CERTIFICATE OF CALIBRATION

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This document certifies that the instrument described has been verified to comply with all published datasheet specifications using traceably calibrated equipment.

Instrument Description	6 GHz Transmission Line Probe
Model	AKL-PT3
Serial Number	A69-003

Calibration Performed By	A. Zonenberg	Date	2021-04-01 00:25
Test Conditions	21ºC, 35% RH	Cal Due	2022-04-01

Equipment Used

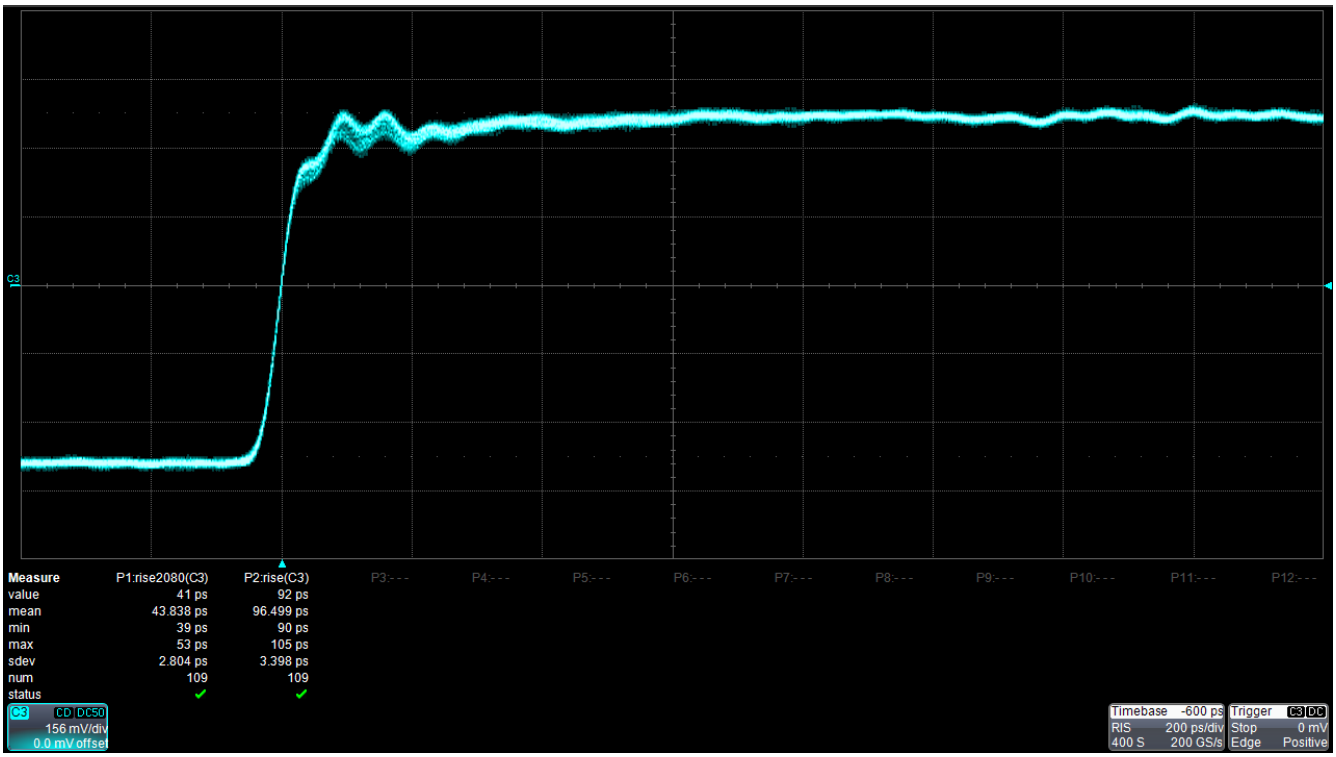
Type	Manufacturer	Model	Serial	Cal due	Ref for
Multimeter	Rohde & Schwarz	HMC8012	36174847	2021-04-15	Resistance
VNA	Pico Technology	PicoVNA 106	09335	2021-04-17	Frequency Insertion loss
SOLT Standard	Pico Technology	TA345	SF:296	2021-04-17	Return loss
Oscilloscope	Teledyne LeCroy	SDA 816Zi	LCRY0425N48460	2022-04-01	Time Voltage
Pulse Generator	Leo Bodnar	SMA Pulse Generator	P00718	2021-08-01	

Test Results

All measurements are of probe body only, with cable and fixture de-embedded.

