



*The W2115CE/W2123CE UMTS/LTE 2100MHz band selective repeater enhance the indoor cellular coverage for individual operators. The repeater is using the industrial band selective solution with IF SAW filters, which could only boost the signal of the specific frequency of a operator, as often demanded by PTT's in EU territory. Except the traditional MGC, AGC function, the repeater has also introduced many other function, such as the Input and Output Signal Strength indicators, Antenna isolation detection, Smart mode and Uplink silent mode that turns of the repeaters uplink to minimize possible uplink interference.*

### **Easy configuration via front panel LCD display and indicators**

Each W2115CE/W2123CE is delivered with a LCD based user friendly configuration manager interface that provides the operator, via a touch screen, to set up the repeater frequency and parameters fast, easy and simple with operational user friendliness. The input signal indicators shows the input from the donor antenna to ensure correct angle against possible base stations.

### **Auto Level Control (ALC)**

The ALC maintain steady output power even when the donor source signal fluctuates. It also prevents UL interference and self-oscillation from insufficient isolation between donor and server antennas.

### **Antenna Isolation Detection (AID)**

The AIT function detect and prevent interference and self-oscillation caused by insufficient isolation between donor and server antennas.

### **Manual Gain Control (MGC)**

The MGS provide manual gain attenuation to ensure flexibility to various signal conditions.

### **Smart mode (S)**

Smart function set the gain attenuation automatically to prevent interference and alarm.

### **Uplink silent mode (USM)**

USM turns of the uplink gain when there is no call or data transmission via the repeater. It will activate immediately when a call a data session is initiated. USM minimize possible uplink interference.

### **Specifications**

Electrical Specification	UMTS/LTE 2100	1920~1980MHz	2110~2170MHz
Bandwidth		20MHz fixed bandwidth with movable central frequency	
Maximum Gain		≥70dB	≥70dB / ≥75dB
Output Power		≥15dBm / ≥20dBm	≥15dBm / ≥23dBm

Out of Band Gain	$2.7 \leq f_{\text{offset}} < 3.5 \text{MHz}$	<60dB
	$3.5 \leq f_{\text{offset}} < 7.5 \text{MHz}$	<45dB
	$7.5 \leq f_{\text{offset}} < 12.5 \text{MHz}$	<45dB
	$12.5 \leq f_{\text{offset}}$	<35dB
Spurious Emission	9kHz~150KHz	$\leq -36 \text{dBm}/1 \text{kHz}$
	150kHz~30MHz	$\leq -36 \text{dBm}/10 \text{kHz}$
	30MHz~1GHz	$\leq -36 \text{dBm}/100 \text{kHz}$
	1 GHz ~ $F_{\text{low}} - 10 \text{MHz}$	$\leq -30 \text{dBm}/1 \text{MHz}$
	$F_{\text{low}} - 10 \text{MHz} \sim F_{\text{high}} + 10 \text{MHz}$	$\leq -15 \text{dBm}/1 \text{MHz}$
	$F_{\text{high}} + 10 \text{MHz} \sim 12.75 \text{GHz}$	$\leq -30 \text{dBm}/1 \text{MHz}$
ACRR		20dBc/30KHz@±5MHz
		20dBc/30KHz@±10MHz
Frequency Stability		$\leq \pm 0.01 \text{ppm}$
Error Vector Magnitude		$\leq 12.5\%$
Peak Code Domain Error		$\leq -35 \text{dB}$ @Spreading Factor 256
Auto Gain Control(AGC)		$\geq 20 \text{dB}$
Manual Gain Control		31dB/1dB step
Gain Flatness		$\leq 4 \text{dB(P-P)}$
Noise Figure		$\leq 6 \text{dB}$
VSWR		$\leq 1.8$
Group Delay		$\leq 5 \mu\text{s}$
Power Consumption		$\leq 15 \text{W}$
Power Supply		DC 4A/9V
<b>Mechanical specification</b>		
Dimensions		248*166*55mm
Weight		$\leq 2 \text{Kg}$
I/O Connector/ Impedance		N-female
<b>Environmental specification</b>		
IP Rating		IP40
Operating Temperature		-10°C~55°C
CE and ROHS		Approved: 1999/5/EC, 2004/108/EC and 2014/53/EU
<b>Monitoring specification</b>		
LED indication	Power LED	DC ON/OFF
	Alarm LED	Antenna isolation is lower than the isolation for equipment installation Or ALC1~5dB,red

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