



SLAC Production Status

Juwen Wang

Workshop

SLAC, July 2009

1. Completed Work
2. Ongoing Work
3. Future Work Scope

Work Done Since the Collaboration

1. CERN HDX11 Cu Structure
 - SLAC Provided RF feed related components
 - Electrical polishing and high power tested in the NLCTA
2. CERN TD18_VG2.4_QURD
 - High power testing
3. SLAC T28_vg2.9 (T26) Structure
 - Use T53VG3MC and high power tested in the NLCTA since June 2008
4. CERN T18_VG2.4_DISK
 - High power testing
5. KEK/SLAC 4 x T18_VG2.4_DISK Structures
 - Two with SLAC flanges, which have been high power tested at NLCTA
 - One with KEK flanges, which also has been high power tested at KEK
 - One with KEK flanges has been shipped to KEK

Ongoing Work

1. CERN T24_VG1.8_DISK #1 (Tank)

Assembly

High power testing

2. C10 Structures:

C10_VG 1.35 #1

Vacuum baked for 8 hours at 550 C°

Microwave measurement and tuning completed.

Installation at ASTA is nearly completed.

High power test underway (60 ns, 90 MV/m)

C10_VG 1.35 #2 final brazed and wait for assembly after 1st test completion

C10_VG 0.7 #1, #2 stacks bonded and ready to be assembled

C10_VG 2.25 #1, #2 and 2 x C10_VG 3.3 #1, #2

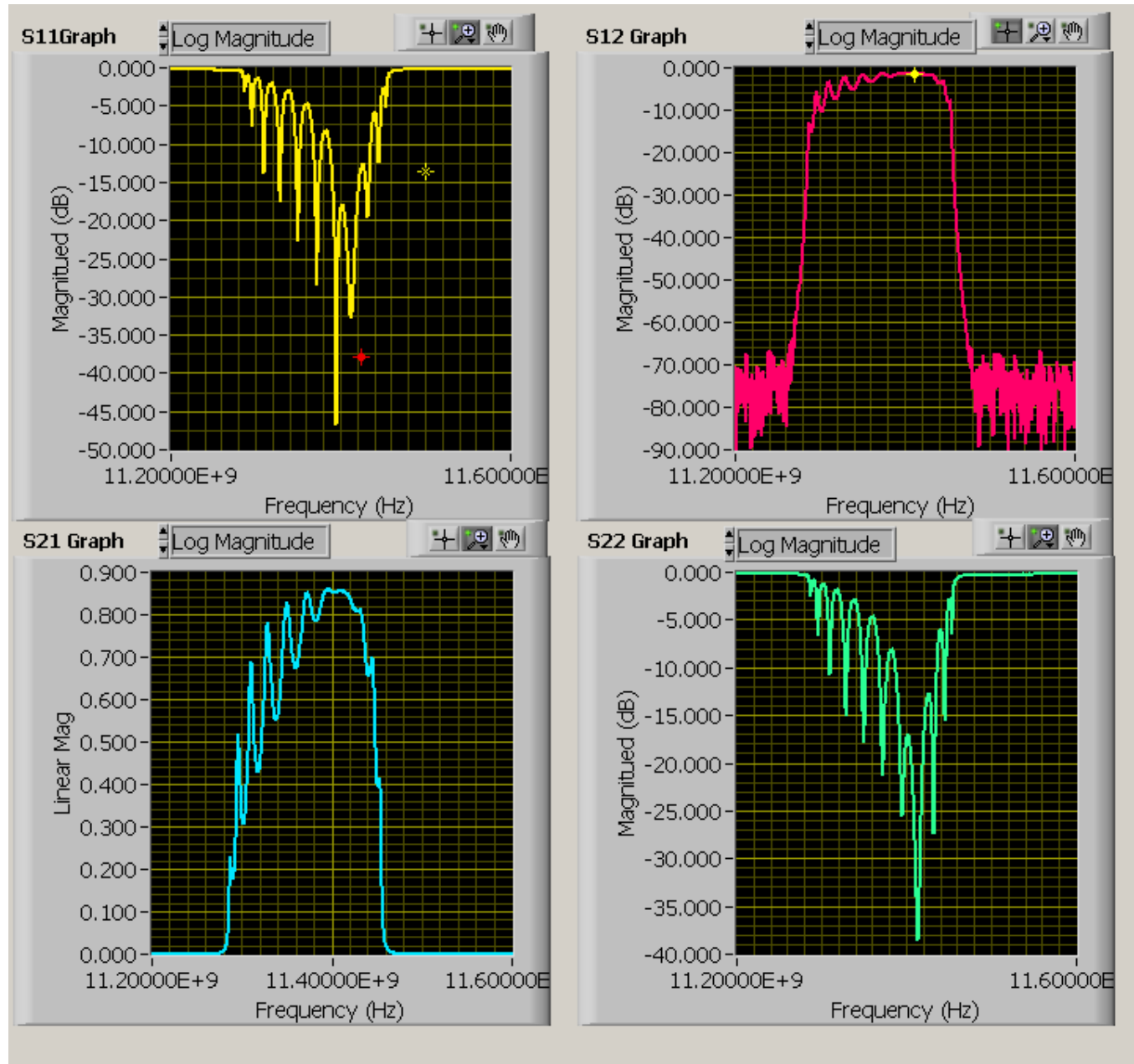
Addendum 4 is submitted three months ago, hopefully it will be processed soon