Test	Minimum	Measured	Maximum	Unit	Result
DC resistance	450.20	450.44	450.60	Ω	PASS
S_{21} (100 MHz)	-20.50	-20.44	-20.40	dB	PASS
S_{21} (500 MHz)	-21.00	-20.80	-20.70	dB	PASS
S_{21} (1.0 GHz)	-21.20	-21.02	-20.80	dB	PASS
S_{21} (3.0 GHz)	-22.20	-21.95	-21.70	dB	PASS
S_{21} (6.0 GHz)	-23.50	-23.03	-22.60	dB	PASS
Rise time (20-80%)	N/A	43.8	51	ps	PASS

Typical Rising Edge Waveform

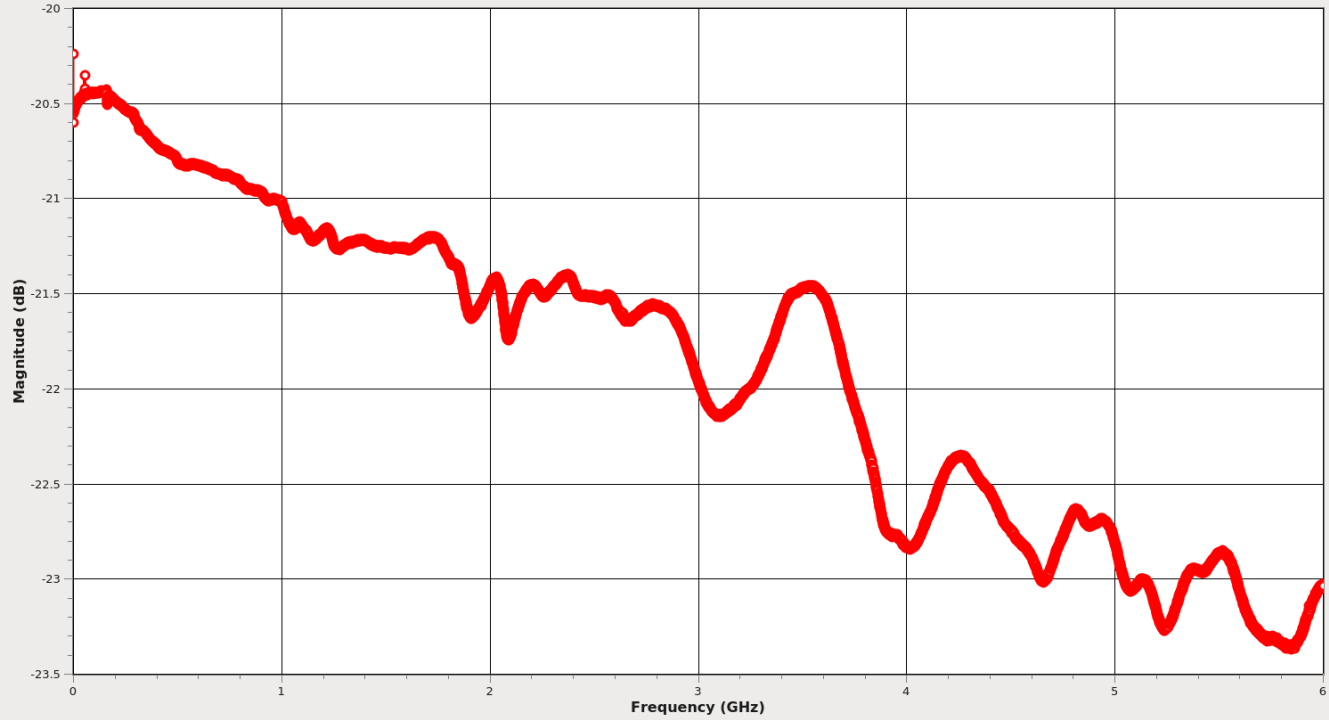


S-Parameter Data

Machine readable S2P files for de-embedding may be downloaded at:
https://www.antikernel.net/downloads/AKL-PT2/caldata/A69-003/

