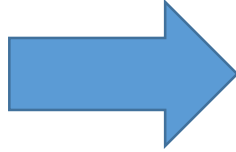


Xboxes Update

05/05/2021

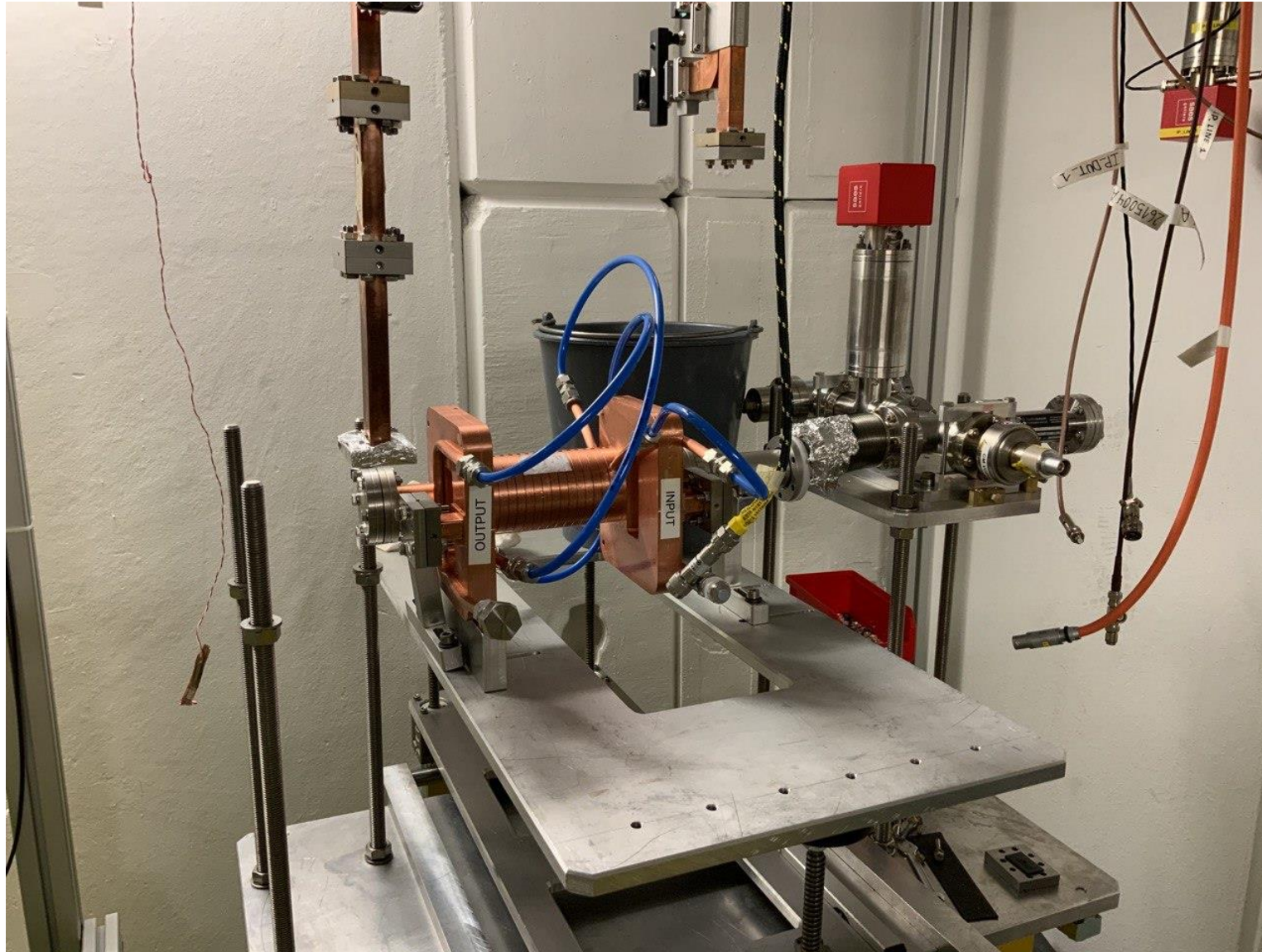
Summary



- XBOX1:
- XBOX2:
- XBOX3AB: T42 Backwards Structures
 - Line 1 not running (to avoid interfering Line 2)
 - Line 2 running flat at 28.5 MW:
 - Running flat at 28.5 MW, 100ns, 200-150Hz per line until Friday.
 - ML test done on Friday.
 - Since then, running flat at 32 MW, 100ns, 50-100Hz per line

