Model :USHR-800NIH

Bi-directional Amplifier's Technical Description

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FCC Part 2.983(d) Technical Description

(d)(1) Type or types of emission

iDEN

(d)(2) Frequency Range

Forward : 851 - 866 MHz

Reverse : 806 - 821 MHz

(d)(3) Range of Operating Power Levels, and description of any means provided for variation of operating power

- 53 dBm to + 12dBm (15.8 mW) (Gain : 65 dB)

(d)(4) Maximum power rating as defined in the applicable parts of the FCC rules

90.635(a) : The effective radiated power for base stations used in suburban-conventional systems of communications shall be no greater than 500 Watts (27 dBw) .

90.635(d) : Mobile/Portable stations are limited to 100 Watts (20 dBw).

(d)(5) The dc voltages applied to and dc currents into the several elements of the final radio frequency amplifying device for normal operation over the power range

5 VDC at 150 mA on A1 and A7

(d) (6) Function of each electron tube or semiconductor or other active circuit device

Refer to Attachment : Data Sheet

(d)(7) Complete circuit diagram

Refer to Attachment : Circuit Diagram

(d)(8) Instruction books or installation manual

Refer to Attachment : Installation and Operations Manual

(d) (9) Tune-up procedure over the power range, or at specific operating power levels

Refer to Attachment : Installation and Operations Manual

(d)(10) A description of all circuitry and devices provided for determining and stabilizing frequency

N/A

(d)(11) A description of any circuits or devices employed for suppression of spurious radiation

Duplexer : F2, F5
Band Pass Filters : F1, F6
SAW Filters : F3, F4

(d)(11) A description of any circuits or devices employed for limiting modulation

N/A

(d)(11) A description of any circuits or devices employed for limiting power

If the output power level of reverse path(=Up Link) exceeds prescribed limit, then reverse path is disconnected and the RX Alarm LED is on. Bi-directional amplifier automatically checks output power level every one minute of a 5 minute cycle when reverse path has over power . If reverse path still exceeds level then shut down mode continues for another 10 minutes. After 10 minutes, reverse path is switched on again and it checks output power level again. (Repeats the process)
Forward path procedure is same as reverse path except TX Alarm LED.

(d)(12) For equipment employing digital modulation techniques, a detailed description of the modulation of the modulation system to be used, including the response characteristics

(Frequency, phase, and amplitude) of any filters provided, and a description of the modulating wavetrain, shall be submitted for the maximum rated conditions under which the equipment will be operated.

N/A

(e) The data required by 2.985 through 2.997, inclusive, measured in accordance with the procedures set out in 2.999

**** Provided by FCC Approval Company after the tests. ****

(f) A photograph or drawing of the equipment identification plate or label showing the information to be placed thereon.

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(g) E.U.T 8 x 10 photographs

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