

Geometry View Calculate Far field plots

Name

Wires 0

No.

next

Sources 0

No.

next

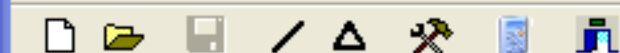
(MHz)

Il software MMANA-GAL è opera intellettuale di JE3HHT (Makoto Mori), DL1PBD (Alex Schewelew) e DL2KQ (Igor Gontcharenko). Tutto il materiale scritto e grafico di tale software è di esclusiva proprietà degli Autori. (copyright) <http://mmhamsoft.amateur-radio.ca/>

Il presente tutorial è stato realizzato senza fini di lucro , con il solo scopo di aiutare gli appassionati di lingua italiana ad utilizzare il suddetto software. L'autore del tutorial , ik7jwy, non è in alcun modo collegato al progetto MMANA-GAL nè ad alcuno dei suoi Autori. Si declina qualsiasi responsabilità per l'uso scorretto del tutorial. Si rinvia in ogni caso all'help on line presente nel software MMANA-GAL.

Sono gradite segnalazioni di errori.

L'autore del tutorial è reperibile su <http://www.hamradioweb.org/forums>



Geometry View Calculate Far field plots

 Name  Freq  MHz  lambda  
 Wires 0 Auto segmentation: DM1  DM2  SC  EC   Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
next								

## Tutorial n.2 (versione 1.0 25-8-2007)

Approfondiamo la conoscenza della cartella "Geometry" del software. Vediamo, in particolare, come inserire negli elementi dell'antenna eventuali carichi (loads).

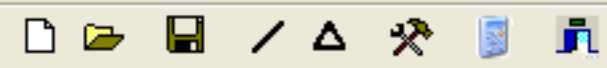
 Sources 0  Auto Voltage

No.	PULSE	Phase dg	Volt. V
next			

 Loads 0  Use loads

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
next						





Geometry View Calculate Far field plots

Name  Freq  MHz  lambda

Wires 1 Auto segmentation: DM1  DM2  SC  EC   Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	5.25	0.0	1.0	-1
next								

**Supponiamo che al posto di un dipolo a mezz'onda per una sola banda si voglia analizzare un dipolo bibanda 20m e 15m. Tale dipolo, generalmente, ha su ciascuno dei bracci una trappola, la cui funzione è quella di un "interruttore" azionato dalla stessa radiofrequenza. In pratica, se si trasmette in banda 15 metri, le trappole interrompono il percorso delle correnti a RF nel punto in cui esse sono ubicate lungo il dipolo, facendo risultare quest'ultimo più corto della sua lunghezza fisica. Se si trasmette, invece, in banda 20m, le trappole risultano quasi trasparenti alla radiofrequenza, facendo risultare, anche in questo caso, il dipolo della giusta lunghezza. Vediamo, allora come inserire le trappole nel nostro modello.**

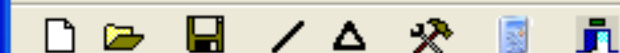
Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1c	0.0	1.0
next			

Loads 0  Use loads Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
next						





Geometry View Calculate Far field plots

 Name  Freq  MHz  lambda  
 Wires 1 Auto segmentation: DM1  DM2  SC  EC   Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	5.25	0.0	1.0	-1
next								

**Poichè le due trappole dovranno essere montate sui due bracci del dipolo in posizione simmetrica rispetto al punto di alimentazione, non possiamo lavorare su un unico elemento, come avevamo fatto nel tutorial n.1. Dobbiamo, ora, suddividere il dipolo in due parti uguali (i due bracci), su ciascuna delle quali andremo poi a piazzare la trappola.**  
**La tabella della geometria del dipolo, quindi, diventa con due righe, anzichè una sola, e ciascuna riga conterrà i dati geometrici di ciascuno dei due bracci del dipolo, ossia le coordinate cartesiane dei punti iniziale e finale di ciascun braccio. In definitiva, avremo la seguente tabella.**

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1c	0.0	1.0
next			

Loads 0  Use loads

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
next						

Comments



**riga 1 = primo braccio del dipolo**



Name:  Freq:  MHz  lambda

Wires 2 Auto segmentation: DM1  DM2  SC  EC   Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								