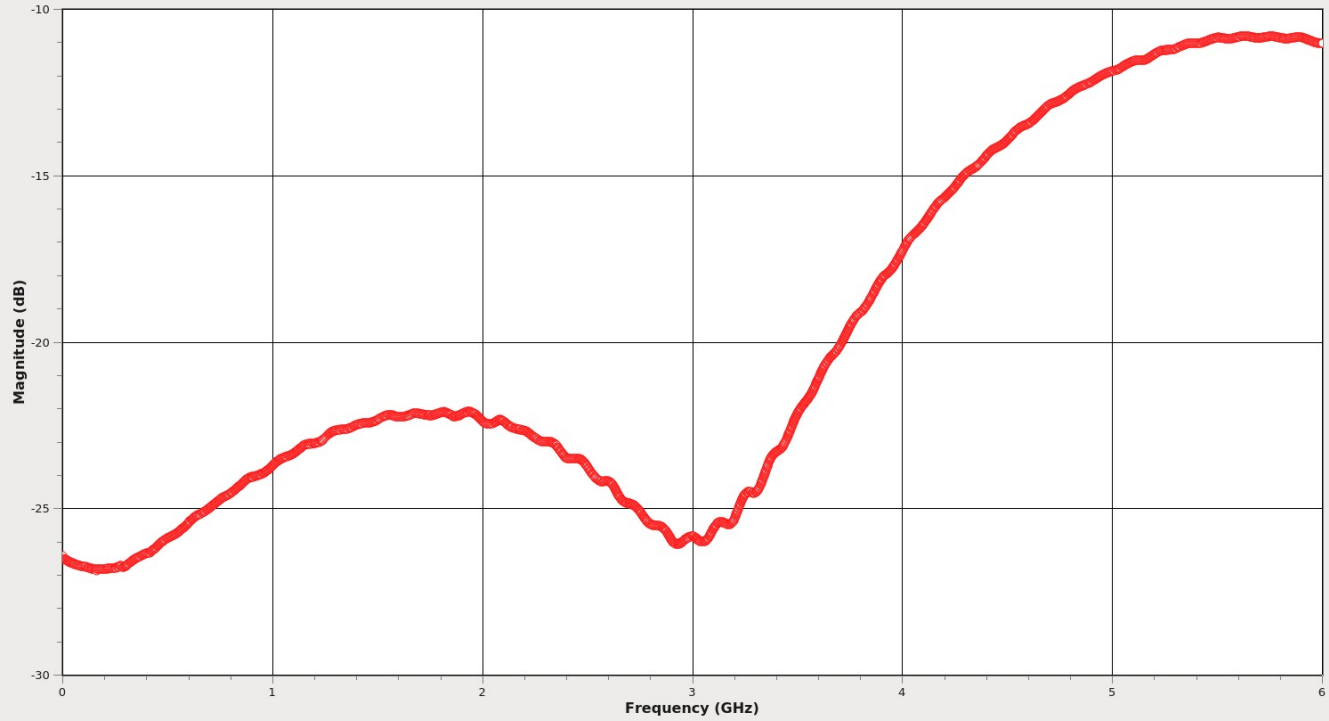
Insertion Loss (across 50Ω termination)

probe.s2p S_{21} magnitude



Return Loss (across 50Ω termination)

probe.s1p S_{11} magnitude



Return Loss (across open circuit)

zin.s1p S_{11} magnitude