- XBOX1:
- XBOX2:
- XBOX3AB: Installation of the SINAP and Lancaster CRAB structures.

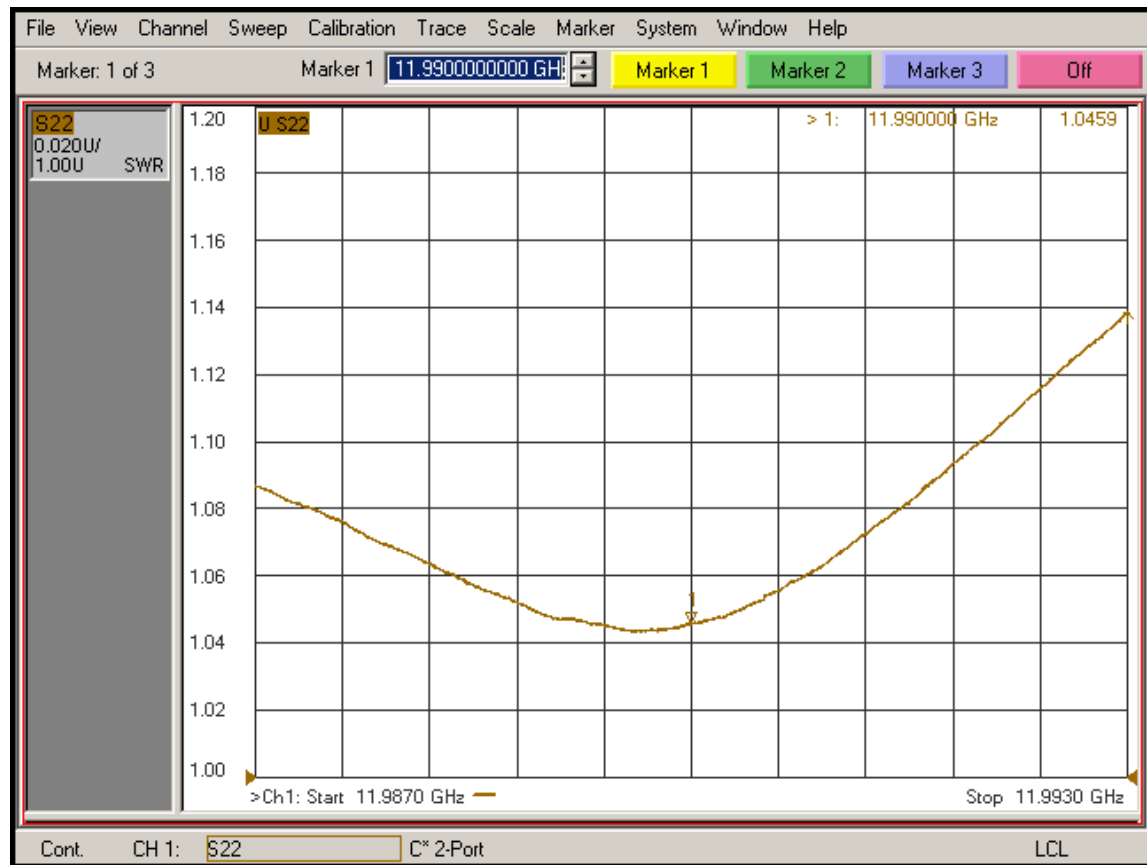
SINAP Structure



Operating frequency	11.994 GHz@26deg
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STATUS: SINAP structure is curently being installed in Line 1 Xbox3

SINAP Structure: VNA Measurements



VNA Measurements done at atmospheric pressure and at room temperature.

