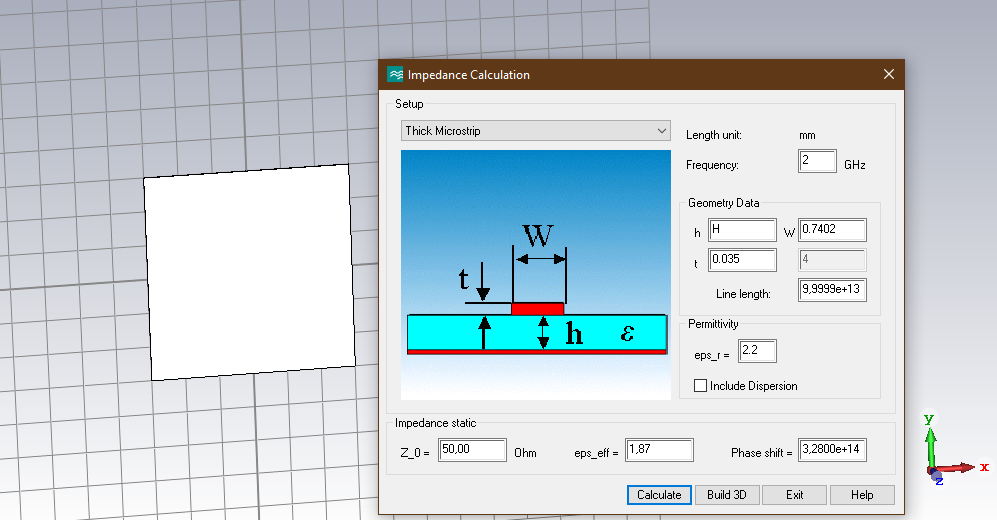
**GAZI UNIVERSITY FACULTY OF ENGINEERING & ARCHITECTURE**

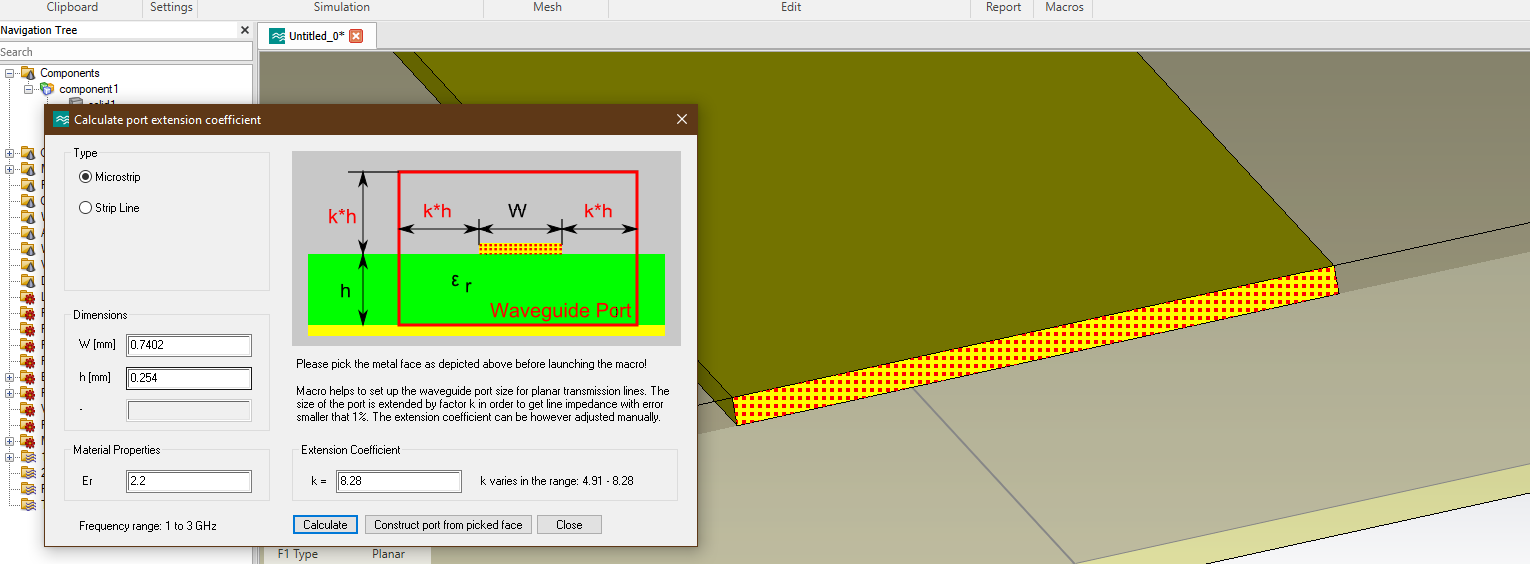
**DEPARTMENT OF ELECTRICAL & ELECTRONIC ENGINEERING EM427**

