PCS Skylight Tuning Procedure

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Revision History

Rev/Ver	Description	Date	Changed By

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PCS Skylight Tuning Procedure

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.

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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 5dBm level

measure the Downlink RF Power Calibration at 10dBm 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.

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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.

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