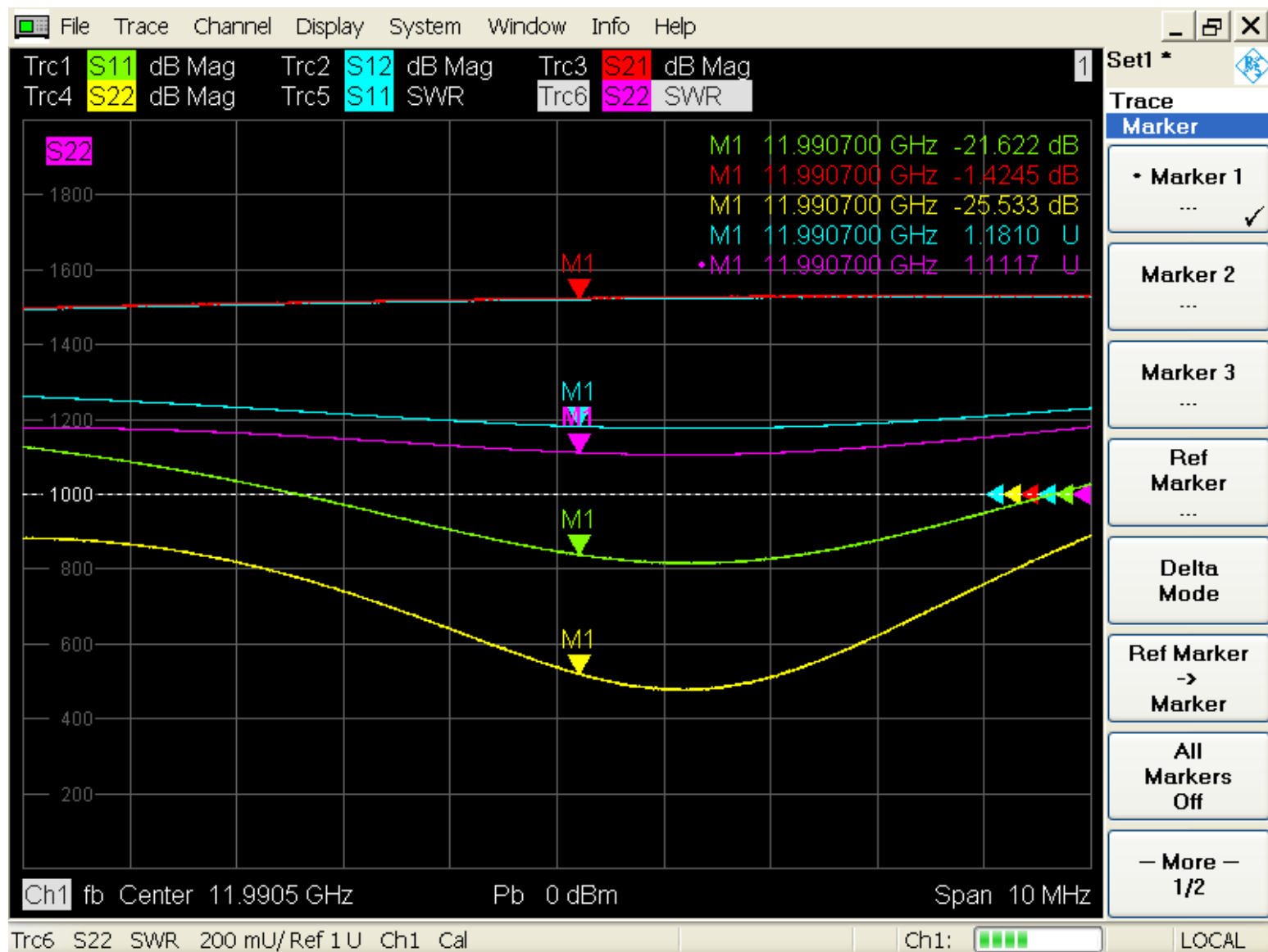
SWR = 1.049



VNA Measurements done at atmospheric pressure, with a chiller at the operation temperature (26°C)

