

W2115CE / W2123CE - UMTS/LTE 2100MHz

Band Selective 15dB/23dB repeater

NX - Network Expertise Sweden AB



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



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

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