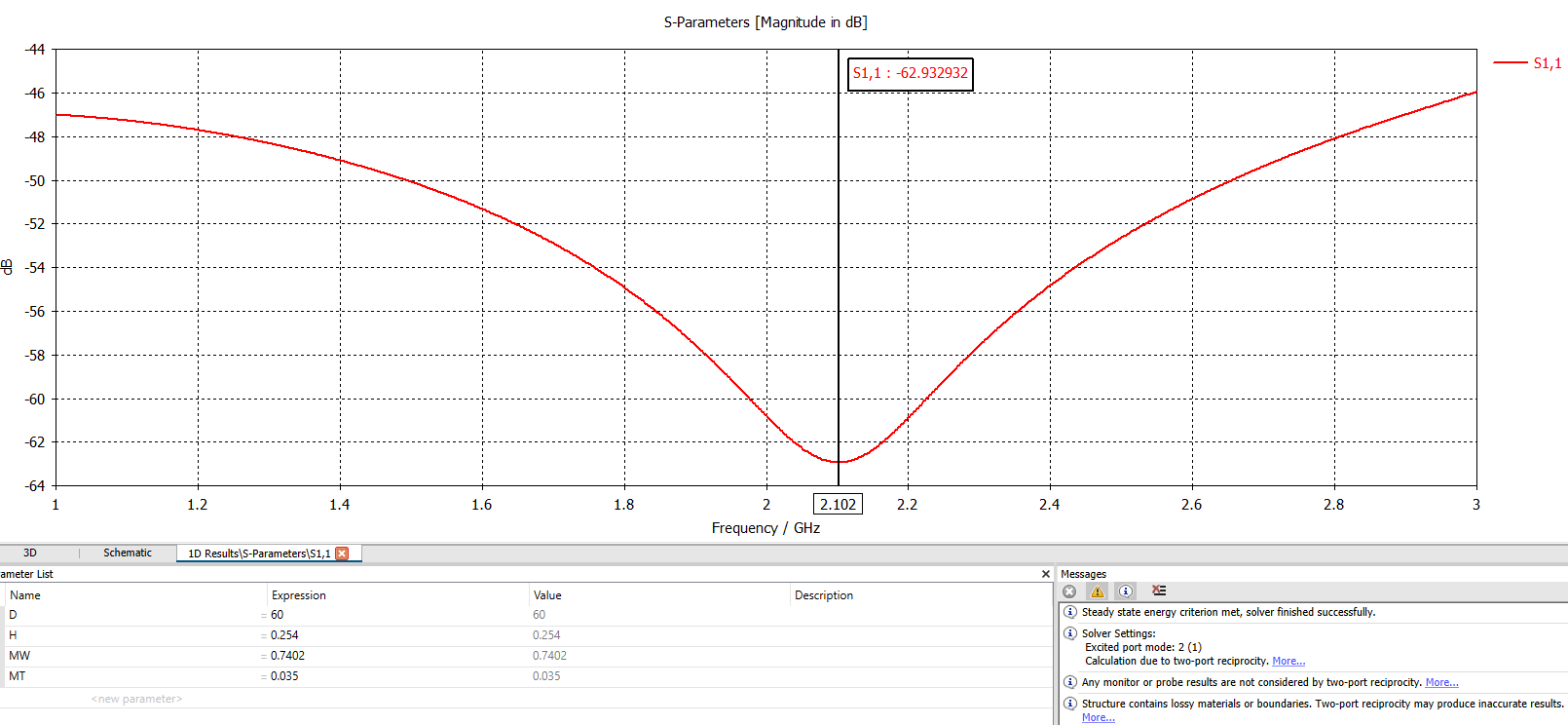
**MICROWAVE TECHNIQUE**

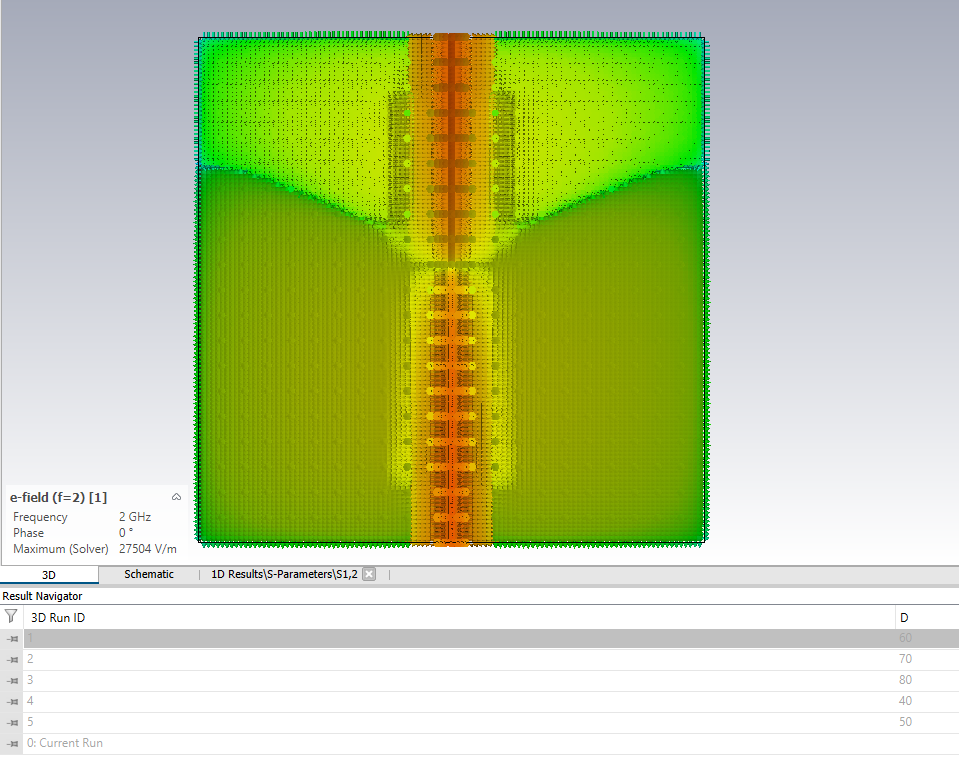
**EXPERIMENT 3: BASICS OF FREQUENCY AND WAVELENGHT**

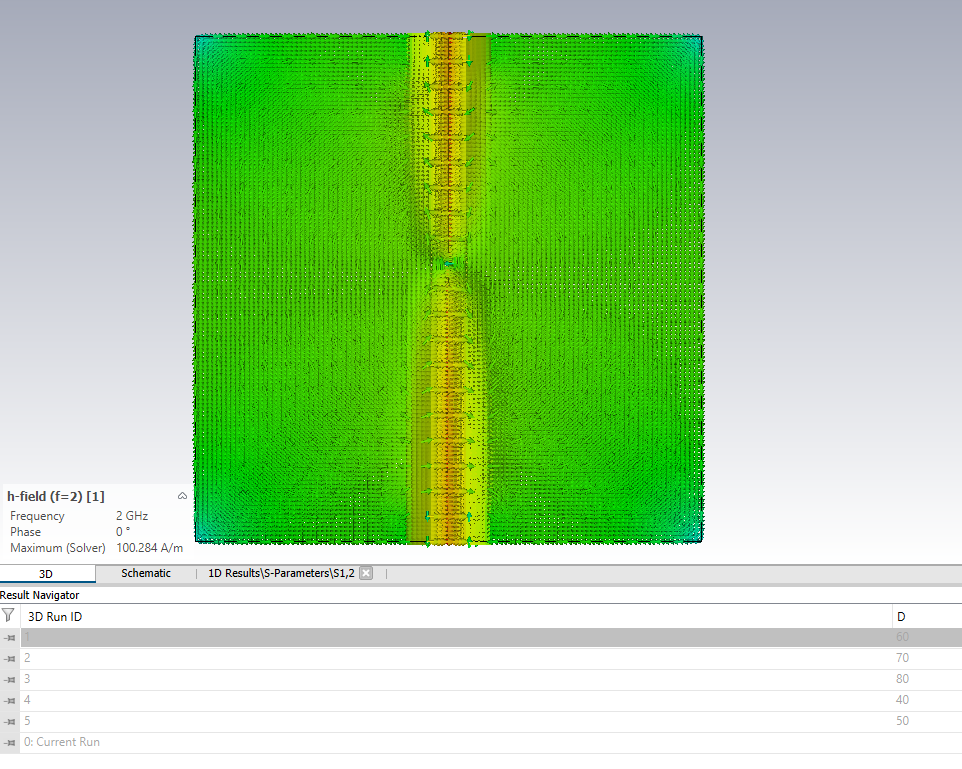
ALTTAŞ 60;