SWR = 1.144

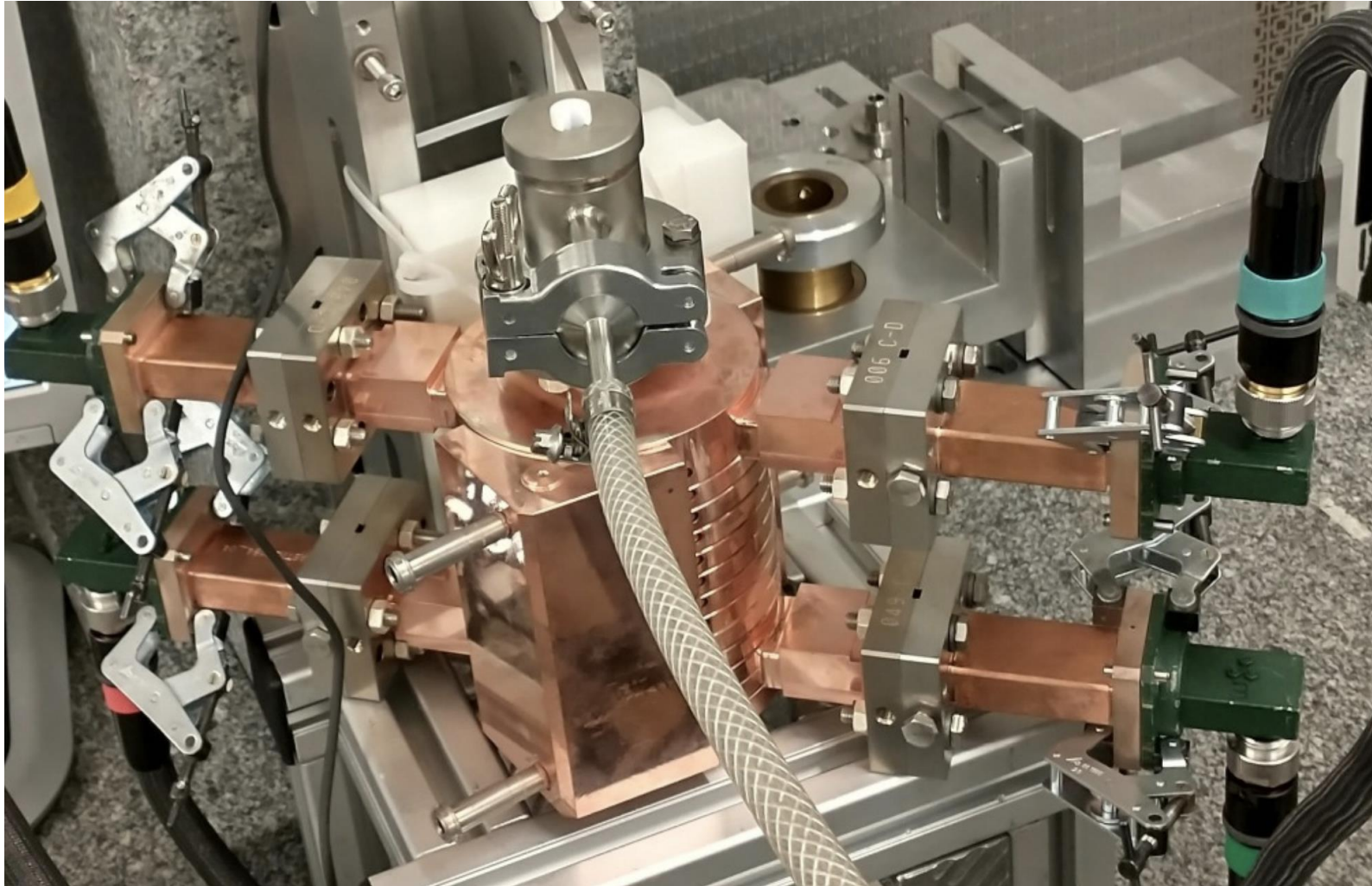
SINAP Structure: VNA Measurements



VNA Measurements done at atmospheric pressure, with 35°C.