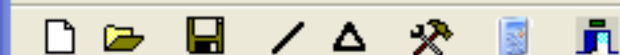
**riga 2 = secondo braccio del dipolo**

Sources 0  Auto Voltage

No.	PULSE	Phase dg	Volt. V
next			

Loads 0  Use loads Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
next						



Geometry View Calculate Far field plots

 Name  Freq  MHz  lambda  
 Wires 2 Auto segmentation: DM1  DM2  SC  EC   Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

**dobbiamo aggiornare anche il punto di alimentazione, che ora non è più esprimibile come w1c, come nel tutorial n.1. Ora, infatti, il punto di alimentazione va considerato alla fine del primo braccio oppure all'inizio del secondo braccio. Rammentando la notazione consentita per l'inserimento del punto di alimentazione, potremo, quindi, inserire, a scelta: w1e oppure w2b. Inseriamo w1e.**

Sources 0  Auto Voltage

No.	PULSE	Phase dg	Volt. V
next			

Loads 0  Use loads

Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
next						





Geometry View Calculate Far field plots

Name  Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage Loads 0  Use loads

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
next						





Geometry View Calculate Far field plots

Name  Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

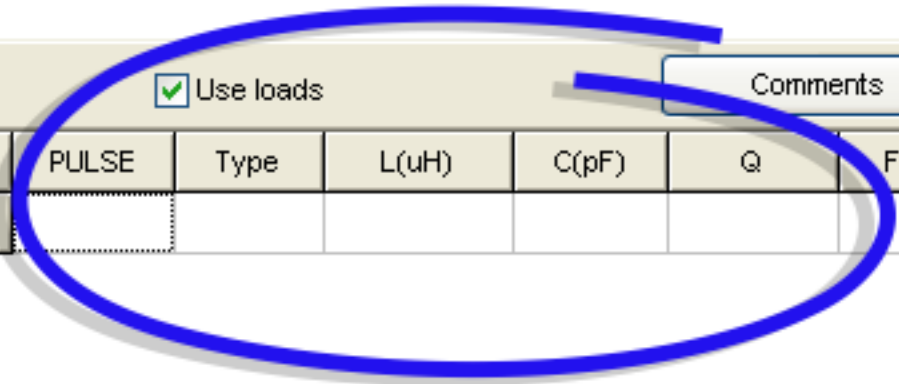
No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0						-1
next								

**Entriamo ora nella parte che ci interessa della cartella Geometry, ossia quella per l'inserimento dei carichi (loads).**

Sources 1  Auto Voltage Loads 0  Use loads  Comments

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
next						







Geometry View Calculate Far field plots

Name  Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

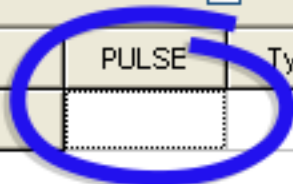
No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

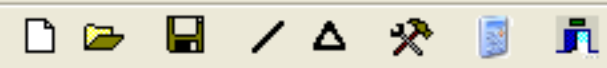
Qui inseriremo, con la stessa notazione vista per l'inserimento del punto di alimentazione, il punto dell'elemento in cui vogliamo piazzare la trappola. Volendo mettere la prima trappola al centro del primo braccio del dipolo, inseriremo w1c.

Sources 1  Auto Voltage Loads 0  Use loads

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
next						





Name  Freq  MHz  lambda

Wires 2 Auto segmentation: DM1  DM2  SC  EC   Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

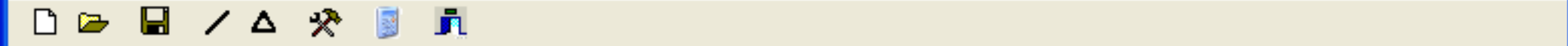
Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 0  Use loads

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
next						

Navigation controls: < | ||| | >



Name  Freq 14.15 MHz  lambda

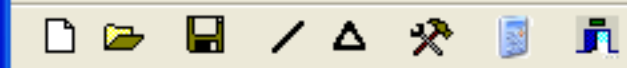
Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage Loads 0  Use loads

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
next						



Geometry View Calculate Far field plots

Name  Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

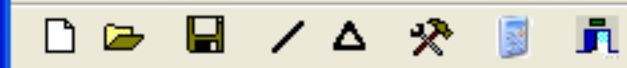
Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 0  Use loads Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
next						





Geometry View Calculate Far field plots

Name  Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

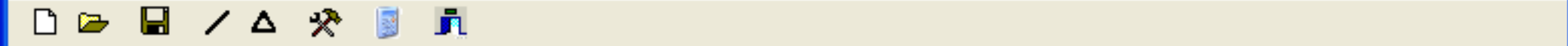
Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 0  Use loads Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
next						