1-) Z\_0 ayarlanması; W değerlerinizdeki oynamalar sonucu 0.7402 ile 50 Ohm sonucu bulunmuştur.

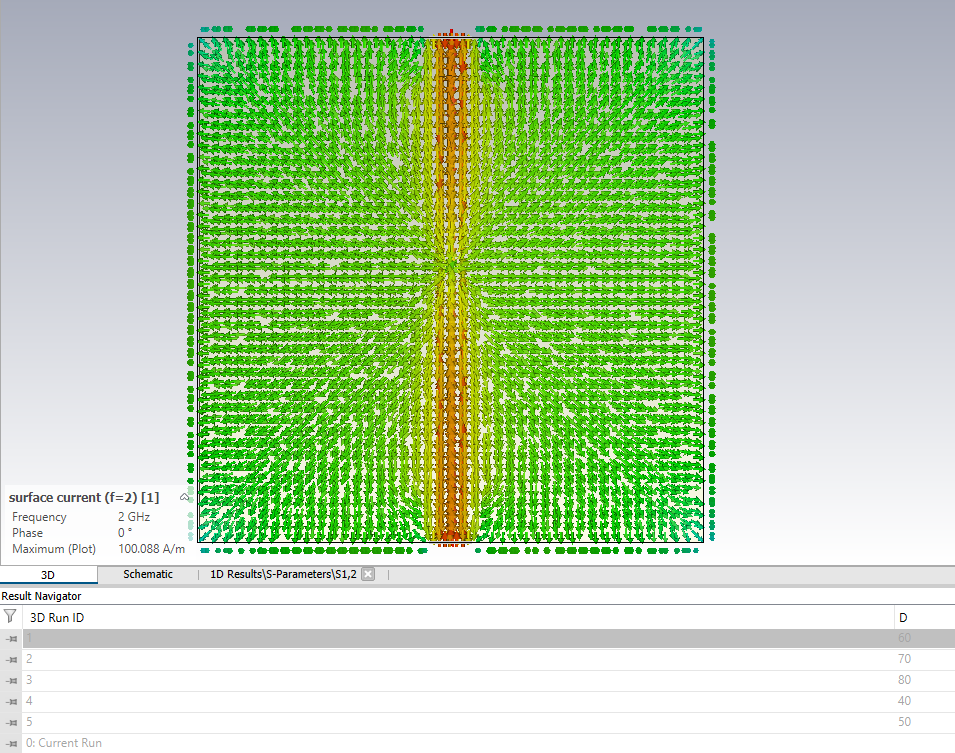
2) Port eklenecek yüzey seçilerek extension coeffcient bulunarak port üretimi gerçekleştirilmiştir.