First C10_VG1.35 Structure



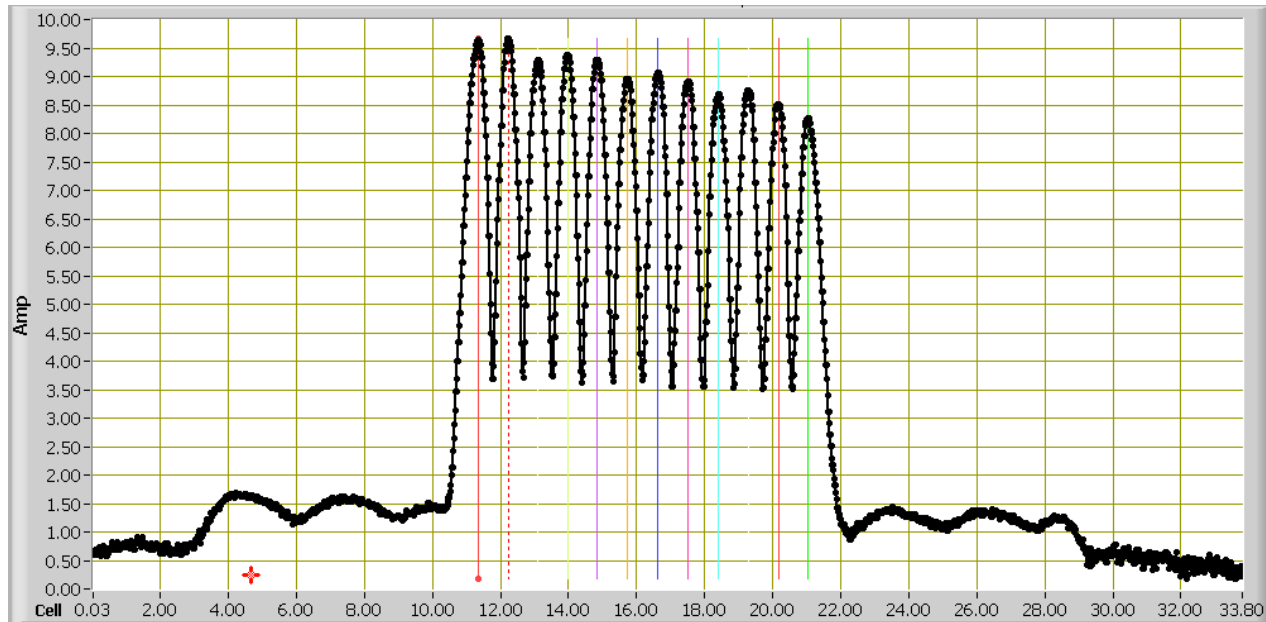
Measured S Parameters for the First C10_VG1.35 Structure