Geometry View Calculate Far field plots

Name  Freq 14.15 MHz  lambda

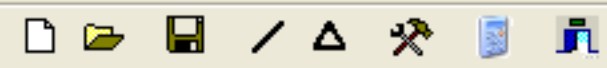
Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage Loads 0  Use loads

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
next						



Geometry View Calculate Far field plots

Name  Freq  MHz  lambda

Wires 2 Auto segmentation: DM1  DM2  SC  EC   Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 0  Use loads

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
next	w					



Geometry View Calculate Far field plots

Name

Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

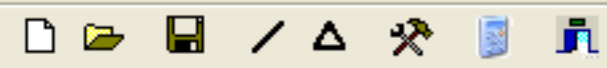
No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 0  Use loads

Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
next	w1					





Geometry View Calculate Far field plots

Name  Freq  MHz  lambda

Wires 2 Auto segmentation: DM1  DM2  SC  EC   Keep connect.

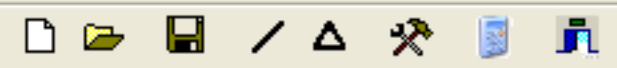
No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 0  Use loads

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
next	w1					



Geometry View Calculate Far field plots

Name  Freq  MHz  lambda

Wires 2 Auto segmentation: DM1  DM2  SC  EC   Keep connect.

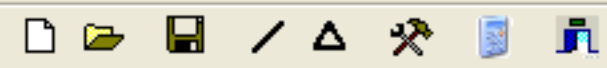
No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 0  Use loads

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
next	w1					



Geometry View Calculate Far field plots

Name  Freq  MHz  lambda

Wires 2 Auto segmentation: DM1  DM2  SC  EC   Keep connect.

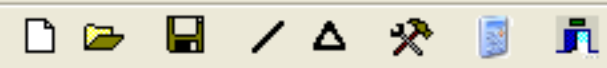
No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 0  Use loads

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
next	w1c					



Geometry View Calculate Far field plots

Name  Freq  MHz  lambda

Wires 2 Auto segmentation: DM1  DM2  SC  EC   Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 0  Use loads

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
next	w1c					





Geometry View Calculate Far field plots

Name  Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	0.0	0.0	
next						





Geometry View Calculate Far field plots

Name

Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

**Qui, invece, va indicato il tipo di carico che intendiamo inserire. Basta fare due volte click con il mouse nella casella per far apparire un menù a scomparsa da cui possiamo scegliere il tipo di carico (LC, R+X, S). Il tipo di default è comunque LC e va bene anche nel nostro caso.**