3) S11 degerleri

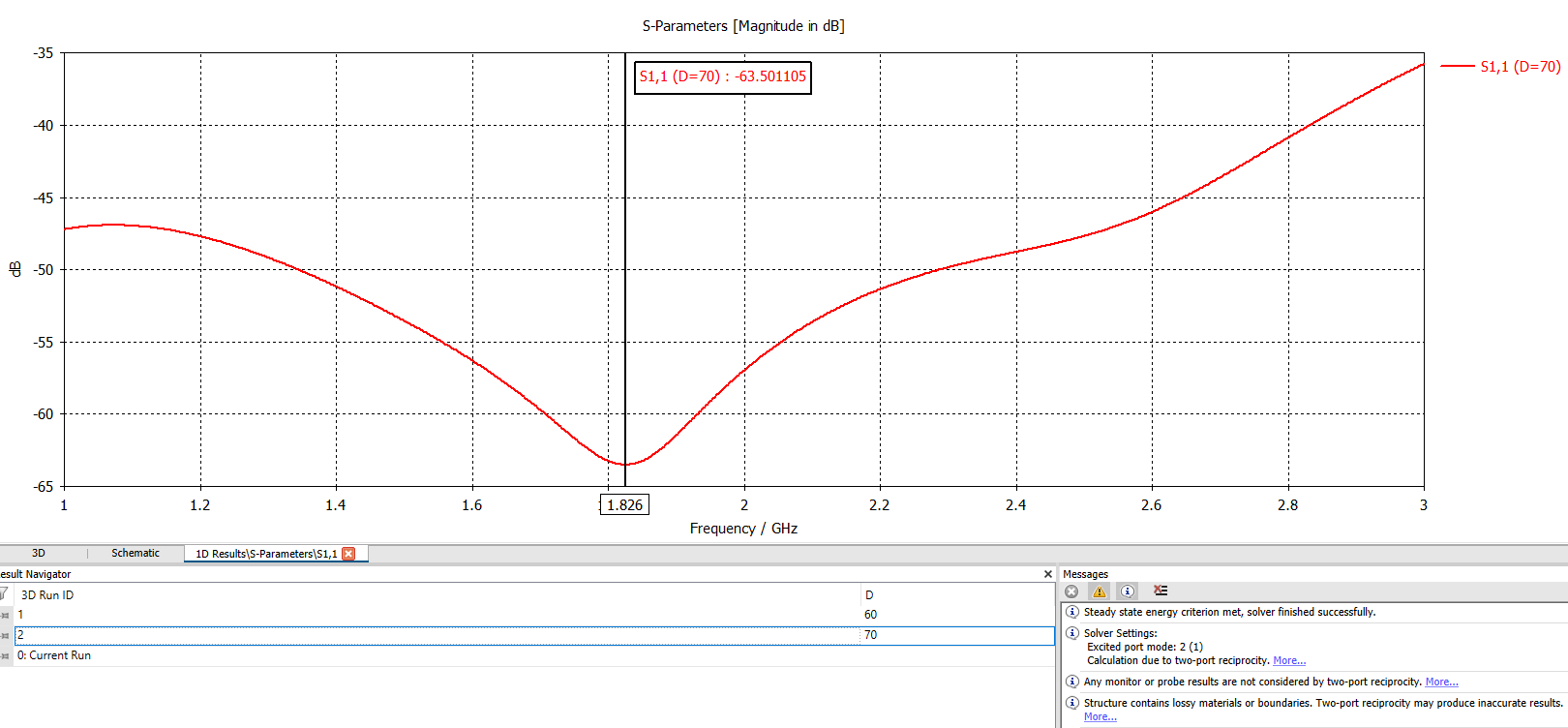
3) E FIELD

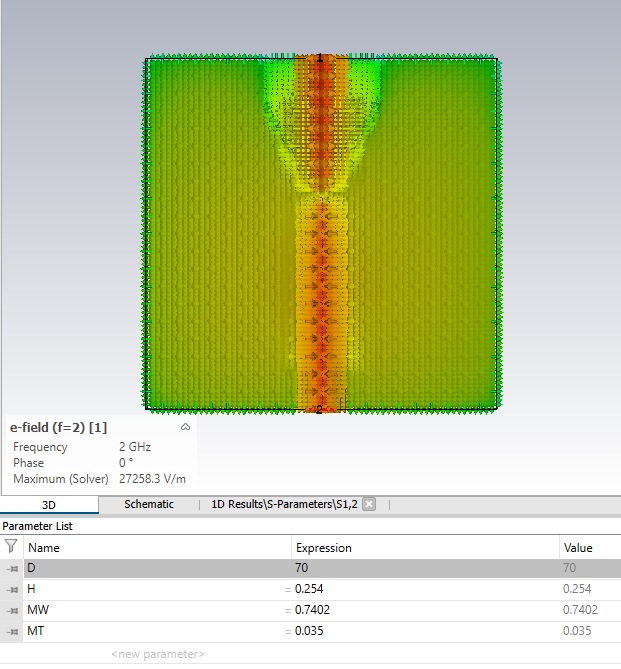
5) H FIELD

5) SURFACE CURRENT



ALTTAŞ 70;