SWR = 1.1117

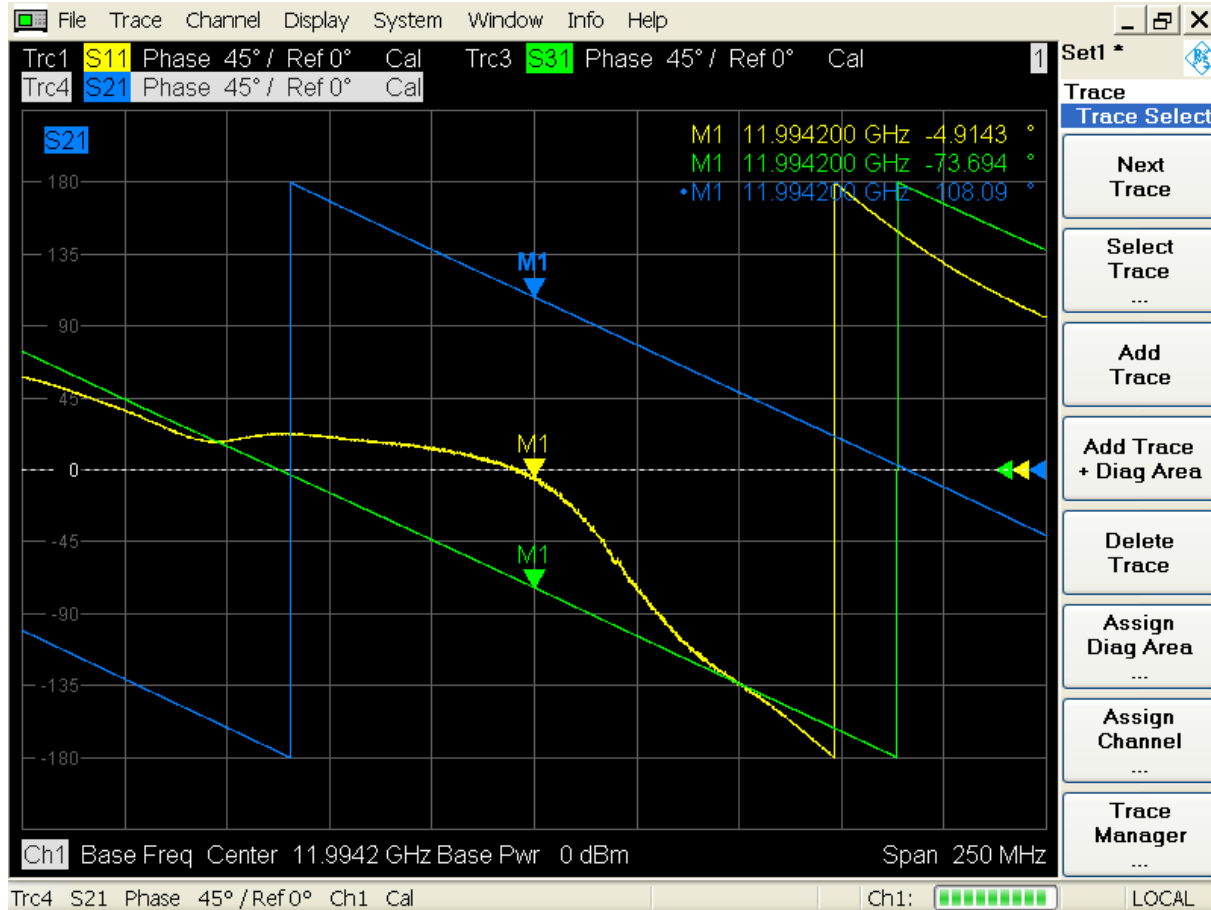
Lancaster CRAB Structure



Operating frequency	11.9942GHz @ 34.2deg
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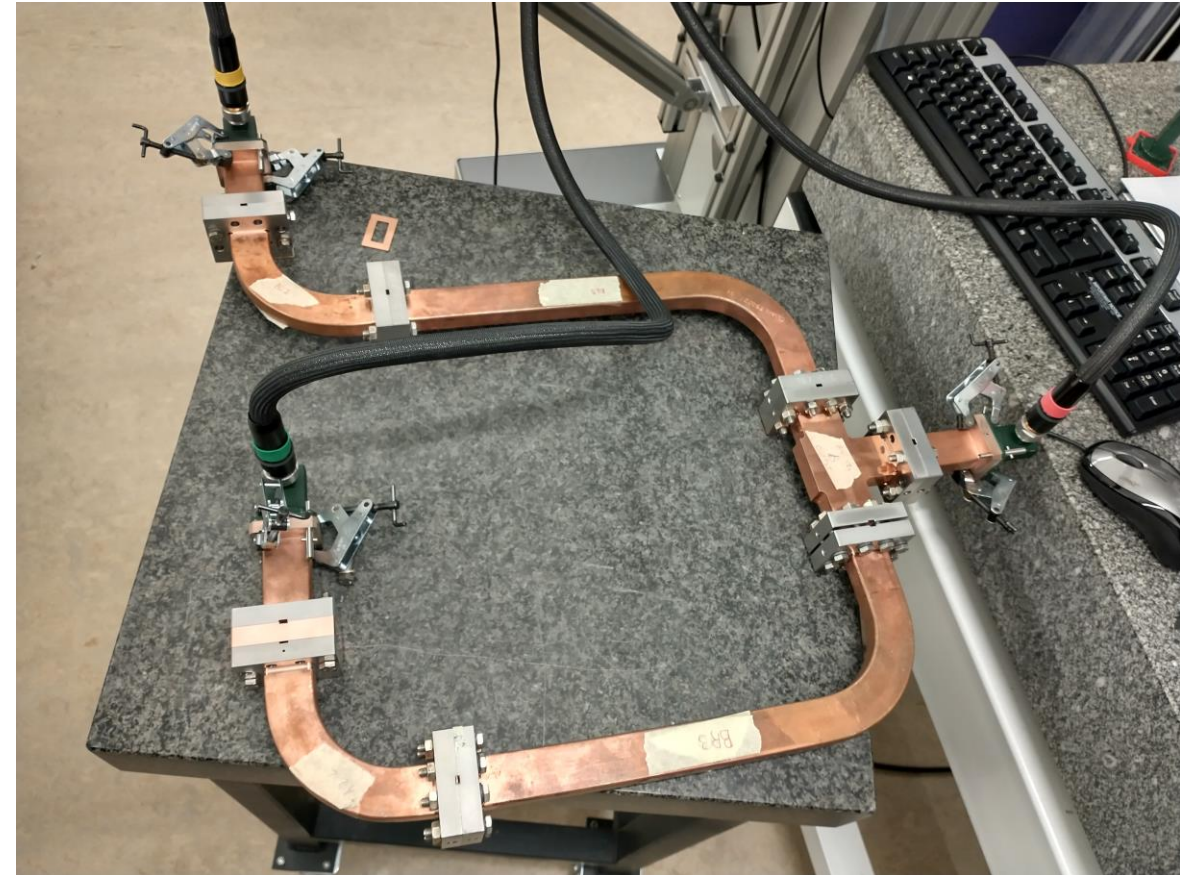
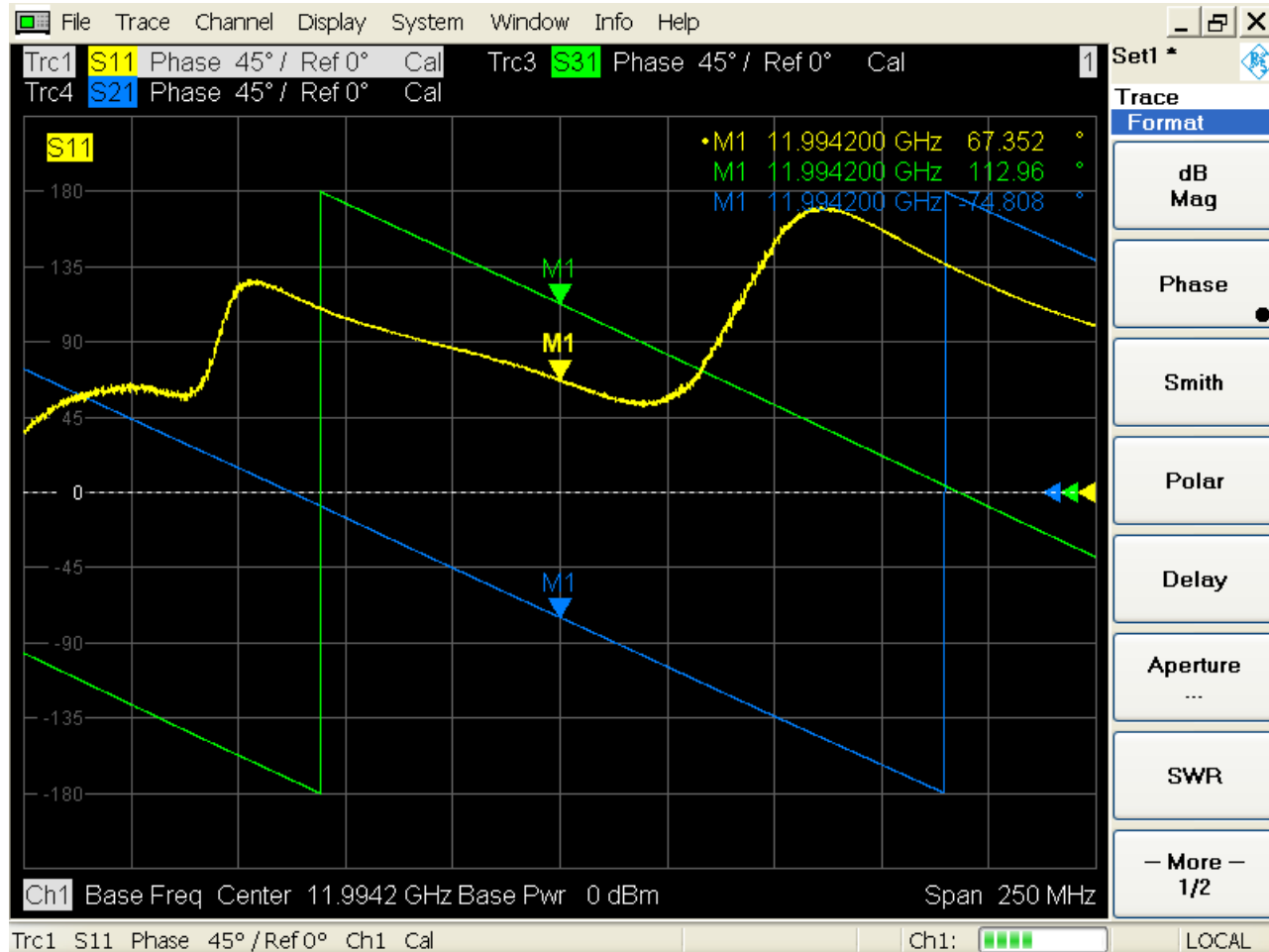
STATUS: Spacers installed and 180°
phase difference measured, at the
input/output.

Lancaster CRAB Structure



Phase difference: 181.78°

Lancaster CRAB Structure



Phase difference: 187.76°

Structures Operation

SINAP Structure

Step	Pulse length	Target Power	Comment
1	50 ns	~12 MW	No PC
2	50 ns		Compressed Pulse
3	100 ns		Compressed Pulse

Lancaster CRAB Structure

Step	Pulse length	Target Power	Comment
1	50 ns	~12 MW	No PC
2	50 ns		Compressed Pulse
3	100 ns		Compressed Pulse

SINAP Structure: VNA Measurements