Sources 1  Auto Voltage

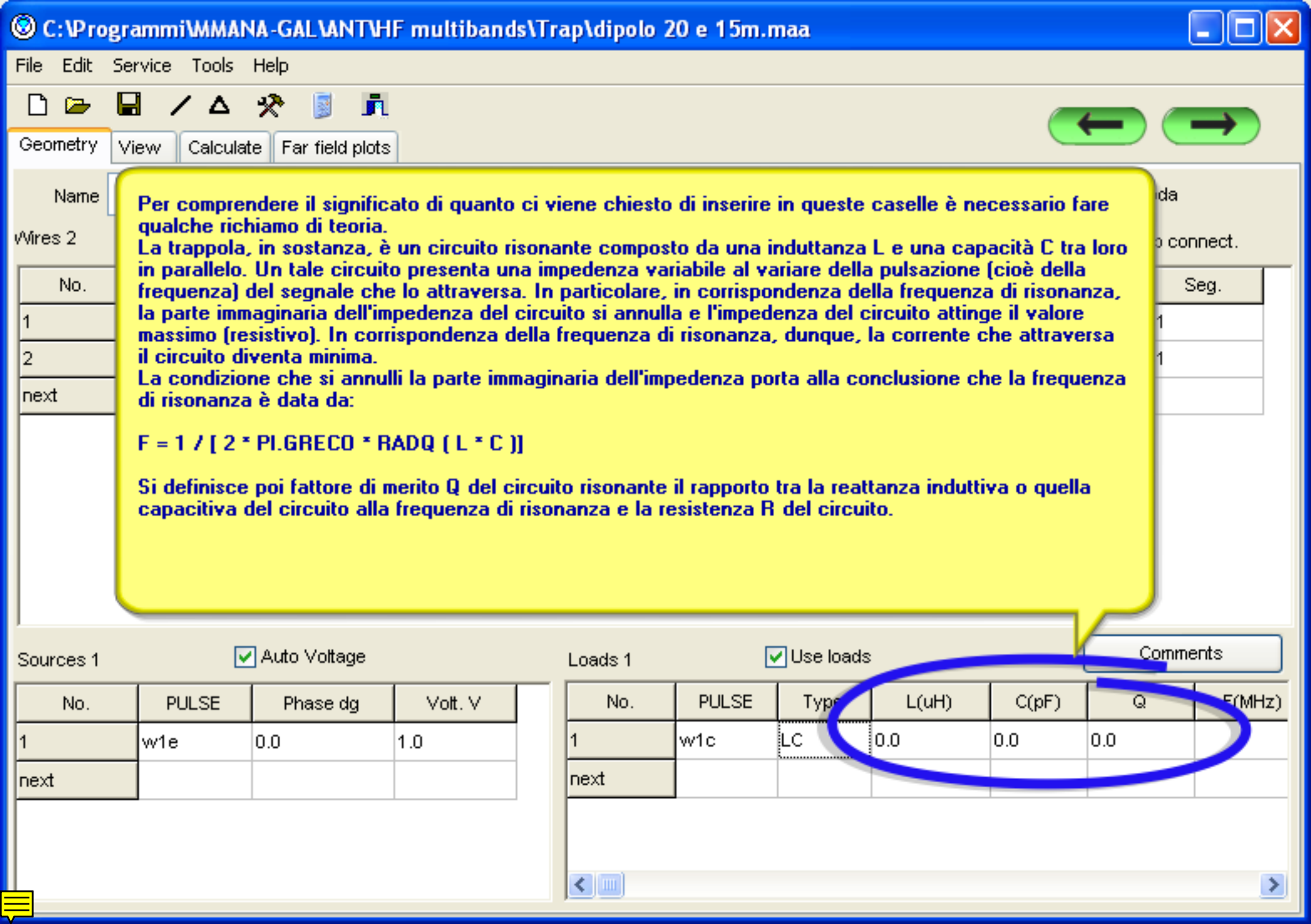
No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	0.0	0.0	
next						

Comments





Name  Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0						-1
next								

**Inseriamo a questo punto i dati richiesti. Se non disponiamo contemporaneamente del valore di induttanza L e di capacità C della nostra trappola, è sufficiente inserire solo la capacità, oppure solo l'induttanza. Il software poi, in base al valore della frequenza F che inseriremo tra poco, calcolerà automaticamente i dati mancanti, imponendo la condizione di risonanza. Supponiamo, dunque, di conoscere solo la capacità e che il suo valore sia 150 pF.**

Sources 1  Auto Voltage

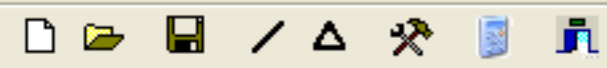
No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	0.0	0.0	
next						







Name  Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

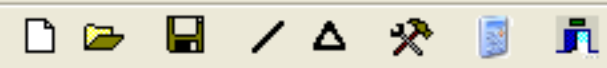
Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	0.0	0.0	
next						





Geometry View Calculate Far field plots

Name  Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	0.0	0.0	
next						





Geometry View Calculate Far field plots

Name

Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads

Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	0.1	0.0	
next						





Geometry View Calculate Far field plots

Name

Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

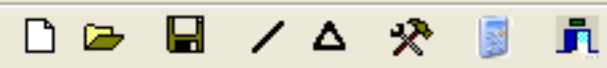
No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads

Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	1	0.0	
next						





Geometry View Calculate Far field plots

Name  Freq  MHz  lambda

Wires 2 Auto segmentation: DM1  DM2  SC  EC   Keep connect.

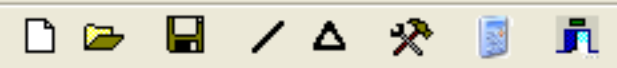
No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	1	0.0	
next						



Geometry View Calculate Far field plots

Name  Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	1	0.0	
next						



Name

Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads

Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	15	0.0	
next						





Geometry View Calculate Far field plots

Name

Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads

Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	150	0.0	
next						





Name

Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads

Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	150	0.0	
next						



Name  Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

**Qui, invece, inseriamo il fattore di merito del circuito costituente la trappola. Il fattore di merito dipende dalle caratteristiche dimensionali della bobina e dalla qualità dell'isolamento del condensatore. In questo tutorial ipotizziamo un Q pari a 150.**