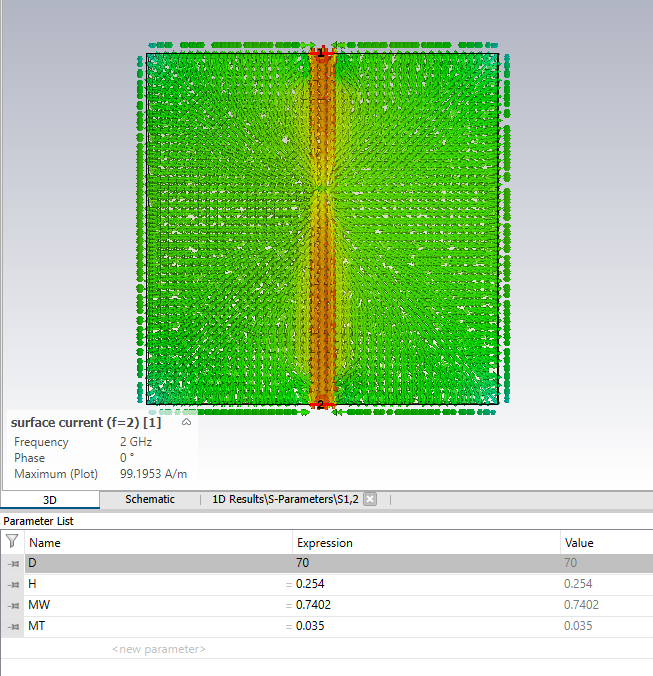
1 S11

2 E FIELD

3 H FIELD;

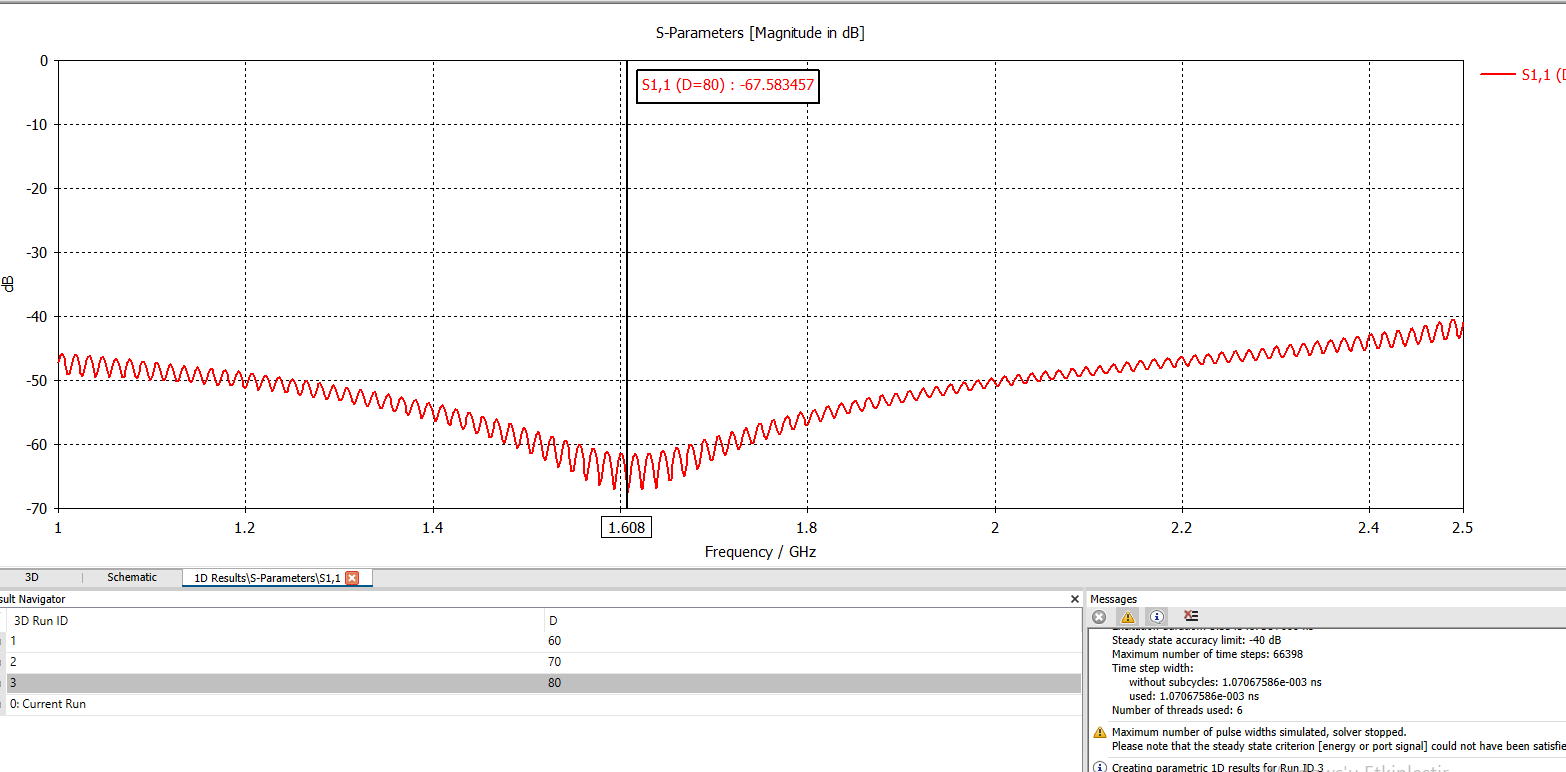


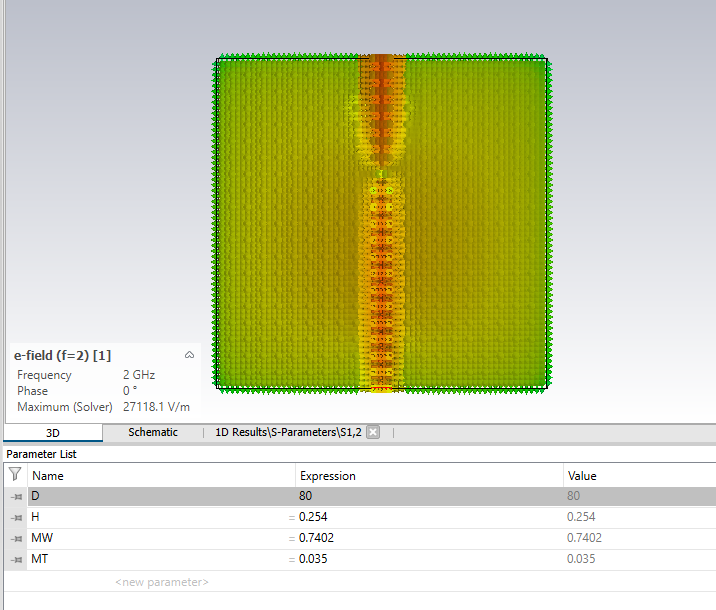
4 SURFACE CURRENT



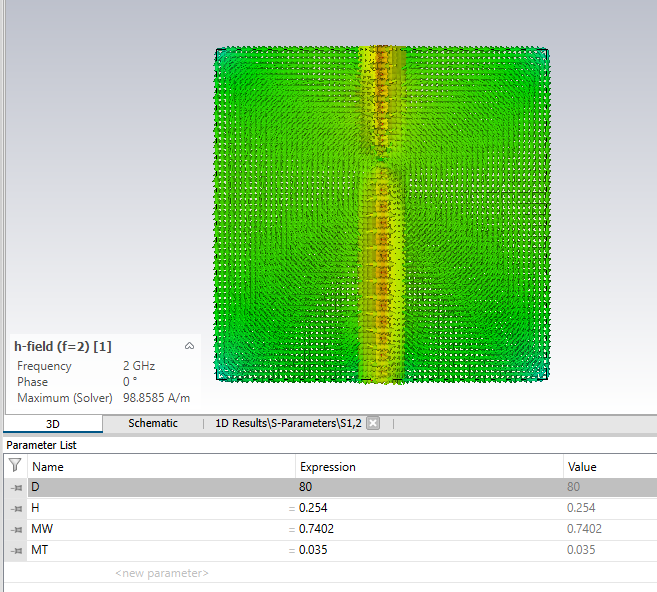
ALTTAŞ 80;

