

12.3 Generic model

Results

- [Introduction](#)
- [12.3.1 Generated signals results](#)
- [12.3.2 Calculated radius](#)
- [12.3.3 Intermodulation results](#)
- [12.3.4 Overloading results](#)

Introduction

After running a simulation with **generic system**, each of these signals is displayed with indicated array size (i.e. the number of valid generated events), unit and then the type (vector, double etc..).

Double-clicking on one of the vectors, the signal dialog window (see Annex A1.5) will plot the signal as well as its statistical features.

Victim Results (Generic System)		
Name	Value	Unit
Coverage radius	0.1	km
Interference Compatibility Calculations	Values[12]	
iRSS Unwanted (summation)	Array[20000]	dBm
iRSS Blocking (summation)	Array[20000]	dBm
dRSS	Array[20000]	dBm
iRSS Unwanted (summation) + iRSS Blocking (summation)	Array[20000]	dBm
Normalized emission mask	Mask function[2 points]	MHz -> dBc

Link 1 Results (Generic System)		
Name	Value	Unit
Coverage radius	0.1	km
Normalized emission mask	Mask function[2 points]	MHz -> dBc
Blocking mask integral	Constant function[1000.0]	dB -> MHz


Statistics 		
Name	Value	Unit
Simulated performed on	4	processor
Total simulation duration	0.405	second
Event generation duration	0.405	second
Calculation rate	49383	events/second
Simulation date	2017-05-31 12:28:26	
Simulation seed	-2435710771087055815	

Figure 247: List of the output results for generic vs generic simulation

12.3.1 Generated signals results

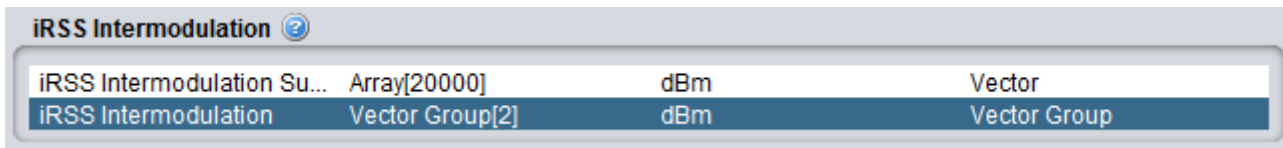
- dRSS folder (ANNEX 4:) with dRSS vector;
- iRSS unwanted folder (ANNEX 5:) with as many iRSSunwanted vector for each interfering link and one vector for the sum;
- iRSS blocking folder (ANNEX 5:) with as many iRSSblocking vector for each interfering link and one vector for the sum.

12.3.2 Calculated radius

The calculated radius folder contains the values of the coverage and/or simulation radii calculated for the event generation when set to non-correlated (See ANNEX 13:).

12.3.3 Intermodulation results

iRSS intermodulation folder (Figure 248) with as many iRSSintermod vector for each combinatory couple in case there are more than one interfering link and one vector for the sum.



iRSS Intermodulation ?			
iRSS Intermodulation Su...	Array[20000]	dBm	Vector
iRSS Intermodulation	Vector Group[2]	dBm	Vector Group

Figure 248: Intermodulation results folder

12.3.4 Overloading results

As a result of the equation described in Annex A5.4, for each event and at each frequency, the sum of the $iRSS_{overloading}$ ($iRSS_{sum_overloading}$) will be compared to the overloading threshold $O^{th}(f_i)$ at that frequency (f_i). The difference, delta (in dB), will be stored.

- When $\text{delta} \geq 0$, then the receiver is overloaded at that f_i (i.e. the rest of the frequency do not matter);
- When $\text{delta} < 0$, then the receiver is not overloaded at f_i .

