

## 2. Specifications

### 2.1 Electrical Specification

| Item                         |           | Specifications        |                                | Note                        |
|------------------------------|-----------|-----------------------|--------------------------------|-----------------------------|
| Frequency Range              | Down Link | 1930 ~ 1990 MHz       |                                | US PCS 1900<br>BW: 60MHz    |
|                              | Up Link   | 1850 ~ 1910 MHz       |                                |                             |
|                              | Down Link | 869 ~ 894 MHz         |                                | Cellular 800<br>BW : 25 MHz |
|                              | Up Link   | 824 ~ 849 MHz         |                                |                             |
| Input Power limit            | Down Link | -28dBm                |                                | US PCS 1900 ALC : >25dB     |
|                              | Up Link   | -28dBm                |                                | US PCS 1900 ALC : >25dB     |
|                              | Down Link | -28dBm                |                                | Cellular 800 ALC : >25dB    |
|                              | Up Link   | -28dBm                |                                | Cellular 800 ALC : >25dB    |
| Output Power                 | Down Link | +12dBm/1FA            |                                | US PCS 1900                 |
|                              | Up Link   | +12dBm/1FA            |                                |                             |
|                              | Down Link | +12dBm/1FA            |                                | Cellular 800                |
|                              | Up Link   | +12dBm/1FA            |                                |                             |
| Gain                         | Down Link | 65dB ( ± 2dB)         |                                | US PCS 1900                 |
|                              | Up Link   | 65dB ( ± 2dB)         |                                |                             |
|                              | Down Link | 65dB ( ± 2dB)         |                                | Cellular 800                |
|                              | Up Link   | 65dB ( ± 2dB)         |                                |                             |
| Ripple                       |           | < 6dB                 |                                | US PCS 1900                 |
|                              |           | < 5dB                 |                                | Cellular 800                |
| Noise Figure                 |           | < 8dB                 |                                | US PCS 1900 / Max Gain      |
|                              |           | < 8dB                 |                                | Cellular 800 / Max Gain     |
| Propagation Delay            |           | 1us max               |                                | US PCS 1900/ Cellular 800   |
| VSWR                         |           | ≤ 2.0 : 1             |                                | US PCS 1900/ Cellular 800   |
| Output Power@1dB Compression |           | +16dBm/CW             |                                | US PCS 1900/ Cellular 800   |
| Output IP3                   |           | +31dBm                |                                | US PCS 1900/ Cellular 800   |
| Down/Up Link Shutdown Level  |           | +14dBm/Total ( ± 1dB) |                                | US PCS 1900/ Cellular 800   |
| Spurious                     |           | ±885KHz               | -45dBc/30kHz                   | US PCS 1900, 1FA            |
|                              |           | ±1.98MHz              | -50dBc/30kHz                   | US PCS 1900, 1FA            |
|                              |           | ±750KHz               | -45dBc/30kHz                   | Cellular 800, 1FA           |
|                              |           | ±1.98MHz              | -55dBc/30kHz                   | Cellular 800, 1FA           |
| Frequency Stability          |           | ≤ ± 0.05ppm           |                                | US PCS 1900/ Cellular 800   |
| GUI Interface                |           | RS-232C               |                                |                             |
| Alarm & Status               | Display   | GREEN ON              | POWER                          |                             |
|                              |           | Red-1 ON              | Cellular TX/RX Overpower Alarm |                             |
|                              |           | Red-2 ON              | PCS TX/RX Overpower Alarm      |                             |
| Power Consumption            |           | 5.3V / 1.4A           |                                |                             |
| Input Voltage                |           | DC 5.3V / 1.8A        |                                | AC/DC Adapter               |
| RF Connector                 |           | N-type Female         |                                |                             |

## 2.2 Mechanical Specification

| Item     | Description       | Specifications | Note |
|----------|-------------------|----------------|------|
| Repeater | Dimensions(L*W*H) | 119*156*33(mm) |      |
| Total    | Weight            | <1.5Kg         |      |

## 2.3 Environmental Specification

| Item        | Specifications | Note |
|-------------|----------------|------|
| Temperature | -10 ~ 40       |      |
| Humidity    | 5% ~ 95%       |      |

## 2.4 Functional Specification

- On excessive input power or if oscillation starts, auto shutdown process begins separately for each Cellular and PCS module in the USHR-0819SS.
- To maintain constant power level, automatic level control (ALC) function is used.
- Upon reboot from power outage, the unit will initialize to the last operating state before the power outage.