1 S11

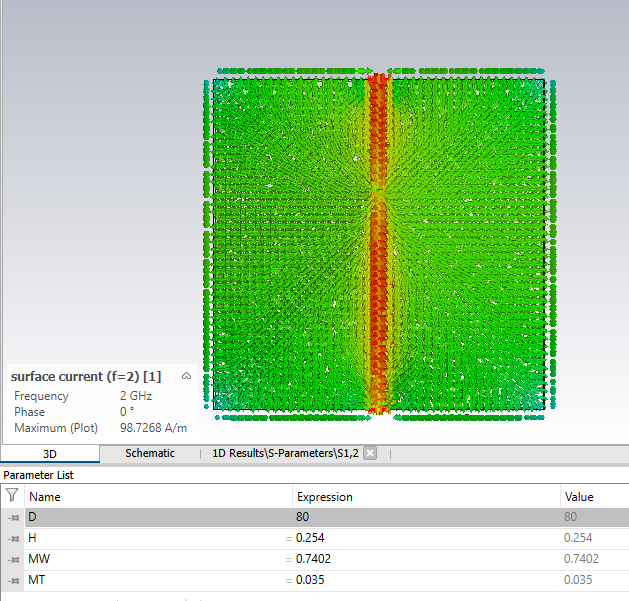
2 E FIELD



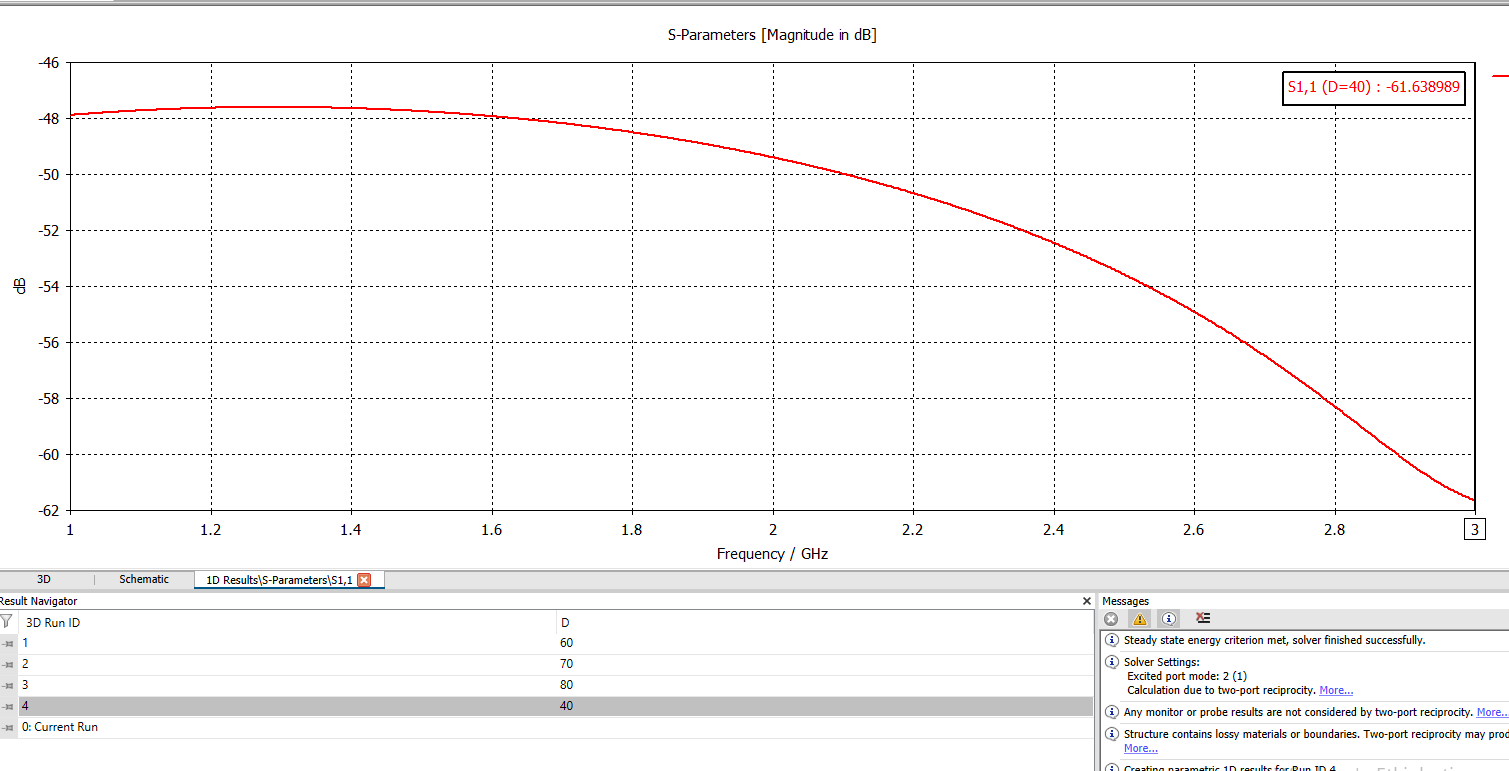
3 H FIELD



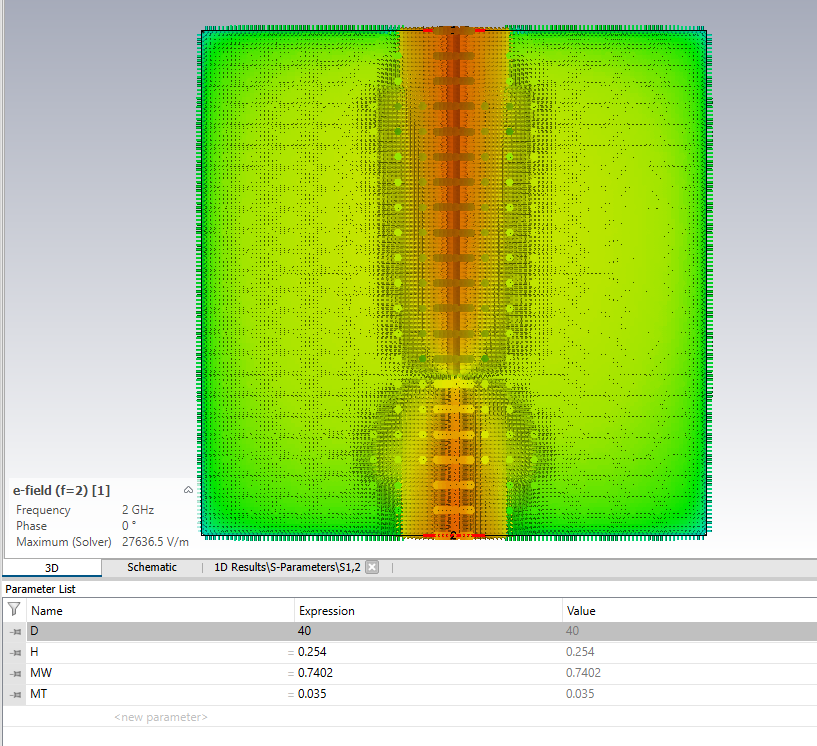
4 SURFACE CURRENT



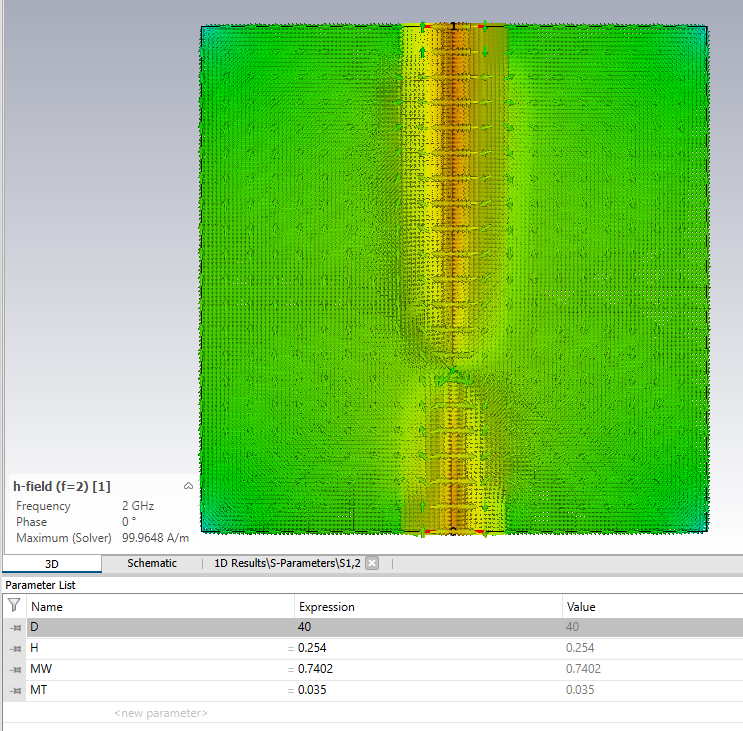
ALTTAŞ 40;

