

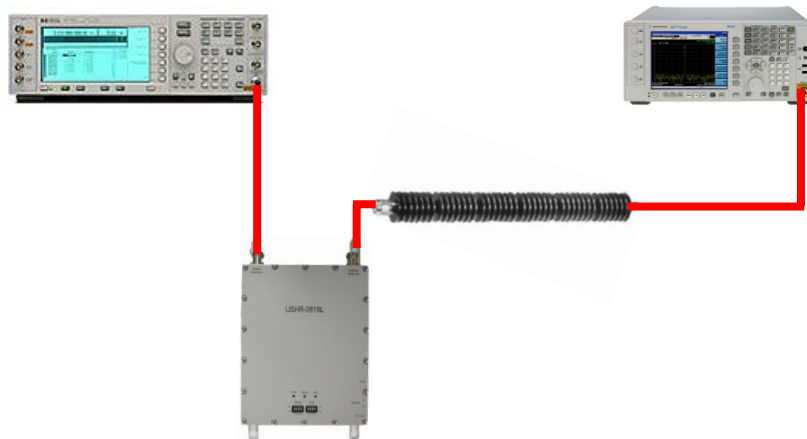
Tune-up Procedure

1. Test equipment & Accessory

No	Equipment	Model Name	Manufacturer
1	Signal Generator	E4437B	Agilent
2	Spectrum Analyzer	N9020A	Agilent
3	Network Analyzer	ZVA 24	R&S
4	Attenuator	66-30-33	Weinschel

2. Cable

No	Cable Number	Type	Length
1	RAPA-C09	N type – N type	1 m
2	RAPA-C10	N type – N type	1 m



3. Test Configuration for USHR-0819L

Link	Band	Max. Gain	Min. Input Power	Output Power
Down Link	Cellular	65 dB	-53 dBm	+12 dBm
	PCS			
Up Link	Cellular		-50 dBm	+15 dBm
	PCS			

4. Specification of EUT by Manufacturer

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Written by S.O.Kang

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Subject : USHR-0819L

SPECIFICATION SHEET

Model Name: USHR-0819L



ACE TECHNOLOGIES

Date 2012.08.09		Sheet No. 2/4	Version No. 1.0
Written by S.O.Kang	Checked by	Confirmed by	Authorized by
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Revised date	Description	Remarks
2012.08.09	Initial version	

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1. Electrical Specification

Item		Specifications		Note
Frequency Range	Down Link	1930 ~ 1990 MHz		PCS1900 BW: 60MHz
	Up Link	1850 ~ 1910 MHz		
	Down Link	869 ~ 894 MHz		Cellular800 BW: 25 MHz
	Up Link	824 ~ 849 MHz		
Modulation Type		GSM, EDGE, CDMA, WCDMA		
Input Power		-28dBm max		
Output Power	Down Link	+12dBm		PCS1900
	Up Link	+15dBm		
	Down Link	+12dBm		Cellular800
	Up Link	+15dBm		
Gain	Down Link	65dB (±1.0dB)		PCS1900, Average Gain on 60MHz BW
	Up Link	65dB (±1.0dB)		
	Down Link	65dB (±1.0dB)		Cellular800, Average Gain on 25MHz BW
	Up Link	65dB (±1.0dB)		
Gain Control Range		25dB		could be changed Dip switch or GUI
Ripple		< 6.5dB		PCS1900
		< 4.5dB		Cellular800
Noise Figure		< 6dB typical		PCS1900 Uplink Max Gain
		< 5dB typical		Cellular800 Uplink Max Gain
Propagation Delay		5us max		PCS1900/ Cellular800
VSWR		≤ 1.8 : 1		PCS1900/ Cellular800
ALC Level	Down Link	+12dBm (±1dB)		PCS1900/ Cellular800
	Up Link	+15dBm (±1dB)		PCS1900/ Cellular800
Shutdown Level	Down Link	+14dBm (±1dB)		PCS1900/ Cellular800
	Up Link	+17dBm (±1dB)		PCS1900/ Cellular800
Spectrum Mask		±750KHz	-45dBc/30kHz	Note1. Downlink CDMA 9CH Signal Note2. Uplink CDMA Reverse Signal
		±1.98MHz	-50dBc/30kHz	
Spurious		9 ~ 150kHz	-13dBm/30kHz	
		150kHz ~ 30MHz	-13dBm/30kHz	
		30MHz ~ 1GHz	-13dBm/30kHz	
		1GHz ~ 12.75GHz	-13dBm/30kHz	
Frequency Stability		≤ ±0.01ppm		PCS1900/ Cellular800
GUI Interface		RS-232C		
Alarm & Status	Display	PWR	Normal : Green, Pwr turn off : Off	
		Cellular	Normal : Green, Shutdown : Off, Checking SD : Red	
		PCS	Normal : Green, Shutdown : Off, Checking SD : Red	
Power Consumption		5.6Vdc / 1.7A		
Input Voltage		DC 5.6Vdc / 2.5A		AC/DC Adapter
RF Connector		N-type Female		

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2. Mechanical Specification

Item	Specifications	Note
Dimensions (L x W x H)	151mm x 191mm x 35mm (5.95 x 7.5 x 1.38 inch)	
Weight	2Kg	

3. Environmental Specification

Item	Specifications	Note
Temperature	-30 ~ 55°C (-22 ~ 131°F)	
Humidity	10 ~ 95%	

4. Operating Functions

This product has below serious functions.

- First function is ALC. ALC is an abbreviation for automatic level control. This function limit output power level that is changed by input signals.
- Third function is shutdown. This function is for protecting the booster. The booster would operate ALC function if input signal would be stronger signal then normal one. But if input signal would be over ALC range, Shutdown function will operation in this time.
- Fifth function is LED indicating status for booster got normal or abnormal.
- Sixth function is RS-232C. This function offers you to interface GUI. Therefore, User can set parameters of booster as interconnecting between laptop computer and booster.