If only one frequency is present, the $iRSS_{sum_overloading}$ is compared to the $O^{th}(f_i)$ and the difference will be stored for that event. If more than one frequency is present, the highest delta value will be indicated in the vector (i.e. irrespective of the frequency) such that

for each event j (where $dRSS > \text{sensitivity}$) {

for Frequency = i to number of total frequencies { $\text{delta_max}(j) = \max(\text{delta}(f_i));$ }

(Eq. 67)

}

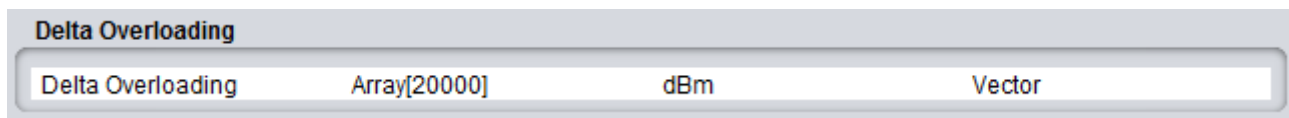


Figure 249: Overloading results folder

The output delta overloading vector is of the dimension delta x number of events

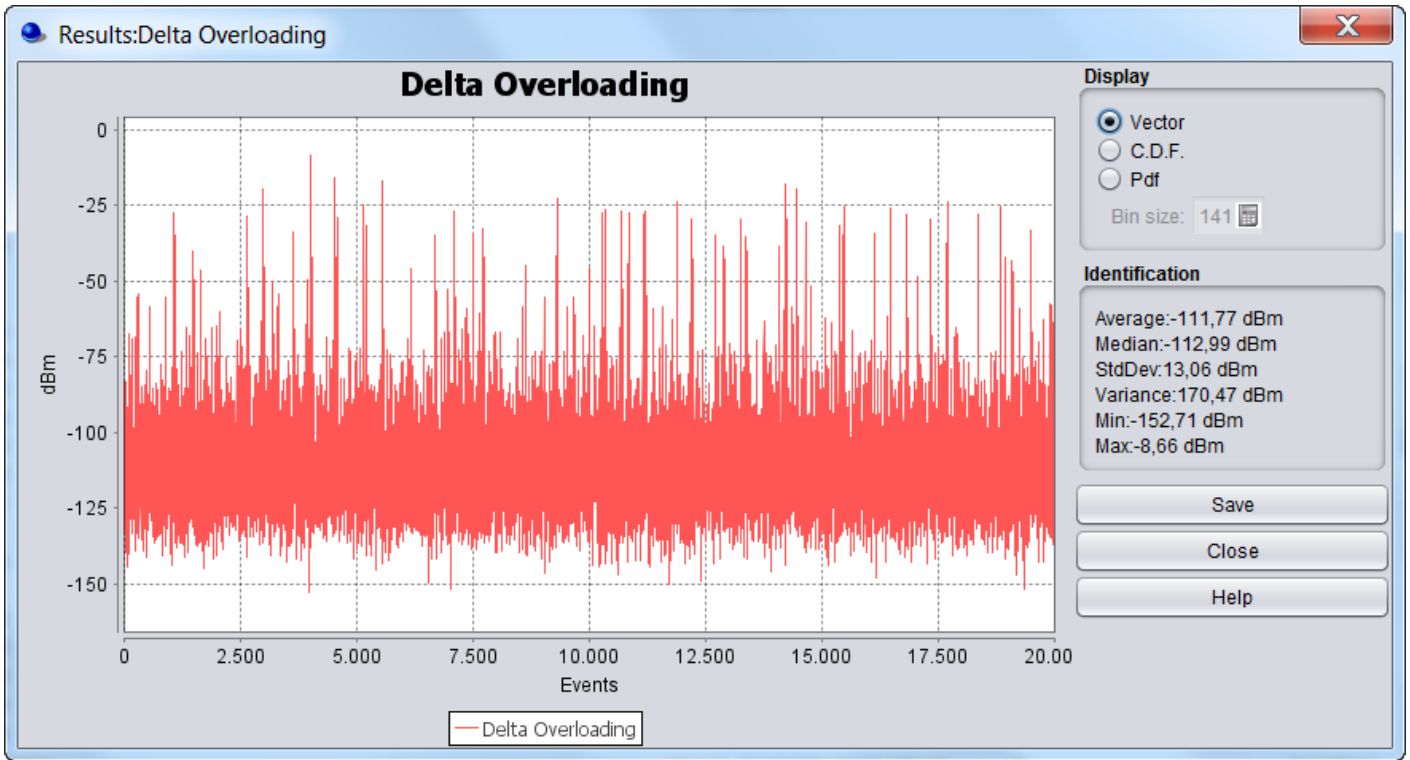


Figure 250: Delta overloading result vector