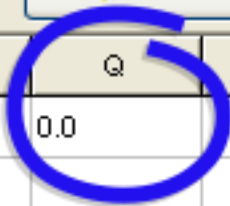
Sources 1  Auto Voltage

Loads 1  Use loads

Comments

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	150	0.0	
next						



Name  Freq  MHz  lambda

Wires 2 Auto segmentation: DM1  DM2  SC  EC   Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

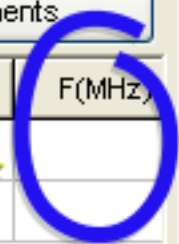
Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt	Comments
1	w1e	0.0	1.0	
next				

**In questa casella va infine inserita la frequenza di risonanza. Ormai è chiaro che tale frequenza è quella dove la trappola deve comportarsi come un interruttore aperto, non facendo quindi "vedere" al segnale RF la parte più esterna dell'elemento dell'antenna. Questa frequenza, quindi, non può che essere una frequenza dei 15 metri. Ad esempio 21,150 MHz. Notiamo che non appena inseriamo tale valore nella casella e confermiamo, il software calcola il dato mancante, cioè l'induttanza L che la trappola dovrà presentare.**

Comments

F(MHz)





Geometry View Calculate Far field plots

Name

Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads

Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	150.0	150.0	
next						





Geometry View Calculate Far field plots

Name

Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads

Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	150.0	150.0	
next						



Name  Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

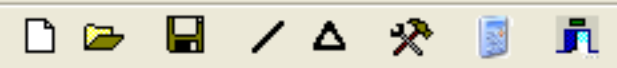
Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	150.0	150.0	21.150
next						





Geometry View Calculate Far field plots

Name  Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	150.0	150.0	21.150
next						



Geometry View Calculate Far field plots

Name

Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

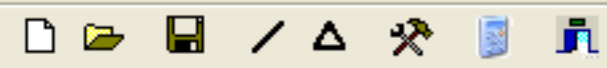
Loads 1  Use loads

Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	150.0	150.0	21.150
next						







Name  Freq  MHz  lambda

Wires 2 Auto segmentation: DM1  DM2  SC  EC   Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

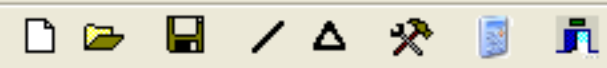
Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	150.0	150.0	21.150
next						





Name  Freq  MHz  lambda

Wires 2 Auto segmentation: DM1  DM2  SC  EC   Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	150.0	150.0	21.150
next						





Geometry View Calculate Far field plots

Name

Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

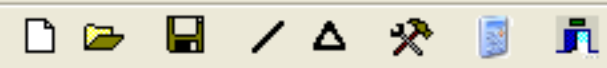
No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads

Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	150.0	150.0	21.150
next						





Name  Freq  MHz  lambda

Wires 2 Auto segmentation: DM1  DM2  SC  EC   Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.0	150.0	150.0	21.150
next						





Geometry View Calculate Far field plots

Name  Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.37751	150.0	150.0	21.15
next						



Geometry View Calculate Far field plots

Name

Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads

Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.37751	150.0	150.0	21.15
next						





Geometry View Calculate Far field plots

Name  Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

**Naturalmente, essendo due le trappole, dovremo inserire anche l'altra, che però è identica alla prima. Cambia solo il punto di inserimento. Dovendola mettere al centro del secondo braccio, metteremo nella apposita casella "w2c". Tutti gli altri dati saranno identici a quelli della prima trappola.**

Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 1  Use loads Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.37751	150.0	150.0	21.15
next						





Geometry View Calculate Far field plots

Name  Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

Sources 1  Auto Voltage Loads 2  Use loads

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.37751	150.0	150.0	21.15
2	w2c	LC	0.37751	150.0	150.0	21.15
next						







Geometry View Calculate Far field plots



Name  Freq 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0	0.0	0.0	5.25	0.0	1.0	-1
next								

**Vediamo ora come viene visualizzato il nostro dipolo con le trappole nella cartella "View" del software.**

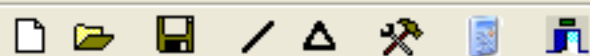
Sources 1  Auto Voltage

No.	PULSE	Phase dg	Volt. V
1	w1e	0.0	1.0
next			

Loads 2  Use loads Comments

No.	PULSE	Type	L(uH)	C(pF)	Q	F(MHz)
1	w1c	LC	0.37751	150.0	150.0	21.15
2	w2c	LC	0.37751	150.0	150.0	21.15
next						