$S_{11} < 0.03$
 $S_{22} < 0.03$
 $S_{12} \sim 0.85$
 $T_f \sim 26$ ns

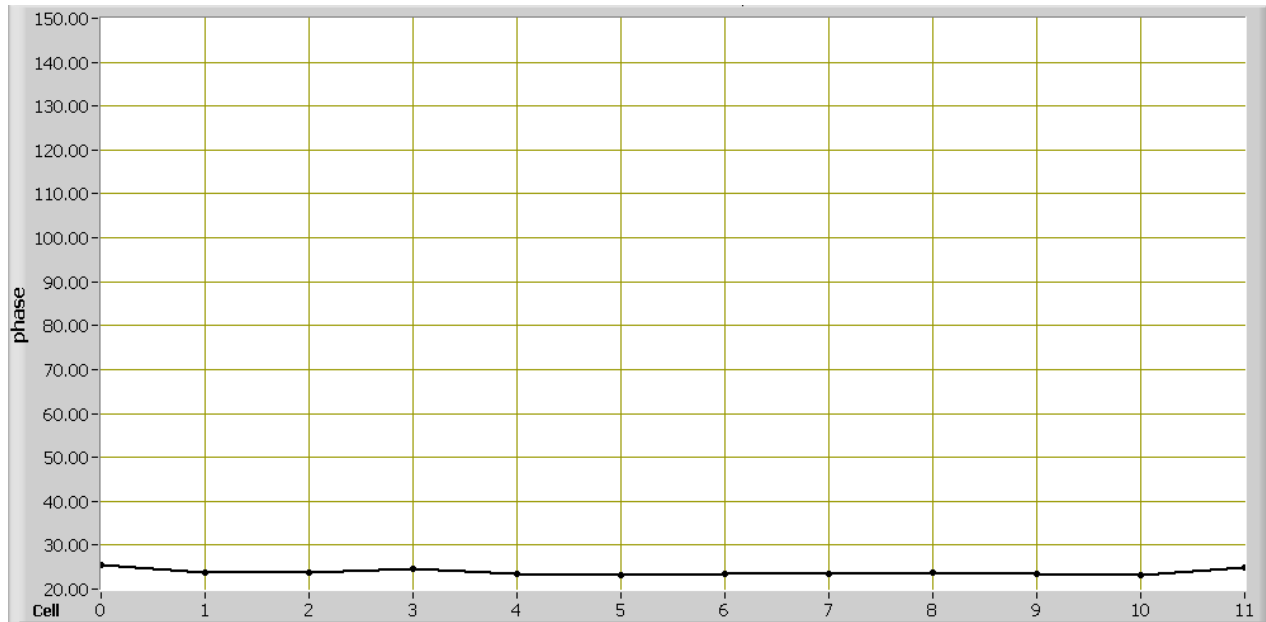


The First C10_VG1.35 Structure after tuning

Field
Amplitude



Accumulated
Phase Change



120°

Work for Future Structures

1. Two TD18_VG2.4_DISK #2, #3 Structures
 - Bonding fixtures under fabrication
 - Cup handling carriers purchased
 - Assembly, tuning and baking in July – August
 - One TD18 structure will be high power tested at SLAC in September
2. Ship T18_VG2.4_DISC #1 to CERN for studies
3. CERN TD24_VG1.8_DISK #1
 - Will ship to SLAC and high Power Testing
4. CERN T24_VG1.8_DISK (Sealed)
 - Will ship to SLAC and high Power Testing
5. Plan to retest TD18_VG2.4_QUAD in ASTA
 - Hydrogen firing and vacuum baking
 - Reassembly and microwave check
6. CERN T18_VG2.4_DISC #5
 - High power testing
7. KEK 2xC10_VG1.35 #3, #4
 - Discussion underway, assembly, tuning and High power testing
8. KEK 2xCD10_VG1.35 #1, #2
 - Discussion underway, assembly, tuning and High power testing
9. CERN 2xCD10_VG1.35 #3, #4
 - Assembly and High power testing