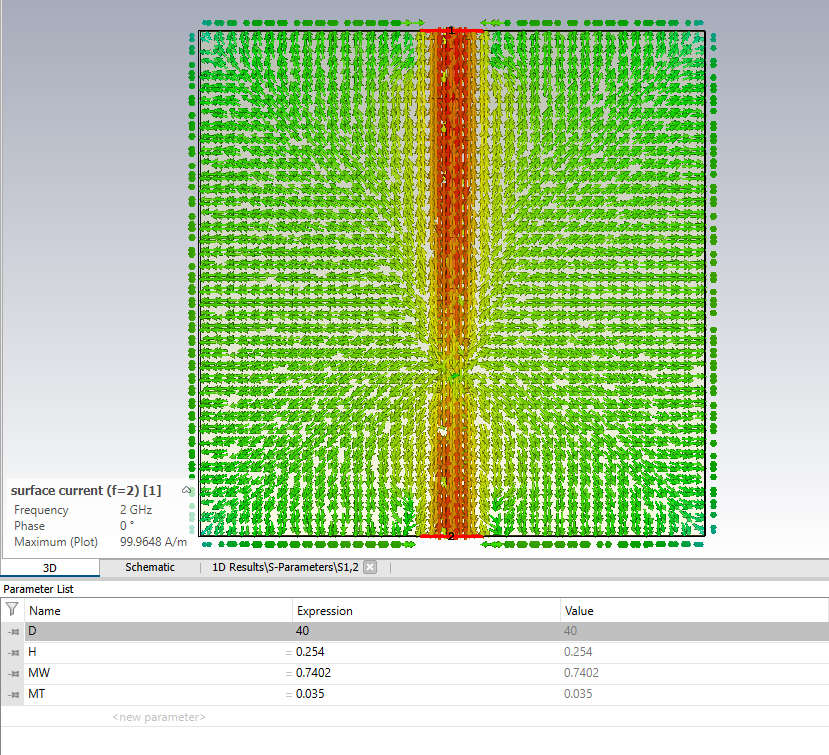
1 S11

2 E FIELD



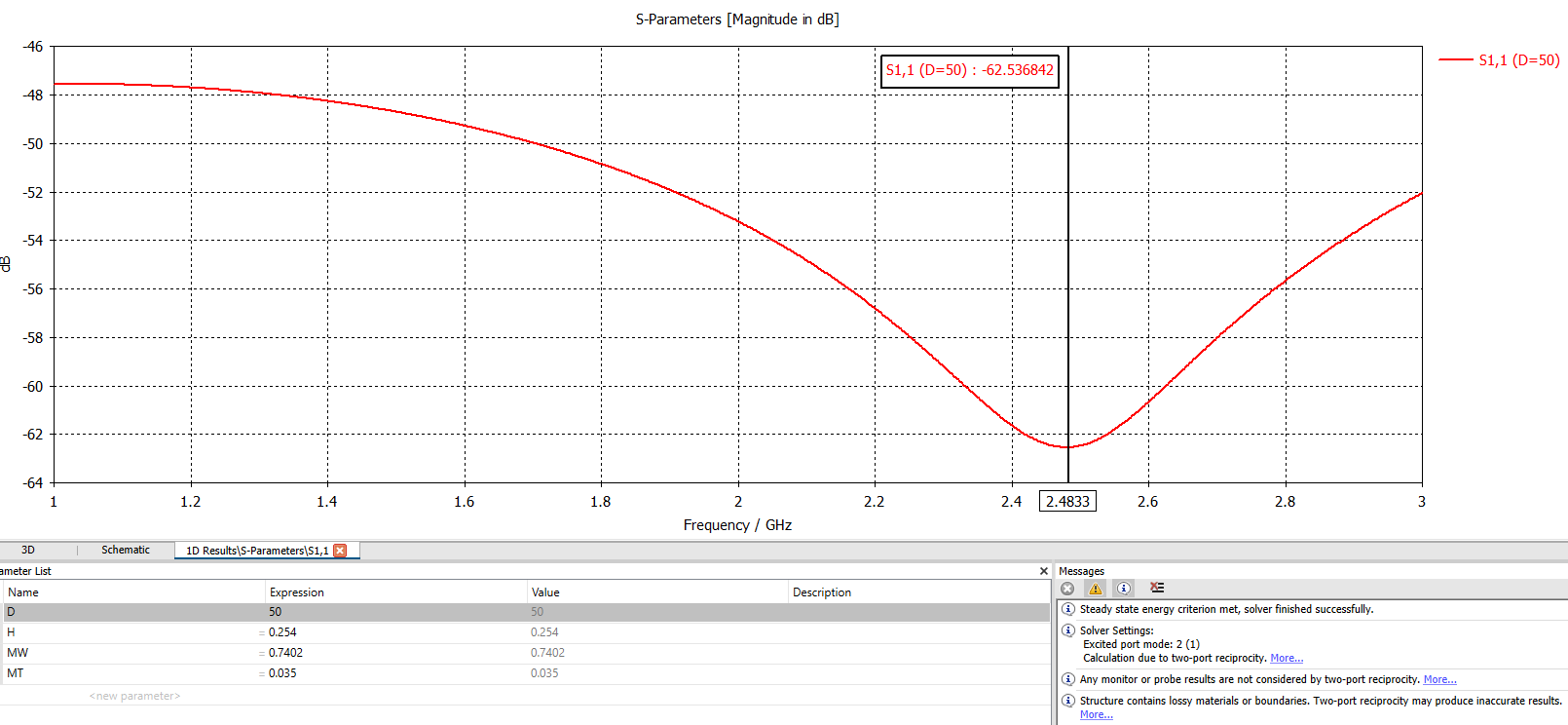
2 H FIELD



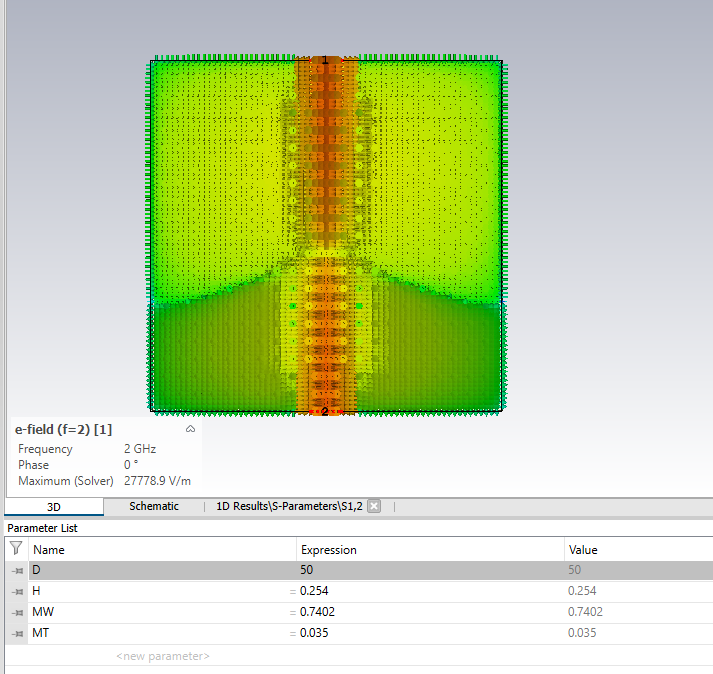
2 SURFACE CURRENT

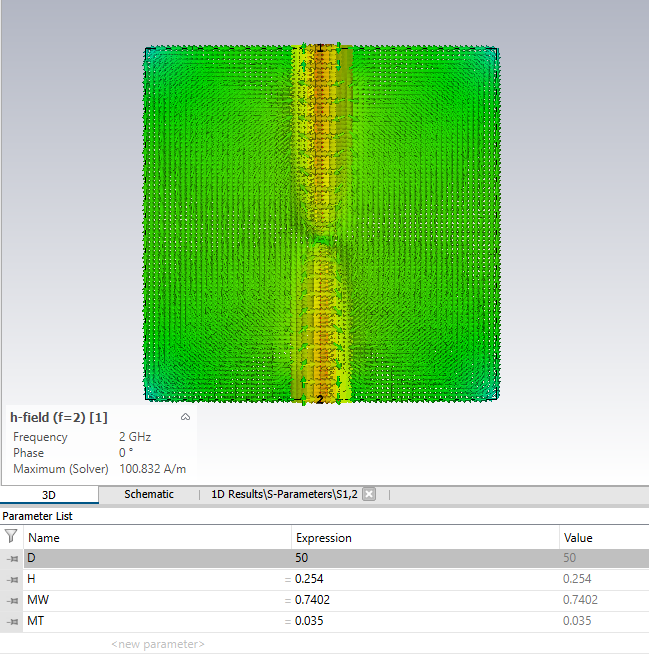
ALTTAŞ 50;

1 S11

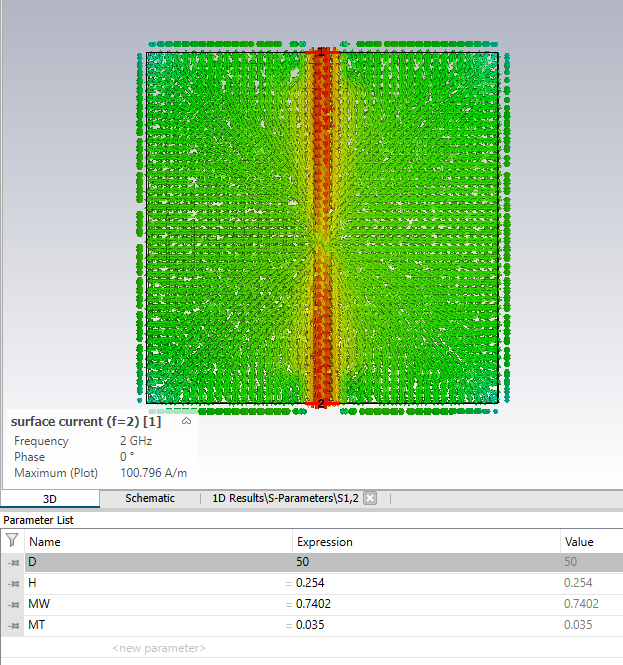


2 E FIELD



3 H FIELD

4 SURFACE CURRENT



YORUM

* Alttaşdaki degişim acaba Z0 ayarlaması yapılırken W degeri olan 0.7402 degerini degiştirir mi diye düşünüldü fakat bir alttaş daki degişimin W degerinde bir degişiklik meydana getirmedi bu yuzden hep aynı W degeri kullanıldı.
* Benzerbir gözlem alttaş daki degişimin port üzerinde etkisi oldu ama yine k= 8.28(extension coeffcient) degerinin aynı kalamsı gözlenmiştir. Bu durumda da port degişimine gitmedilmedi aynı port kullanıldı.
* S11 grafiginde; alttaşın artırılması minumun degerde azalamaya neden olmuş ve stabil olmayan bir grafik elde etmemize sebeb verdi. Ayrıca minumum noktaya daha erken bir frekansda ulaştık. İstedigimiz freakasn 2 Ghz lerde olmasıydı.
* S11 grafiginde; alttaşın artırılması 2 Ghz frekansdan daha uzakda bir yerde minumum noktaya ulaşmamızı sagladı. Altaşşın 40 olması beklenmeyecek türde bir grafik oluşmasına neden oldu.