 Rotate around :  Selected wire

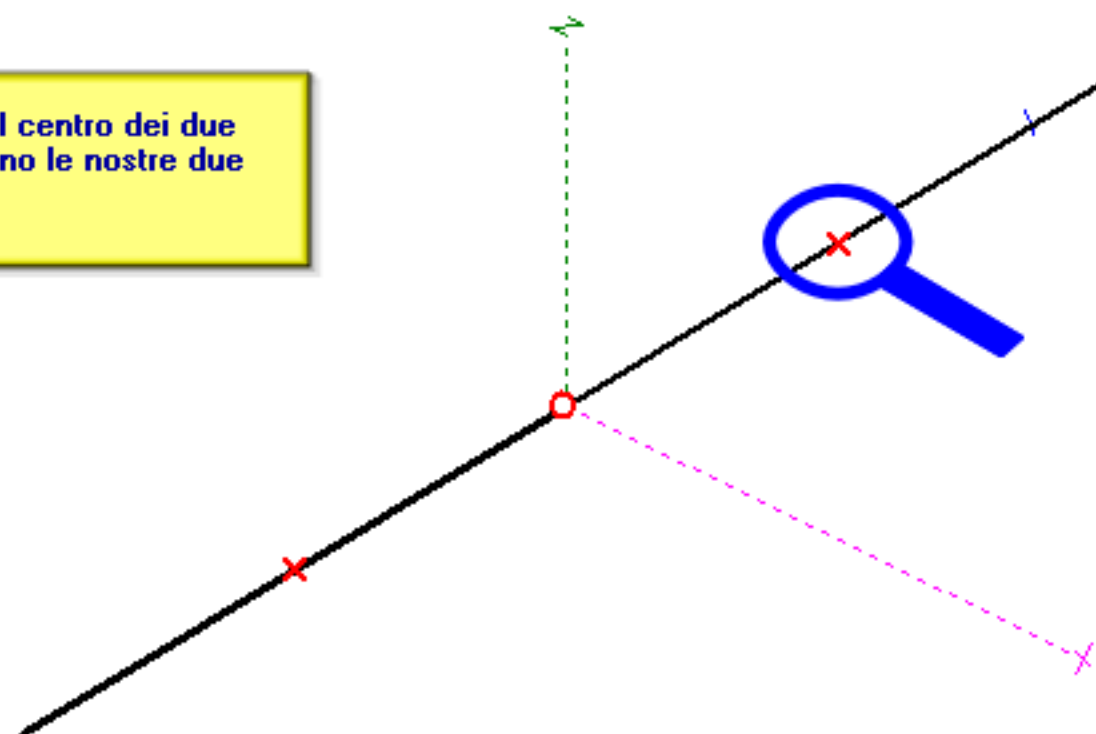
 Middle point of antenna

 X=0, Y=0, Z=H

 Source

 Load

le crocette rosse al centro dei due bracci rappresentano le nostre due trappole.



Wire No.1  
 X1 : 0.0 m  
 Y1 : -5.25 m  
 Z1 : 0.0 m  
 X2 : 0.0 m  
 Y2 : 0.0 m  
 Z2 : 0.0 m  
 R : 1.0 mm  
 Length : 5.25 m  
 Azim. : 0.0 deg  
 Zenith : 90.0 deg

Zoom

 Currents

Zoom currents

 Segments

Selected wire

1

 Pen width x 2



Name: [ ] Freq: 14.15 MHz  lambda

Wires 2 Auto segmentation: DM1 800 DM2 80 SC 2 EC 1  Keep connect.

No.	X1(m)	Y1(m)	Z1(m)	X2(m)	Y2(m)	Z2(m)	R(mm)	Seg.
1	0.0	-5.25	0.0	0.0	0.0	0.0	1.0	-1
2	0.0	0.0						-1
next								

**Nel prossimo tutorial analizzeremo la cartella "View" del software.**

autore reperibile su [www.hamradioweb.org/forums](http://www.hamradioweb.org/forums)

Sources 1  Auto Vol Comments

No.	PULSE	Phase	F(MHz)	Q	F(MHz)
1	w1e	0.0		150.0	21.15
next					

**Per non perdere alcuno di questi tutorials , registrati alla community hamradioweb.org, facendo click su questo pulsante.**

