1.6 Measure Downlink 15dBm level

measure the Downlink RF Power Calibration at 15dBm output power level. Record the detected voltage level.

2.2.1.7 Measure Downlink 18dBm level

measure the Downlink RF Power Calibration at 18dBm output power level. Record the detected voltage level.

2.2.1.6. Store Downlink maximum Level

Set maximum RF output power on the down link path by interpolating the detected voltage level curve.

2.2.2. Uplink RF Power Output Level CalibrationMake Loop Decision

2.2.2.1. Measure Uplink –10dBm level

measure the uplink RF Power Calibration at -10dBm output power level. Record the detected voltage level.

2.2.2.2. Measure Uplink –5dBm level

measure the uplink RF Power Calibration at -5dBm output power level. Record the detected voltage level.

2.2.2.3. Measure Uplink 0dBm level

measure the uplink RF Power Calibration at 0dBm output power level. Record the detected voltage level.

2.2.2.4. Measure Uplink 5dBm level

measure the uplink RF Power Calibration at 5dBm output power level. Record the detected voltage level.

2.2.2.5. Measure Uplink 10dBm level

measure the uplink RF Power Calibration at –d10Bm output power level. Record the detected voltage level.

2.2.2.6. Measure Uplink 15dBm level

measure the uplink RF Power Calibration at 15dBm output power level. Record the detected voltage level.

2.2.2.7. Measure Uplink 20dBm level

measure the uplink RF Power Calibration at 20dBm output power level. Record the detected voltage level.

2.2.2.8. Measure Uplink 25dBm level

measure the uplink RF Power Calibration at 25dBm output power level. Record the detected voltage level.

2.2.2.9. Measure Uplink 30dBm level

measure the uplink RF Power Calibration at 30dBm output power level. Record the detected voltage level.

2.2.2.10.Store Uplink Maximum output power level

Set maximum RF output power on the up link path by interpolating the detected voltage level curve.