

## Procedure for calibrating RF power on Eclipse2 base station

1. Equipments needed: RF communication test equipments and PC to run the program IP commander software.
2. Logon to the base station through IP commander software.
3. To calibrate TX power signal. On the main menu Click on calibrate then select calibrate RF power. On the new pop up window click start. Now type TX power reading in the “Entre measured power” field as you see it in the RF communication test set then click on next. Do the previous operation until a pop up window comes out and said calibration is completed.

The screenshot displays the IP Commander 5.6.0 (MUSHU) software interface. The main window is titled "IP Commander 5.6.0 (MUSHU)" and has a menu bar with "File", "Calibrate", "Admin", "Themes", and "About". The "Calibrate" menu is open, showing options for "Calibrate Codec", "Calibrate RF Power", and "Calibrate RSSI". The "Calibrate RF Power" window is active, showing the following configuration:

- Channel:** Channel
- Name:** Channel
- Rx Freq:** 412.000000 MHz
- Tx Freq:** 415.000000 MHz
- Networking:** Name: eclipse, IP: 192.168.1.201, Mask: 255.255.255.0
- Logging (RFC 3164):** Enable logging:  Host: 192.168.1.25, Min severity: Error
- Versions:** Hardware: 1.0.0, Software: 5.4.0, Database: 1.0.0, Serial: 000260

The main display area shows a block diagram of the R500A • T500A hardware. The diagram includes an antenna, a reference source, a DSP (200MHz), a DAC, and a RISC processor (266MHz). The current status is shown as RSSI -130 dBm and C/N 6 dB. The power is set to 2.0 W, with a maximum deviation of 5.0 KHz. The temperature is +38C. The interface also includes a "Voting" section with a dropdown menu set to "No Voting" and a "Disable Front Panel" checkbox. The bottom status bar shows "admin" connected to the base station at 201@192.168.1.201 (FM ONLY LICENSE ACTIVE) at 01:20PM.

IP Commander 5.6.0 (MUSHU)


File Calibrate Admin Themes About

### Current status

<b>Operational Channel</b>	<b>Networking</b>	<b>Logging (RFC 3164)</b>	<b>Versions</b>
Channel: 0	Name: eclipse	Enable logging: <input checked="" type="checkbox"/>	Hardware: 1.0.0
Name: Channel	IP: 192.168.1.201	Host: 192.168.1.25	Software: 5.4.0
Rx Freq: 412.000000 MHz	Mask: 255.255.255.0	Min: Error	Database: 1.0.0
Tx Freq: 41			Serial: 000260

**RF Power Calibration**

Connected to base station : 201@192.168.1.201 (FM ONLY LICEN



Start... Close

Max 5W

Forward 2.0 W

Reverse 0.2 W

Power: 2.0 W

Max. Dev 5.0KHz

Tv 1.6 V

Fvco 415.000000MHz

DAC

RISC 266MHz Linux

Apply Cancel

admin Connected to base station : 201@192.168.1.201 (FM ONLY LICENSE ACTIVE) 01:21PM

IP Commander 5.6.0 (MUSHU)


File Calibrate Admin Themes About

### Current status

<b>Operational Channel</b>	<b>Networking</b>	<b>Logging (RFC 3164)</b>	<b>Versions</b>
Channel: 0	Name: eclipse	Enable logging: <input checked="" type="checkbox"/>	Hardware: 1.0.0
Name: Channel	IP: 192.168.1.201	Host: 192.168.1.25	Software: 5.4.0
Rx Freq: 412.000000 MHz	Mask: 255.255.255.0	Min: Error	Database: 1.0.0
Tx Freq: 41			Serial: 000260

**RF Power Calibration**

Connected to base station : 201@192.168.1.201 (FM ONLY LICEN



Watt

Enter measured power

Next > Close

Max 5W

Forward 2.0 W

Reverse 0.2 W

Power: 2.0 W

Max. Dev 5.0KHz

Tv 1.6 V

Fvco 415.000000MHz

DAC

RISC 266MHz Linux

Apply Cancel

admin Connected to base station : 201@192.168.1.201 (FM ONLY LICENSE ACTIVE) 01:27PM

The screenshot displays the IP Commander 5.6.0 (MUSHU) software interface. At the top, the title bar reads "IP Commander 5.6.0 (MUSHU)" and the menu bar includes "File", "Calibrate", "Admin", "Themes", and "About". The main window is titled "Current status" and is divided into several sections:

- Operational Channel:** Channel 0, Name Channel, Rx Freq 412.000000 MHz, Tx Freq 415.000000 MHz.
- Networking:** Name eclipse, IP 192.168.1.201, Mask 255.255.255.0.
- Logging (RFC 3164):** Enable logging , Host 192.168.1.25, Min severity Error.
- Versions:** Hardware 1.0.0, Software 5.4.0, Database 1.0.0, Serial 000260.

An "Information" dialog box is open in the center, displaying "Calibration Completed" with an "OK" button. Below the dialog, a system block diagram is visible, showing components like DC+DDC, DSP 200MHz, RISC 266MHz Linux, and DAC. The diagram also includes a "Reference" section with "Internal" selected and a "Voting" section with "No Voting" selected. Power-related information is shown on the left: RSSI -130 dBm, C/N 6 dB, Forward 2.0 W, Reverse 0.2 W, and Power 2.0 W. The status bar at the bottom indicates "admin", "Connected to base station : 201@192.168.1.201 (FM ONLY LICENSE ACTIVE)", and "01:34PM".

4. You should see now that the TX power reading on the RF communication test set is nearly matching the reading of power on the IP commander graphical user interface.