



# USR-1900A/B Ultra Slim Repeater

## Technical Description

ACE Technology

*April-6-2001*

### **FCC Part 2.983(d) Technical Description**

#### **(d)(1) Type or types of emission**

: G7W

#### **(d)(2) Frequency Range**

1) PCS CDMA : A Block

Forward: 1930 - 1945 MHz

Reverse : 1850 - 1865 MHz ,

2) PCS CDMA : B Block

Forward: 1950 - 1965 MHz

Reverse : 1870 - 1885 MHz

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

: -45dBm to +14dBm (Gain : 55 to 85 dB)

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

: 24.232(a) ; Maximum Peak output power for base station transmitters should not exceed 100 Watts.

24.232(b) ; Mobile/Portable stations are limited to 2 Watts EIRP peak power.

The maximum output power is 14dBm

#### **(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**

: 5.0 VDC at 105 mA on U17 and U17A for USR-1900A

5.0 VDC at 105 mA on U17 and U17A for USR-1900B

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

---



:Refer to Attachment : Schematics and Parts list.

**(d)(7) Complete circuit diagram**

: Refer to Attachment : Schematics and Parts list.

**(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**

- 1) USR-1900A  
U21,U21A : 10 MHz Reference for L.O PLL U20,U20A
- 2) USR-1900B  
U21,U21A : 10 MHz Reference for L.O PLL U20,U20A

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

- 1) USR-1900A  
Duplexer : U1, U1A,  
Band pass Filters : U4,U4A,U13,U13A, U16,U16A, U18,U18A,U19,U19A  
SAW Filters U7,U7A
- 2) USR-1900B  
Duplexer : U1, U1A,  
Band pass Filters : U4,U4A,U13,U13A, U16,U16A, U18,U18A,U19,U19A  
SAW Filters U7,U7A

**(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**

Micro controller that limits the output to the specified output power level. If the unit detects that the output power exceeds the specified limit, the unit is put to stand-by mode with no output. If the condition persists for third iteration, power to the unit is cut off.

---



**(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